



ST. CHARLES  
SINCE 1834

## AGENDA ITEM EXECUTIVE SUMMARY

Title: Electric Reliability Report – Information Only

Presenter: Tom Bruhl

*Please check appropriate box:*

<input checked="" type="checkbox"/>	Government Operations	X	Government Services 07.25.16
<input type="checkbox"/>	Planning & Development		City Council
<input type="checkbox"/>	Public Hearing		

Estimated Cost: \$ Budgeted: YES NO

If NO, please explain how item will be funded:

### Executive Summary:

For information only.

### Attachments: *(please list)*

\*June 2016 Outage Report

### Recommendation / Suggested Action *(briefly explain):*

For information only.

*For office use only:* Agenda Item Number: 3.a

**City of St. Charles  
June 2016 Outages**

OUTAGE No.	DATE	TIME OFF	TIME ON (Min)	AREA AFFECTED	CIRCUIT No.	CAUSE/RESPONSE	NO. OF CUST.	OUTAGE MINUTES	MAJOR CATEGORY	SUB CATEGORY
1	6/1/2016	7:36 AM	47	Walnut Dr., Fairview Dr., S. 19th St.	214	Squirrel made contact from cut out bracket on cross arm to cut out lead. Lateral was energized at Walnut St.	80	3,760	Animal	Squirrel
1	6/1/2016	7:36 AM	60	Walnut Dr., Fairview Dr., S. 19th St.	214	Squirrel made contact from cut out bracket on cross arm to cut out lead. Lateral was energized at Walnut St.	12	720	Animal	Squirrel
2	6/4/2016	5:28 AM	0	1st. St, Walnut St., E. Main St.	332	Trees on 332 suspected. Trees were trimmed.	1348	0	Unknown	Breaker/Recloser
3	6/4/2016	3:36 PM	0	Rt.25, Q Center, Stone Hedge, Woods of Fox Glen, St. Charles Country Club	313 & 314	Auto accident caused 3 breaker operations before it locked out. Wire down on Route 25.	314	0	Others	Vehicle
3	6/4/2016	3:36 PM	51	SE Quadrant	311 & 312	Due to auto accident 3T2 tripped off & locked out from 313/314 breaker malfunction. Bad equipment was isolated & re-energized bus from 3T1.	1427	72,777	Equipment	Recloser/Breaker
3	6/4/2016	3:36 PM	52	State St., E. Main, Hunt Club, Tyler, State Ave. & N. 9th Ave,	315 & 316	Due to auto accident 3T2 tripped off & locked out because 313/314 breaker malfunction. Bad equipment was isolated & re-energized bus from 3T1.	729	37,908	Equipment	Recloser/Breaker
3	6/4/2016	3:36 PM	206	Cedar St., S. 2nd St. to S. 6th St.	313	Auto accident broke pole at Rt. 25. 314 was isolated & 313 energized. Isolated circuit & picked up from circuit 334 & 313.	206	42,436	Others	Vehicle
3	6/4/2016	3:36 PM	87	NE Quadrant	314	Auto accident broke pole at Rt. 25. Isolated circuit & picked up from circuit 334 & 314.	96	8,352	Others	Vehicle
3	6/4/2016	3:36 PM	780	Rt. 25 800 - 1000 blocks.	314	Auto accident broke pole at Rt. 25. Pole was replaced after Nicor cleared scene from natural gas fire.	12	9,360	Others	Vehicle
4	6/6/2016	5:30 AM	42	1805 S. 7th Ave.; Union/Moore Ave.	311	Squirrel made contact on line side of transformer. 40k lateral was re-fused at 7th Ave.	26	1,092	Animal	Squirrel
5	6/6/2016	7:27 PM	41	D303, TriCom area.	813	Snake in IYC switchgear. Snake was removed, gear was checked & re-energized.	6	246	Animal	Snake
5	6/6/2016	7:27 PM	83	IYC & STP	813	Snake in IYC switchgear. Snake was removed, gear was checked & re-energized.	2	166	Animal	Snake
6	6/8/2016	4:56 PM	0	Eastside Quadrant	13156	Loss of ComEd feed 13156 instantons breaker operation. No action needed by City.	538	0	ComEd	L13156

City of St. Charles  
June 2016 Outages

OUTAGE No.	DATE	TIME OFF	TIME ON (Min)	AREA AFFECTED	CIRCUIT No.	CAUSE/RESPONSE	NO. OF CUST.	OUTAGE MINUTES	MAJOR CATEGORY	SUB CATEGORY
7	6/8/2016	5:36 PM	54	Walnut St., 19th St. & Fairview Dr.	214	Blown arresstor blew lateral fuse. Area was isolated & line was re-fused.	81	4,374	Equipment	Arrester
8	6/11/2016	4:53 AM	80	718 Prairie St.	624	Failed cutout for underground transformer. Cutout was replaced & power was restored.	2	160	Equipment	Switch
						<b>Total of Interrupted Minutes</b>		<b>181,351</b>		
						<b>Total SAIDI*</b>	<b>11.756</b>			
						Total of ComEd Interrupted Minutes		<b>0</b>		
						Total SAIDI without ComEd	<b>11.756</b>			
						*System Average Interruption Duration Index (SAIDI)				



**ST. CHARLES**  
SINCE 1834

**AGENDA ITEM EXECUTIVE SUMMARY**

Title: Active River Project Update –Information Only

Presenter: Chris Adesso

*Please check appropriate box:*

<input type="checkbox"/>	Government Operations	<input checked="" type="checkbox"/>	Government Services – 07.25.16
<input type="checkbox"/>	Planning & Development	<input type="checkbox"/>	City Council

Estimated Cost:	\$0.00	Budgeted:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
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If NO, please explain how item will be funded:

**Executive Summary:**

The Active River Task Force wishes to provide the Council Committee updates on the status of topics pertaining to the Active River Project/Concept. The Task Force offers the attached information to the Committee. A member of the Task Force will be available at each of the Government Services Committee meetings to respond to any questions or comments that the Council Committee may have.

**Attachments:** *(please list)*

June 13, 2016 - Task Force Meeting Minutes  
June 27, 2016 – Task Force Meeting Minutes

**Recommendation / Suggested Action** *(briefly explain):*

None – For information only

*For office use only:* Agenda Item Number: 3.b

**MINUTES  
ACTIVE RIVER TASK FORCE MEETING  
ST. CHARLES  
JOHN RABCHUK, CHAIRMAN  
JUNE 13, 2016**

**Members Present:** Chair John Rabchuk, Chris Adesso, Chris Bong, Rick Brems, Jim Enck

**Members Absent:** Trish Beckjord, Holly Cabel, Monica Meyers, John Wessel

**Others Present:** Tom Anderson, Dorene Tieche, Ed Werneke, Tony Zehnder, Isabel Soderlind

**Visitors Present:**

**1. Call to Order**

The meeting was convened by John Rabchuk at 8:05 a.m.

John Rabchuk welcomed Dorene Tieche, 4<sup>th</sup> grade teacher at Munhall School, a river and environmental advocate who has been educating her students on the importance of the environment and the river.

**2. Minutes Review and Approval**

Motion to accept and place on file the minutes of the May 16, 2016 Active River Task Force meeting as revised.

Chris Adesso requested the minutes on page 2, Item #4C be revised as from, "Chris Adesso stated the concept vetting study will or will not be possible; the question is will it sustain the upper pool." to "Chris Adesso stated the concept vetting study will determine what will or will not be possible while maintaining the upper pool."

Motion by Chris Adesso, second by Rick Brems to accept and place the minutes on file as revised.

Voice vote: unanimous; Nays – None; Absent: Trish Beckjord, Holly Cabel, Monica Meyers, John Wessel

Motion carried at 8:07 a.m.

**3. Task Force Updates**

**A. Update on St Charles Park District Related Active River Projects**

Park District representatives were not present at the meeting. No comments.

**B. Forest Preserve/Park District**

None.

**C. Grant Applications Update**

i. Bob Leonard Walk Update

This River Corridor Project received a grant for \$12,500 from the Community Foundation. In addition, another \$10,000 was received from Tom Anderson for the kinetic sculpture. There is a total of \$22,500 towards this project with an additional \$20,000 from the River Corridor, which has been allocated.

At the moment, there is a total \$42,500 available for this project which incorporates both the landscape plan completed by Jim Enck, and approved by this Task Force, and the furnishings along the Bob Leonard Walk in front of the Brownstones. John Rabchuk is trying to set up a meeting with Peter Suhr to discuss the implementation process for the landscape and furnishings phase of this project. John included the landscape plans and a list of all the materials necessary for the project in an email to Peter. John Rabchuk believes there will be sufficient monies for the landscaping and furnishings for this project and the remainder of the allocations can be directed to the kinetic sculpture and other related costs for the sculptures.

ii. Charlemagne Island Sculpture Project

Additional contributions for the sculptures are yet to be defined by the Anderson family, but there may be additional grant monies coming forth from the Riverboat Grant submitted by the River Corridor Committee. John Rabchuk is still waiting to see if the committee will be receiving any funds.

John Rabchuk is also aware that the City has allocated some funds in this year's fiscal budget to conduct an engineering study on the structural integrity of Charlemagne Island. Chris Adesso mentioned that the City budgeted approximately \$35,000 to \$40,000 for this phase of the study, but he will need to confirm the figure.

John Rabchuk prefers kicking off both the landscaping/furnishings and the island engineering phases of this project at the same time, if at all possible.

Determining who is in charge of the project (City versus River Corridor), who will purchase the materials, and who will be doing what can be determined at the meeting with Peter Suhr. The agenda for the meeting can include: (1) creating a checklist, (2) developing an implementation plan and options to the plan can be developed depending on the outcome of the monies available and the final costs of the sculptures. Jim Enck recommended that John Wessel be included in this meeting and appointed as the project manager.

John Rabchuk will email to Holly Cabel to see if John Wessel can act as project manager.

Chris Adesso will set up a meeting with John Rabchuk, Jim Enck, John Wessel, Chris Bong and Peter Suhr to discuss this phase of the project. Chris recommended the Task Force consider the following in preparation for the meeting:

- i. Identify and the scope of the project in terms of to the site furnishings and landscape.
- ii. Identify that on the plan.
- iii. Have a cost breakdown on the materials and cost.
- iv. Notate all the information in writing to present to Peter.
- v. Complete and submit a permit to Building and Code Enforcement.

The process for the landscaping and site furnishing project will include:

1. Determining a contractor and securing a COI
2. Ordering the materials
3. Applying for the permit
4. Coordinating inspections and installations.

The island & sculpture phase of the project will include an engineering analysis and permitting which is a totally different project. This can be discussed further with Peter at this meeting; he may have some recommendations for this phase of the project.

The removal of the tree from the island has been discussed with the Honeyman family and they have agreed to the relocation of the tree. Relocating the tree will be a challenge to move, but an attempt will be made.

#### **D. Engineering**

John Rabchuk mentioned that the City met with Greg Chismark (WBK) regarding the feasibility study. Chris Bong and Chris Adesso met with Greg and reviewed a “draft” of the study and scope of work. Both, Mr. Adesso & Mr. Bong, agreed the scope is very comprehensive and will give the Council members enough information to determine if the concept of the project is viable. Greg will formalize the document and some modification to the summary; it will read similar to an engineering proposal or executive summary. The cost of the study is estimated at \$112,900.

John Rabchuk will be making a presentation at the Park District Board meeting tomorrow night, June 14. The presentation will be the same as the one made at the Government Services Committee (GSC) on May 23. He will include the comments made by City Council at the GSC meeting that evening (1) the Park District’s financial contribution toward the project, and (2) the delegation trip down to Greenville South Carolina.

The purpose of the Greenville, South Carolina visit is to view the impact this urban renovation has made in this community. It will also be an opportunity to study the following: (1) who was the leading force behind this project; (2) how did they find the monies to fund this project; (3) how has the city benefited from the project; and (4) how did they encourage the community to endorse this project.

A meeting has been scheduled for June 29, with Mark Koenen, John Rabchuk and Holly Cabel to discuss the financial contributions being made by the park district and the delegation trip to Greenville, South Carolina in more detail.

Per Chris Adesso, the May meeting minutes stated the, “The Government Services Committee has approved funding for the feasibility study with respect to the Park District

financial assistance.” Chris Adesso stated that this information may not have been interpreted accurately. Chris Adesso reviewed a draft of the GSC meeting minutes (Item D2) and the motion made by Council was to: “Send the analysis to the staff and request their feedback on the scope of work while Mark and John, Park District and Forest Preserve discuss who will be paying for the what, when, where and why.”

#### **E. Meetings and Presentations**

- i. High School Environmental Class - Water Quality Testing: Dale Luecht of the River Corridor Foundation has contacted Dorene Tieche and they will be meeting this afternoon. Dale is a new member on the River Corridor Foundation board. He has 30 years’ experience working and managing projects for the IEPA. He also knows all the members of the “Friends of the Fox”. He is very interested and enthusiastic about this program. He has contacted Mrs. Tieche and the instructors of the Environmental Sciences programs at both high schools. He is now developing the curriculum and will have the entire program up and running by this fall. He will be giving a report on his progress at the River Corridor meeting this coming Wednesday.
- ii. Park District Presentation on June 14. (Already discussed. See above.)

#### **F. Other Outreach Efforts**

Private Fund Raising: No update this at this meeting. No status update available at this time; still awaiting City commitment.

#### **V. Other and New Business:**

Ed Werneke suggested the committee consider endorsing an independent community leader, an “independent voice” with no political representation and a recognizable name, to endorse and be a representative of this project. Rick Brems recommended coming up with a list of influential community leaders that they could contact and see if anyone would be interested advocating this effort to the public.

Dorene Tieche also recommended contacting businesses in the community that can advocate this project. Clarke Environmental and Aquascape were two companies mentioned in the discussion.

#### **VI. Adjourn**

The next meeting is scheduled for June 27 at 8:00 a.m. at the Baker Community Center.

Motion by Chris Adesso to adjourn the meeting, second by Jim Enck.

Voice vote: unanimous; Nays – None Absent: Trish Beckjord, Holly Cabel, Monica Meyers, John Wessel

-Motion carried at 9:08 a.m.

MINUTES  
ACTIVE RIVER TASK FORCE MEETING  
BAKER COMMUNITY CENTER, ST. CHARLES, ILLINOIS  
JOHN RABCHUK, CHAIRMAN  
JUNE 27, 2016

Members Present: Chris Adesso, Trish Beckjord, Chris Bong, Rick Brems, Holly Cabel, Jim Enck, John Rabchuk, John Wessel

Members Absent: Monica Meyers

Others Present: Tony Zehnder, Candy Boulay

Visitors Present: none

Call to Order

The meeting was convened by John Rabchuk at 8:04 a.m.

Minutes Review and Approval

Motion to accept and place on file the minutes of the June 13, 2016 Active River Task Force meeting with two minor typographical changes suggested by Trish Beckjord. Motion by John Rabchuk, second by Jim Enck to accept and place the minutes on file.

Voice vote: unanimous; Nays – None; Absent: Monica Meyers

Motion carried at 8:04 a.m.

Communication and Marketing Update

Task Force Updates

Park District

The district hopes to have a concept plan for Boy Scout Island by the end of the summer. A meeting will take place with the City Public Works Department on July 19, 2016 to discuss how to proceed with enhanced landscaping & furnishings for Bob Leonard Walk between Prairie and Indiana as well as to discuss process for potential approval of kinetic sculpture for Johansen's Island. Discussion will include permitting, council approval steps required and project management. At this meeting, determination will take place on who is doing what item. Chris Adesso stated items should be approved separately; funds from grants are matching; grants are listed on the County website and the Active River Project is listed. John Rabchuk stated the Anderson family will contribute funds for the purchase of sculptures.

Notification for KC Grand Victoria Riverboat Grant is not anticipated until fall 2016.

### Engineering

Greg Chismark of WBK reviewed proposal for feasibility study with City Public Works and ED staff. Chris Adesso stated this is just a feasibility study, not for phase 1; package is being put together to show IDNR; study will show what regulatory agencies will want to know and is a baseline for design based on regulatory factors and safety factors. Trish Beckjord expressed concerns related to the future of the river. Chris stated that much of what happens to the river is what is happening in tributary areas. Rick Brems stated major groups look at these issues as part of their planning process.

The Government Services Committee has approved funding feasibility study, but with request for Park District financial assistance. Holly Cabel, Mark Koenen and John Rabchuk will meet on June 29, 2016 to discuss funding and potential delegation to Greenville, SC. John stated the presentation to the Park Board went well. Holly Cabel stated the Board is open to discussion on the project and will decide if a contingency will go to Greenville.

### Kayak and Floating Garden Proposal for Chicago River

John Rabchuk stated there is a conceptual plan for a kayaking course on the north branch of the Chicago River.

### Marketing

John Rabchuk asked if the City Council could endorse the project with a formal vote and stated: if the City Council formally endorsed the project then perhaps the Chamber of Commerce and other downtown businesses endorse the project. John stated he would speak with Mark Koenen. A funding request may go before the City Council after the meeting with Mark Koenen. Chris Adesso stated: each agenda item should be presented separately; wording should be “endorsement for concept”. Trish Beckjord suggested a presentation be made to the Downtown St. Charles Partnership and may ask Matt O’Rourke to attend. Chris Adesso suggested a community group be organized to informally show support for the project. John Wessel suggested a petition be signed by businesses to show solidarity. Rick Zehnder suggested holding a community event which would be connected to the river; have sign in sheets available at the event. Rick Brems will update the visual posters. Holly Cabel asked for more paper copies of the revised Master Plan to reference. Rick Brems will check on this request.

### Meetings and Presentations

Metro West Council – Fox River Valley subgroup meeting will be scheduled.

Dale Luecht of RCF is coordinating High School Environmental Class water quality testing efforts and working with D303 as well as Friends of the Fox.

A presentation will be scheduled with the Pottawatomie Garden Club.

Other Outreach Efforts

There is no status update available at this time, will wait for City commitment.

Other and New Business

None

Adjournment

The next meeting is scheduled for July 11, 2016 at 8:00 a.m. at Baker Community Center.

Motion by Trish Beckjord to adjourn the meeting, second by Rick Brems

Voice vote: unanimous; Nays – None; Absent: Monica Meyers - Motion carried at 9:19 a.m.



ST. CHARLES  
SINCE 1834

## AGENDA ITEM EXECUTIVE SUMMARY

Title: Tree Commission Minutes – Information only

Presenter: AJ Reineking

*Please check appropriate box:*

<input checked="" type="checkbox"/>	Government Operations	<input checked="" type="checkbox"/>	Government Services 07.25.16
<input type="checkbox"/>	Planning & Development	<input type="checkbox"/>	City Council
<input type="checkbox"/>	Public Hearing	<input type="checkbox"/>	

Estimated Cost:	N/A	Budgeted:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> X
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If NO, please explain how item will be funded:

### Executive Summary:

A duty of the Tree Commission is to advise and consult with the Government Services Committee. May 12, 2016 Tree Commission meeting minutes are attached.

### Attachments: *(please list)*

\* Tree Commission Minutes – May 2016 meeting minutes.

### Recommendation / Suggested Action *(briefly explain):*

For information only.

*For office use only:*

*Agenda Item Number: 3.c*

**MINUTES  
CITY OF ST. CHARLES  
TREE COMMISSION MEETING  
RALPH GRATHOFF, CHAIRMAN  
MAY 12, 2016**

**Members Present:** Chair. Ralph Grathoff, Valerie Blaine, Kathy Brens, Jon Duerr, Raymond Hauser, Pam Otto,  
**Members Absent:** Suzi Myers, Caroline Wilfong, Ron Ziegler

**Others Present:** Isabel Soderlind

**Visitors Present:**

**1. Call to Order & Pledge of Allegiance**

The meeting was convened by Chair. Grathoff at 7:06 p.m

**2. Introductions of Visitors:** None

**3. Minutes Review and Approval**

Motion to accept and place on file the minutes of the April 14, 2016 Tree Commission meeting. Motion made by Comm. Brens second by Comm. Otto to accept and place the minutes on file.

Voice vote: unanimous; Nays – None; Absent: Suzi Myers, Caroline Wilfong, Ron Ziegler

- Motion carried at 7:09 p.m.

**4. Old Business**

**A. Update on the Urban Forestry Management Plan**

AJ Reineking emailed Comm. Blaine and Comm. Brens the Urban Forestry Management Plan on April 25, 2016. They are currently proofreading the document and will email it to Mr. Reineking when completed. The document will then be returned to Graf Tree Care to finalize the document which will include images, charts, etc.

The Tree Commissioners would like to view the finalized copy that will be presented to the Government Services Committee and were also interested on how the document will be distributed. Once it is approved by Council will the document be available to the public on the City's website for public or will the document be more of an internal document for Public Works Department to utilize?

**B. Reorganization of the Tree Commission into a Natural Resources Commission**

The Commissioners briefly discussed the reorganization of the Tree Commission into a Natural Resources Commission. Comm. Duerr mentioned the scope of the Tree Commission has been very defined all these years, but the scope of the NRC could be broad and extensive. He pointed out how the ecosystem is all interrelated and expansive. Overall, he is eager to see how the focus of this committee will come together and how this committee will determine it's focus.

Comm. Otto viewed the DuPage Symposium video. She observed how each of the Natural Environmental Commissions presenting at the symposium started with a single focus and then expanded to other environmental initiatives.

Commissioners agreed that the focus should begin with one environmental issue the City is facing and then expand. Comm. Duerr mentioned he would like to discuss this further with Chris Adesso and

Mark Koenen; a meeting with them might assist in to narrowing the focus for the Commission. Their assistance would be an asset in establishing the purpose and mission of this Commission. Comm. Otto recommended the mission of the NRC should be better defined.

**NRC INITIATIVE IDEAS:**

Fuel usage of City vehicle  
Salt utilization  
Trees  
Bioswales  
Rain Barrels  
Refuse and recycling  
Nightlight friendly lighting  
Involvement in the Active River Project

Chair. Grathoff stated that he would write a mission statement and present it at the July meeting. This could be discussed with Mr. Adesso at the July meeting and the Committee could then focus on one initiative.

**5. New Business**

**A. News and Concerns from Public Works:**

**i. Spring Planting Update:**

All trees have been planted for the spring. According to the yearly summary of the Tree Report, approximately 3,500 trees were trimmed around town this past fiscal year.

Comm. Duerr complimented the City staff on their great trimming/pruning efforts this past year.

**ii. Woods of Fox Glen Tree Damage**

Comm. Brens requested an update to this situation from Mr. Reineking at the next meeting. She was anxious to find out how this situation was resolved and if the City had addressed the safety issues in this area, i.e., were the girdled trees taken down.

**6. Committee Reports**

**A. Education Committee:**

Kuddos was given to the Suzi Myers and the Education Committee for ordering "Why Would Anyone Cut a Tree Down?" It was a great gesture to distribute a book to each of the schools in honor of Arbor Day.

**B. Publicity Committee: None**

**C. Langum Park Clean Up:**

Comm. Otto mentioned she had nothing planned for Langum Park at this time. She has not been contacted by any volunteer groups recently. She also mentioned that most of the non-natives are gone and a decision needs to be made as to next steps on this project.

Kathy Brens mentioned that a group from her church might be interested in volunteering. They may be able to volunteer the first Sunday in August.

The Commission discussed meeting at Langum Park for the July meeting. Weather permitting the Commission could meet at 6:30 p.m., walk the grounds and determine the next steps for Langum Woods. The group could conduct the formal meeting at 7:00 p.m at the Public Works Facility. Isabel

Soderlind will move the meeting to 6:30 p.m. on the website and determine if the Public Works Facility could be utilized for the meeting.

**D. Arbor Day:**

Arbor Day went well this year. Mrs. Tieche and the 4<sup>th</sup> grade students from Munhall did a great job on the original play and song. Their participation in the Arbor Day festivities has definitely assisted in drawing a larger crowd to the event.

Andie Romano and the Cub Scout Pack 113 from Lincoln School also did a great job on presenting the colors. She mentioned the Cub Scout Pack would like to participate again next year.

The tent was set up very well this year and the side panels were tied down well so they were not flapping in the wind.

It was recommended that Chris Scott, in charge of the Interactive Tree Climbing activity, be recognized for his extra effort to accommodate all the children who wanted to experience the tree interactive activity. Mr. Scott was there until 5:45 p.m. making sure all the children that stood in line had their turn.

The Tree Planting event at Fox Ridge School went well. Approximately 75 children watched and participated in the event while the tree was being planted. Several children researched and wrote their ideas how to take care of trees. These were written on "seeded" paper and left at the base of the tree to help it grow.

In addition, Comm. Wilfong arranged for Comms. Duerr, Otto and Blaine to speak at several classes at Davis and Lincoln School in honor of Arbor day. According to the commissioners everything went well and they had a great time educating the children on trees.

**7. Communications**

**Electric Division Tree Activity Reports**

Motion to accept and place on file the Public Services and Electric Services Tree Activity Reports for April of 2016. Motion made by Comm. Otto second by Comm. Brens to accept and place on file the reports as presented.

**Voice vote:** unanimous; Nays – None; Absent: Suzi Myers, Caroline Wilfong, Ron Ziegler  
- Motion carried at 8:04 p.m.

**8. Additional Items – Comments**

**A. Commissioners:**

**Comm. Duerr:** The City staff is doing a great job trimming, great job.

**Comm. Brens:** The Museum is sponsoring a "Foodie Fest" on July 30, and on the 31<sup>st</sup> there will be a family event. Tickets for members are \$40; \$50 for non-members. The event will be held on the upper deck of the parking garage behind the Museum. Contact Comm. Brens if you, or someone you know, is interested in purchasing tickets. There will be three (3) \$1,000 raffle tickets given away. Raffle tickets are \$10 each and you do not have to be present to win.

**Comm. Blaine:** The Kane County Forest Preserve District Natural Resources Director called Valerie regarding a tree ordinance. The Village of Bannockburn had contacted the director indicating that they have a tree ordinance that bans the cutting of "any woody vegetation". Now, Bannockburn is having a serious problem with buckthorn. It is getting very large and they are not allowed to cut it down. The intention of the ordinance was most likely was for a good cause,

but now the city is facing this issue. Valerie was never aware of such an ordinance and wondered if anyone else on the Commission was aware of one. Comm. Duerr mentioned that the City of Geneva has a similar ordinance even on private property.

**B. City Staff:**

**Isabel Soderlind:** None

**11. Adjournment**

Motion by Comm. Duerr to adjourn the meeting, second by Comm. Brens.

**Voice vote:** unanimous; Nays – None; Absent: Suzi Myers, Caroline Wilfong, Ron Ziegler

- Motion carried at 8:09 p.m.

/ims



## AGENDA ITEM EXECUTIVE SUMMARY

Title:	Presentation of the Sanitary Sewer Capacity, Management, Operations and Maintenance (CMOM) Plan – Information Only
Presenter:	Timothy Wilson

*Please check appropriate box:*

	Government Operations	X	Government Services 07.25.16
	Planning & Development		City Council
	Public Hearing		

Estimated Cost:		Budgeted:	YES		NO	
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If NO, please explain how item will be funded:

**Executive Summary:**

In November of 2015 the city contracted with Engineering Enterprises Inc (EEI) to complete a Capacity, Management, Operation and Maintenance (CMOM) plan. This was a result of the wastewater EPA Permit special condition that required the City to implement and submit a CMOM plan to the EPA.

The plan requires measurable activities the City will need to perform to maximize the efficiency and capacity of its sanitary sewer collection system, lift stations and wastewater treatment facilities. It also addresses sanitary sewer overflows, provides an assessment of the sewer collection system and identifies deficiencies in the system.

**Attachments:** *(please list)*

\* CMOM Plan Submitted to IEPA

**Recommendation / Suggested Action** *(briefly explain):*

None

<i>For office use only:</i>	<i>Agenda Item Number: 4.a</i>
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**Capacity, Management,  
Operations and  
Maintenance (CMOM) Plan**

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**February 2016**



**ST. CHARLES**  
S I N C E 1 8 3 4



# CAPACITY, MANAGEMENT, OPERATIONS, AND MAINTENANCE PLAN

City of St. Charles, IL

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## Abbreviations

- 1 CMOM: Capacity, Management, Operations, and Maintenance
- 2 DAF: Design Average Flow or Daily Average Flow
- 3 DIP: Ductile Iron Pipe
- 4 FY: Fiscal Year
- 5 GPCD: Gallons Per Capita per Day
- 6 HDPE Pipe: High Density Polyethylene Pipe
- 7 I/I: Infiltration/Inflow
- 8 IDM: Inch Diameter Miles
- 9 IEMA: Illinois Emergency Management Agency
- 10 IEPA: Illinois Environmental Protection Agency
- 11 LF: Lineal Feet
- 12 MACP: Manhole Assessment and Certification Program
- 13 MGD: Millions of Gallons per Day
- 14 NASSCO: National Association of Sewer Service Companies
- 15 NPDES: National Pollutant Discharge Elimination System
- 16 PACP: Pipeline Assessment and Certification Program
- 17 PE: Population Equivalents
- 18 PVC Pipe: Polyvinyl Chloride Pipe
- 19 RCP: Reinforced Concrete Pipe
- 20 RCPP: Reinforced Concrete Pressure Pipe
- 21 SSO: Sanitary Sewer Overflow
- 22 USEPA: United States Environmental Protection Agency
- 23 VCP: Vitrified Clay Pipe
- 24 WWTF: Wastewater Treatment Facility

## Definitions

- 1 Annual Subbasin: the section of St. Charles' collection basin that will be inspected per the CMOM plan over the course of a year
- 2 Basin: the aggregation of St. Charles' entire sanitary sewer network
- 3 Eastern Tributary Subbasins: the aggregation of Subbasins that are tributary to the East WWTF
- 4 Infiltration: water other than wastewater that enters a sewer system from the ground through sources such as the as defective pipes, pipe joints, connections, or leaking manhole joints
- 5 Inflow: water other than wastewater that enters a sewer system from sources such as roof leaders, cellar drains, yard drains, area drains, foundation drains, catch basis, drainage, or open manhole lids
- 6 Population Equivalents: the average amount of resources consumed by one person; this simplifies all resources consumed by industrial and commercial establishments and attributes them to the general population
- 7 Sanitary Sewer: a sewer intended only to carry wastewater

- 8 Subbasin: the sections of the Basin that represent different collection system areas, usually signified by all sewer in the area flowing towards one common exit point from the Subbasin; these Subbasins were determined in the years prior to the CMOM
- 9 Western Tributary Subbasins: the aggregation of Subbasins that are tributary to the West WWTF



## Section 1: Introduction and CMOM Background

### 1.1 The City of St. Charles

The City of St. Charles is located 35 miles west of downtown Chicago and has land in both Kane and DuPage counties. The City had a population estimated at 33,267 people in 2014, and the Chicago Metropolitan Agency for Planning (CMAP) estimates a 2040 population of 41,726.

The City has two wastewater treatment facilities (WWTFs), the East (or Main) WWTF and the West WWTF. The East WWTF has a Design Average Flow (DAF) Capacity of 9.0 Million Gallons per Day (MGD) and the West WWTF that as a DAF of 0.70 MGD. The West WWTF, as well as most of the sanitary mains tributary to it, are generally newer than the East WWTF and its' tributary mains.

### 1.2 The City of St. Charles' CMOM Plan Requirements

WWTFs that discharge into navigable waters are required by the United States Environmental Protection Agency (USEPA) to have a National Pollutant Discharge Elimination System (NPDES) permit; both the East and West WWTFs have NPDES permits. The NPDES permit for the East WWTF (Permit No. IL0022705) includes Special Condition 21, which details requirements for a Capacity, Management, Operations, and Maintenance (CMOM) plan. NPDES Permit No. IL0022705, dated November 21, 2014, is included in Appendix A.

This report is meant to satisfy the requirements of the noted NPDES Permit special condition, as well as provide a guide for ongoing and future evaluation and improvements to the City's sanitary sewer collection system.

### 1.3 CMOM Plan Overview

Sanitary sewer collection systems have a finite capacity to carry wastewater based on the size of the system components. The size of the components is based upon an analysis of the contributor flows into the system plus a factor for growth. The analysis considers residential, commercial, and industrial sources of flow plus a designated leakage rate for the system components. With time, the design basis for the system may change resulting in flows in excess of the designed flow. Changes can include population increases beyond the growth factor used in the design basis, integrity deterioration resulting in a leak rate greater than the design basis, and inappropriate stormwater connections. These factors can lead to overflows of the system as the increased flows exceed the ability of the collection system or lift stations to convey the wastewater.

Likewise, failing to maintain the collection system can result in overflows irrespective of any flow increases. Materials such as grease, rags, roots, and other foreign objects can create blockages within the system. Regular maintenance and cleaning regimens can eliminate these occurrences particularly applying to grease and root development.



Overflows, regardless of the cause, may release untreated sewage to surface waters, at times leading to substantial negative impacts on the receiving body. The majority of impaired waters are impaired due to nutrients, sediment, pathogens, metals, and organic enrichment.<sup>1</sup>

1.3.1 History of the CMOM Program –The Clean Water Act initiated the Separate Sanitary Sewer Overflow (SSO) Policy, which resulted in the 1995 Urban Wet Weather Flows Advisory Committee. The 1995 Wet Weather Flows Advisory Committee followed up with a Phase II Stormwater Subcommittee and the SSO Policy Dialogue Subcommittee. In 1999, the SSO Subcommittee began working on regulations for separate sanitary collection systems which included CMOM regulations; the CMOM regulations then went through various phases of review, revision, and waiting periods. Even though there was a consensus that the CMOM plan was needed, there were concerns regarding separating it from the SSO Policy. In 2005, the USEPA published the “Guidance” document on CMOM and that initiated other USEPA regional offices to develop their own CMOM regulations. The IEPA started implementing CMOM regulation into NPDES permits in 2007.

1.3.2 Purpose of the CMOM Program – Four typical goals of CMOM plans are:

- Prevent overflows from the sanitary sewer to the extent possible and practicable
- Manage the assets of the utility program inclusive of personnel and equipment to affect a regular maintenance program and to be able to respond to emergency overflows of the system
- Through the use of analytical and engineering methods, develop a system to assess and prioritize maintenance, rehabilitation and replacement activities for the portions of the collection system under operational control the Utility.
- Through effective management, develop and enforce appropriate ordinances that will help to better manage the performance of the collection system.

Additional goals, more specific for the St. Charles CMOM plan, are identified in Section 3 of this report. It should be noted that general CMOM requirements typically stipulate that the community address impacts of flows from satellite collections systems in the report. However, St. Charles is not connected to another communities’ system, so this will not be further evaluated in this report.

1.3.3 Components of the CMOM Program – The NPDES Permit which mandated that St. Charles create a CMOM plan outlined several items which must be included in the plan. The USEPA has also created multiple documents regarding recommended contents of CMOM plans. CMOM plans are applicable to small, medium, and large wastewater collection systems. Just as no two sewer systems are exactly alike, no two CMOM plans will be identical. It is important to note that the CMOM plan itself makes no quantitative rules regarding the sewer system management; it is meant to be a guidance document that assists in efficient management of the sewer system.

---

<sup>1</sup> References – Item 1



## Section 2: Existing Sewer System

Careful study and analysis of the sanitary sewer system will help to guide the City of St. Charles in making feasible and cost effective decisions regarding the CMOM plan. The following section outlines several key metrics concerning the City’s sanitary sewer system.

### 2.1 Sanitary Sewer System Metrics

Exhibit 2-1 provides a general overview of the collection system. Several years prior to the writing of the CMOM, the City divided their collection area into 25 subbasins. Each of these subbasins is tributary to the East or West WWTF. Exhibit 2-1 identifies each of the subbasins, as well as piping diameters, lift station locations, siphon locations, and WWTF locations. Exhibits 2-2A through 2-2B are included to assist with deciphering particular details of the system in each subbasin region. See Table No. 2-1 for the overview of the subbasins, their corresponding subbasin region, and their distributary corresponding WWTF. The subbasin region is only for the purposes of mapping and holds no other functional significance.

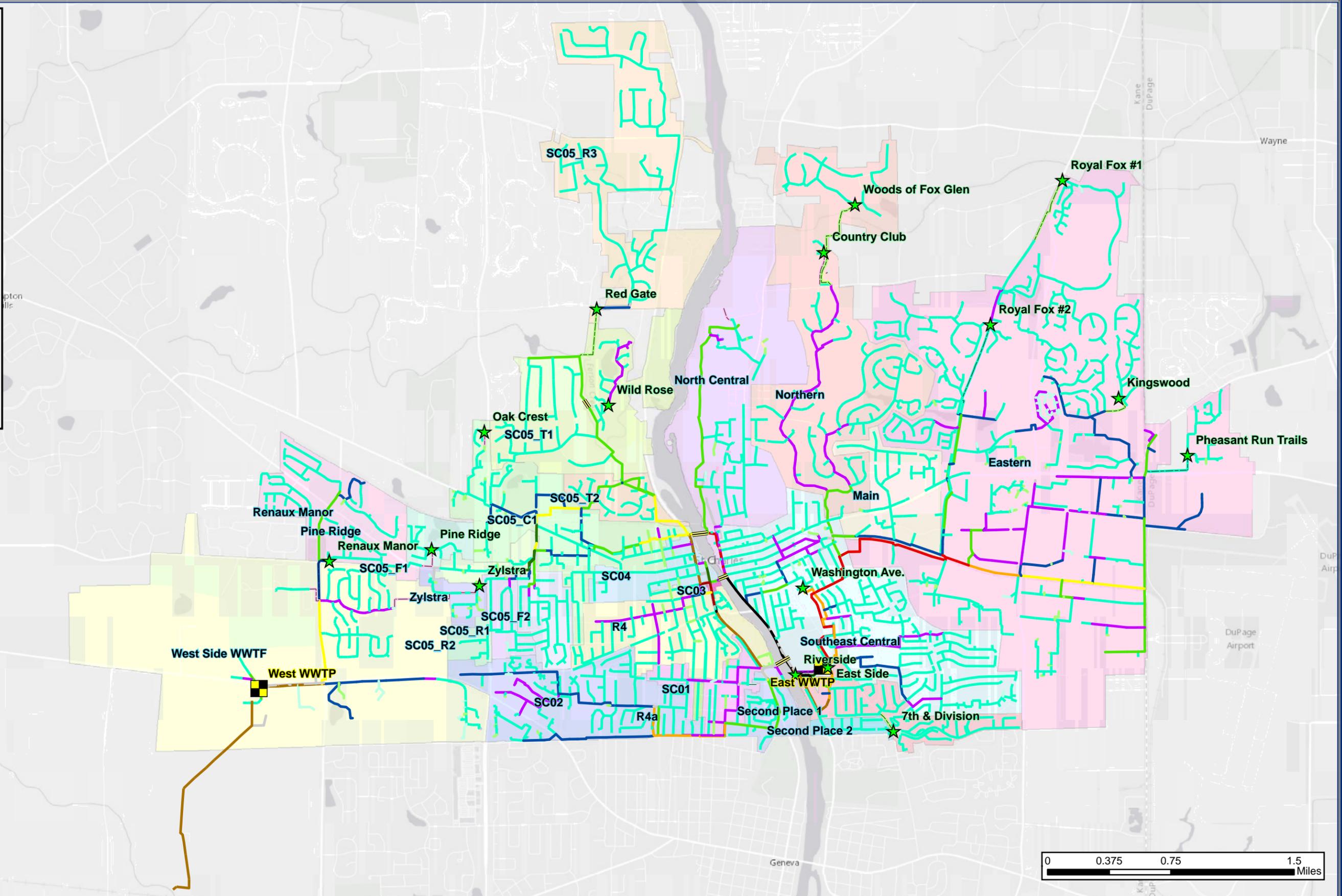
**Table No. 2-1 Subbasin Distribution**

City of St. Charles, IL

Subbasin Region/Exhibit	Subbasin	Tributary To
Eastern/2-2A	Eastern	East WWTF
Eastern/2-2A	Main	East WWTF
Northern/2-2B	North Central	East WWTF
Northern/2-2B	Northern	East WWTF
Northern/2-2B	SC05_R3	East WWTF
Northern/2-2B	SC05_T1	East WWTF
Northern/2-2B	SC05_T2	East WWTF
Southern/2-2C	R4	East WWTF
Southern/2-2C	R4a	East WWTF
Southern/2-2C	SC01	East WWTF
Southern/2-2C	SC02	East WWTF
Southern/2-2C	SC03	East WWTF
Southern/2-2C	SC04	East WWTF
Southern/2-2C	SC05_C1	East WWTF
Southern/2-2C	SC05_F1	East WWTF
Southern/2-2C	SC05_F2	East WWTF
Southern/2-2C	SC05_R1	East WWTF
Southern/2-2C	SC05_R2	East WWTF
Southern/2-2C	Second Place 1	East WWTF
Southern/2-2C	Second Place 2	East WWTF
Southern/2-2C	Southeast Central	East WWTF
Western/2-2D	Pine Ridge	West WWTF
Western/2-2D	Renaux Manor	West WWTF
Western/2-2D	West Side WWTF	West WWTF
Western/2-2D	Zylstra	West WWTF

**Legend**

- Subbasin Names are Highlighted in Blue
- WWTPs
- Lift Stations
- Siphons
- Sanitary Mains**
- No Size Listed
- 2"
- 4"
- 6"
- 8"
- 10"
- 12"
- 14"
- 15"
- 16"
- 18"
- 20"
- 21"
- 24"
- 27"
- 30"
- 36"
- Abandoned
- Force Mains



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 PROJECT NO.: SR1501  
 BY: CLV  
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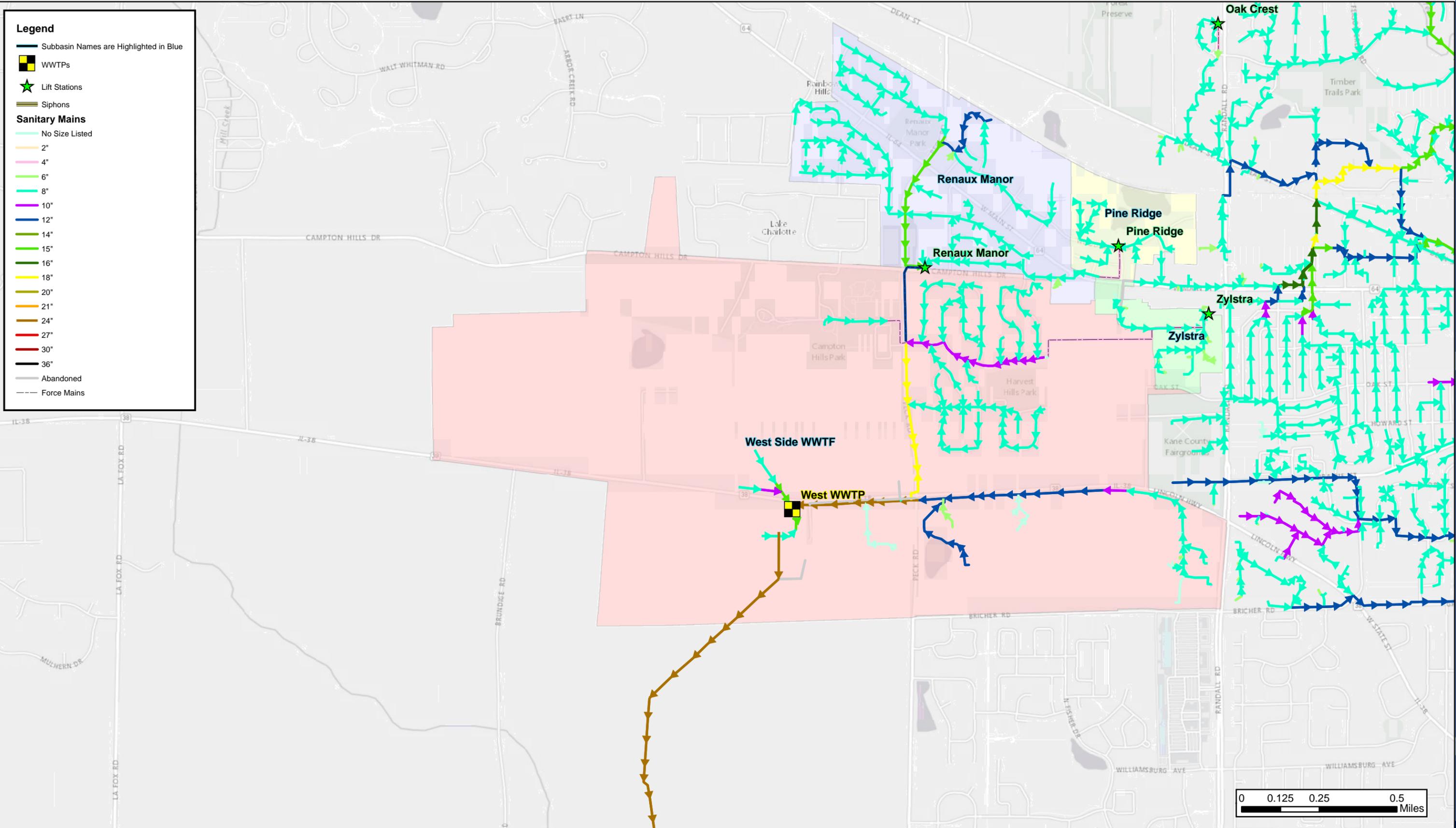
**CMOM Plan**

**Exhibit 2-1  
 All Basins - Overview**



**Legend**

- Subbasin Names are Highlighted in Blue
- WWTPs
- Lift Stations
- Siphons
- Sanitary Mains**
- No Size Listed
- 2"
- 4"
- 6"
- 8"
- 10"
- 12"
- 14"
- 15"
- 16"
- 18"
- 20"
- 21"
- 24"
- 27"
- 30"
- 36"
- Abandoned
- Force Mains



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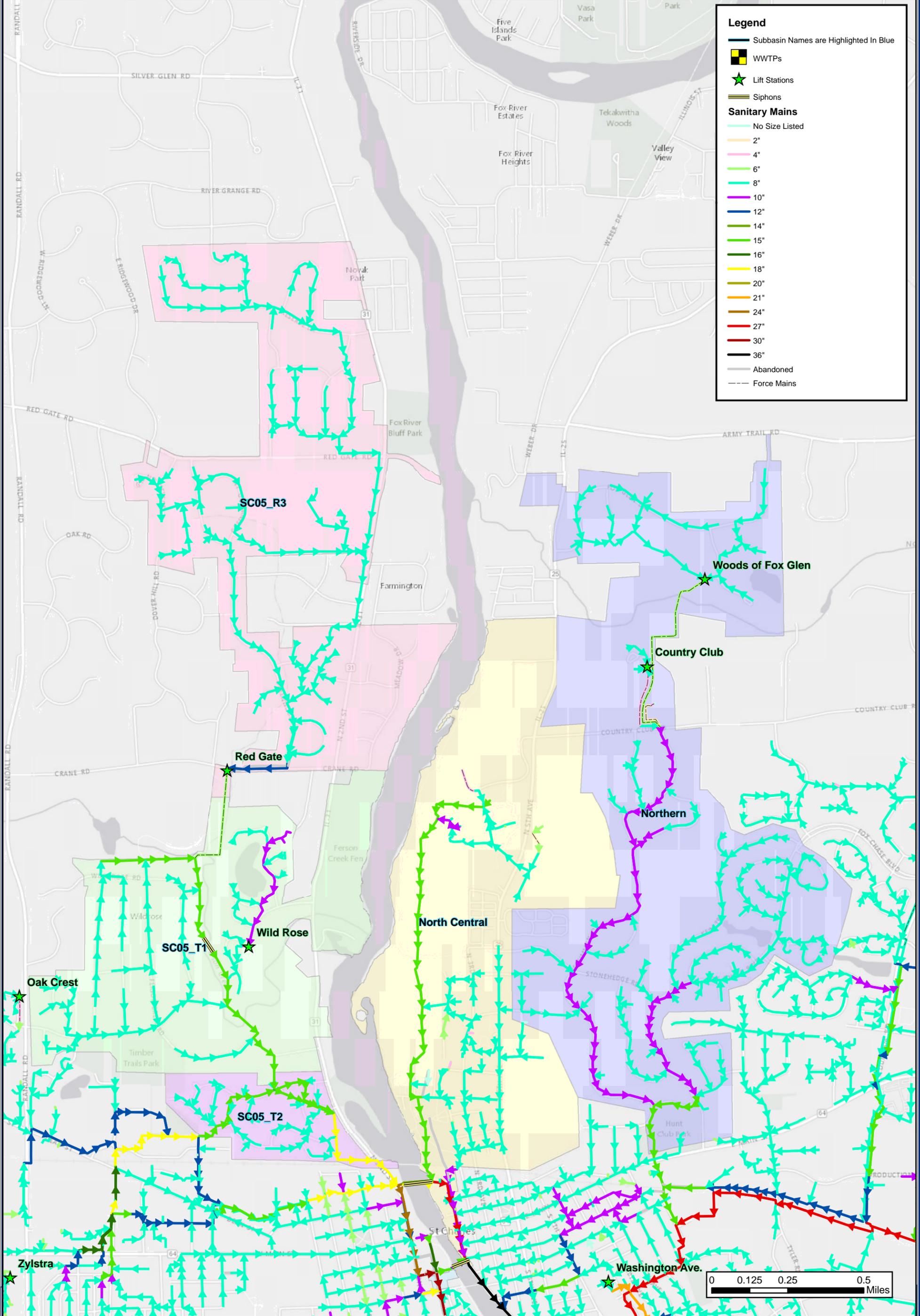
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**CMOM Plan**

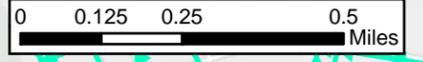
**Exhibit 2-2A**  
**Western Subbasins Map**





**Legend**

- Subbasin Names are Highlighted In Blue
- WWTPs
- Lift Stations
- Siphons
- Sanitary Mains**
- No Size Listed
- 2"
- 4"
- 6"
- 8"
- 10"
- 12"
- 14"
- 15"
- 16"
- 18"
- 20"
- 21"
- 24"
- 27"
- 30"
- 36"
- Abandoned
- Force Mains



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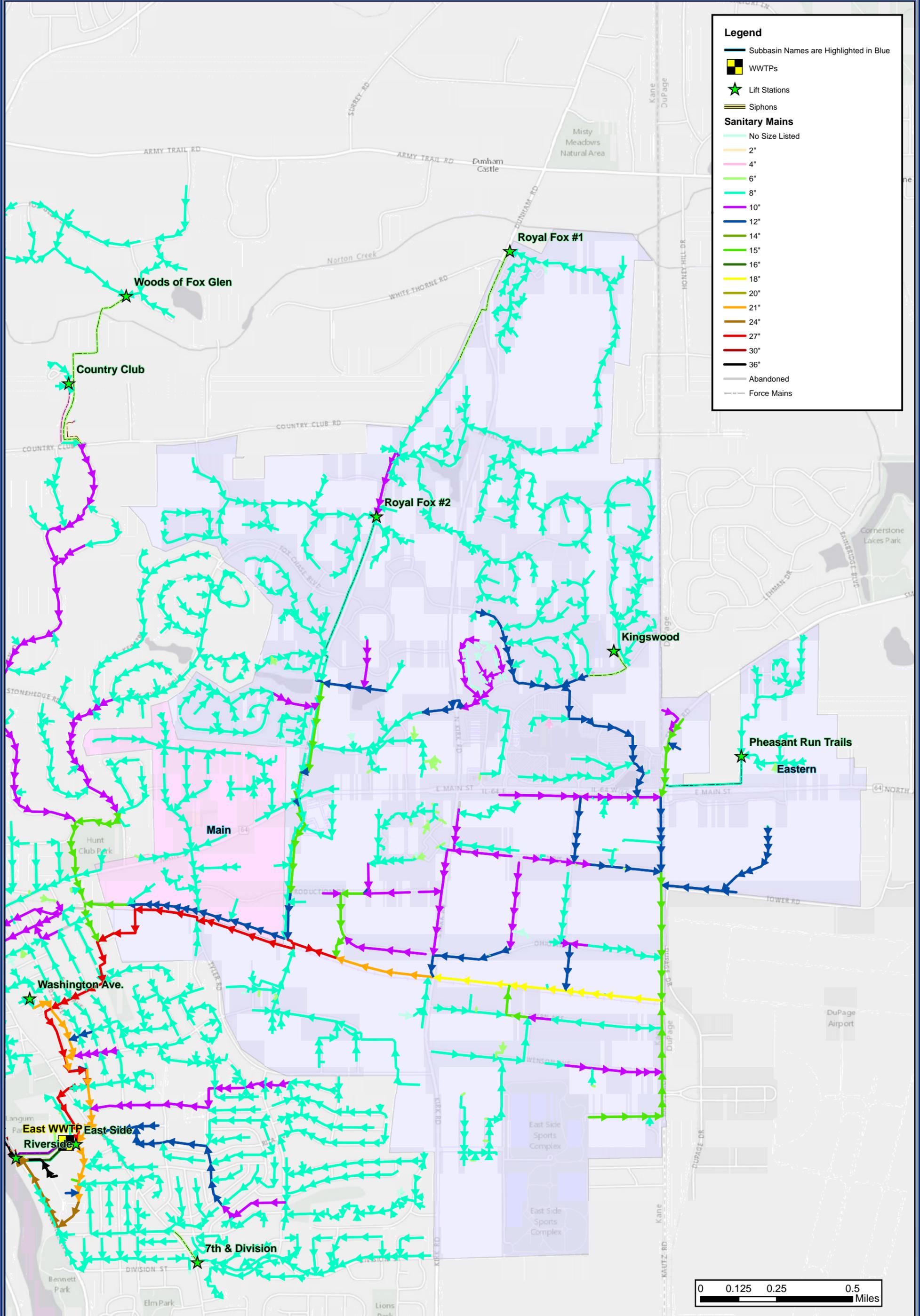
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 FILE: B2\_North SubBasin Map

**CMOM Plan**

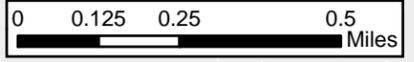
**Exhibit 2-2B  
 Northern Subbasins Map**





**Legend**

- Subbasin Names are Highlighted in Blue
- WWTPs
- ★ Lift Stations
- Siphons
- Sanitary Mains**
- No Size Listed
- 2"
- 4"
- 6"
- 8"
- 10"
- 12"
- 14"
- 15"
- 16"
- 18"
- 20"
- 21"
- 24"
- 27"
- 30"
- 36"
- Abandoned
- Force Mains



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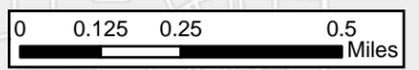
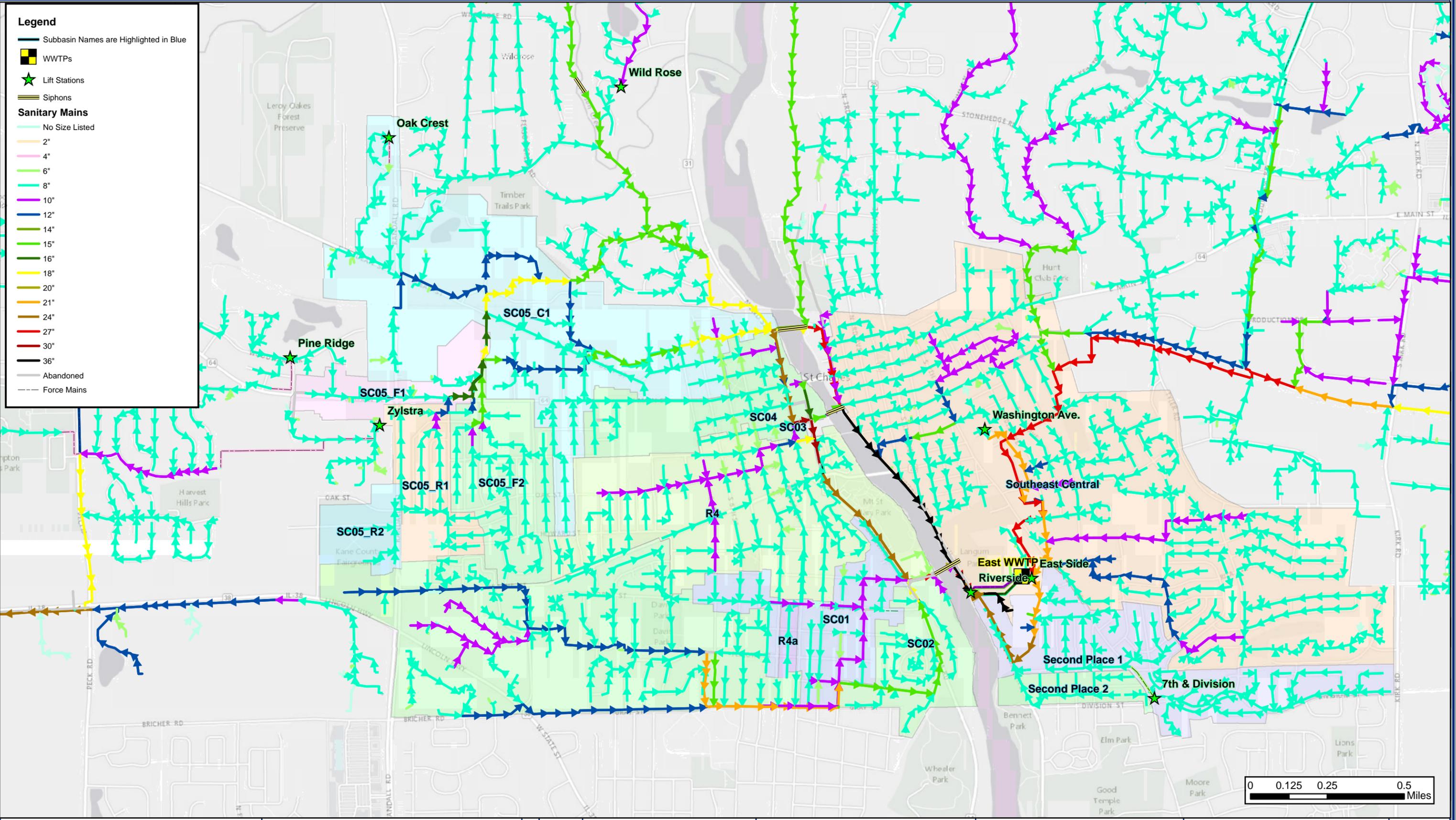
**CMOM Plan**

**Exhibit 2-2C  
 Eastern Subbasins Map**



**Legend**

- Subbasin Names are Highlighted in Blue
- WWTPs
- Lift Stations
- Siphons
- Sanitary Mains**
- No Size Listed
- 2"
- 4"
- 6"
- 8"
- 10"
- 12"
- 14"
- 15"
- 16"
- 18"
- 20"
- 21"
- 24"
- 27"
- 30"
- 36"
- Abandoned
- Force Mains



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FILE:	B4_South SubBasin Map

**CMOM Plan**

**Exhibit 2-2D  
 Southern Subbasins Map**





**2.1.1 Sanitary Sewer Metrics** - The components of the wastewater system are separated into the East WWTF and the West WWTF as summarized in Table No. 2-2. This information includes both private and St. Charles owned sewers, as well as both force and gravity mains. Service mains or mains that have been abandoned are not included in the table below or in other sanitary sewer metrics included in this report. Abandoned sanitary main locations can be seen in Exhibits 2-1, 2-2 (A-D), 3-1, and 3-2.

**Table No. 2-2: Sanitary Sewer Main Inventory**  
City of St. Charles, IL

Main (East) WWTF	West WWTF	Total
21 Drainage Basins	4 Drainage Basins	25 Drainage Basis
3,792 Active Sanitary Manholes	446 Active Sanitary Manholes	4,238 Active Sanitary Manholes
13 Lift Stations	3 Lift Stations	16 Lift Stations
161.7 Miles Active Sanitary Sewer	18.8 Miles Active Sanitary Sewer	180.5 Miles Active Sanitary Sewer
4.0 Miles Active Force Mains	1.3 Miles Active Force Mains	5.3 Miles Active Force Mains

The sanitary sewer system includes mains that were placed as early as 1912. Mains placed in the early 1900's often were made of Vitrified Clay Pipe (VCP) but modern sanitary sewers often use polyvinyl chloride (PVC) pipe. Other materials used for the City of St Charles' sanitary sewers include Ductile Iron Pipe (DIP), high density polyethylene (HPDE), reinforced concrete pipe (RCP), and reinforced concrete pressure pipe (RCPP).

The system also includes four (4) siphons, three of which run under the Fox River, each transferring sewage from subbasins west of the Fox River to the east side of the Fox River, and eventually to the East (Main) WWTF. The fourth siphon runs below a creek in the SC05\_1 subbasin. These siphons are identified on the map exhibits.

**2.1.2 Lift Station Metrics** - The City of St. Charles has 16 lift stations that are used to transport the sanitary sewer flow from low elevations to higher elevations. These lift stations were built between 1930 and 2007 and also vary in condition and capacity. See Appendix B, for a table identifying all lift stations along with information regarding the age, condition, capacity, generator information, bypass connection information, and other general information regarding the lift stations.

**2.1.3 Bypass Pumping Equipment Metrics** - Bypass pumps may be used to bypass a lift station if the lift station is temporarily out of service for any reason. Bypass pumps can also be used to pump flow out of the sanitary sewer system at strategic locations when, in the case of a precipitation event, the sanitary sewer system is bottlenecked and is causing backups and/or overflows. See Table No. 2-3 for a list of the bypass pumps currently available for use by St. Charles, as well as scheduled additions to the inventory.



**Table No. 2-3: Bypass Pump Inventory**  
City of St. Charles, IL

Size	Number of Pumps	Manufacturer	Capacity (Each Pump)	Comments
<b>Current Pump Inventory</b>				
6"	5	Godwin	1700 GPM	2 Pumps will run 33 hours without refueling 3 Pumps will run 19 hours without refueling
6"	1	Gorman Rupp	1200 GPM	Pump will run for 31 hours without refueling
4"	5	Honda	574 GPM	All pumps will run just under 2 hours without refueling
4"	1	Gorman Rupp	800 GPM	Trailer Pump
3"	6	Honda	350 GPM	All pumps will run 2.5 hours without refueling
<b>Scheduled Updates</b>				
6"	1	Godwin	1700 GPM	Expected delivery of early 2016, will replace the 6" Gorman Rupp pump
6"	1	Godwin		Scheduled to replace the 4" Gorman Rupp Trailer Pump in the 2017 fiscal year

G:\Public\St. Charles\2015\SR\501RFQ CMOM Plan\Eng\{Pump Inventory.xlsx}Bypass Pumps

2.1.4 General Maintenance Equipment Metrics – Table No. 2-4 identifies additional inventory of sewer maintenance equipment that is generally used for general maintenance, which could include emergency or non-emergency scenarios. The City also owns one confined space entry kit, which includes a tripod, gas detector, and retrieval kit.

**Table No. 2-4: Sewer Maintenance Equipment Inventory**  
City of St. Charles, IL

Equipment	Quantity	Manufacturer	Capacity	Comments
Combination Machine	1	Vactor	60 GPM at 2,500 PSI	Series 2100, model year 2011, 1,500 gallon water supply and a 15 yard debris box. This will be replaced by a similar unit in early 2016. Jointly owned with Public Services Division.
Jetter Trailer	1	SECA	40 GPM at 3,000 PSI	Purchased in 2014, has a 700 gallon water supply.
Camera Transporter	3	Aries	N/A	One (1) Pathfinder XL Steerable Transporter (TR3400); Two (2) Pathfinder Transporters (TR3300)
Camera and Cable	3	Aries	N/A	Two (2) Color Pan & Tilt Cameras (PE3400) with 1200 ft of cable each; One (1) SEEKER Push Camera with 250 ft of cable
IT Pipes Inspection Software	1	Infrastructure Technologies	N/A	NASSCO V.6/PACP Compliant, includes Manhole Inspection Module.

G:\Public\St. Charles\2015\SR\501RFQ CMOM Plan\Eng - FOR SR\{Chapter 2.xlsx}Table 2-4



## 2.2 Existing Sanitary System Evaluation

### 2.2.1 Sanitary Sewer Capacity

Under normal conditions (no major precipitation events or sewer obstructions), the City's sanitary sewer system typically does not have backups or overflow events. Therefore, the sewer capacities appear to be adequate for design conditions and a detailed review of the sewer capacities is not included in this report. The City will continue to be diligent in review of proposed sewer expansions to ensure the design capacities of existing and future sewers are sufficient for normal flows.

### 2.2.2 Sanitary Sewer Overflows

Major precipitation events have historically resulted in significant sewer backups throughout the City's system. The City currently deploys bypass pumps to approximately 16 strategically selected locations during significant wet weather events. These pumps help prevent backups in the system, but result in Sanitary Sewer Overflow (SSO) events due to the bypass pump discharge flowing either overland or into storm sewers. The City's protocol for responding to these events and documentation are detailed later in this report.

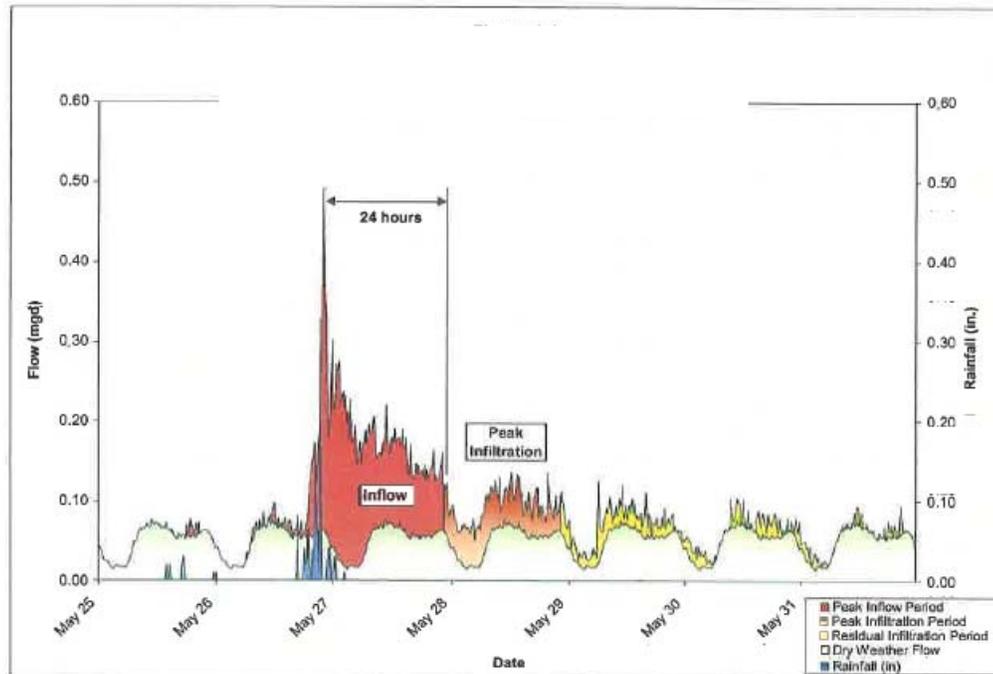
SSOs are typically linked to either improperly designed sewers or Infiltration and Inflow (I/I). Due to the fact that the City's SSOs are typically associated with wet weather events, the sewer capacities are much less likely to be a major factor for these events, as compared to I/I. Also, addressing I/I is a much more cost effective means of reducing SSOs, instead of a costly sewer replacement program. Finally, over-sizing the sewers would likely have adverse effects on system performance during normal flows due to decreased flow velocities, which would promote solids settling in the pipes.

### 2.2.3 Infiltration and Inflow

Infiltration is caused from groundwater seeping into the storm sewers through cracks in the sanitary sewer or through the seams of the sanitary sewer. Inflow occurs when stormwater flows into the sanitary sewer systems through storm sewers that have been inappropriately connected to sanitary sewers. Infiltration occurs in a more delayed manner due to the time that the water needs to percolate through the soil; infiltration is measured as the amount of peaking in the wastewater flow seen from 24 – 48 hours after a storm event. Inflow occurs quickly during a storm event and is measured as the amount of peaking in wastewater flow seen within 24 hours after a major storm event. See Exhibit No. 2-3 for a graph, originally from a St. Charles report prepared by RJN, displaying inflow vs. infiltration example data. This example is one snapshot in time, but indicative of systematic issues throughout the City's sanitary network.

## Exhibit No. 2-3: Time Chart Showing I/I After a Major Rain Event<sup>2</sup>

City of St. Charles, IL



The increase in flow caused by I/I can overwhelm the sanitary sewers and cause them to overflow into the streets, houses of individuals, or other non-residential buildings. As noted in Section 2.2.2 above, to mitigate the effects of Sanitary Sewer Overflows (SSOs) caused by I/I, pumps may be placed at known trouble areas to pump wastewater from the sanitary sewers into the storm sewers, nearby creeks, or the Fox River. Large amounts of I/I can misleadingly show the need for an oversized plant or sanitary sewer system. Of course, it would be an impossible task to eliminate all I/I; therefore, it is encouraged to examine the benefits of rehabilitation on a case by case basis. Balancing the costs, environmental impacts, and benefits to the sewer system users should be considered when determining whether to rehabilitate portions of the sewer system. While this report does not provide a detailed analysis of each problem area, an overall analysis of the City's I/I situation is provided in this section.

Due to the general age difference between the infrastructure in the East WWTF and West WWTF basins, it is expected that the West WWTF basin would have less of an issue with I/I compared to the East WWTF basin. Therefore, distinguishing the I/I between the two basins would seem to be a beneficial process in this analysis. In order to provide meaningful metrics distinguishing the East WWTF and West WWTF basins, the water usage for the entire City was analyzed by billing address and split into the corresponding East WWTF

<sup>2</sup> References – Item 2

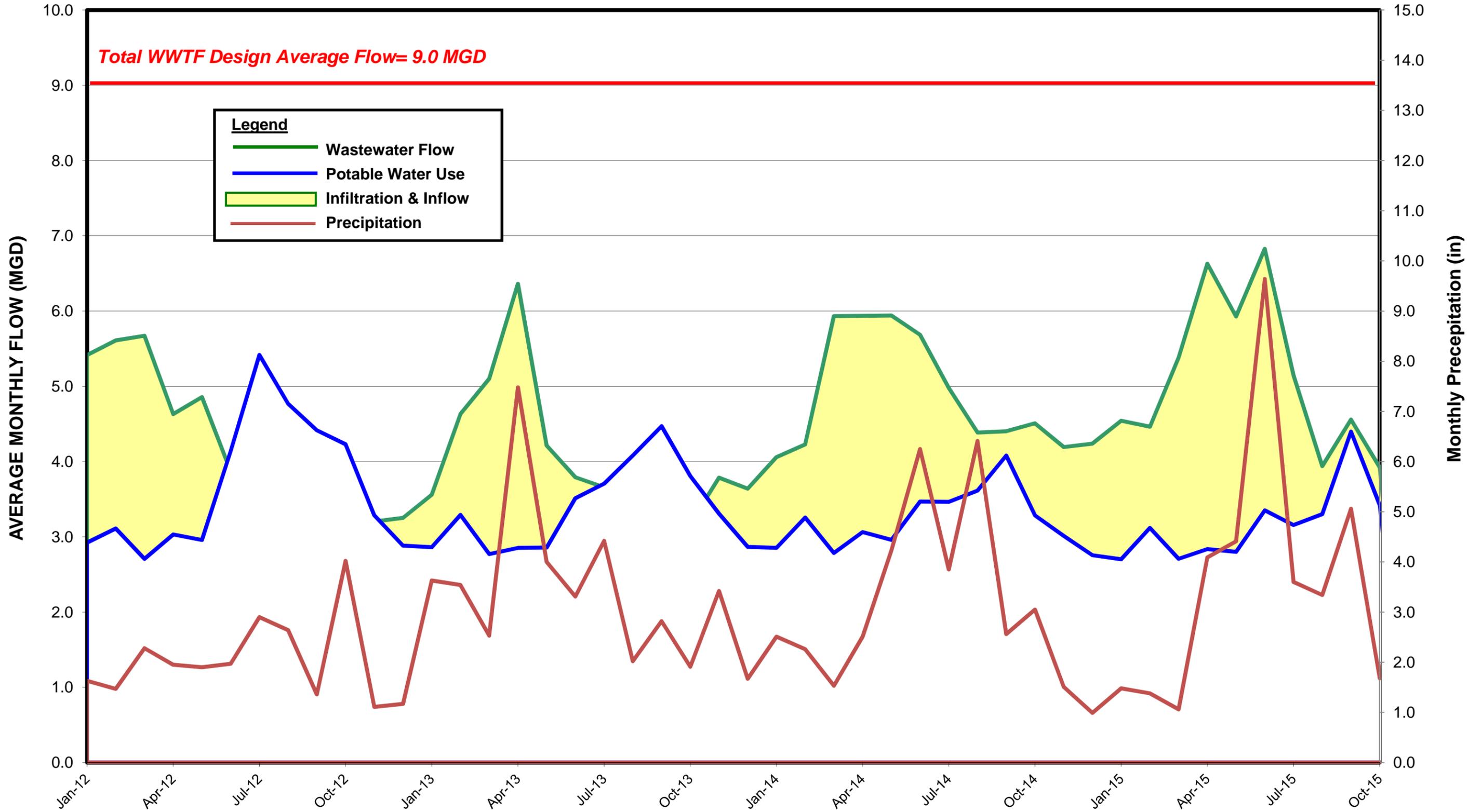


or West WWTF basin. I/I calculations were then performed on water usage statistics and WWTF statistics over the course of the last four years (Jan. 2012 – Oct. 2015). See Exhibits 2-4 and 2-5 for a graphical depiction of the water and wastewater flows, along with historical precipitation data, in the basins tributary to each WWTF.

As expected, Exhibits 2-4 and 2-5 indicate that I/I (depicted by the solid yellow fill) is generally more significant in the East WWTF basin. The peak I/I periods appear to align with significant precipitation events, signifying that inflow is the primary concern. However, there are still periods of elevated I/I during lower precipitation periods, which indicates that infiltration is still a cause for concern. Due to the fact that The City has had an aggressive lining program in their mains, much of the infiltration could be coming from the private service mains and connections. The users own their services up to and including the connection to the City-owned mains. Although the infiltration caused by structural deficiencies in private service mains and connections affects everyone downstream of the user, the City is not responsible for funding service repairs. However, the City does have the legal right to ensure that the private service mains and connects are functioning in accordance with the City Code which does not permit I/I from private users. The topic of reducing SSOs is covered more in section 3.

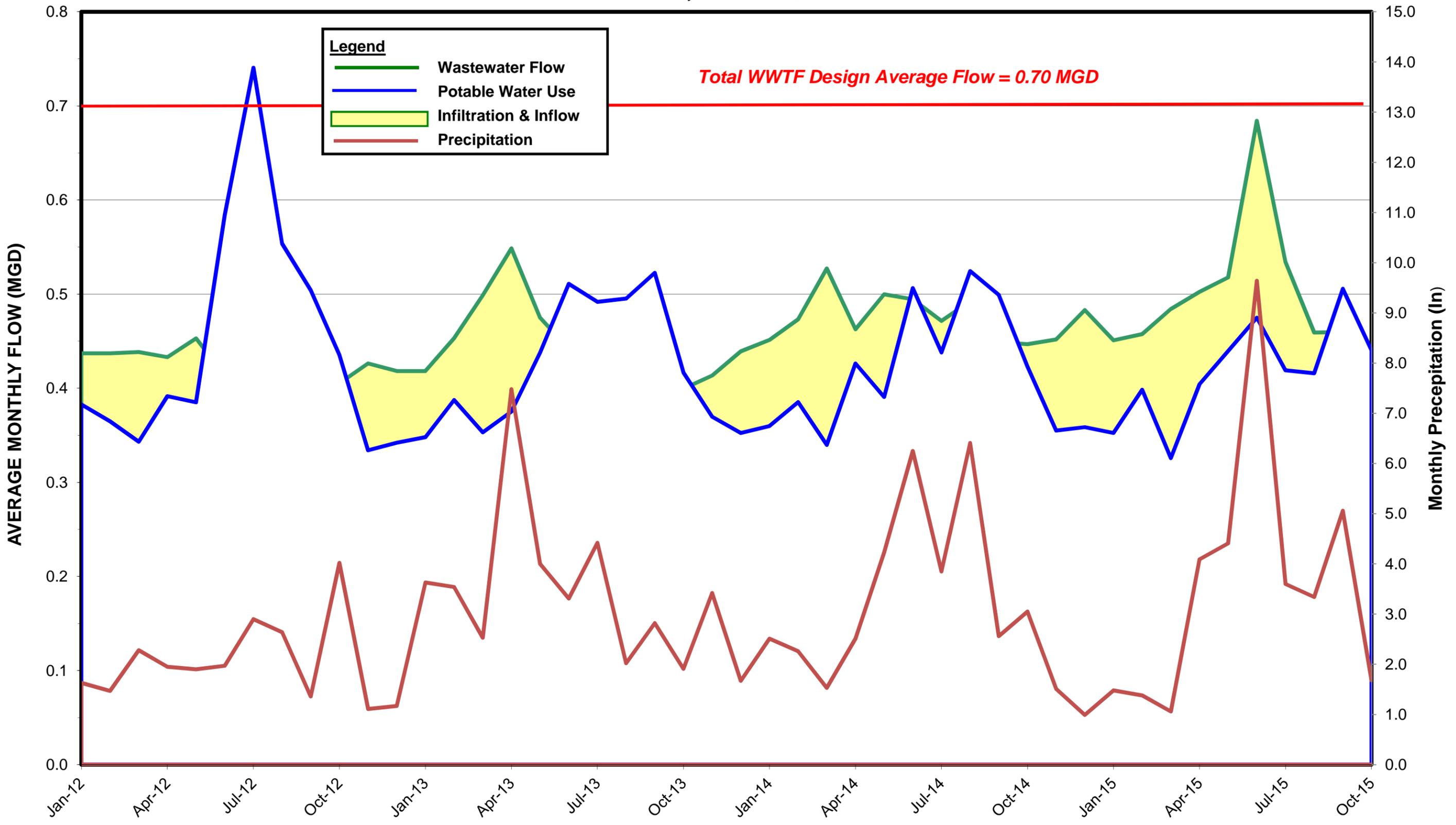
# Exhibit 2-4: East WWTF Historical Sanitary Sewer I/I (Potable Water Use vs. Wastewater Flow)

City of St. Charles, IL



# Exhibit 2-5: West WWTF Historical Sanitary Sewer I/I (Potable Water Use vs. Wastewater Flow)

City of St. Charles, IL



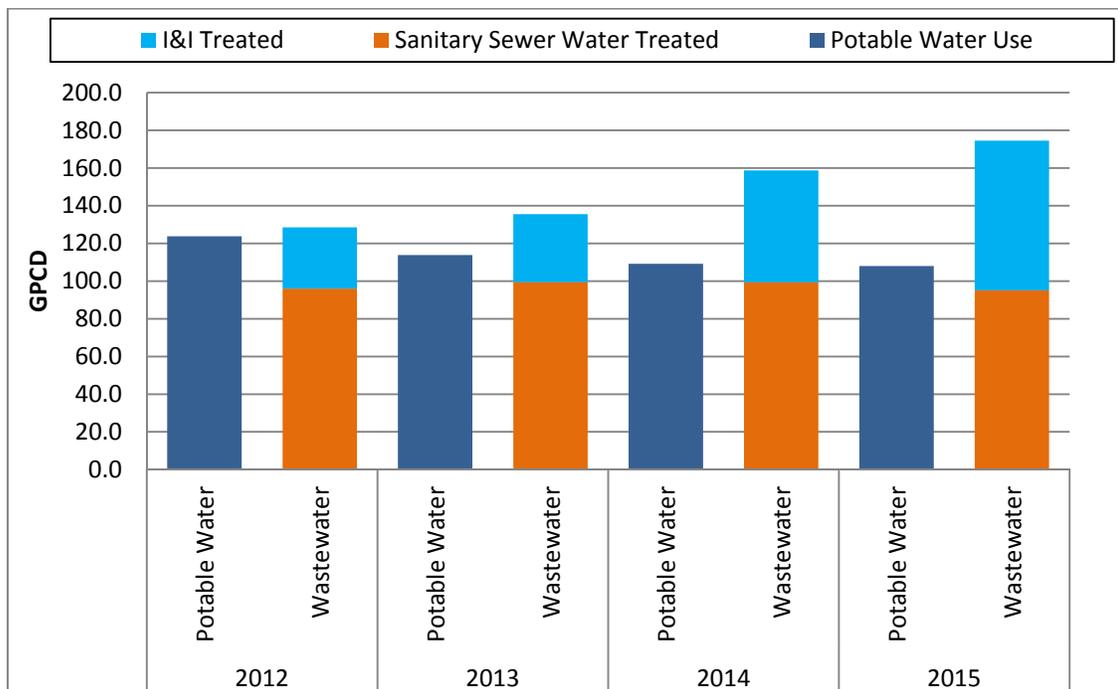


While Exhibits 2-4 and 2-5 present on overall picture of the I/I situation in each basin, more detailed analytics help clarify the situation further. When water is consumed, apart from any leaks within the system, the water will either be used in a manner that causes it to be circulated into the sanitary sewer system after use (i.e. washing dishes, flushing toilets, etc.) or the water will be used outside (i.e. to water lawns) and will not be returned to the sanitary sewer system. Therefore, any useful analytics for I/I should seek to normalize the data to remove the loss of potable water for outdoor use (irrigation). Furthermore, a common measurement of both water and wastewater use is the usage per person per day which is often referenced as gallons per capita per day (gpcd), and a typical value is 100 gpcd, so further analytics should use this form of measurement for a comparative basis. Finally, when analyzing St. Charles' system, certain assumptions were required for data processing. For instance, the data was normalized to assume each Population Equivalent would consume the same amount of water, thus allowing a split of the East WWTF and West WWTF basins into population equivalents.

Using these analytical tools, Exhibits No. 2-6 through 2-10 and Table No. 2-5 were created to show various I/I metrics split between the East WWTF and West WWTF Basins, as well as metrics for the whole system. These exhibits more clearly express how the amount of I/I treated per basin per day has been increasing since 2012. The West basin has seen a very small increase in I/I per capita since the data provided in 2012; however, the East basin has seen a steady climb in I/I per capita since 2012. In 2015, the amount of I/I treated at the East WWTF nearly matched the amount of sanitary sewer water treated. See Exhibit No. 2-8 for another view on how the I/I has changed between basins from 2012 to 2015.

### Exhibit No. 2-6: East Potable Water vs. Wastewater (01/2012-10/2015)

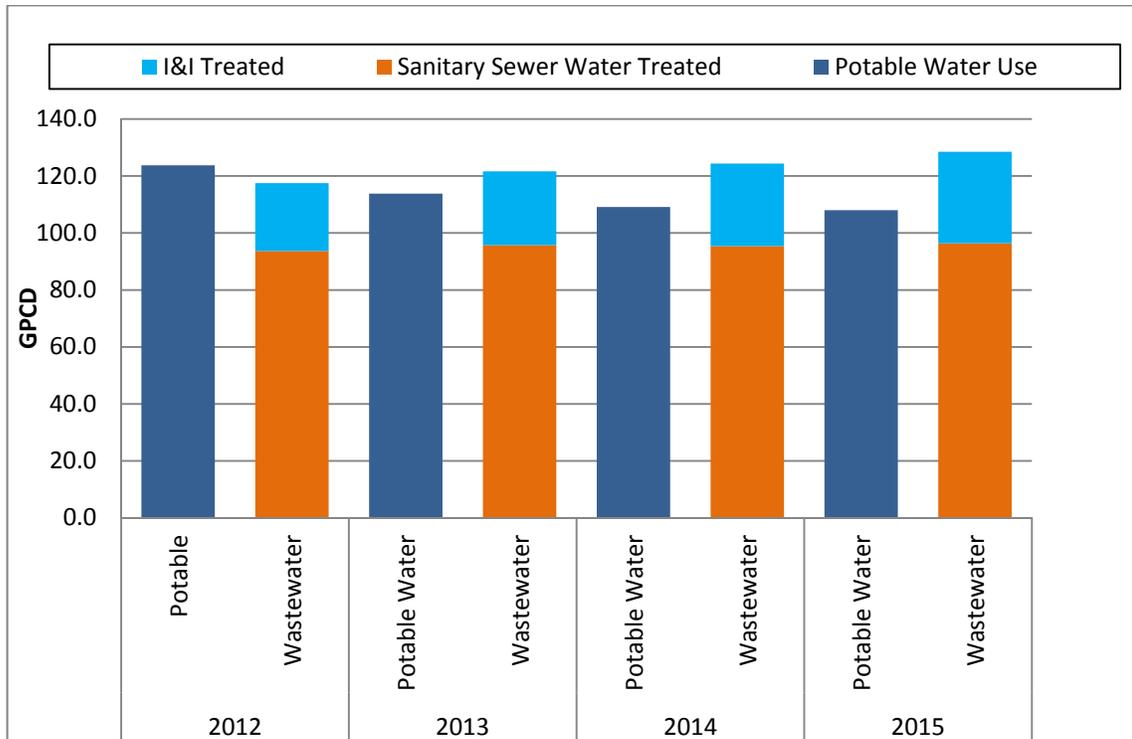
City of St. Charles, IL





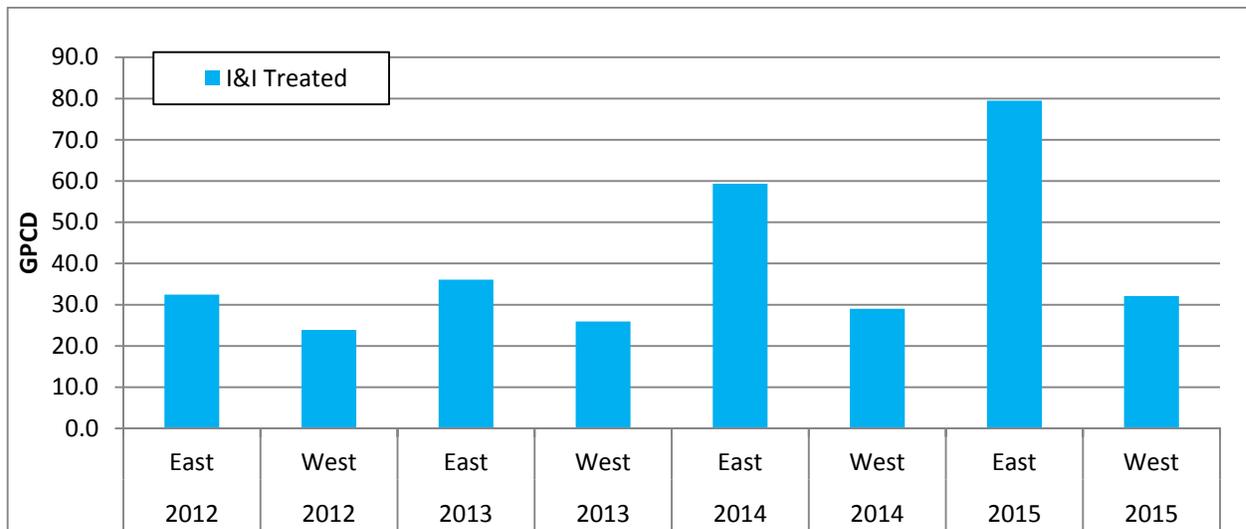
**Exhibit No. 2-7: West Potable Water vs. Wastewater (01/2012-10/2015)**

City of St. Charles, IL



**Exhibit No. 2-8: I/I for Each Tributary Basin (01/2012-10/2015)**

City of St. Charles, IL





Normalizing *inflow* metrics to a sewer system's *service population* can be an effective way of identifying problem areas and tracking inflow reduction through sanitary system improvements. The USEPA have suggested a maximum inflow rate of 275 gpcd during wet weather<sup>3</sup>. It should be noted that this number includes base flow from residences; however, it does not include base flows from industries, which could be significant sources of discharge. Inflow is typically measured over a short duration of time after a major precipitation event. This report does not include a detailed review of short duration flows for the purposes of quantifying historical inflows. However, future I/I investigations, which would include flow monitoring, could better quantify existing inflow rates. These results could then be compared to the USEPA's suggested maximum inflow rate of 275 gpcd, and used as a basis of comparison for tracking inflow reduction through sanitary system improvements.

Normalizing *infiltration* metrics to a sewer system's *service population* can be another effective way of identifying problem areas and tracking infiltration reduction through sanitary system improvements. The USEPA have suggested a maximum infiltration rate of 120 gpcd during wet weather. Again, it should be noted that this number does include base flow from residences, but does not include discharge from industries. Since infiltration is typically measured over a longer duration of time after a precipitation event, as compared to inflow, some of the previous exhibits in this report can be generally used for review of infiltration metrics. Exhibits 2-6 and 2-7 indicate that total flows at the East WWTF are typically well in excess of 120 gpcd, while flows at the West WWTF are typically around this threshold. It is important to note that these flows have not been normalized to remove industrial base flows and they also include flows during dry weather. Future I/I investigations, which would include flow monitoring, could better quantify existing infiltration rates. These results could then be compared to the USEPA's suggested maximum infiltration rate of 120 gpcd, and used as a basis of comparison for tracking infiltration reduction through sanitary system improvements.

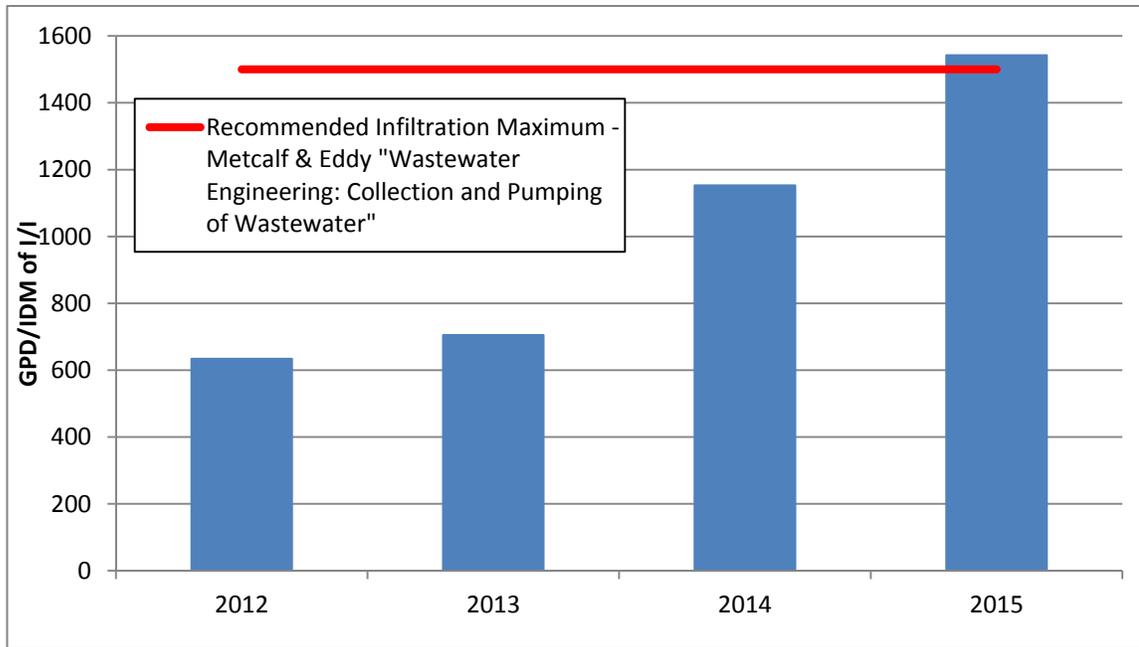
Normalizing *infiltration* metrics to a sewer system's *size* can be accomplished by measuring infiltration in gallons per day per inch-diameter mile (GPD/IDM). This rating system allows more infiltration when more miles of line and larger sizes of main are present. Metcalf and Eddy identified a suggested limit of 1,500 GPD/IDM of infiltration, which does not include the base flow of the system from any source. Exhibits No. 2-9 and 2-10 identify the average amount of infiltration *and inflow* as GPD/IDM that occurs for each basin, and this data has been normalized to remove base flows. Note that the infiltration data has not been separated from inflow data, due to lack of necessary detailed flow information at this time. The exhibits indicate that the East and West Basin GPD/IDM of I/I has been steadily increasing over the past few years, and the East Basin results are significantly higher than the West Basin results. These exhibits should be updated annually, or as major improvements in the sanitary system are completed. Furthermore, during future I/I investigations, as inflow data can be segregated from infiltration data, these exhibits can be fine-tuned for a true comparison of GPD/IDM of *Infiltration* to the Metcalf and Eddy suggested limit of 1,500 GPD/IDM.

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<sup>3</sup> References – Item 3

**Exhibit No. 2-9: East Basin – GPD/IDM of I/I (01/2012-10/2015)**

City of St. Charles, IL



**Exhibit No. 2-10: West Basin – GPD/IDM of I/I (01/2012-10/2015)**

City of St. Charles, IL

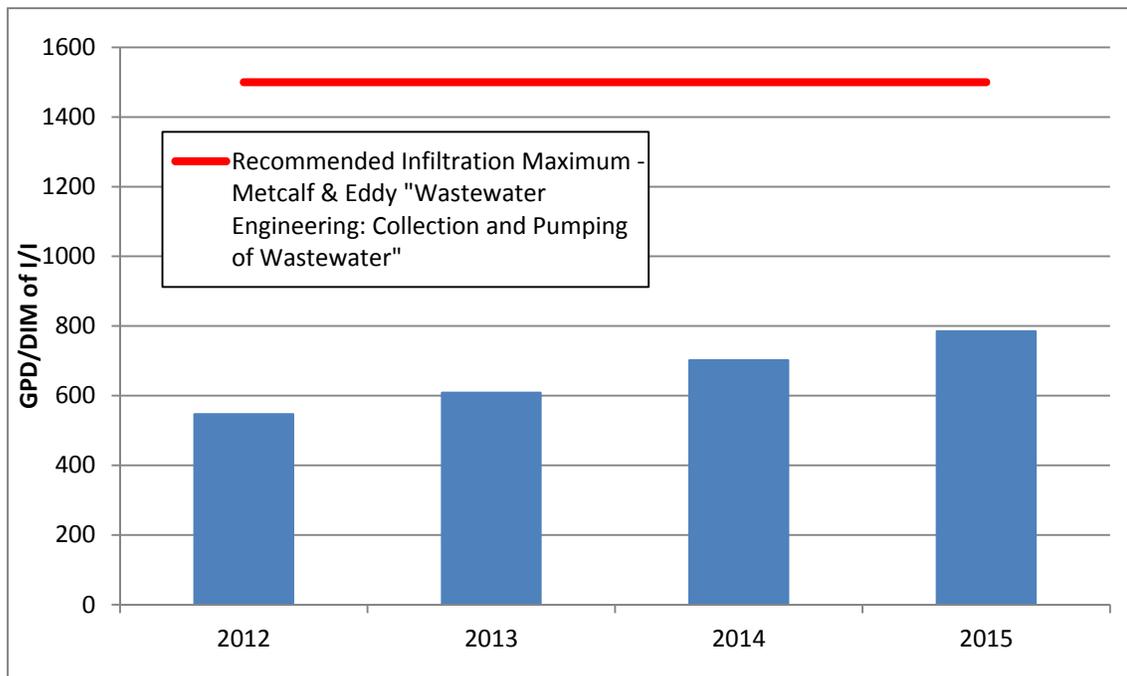




Table No. 2-5 summarizes the data used to create Exhibits 2-6 through 2-10. It includes average water use, wastewater flow, irrigation use, and I/I statistics over the last four years. While the water usage per capita is somewhat higher than average (100 gpcd), it should be noted that the City of St. Charles is home to several different industries, which should inflate water usage per capita, as industries typically use more water than residences.

**Table No. 2-5: Existing Water Use & Wastewater Flow Summary (01/2012-10/2015)**

City of St. Charles, IL

Parameter	Definition	East WWTP Subbasins	West WWTP Subbasins	All Subbasins
Average Daily Water Use	Annual Daily Average Water Use	3.361 MGD	0.426 MGD	3.788 MGD
Population Equivalents	Population Equivalents using the water in each basin	29,523 P.E.	3,744 P.E.	33,267 P.E.
Average Daily Water Use	Annual Daily Average Water Use	113.9 gpcd	113.9 gpcd	113.9 gpcd <sup>W</sup>
- Average Daily Indoor Water Use	Daily Average Water Use During Non-Irrigation Months (November - April)	2.954 MGD	0.366 MGD	3.320 MGD
> Annual Baseline Water Use	Average Daily Indoor Water Use For Entire Year	1079.0 MG	133.4 MG	1212.3 MG
- Average Daily Outdoor Water Use	Increase In Daily Average Water Use During Irrigation Months (May - October)	0.782 MGD	0.116 MGD	0.898 MGD
> Annual Irrigation Water Use	Increased Water Use Over Annual Baseline For May - October	143.5 MG	21.2 MG	164.7 MG
> Irrigation Water Use % Of Total Use	Total Annual Irrigation Water As Percentage of Total Annual Water Use	13.3 %	15.9 %	13.6 % <sup>W</sup>
Average Daily Total Wastewater Flow	Annual Daily Average Wastewater Flow	4.492 MGD	0.460 MGD	4.952 MGD
Average Daily Total Wastewater Flow	Annual Daily Average Wastewater Flow	152.2 gpcd	122.9 gpcd	148.9 gpcd <sup>W</sup>
- Average Daily Wastewater Baseflow	Annual Daily Average Domestic/Commercial/Industrial Wastewater Flow To WWTFs Excluding Irrigation	2.914 MGD	0.358 MGD	3.273 MGD
- Average Daily Wastewater Baseflow	Annual Daily Average Domestic/Commercial/Industrial Wastewater Flow To WWTFs Excluding Irrigation	98.7 gpcd	95.8 gpcd	98.4 gpcd <sup>W</sup>
- Average Daily Total I&I	Annual Daily Average I&I Within Sanitary Sewer Network	1.538 MGD	0.102 MGD	1.640 MGD
- Average Daily Total I&I	Annual Daily Average I&I Within Sanitary Sewer Network	53.4 gpcd	27.2 gpcd	50.5 gpcd <sup>W</sup>

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**Notes:**

Combined values noted with a <sup>W</sup> have totals that were weighted between the basins, all others are added between basins

The I/I analytics from the section should serve as a benefit to the City in: (1) confirming that I/I is a significant concern, (2) providing a numerical basis for the I/I issues in each basin, (3) providing a foundation for formulating a plan to address the I/I (and associated SSO) issues, and (4) providing metrics for future comparison in determining the impacts of remediation efforts. A proposed plan to address I/I issues is outlined in Section 3.



## Section 3: Activities of the CMOM

### 3.1 Goals of the CMOM Program

It is important when starting a new program, or even maintaining an existing one, to set realistic goals and ensure they are clearly communicated to all those involved. The goals for the St. Charles CMOM plan are as follows:

- a. Manage, operate, and maintain collection system to provide uninterrupted sanitary sewer service for all users in the service area.
- b. Comply with all state and federal regulations pertaining to the sanitary sewer system, including NPDES Permit special condition(s) related to the CMOM plan.
- c. Implement programs and procedures to reduce and mitigate the impact of sanitary backups and SSOs in the sanitary sewer system.
- d. Provide timely notification of SSOs to all persons with reasonable potential for exposure to pollutants.
- e. Ensure that new sewers are properly designed and installed.
- f. Identification and prioritization of capacity and structural deficiencies in the sanitary sewer system, and implementation of cost-effective rehabilitation action on identified and prioritized structural or capacity deficiencies.
- g. Receive, document, and respond to all user complaints or problems relating to the sanitary sewer system.
- h. Develop a written summary of the CMOM plan and perform required program audits.

### 3.2 Legal Authority

The collection system owner should have an understanding of the legal authority it possesses to create or enforce ordinances that will insure the system's compliance with pertinent regulatory requirements. Sewer use ordinances, pretreatment ordinances, regulatory codes, contracts, and service agreements are forms of legal documents that communities can utilize for this purpose. The legal authority typically extends to residential, commercial, and industrial customers.

#### 3.2.1 City Code

The City of St. Charles Code Book, which is available on the City's website, includes a section on Public Utilities (Title 13) and a subsection on Sewers (Chapter 13.12). In this chapter of the Code, regulations are detailed regarding each sewer user's responsibility and the authority of the City to enforce the regulations. Authority to administer, implement, and enforce the provisions of the chapter is given to the Director of Public Works, who in turn can delegate such powers to other City personnel.



The Code includes regulations on Overhead Sanitary Lines, illegal sanitary connections, grease control, prohibited discharges, and the Industrial Pretreatment Program. A copy of Chapter 13.12 – Sewers is included in Appendix C.

City Code specifies that the user is responsible for service connections from their building up to the point of the connection to the sewer main. The City is currently exploring whether to assume some responsibility for the services, either from the connection point to the Right of Way line or entirely to the building. Expanding the City's service line responsibilities would allow for better access to repair damaged services and reduce I/I, but would also result in a significant cost and resource burden for the City.

### 3.2.2 Other Authorities

While the City Code shall govern in most circumstances, there are other authorities that the City can utilize to ensure compliance. The national pretreatment program (40 CFR 403.5) is used as the basis for enforcing all pretreatment issues. Also, the “Standard Specifications for Water and Sewer Construction in Illinois” (latest edition) and Illinois Plumbing Code (Joint Committee on Administrative Rules, Administrative Code, Title 77, Chapter I, Subchapter r, Part 890 – Illinois Plumbing Code) can be used to supplement the City Code.

## **3.3 Planned O&M Activities**

As stated previously, SSO events can be caused by poor design, a clogged sewer due to fats, oils, and grease (FOG), I/I from large precipitation events, or general overload of the system. Sewer blockages, collapsed or broken sewers, structural or mechanical failures, insufficient conveyance capacity, or vandalism may also be causes for SSOs. A clear plan and schedule for handling O&M for the sanitary sewers, lift stations, and other equipment can save time and money in the maintenance of system. Therefore, it is vital that the City have a cogent O&M plan outlined.

### 3.3.1 Prior O&M Activity

In the past, the City has done a very thorough job of investigating issues by televising and lining portions of the sewer system. Table No. 3-1 outlines the amount of pipe that has been inspected (televised) and lined since 2009. Table No. 3-1 uses only active mains owned by the City of St. Charles to determine the amount of pipe that has been inspected and lined since 2009 (does not include private/service mains). Historically, the City has not categorized their televising assessments using NASSCO Coding Standards, but they plan to use this system in the future.



**TABLE NO. 3-1 LINING AND INSPECTION HISTORY**  
 City of St. Charles, Illinois

Year	Inspection History		Lining History	
	Miles Completed	% of System	Miles Completed	% of System
2009	2.09	1.21%	2.45	1.42%
2010	10.44	6.04%	1.38	0.80%
2011	25.93	15.00%	0.00	0.00%
2012	21.82	12.62%	0.51	0.30%
2013	15.02	8.68%	2.76	1.60%
2014	8.17	4.72%	0.00	0.00%
2015	10.37	6.00%	1.51	0.88%
<b>Totals</b>	<b>93.85</b>	<b>54.27%</b>	<b>8.63</b>	<b>4.99%</b>

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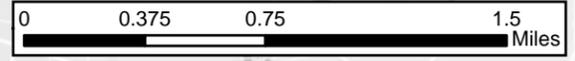
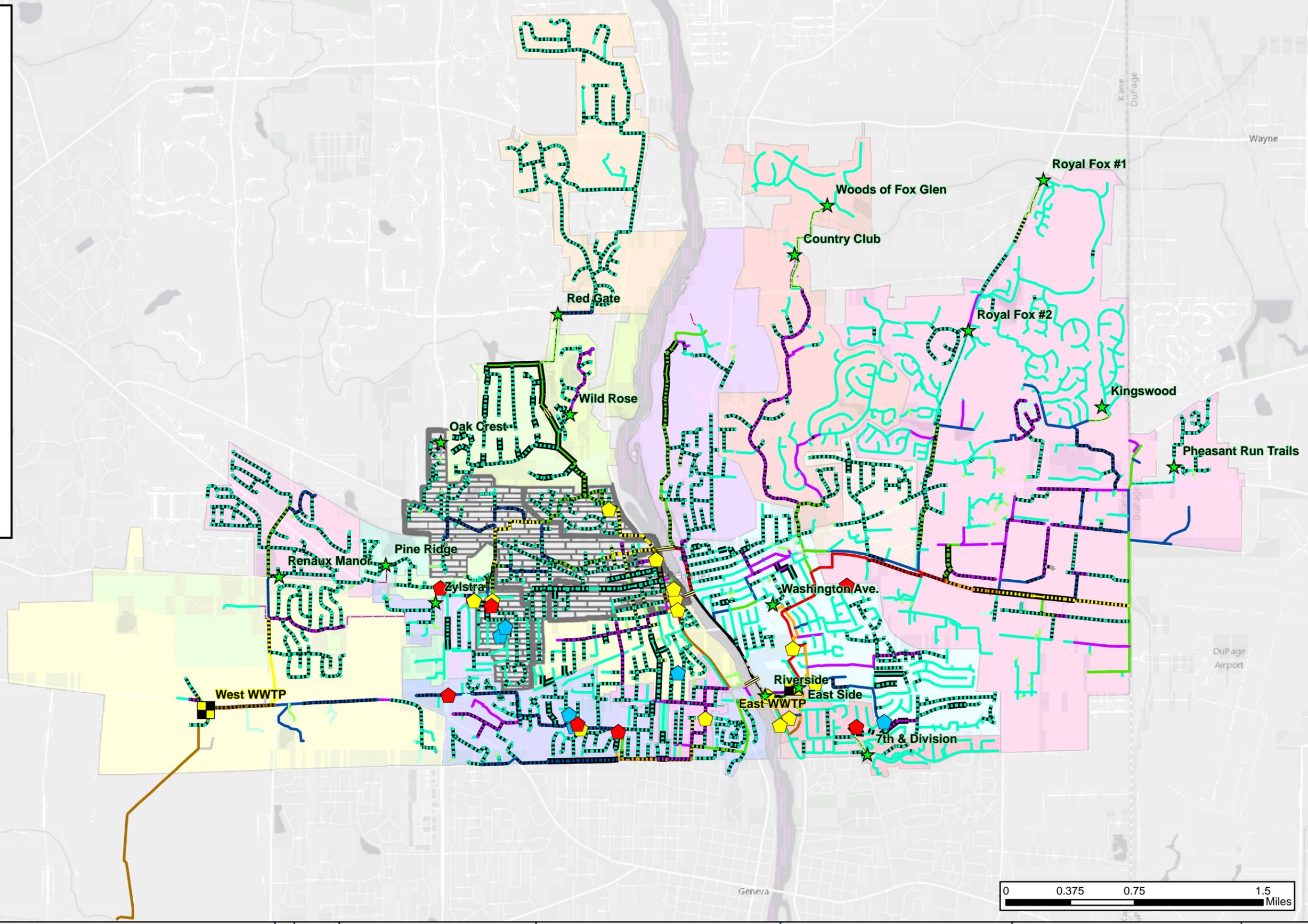
Exhibits 3-1 and 3-2A through 3-2D show all inspections and linings that have occurred since 2009, as well as sanitary sewer complaint and issue areas. The City has worked diligently in the past to place ensure sewer complaint and issue areas have been documented their GIS system. The documentation of complaints and issues in GIS ensures that any geographic patterns can be easily recognized.

**Legend**

- WWTPs
- Lift Stations
- Siphons
- City Emergency Pumping Sites - Past&Present
- Homeowner Sanitary Sewer Assistance Program Sites - 2010-2015
- Sanitary Sewer Backups - 2013-2015
- Suggested Areas for Inspection, RJN Reports - 2006&2009

**Sanitary Mains**

- No Size Listed
- 2"
- 4"
- 6"
- 8"
- 10"
- 12"
- 14"
- 15"
- 16"
- 18"
- 20"
- 21"
- 24"
- 27"
- 30"
- 36"
- Abandoned
- Force Mains
- Inspected - 2009-2015
- Lined - 2009-2015
- Inspected and Lined - 2009-2015



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 (630) 377-4400

NO.	DATE	REVISIONS

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PROJECT NO.:	SR1501
BY:	CLV
PATH:	H:\GIS\Public\St. Charles\2015\SR1501\Final\C. Recorded Event History Overview.1.mxd
FILE:	C. Recorded Event History Overview.1

**CMOM Plan**

**Exhibit 3-1  
 All Basins  
 Event History Overview**

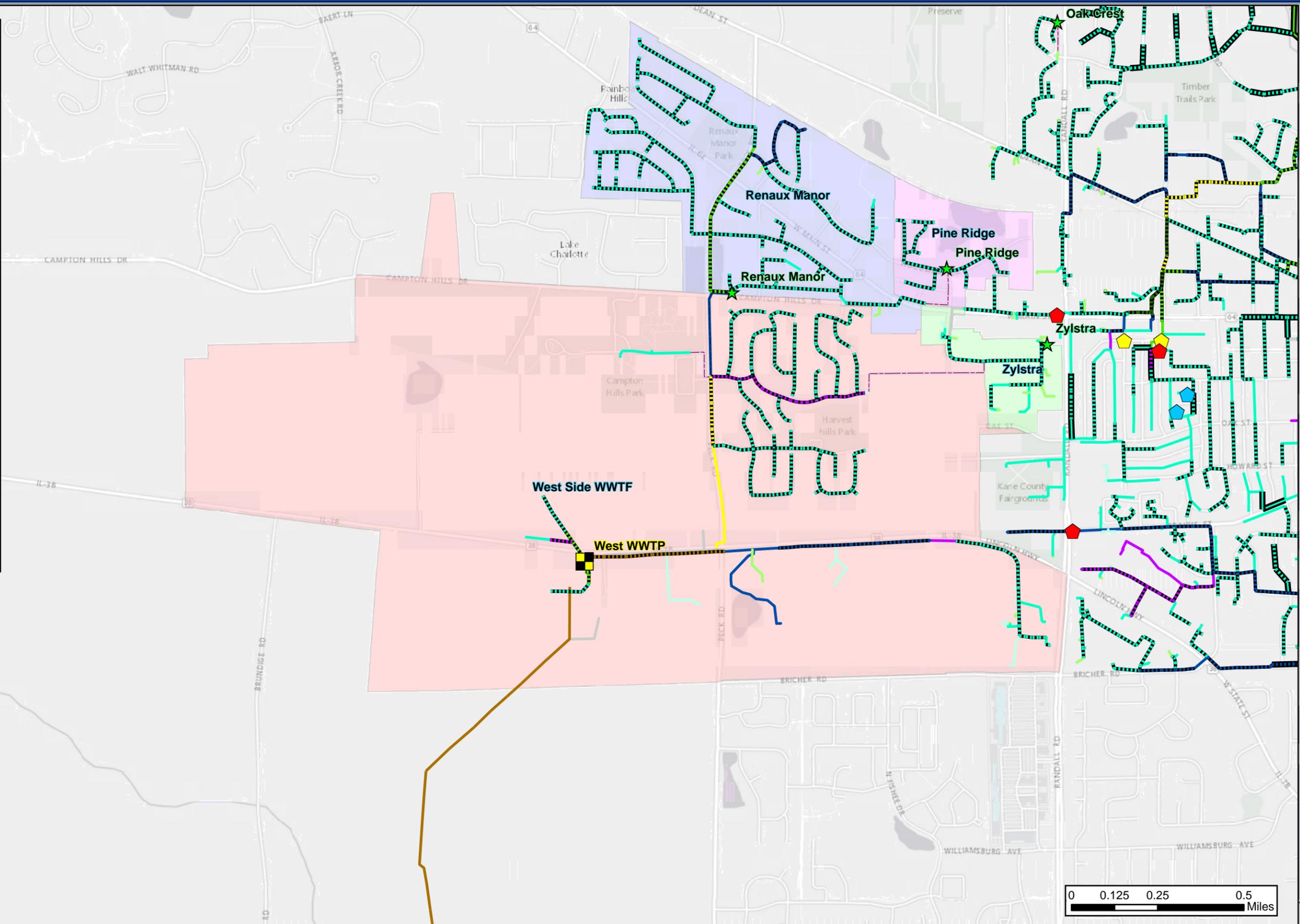


**Legend**

- Subbasin Names are Highlighted in Blue
- WWTPs
- Lift Stations
- Siphons
- City Emergency Pumping Sites - Past&Present
- Homeowner Sanitary Sewer Assistance Program Sites - 2010-2015
- Sanitary Sewer Backups - 2013-2015
- Suggested Areas for Inspection, RJN Reports - 2006&2009

**Sanitary Mains**

- No Size Listed
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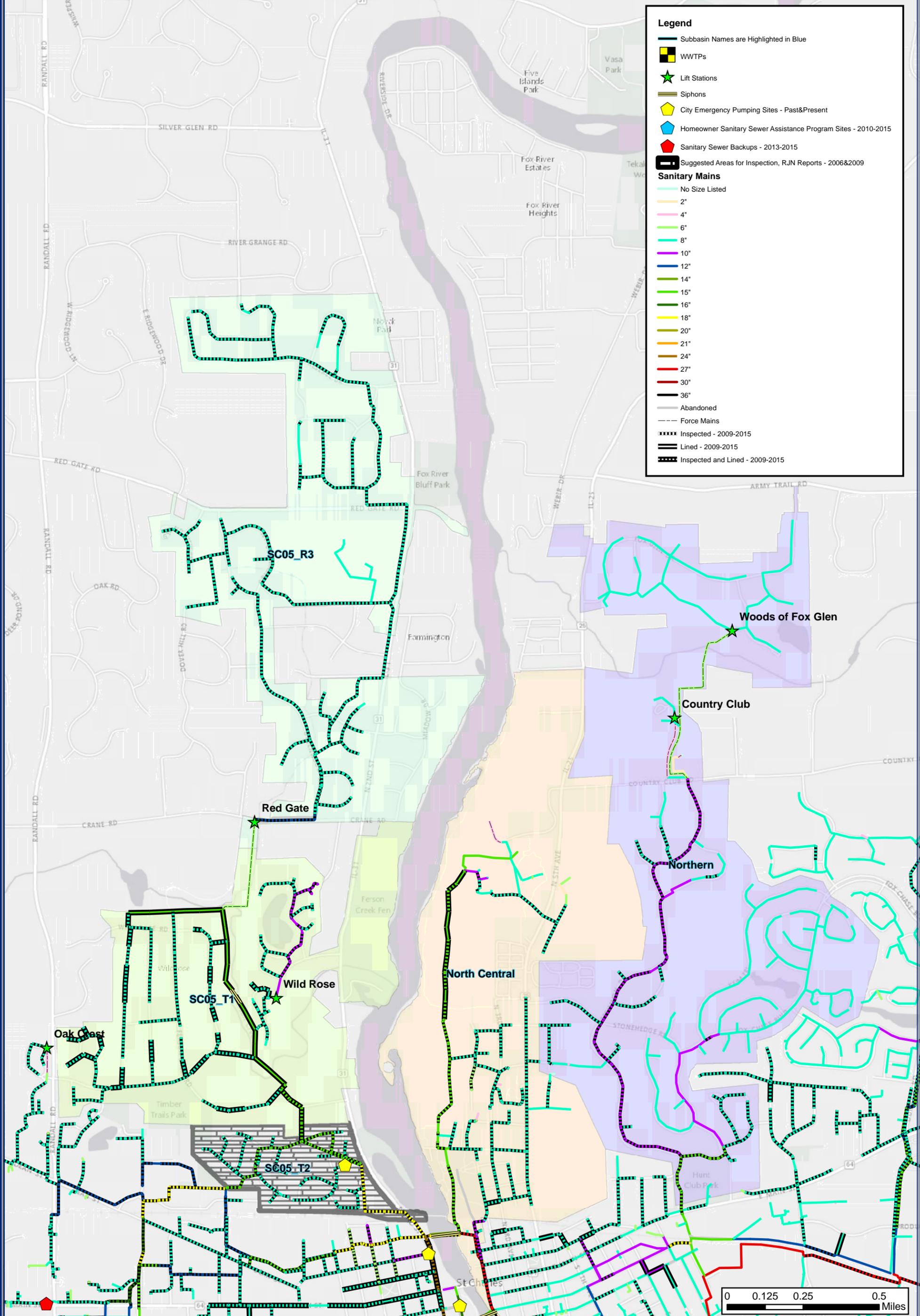
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BY:	CLV
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**CMOM Plan**

**Exhibit 3-2A**  
**Western Subbasins**  
**Event History**



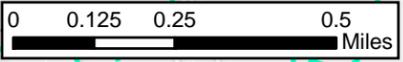


**Legend**

- Subbasin Names are Highlighted in Blue
- WWTPs
- Lift Stations
- Siphons
- City Emergency Pumping Sites - Past&Present
- Homeowner Sanitary Sewer Assistance Program Sites - 2010-2015
- Sanitary Sewer Backups - 2013-2015
- Suggested Areas for Inspection, RJN Reports - 2006&2009

**Sanitary Mains**

- No Size Listed
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- 20"
- 21"
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- Lined - 2009-2015
- Inspected and Lined - 2009-2015



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 BY: CLV  
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**CMOM Plan**

**Exhibit 3-2B  
 Northern Subbasins  
 Event History**

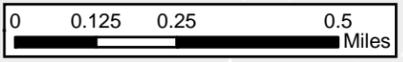
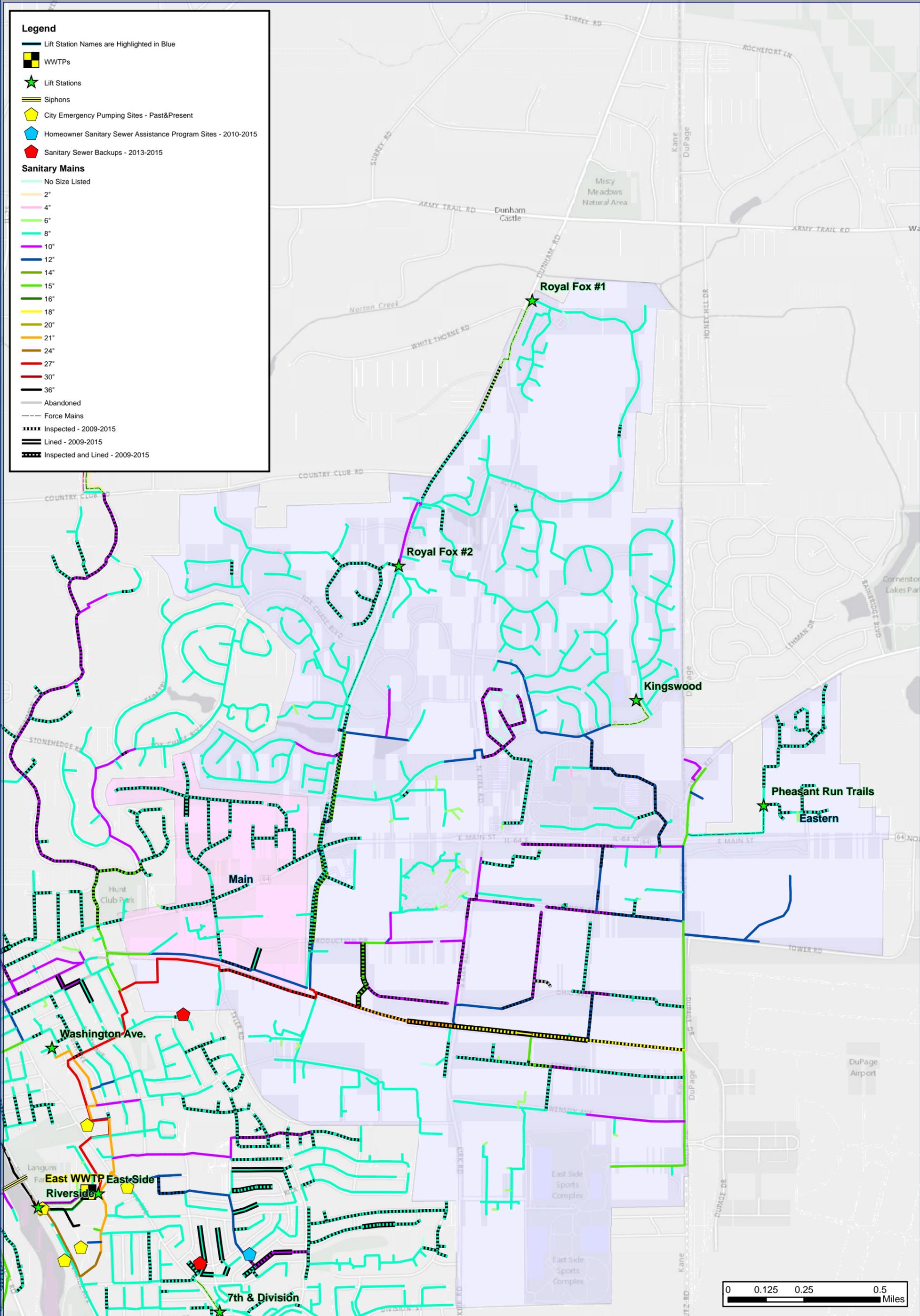


**Legend**

- Lift Station Names are Highlighted in Blue
- WWTPs
- Lift Stations
- Siphons
- City Emergency Pumping Sites - Past&Present
- Homeowner Sanitary Sewer Assistance Program Sites - 2010-2015
- Sanitary Sewer Backups - 2013-2015

**Sanitary Mains**

- No Size Listed
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- 4"
- 6"
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**CMOM Plan**

**Exhibit 3-2C  
 Eastern Subbasins  
 Event History**

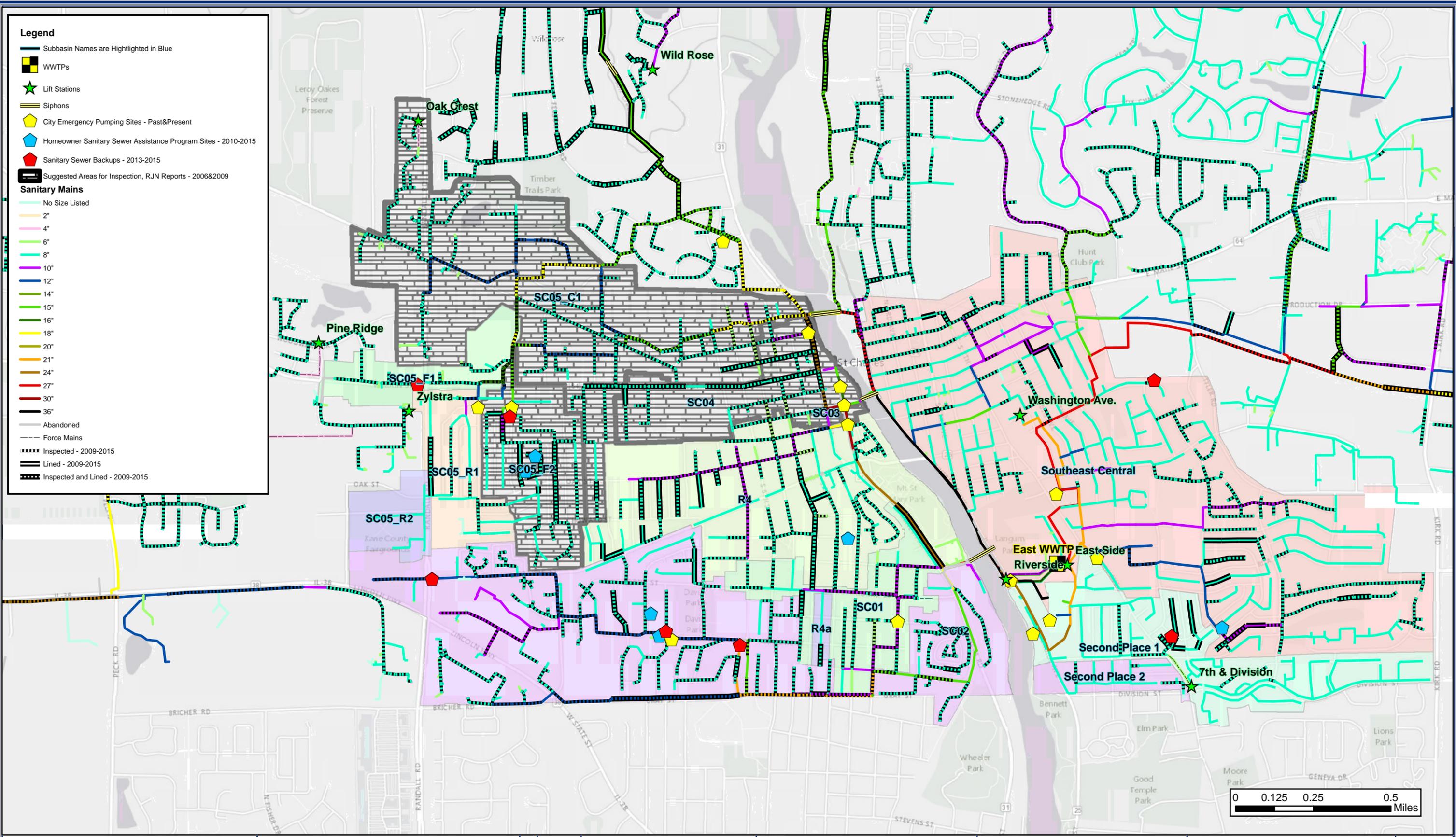


**Legend**

- Subbasin Names are Highlighted in Blue
- WWTPs
- Lift Stations
- Siphons
- City Emergency Pumping Sites - Past&Present
- Homeowner Sanitary Sewer Assistance Program Sites - 2010-2015
- Sanitary Sewer Backups - 2013-2015
- Suggested Areas for Inspection, RJN Reports - 2006&2009

**Sanitary Mains**

- No Size Listed
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- 4"
- 6"
- 8"
- 10"
- 12"
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NO.	DATE	REVISIONS

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FILE:	D4 South SubBasins Event History.1

**CMOM Plan**

**Exhibit 3-2D  
 Southern Subbasins  
 Event History**





3.3.2 Planned Sanitary Sewers O&M – Due to the City's diligence in inspection and lining, many of the high priority infiltration areas have been remedied. At this time, while control of infiltration through the existing inspection/lining program should not be abandoned, it appears that targeting inflow would have the greatest impact in reducing I/I and the related SSOs.

Identifying and rehabilitating high inflow areas should be accomplished in a phased approach. A three phased approach for an area of the sewer system would be accomplished by flow monitoring within a selected area one year, inspecting the portions of that area which exhibit the highest amount of I/I during the following year (Step 2), and then performing mitigation work the year after that (Step 3). A general description of the steps in each of these years is as follows.

1. Several flow meters (approximately one for every 15,000 LF to 20,000 LF of piping) will be placed in a selected area. These flow meters will be used to track flow behavior during dry and wet periods. Excess flow would be indicative of I/I in the sanitary main tributary to the flow meter. Due to the complexity of the flow meter data, the analysis of the data could be contracted out to a company that specializes in the analysis of such data.
2. Based on the results of the flow meters placed in step one, the portions of the area which have the most I/I will be tested using smoke testing, dye testing, visual inspections, and/or any other appropriate means to determine the source of the I/I.
3. The sanitary sewer system will be rehabilitated as necessary to remove the sources of I/I. The rehabilitation may include disconnection of storm drains from sanitary sewer mains, disconnection of sump pumps or other personal property clear water sources from the sanitary sewer mains, lining of the sewer or manholes, repairing cleanout caps, or other rehabilitation practices.

Typical I/I reduction program inspections methods (Step 2) include manhole inspections, smoke testing, dye water flooding and televising, and these inspections are generally characterized in the industry as the field work associated with a Sewer System Evaluation Survey (SSES). While these methods may not be popular with some property owners, they are cost effective ways to find areas of inflow. A public education and awareness effort by the City may help mitigate concerns with these inspections.

Because the precise I/I sources are generally unknown, it is vital to inspect all mains and rehabilitate the deficient sections as necessary. However, inspecting and rehabilitating all mains in the system is a time consuming and very costly endeavor. Therefore, a plan should be created to allow for a strategic inspection and rehabilitation program over a period of time. In order to establish a reasonable plan to inspect and rehabilitate all sewer mains, the sewers were divided into 13 "Annual Subbasins". An Annual Subbasin can be one of the original 25 subbasins (See Table No. 1) or a combination of multiple subbasins. Each Annual Subbasin was created with the goal of evenly distributing the total lineal footage of sewers across 13 areas, thus evenly distributing the costs and resources associated with the plan. See Exhibit 3-3 for the Annual Subbasins.



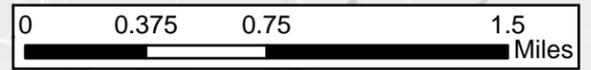
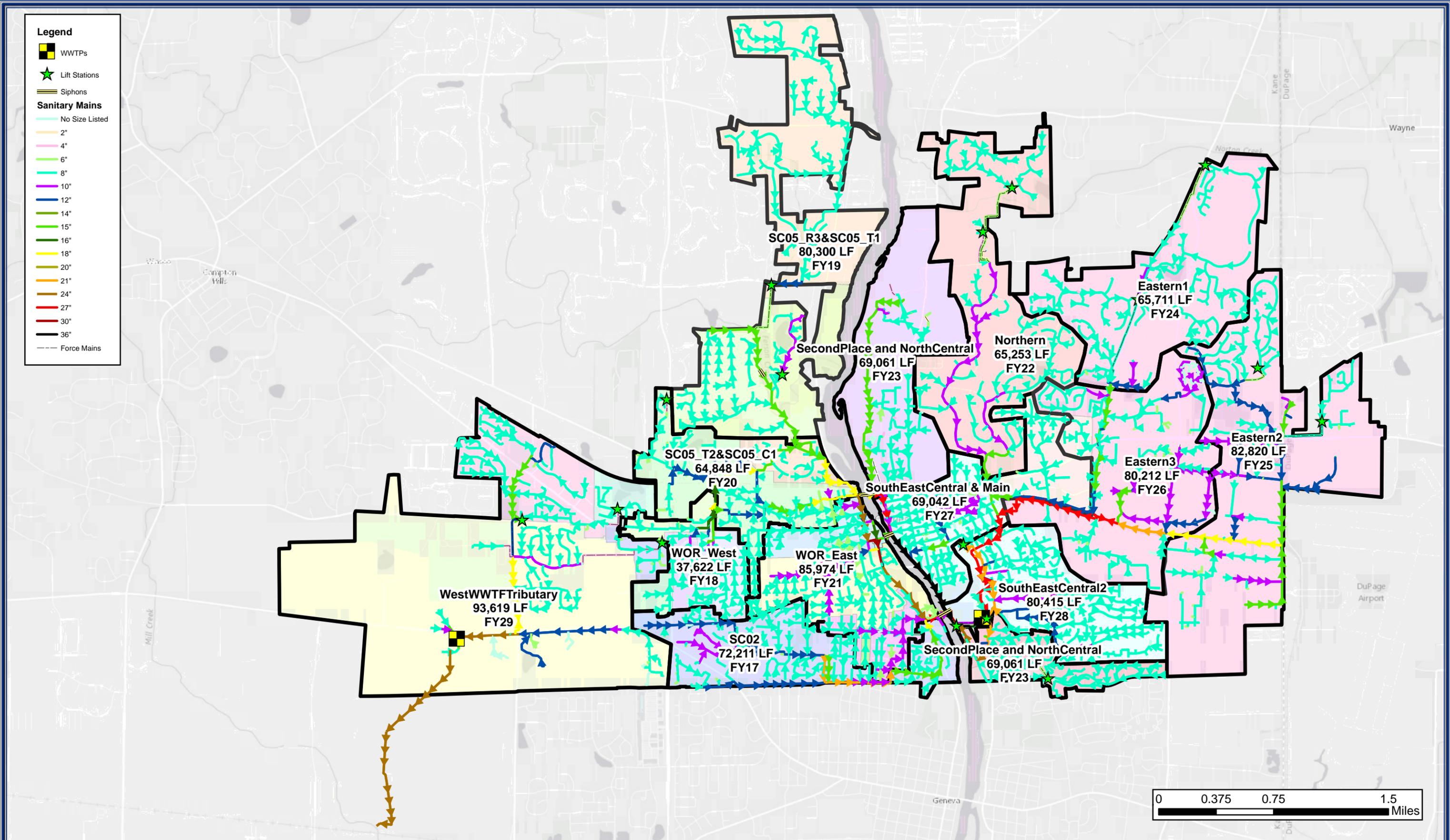
The three step program will occur over the course of three years for each Annual Subbasin; and the steps for the Annual Subbasins will overlap each other such that work in up to three Annual Subbasins could be occurring at one time. As monitoring occurs in one Annual Subbasin, SSES work would be occurring in another Annual Subbasin, and rehabilitation work would be occurring in a separate Annual Subbasin. The goal with this approach is to complete monitoring, SSES, and rehabilitation efforts in a phased manner throughout the entire collection system within 15 years.

The use of rotating steps through years makes effective use of the budget as well as personnel resources. Exhibit 3-3 and Table No. 3-2 outline the proposed order in which flow monitoring in the Annual Subbasins should be initiated (Step 1). Table No. 3-3, in the Budgeting section below, displays the year each annual subbasin will complete steps 1, 2, and 3 as well as the budget for each year.

When determining the order to complete O&M work in the Annual Subbasins, the number of basins tributary to the basin in question, as well as the presumed quality of the subbasin, affected the order. Annual Subbasins that have no tributary lines generally give more clear inclinations of health or distress rather than subbasins that have large upstream tributaries, and thus are higher on the priority list. This priority listed should be reordered by the City in future years as new circumstances may dictate.

**Legend**

-  WWTPs
-  Lift Stations
-  Siphons
- Sanitary Mains**
-  No Size Listed
-  2"
-  4"
-  6"
-  8"
-  10"
-  12"
-  14"
-  15"
-  16"
-  18"
-  20"
-  21"
-  24"
-  27"
-  30"
-  36"
-  Force Mains



**Engineering Enterprises, Inc.**  
 52 Wheeler Road  
 Sugar Grove, Illinois 60554  
 (630) 466-6700  
 www.eeiweb.com

**City of St. Charles**  
 2 East Main Street  
 St. Charles, IL 60174  
 (630) 377-4400

DATE:	2/23/2016
PROJECT NO.:	SR1501
BY:	CLV
PATH:	H:\GIS\Public\Saint Charles\2015\SR1501\Final\E_SSES Plan.mxd
FILE:	E_SSES Plan
NO.	DATE

**CMOM Plan**

**Exhibit 3-3  
 All Basins  
 SSES Plan**





**Table No. 3-2: Annual Subbasin Designations and Metrics**  
City of St. Charles, IL

Implementation Start	Annual Subbasin	Annual Subbasin Active Gravity and Force Mains (LF)	Subbasin	Subbasin Active Gravity and Force Mains (LF)	Tributary Annual Subbasins
FY17	SC02	72,211	SC02	72,211	WOR - East
FY18	WOR - West	37,622	SC05 R2	3,021	None
			SC05 R1	9,916	
			SC05 F2	17,960	
			SC05 F1	6,724	
FY19	SC05_R3 & SC05_T1	80,300	SC05 R3	45,422	None
			SC05 T1	34,878	
FY20	SC05_T2 & SC05_C1	64,848	SC05 T2	14,856	SC05_R3 & SC05_T1
			SC05 C1	49,992	
FY21	WOR - East	85,974	SC04	17,726	SC05_T2 & SC05_C1, SC02, SC05_R3 & SC05_T1, WOR - West
			R4	47,387	
			R4a	1,271	
			SC03	522	
			SC01	19,068	
FY22	Northern	65,253	Northern	65,253	None
FY23	SecondPlace And NorthCentral	69,061	Second Place 1	31,082	None
			Second Place 2	5,267	
			North Central	35,818	
FY24	Eastern 1	65,711	Eastern	224,293	None
FY25	Eastern 2	82,820	Eastern	224,293	None
FY26	Eastern 3	80,212	Eastern	224,293	Eastern 1, Eastern 2
FY27	SouthEastCentral and Main	69,042	Main	21,163	Eastern 1, Eastern 2, Eastern 3, Northern, Second Place and
			Southeast Central	129,750	
FY28	SouthEastCentral2	80,415	Southeast Central	129,750	Eastern 1, Eastern 2, Eastern 3, Northern, Second Place and North Central, SouthEastCentral and Main
FY29	WestWWTFtributary	93,619	Pine Ridge	6,126	None
			Zylstra	6,945	
			Renaux manor	32,007	
			West Side WWTF	48,541	

G:\Public\St. Charles\2015\SR 1501RFQ CMOM Plan\Eng\Division of Basins.xls\Organization (2)

Assumedly Step 3, rehabilitation, would resolve many of the I/I issues for each Annual Subbasin. The proof of the rehabilitation success could be measured in the difference in the peaking data of the influent at the WWTF. This can be done by continuing to update the charts/graphs prepared in Section 2.2.2. If the resources from the City allow, after rehabilitation in an area, a flow meter may be placed at a point that had been monitored prior to rehabilitation in order to give more definite confirmation that the rehabilitation has been effective.

**3.3.3 Planned Lift Stations Improvement Projects** – As seen in Appendix B (Lift Stations Overview), many of the 16 lift stations owned and operated by the City are in good to excellent condition. However, some of the lift stations are in need of rehabilitation in the near future. The condition of these lift stations can be found in Appendix B, under the “Maintenance” column. Information regarding the monetary resources attributed to the lift stations each year, and a general prioritization of the improvements can also be found in the budgeting section (3.5).



**3.3.4 Planned Equipment O&M** - Regular and preventative maintenance can extend the life of equipment, so it is important to perform this maintenance as needed. The NPDES Permit special condition that details the CMOM requirements states that the City must document all preventative maintenance as well as any correlating schedules or checklists detailing or ensuring preventative maintenance. This would include preventative maintenance to lift station equipment (not specifically identified as a Capital Improvement Project), bypass pumping equipment (Table No. 2-3), and other sewer maintenance equipment (Table No. 2-4). Table No. 3-4 in the budgeting section (3.5) outlines the preventative equipment maintenance budget for these items.

### **3.4 Emergency O&M Activities**

The City of St. Charles will encounter various unplanned activities and emergencies. These activities can include response to a user complaint, failure of a lift station component, the collapse of a sanitary sewer, or SSOs due to a large rain event.

**3.4.1 Notification of the Issue** - It is important to have a system for logging an issue or evaluating complaints that will find and track the ultimate cause of the issue. This procedure would be similar for a user complaint or an issue identified by City Staff.

- a. Calls are received by public works administrative staff during business hours or police dispatch during non-business hours.
- b. During the call administrative staff or police dispatch fill out the top section of the problem/complaint form that includes problem location, contact information, and a brief description of the problem. Information is saved electronically on the City's computer network system.
- c. The administrative staff or police dispatch contacts Operations Staff (sewer Crew) to respond to the problem/complaint by radio during normal house of operations. They contact emergency call-out person for calls received during non-business hours.
- d. Operations staff responds and completes the middle section of the problem/complaint form on a paper version that they will carry with them in their vehicles. They must fill in a description of what they observed and what response they made to the problem.
- e. Hard copies of the reports are filed in the office of the Sewer Assistant Division Manager. The City is currently working towards an electronic filing system for the reports.
- f. Operations staff coordinates with the City's GIS Department to track the location of the problem/complaint.

### **3.4.2 Treatment of the Issue**

When a problem occurs, one or more personnel are dispatched to the problem areas. In the case of large precipitation events causing SSOs, personnel may wait until they are called to a site or go out preemptively, depending on dictating circumstances. Personnel will treat the issue, if possible, using the best practices. If the personnel cannot identify the problem source or effectively treat the problem, further analysis may be required, and this would be coordinated through the Division Manager.



### 3.4.3 Documentation

Currently, documentation of most problems and solutions exists inside 3-ring binders rather than electronically. When an SSO occurs, the City must create a record of the event using the forms in the SSO notification reporting policy (Appendix E). If SSOs occur at more than one location during one precipitation event, a form must be filled out for each location at which an SSO occurred. Additionally, depending on the incident, the City may be required to communicate with third party entities. This information can be found in section 3.8. The form filled out for the City is kept in Sewer Assistant Division Manager's Office for five years. The City is currently evaluating digital options for record keeping and archiving the Sanitary Sewer Overflow Documents.

## **3.5 Budgeting**

The efficient and proper use of monetary funds is vital for the success of the CMOM. Section 3.5 will review the historical O&M budget, as well as review the O&M budget for the upcoming years of the CMOM plan.

### 3.5.1 Prior O & M Activities Budget

Historically, a televising system, in conjunction with SSO information, was used to determine the priority of each sewer lining project. The City of St. Charles currently spends between \$250,000 and \$350,000 per year to line the sewers. At the time of this report, many priority areas have been lined and the Public Works department is working systematically around the City to televise and potentially line much of the remaining VCP and other problematic areas in the next five to eight years, and then continuing to cycle through previously addressed areas in the following years.

The City currently owns two flow meters, which they are using to monitor flows in areas with known high I/I. The planned O&M program will call for the use of several flow meters per year. If the City so desires, they may use their existing flow meters for the planned O&M activities, and/or supplement them with additional purchased meters.

### 3.5.2 Planned O & M Activities Budget

In order to maintain an effective O&M program, the City of St. Charles must have a planned budget. Although the City plans their budget out four years in advance, the CMOM budget plan extends 15 years into the future. This budget will allow the City to allocate the funds to rehabilitate the entire basin's worth of sewers and manholes in 15 years. Note that the budget assumes a 3% per year inflation rate and the budget values are rounded up to the nearest hundred dollars. The first year of the SSES program (FY17), only step one will be used, and for the second year of the program (FY18), only step one and two will be used, year three (FY19) will be the first year the full budget is in swing.

*3.5.1.1 Sanitary Sewer System Budget* - As stated in section 3.3.2, the O&M activities will involve three steps for each annual basin; however, it does not include the budget for rehabilitation of lift stations, upkeep of equipment, or employee training.



When planning and budgeting rehabilitation work, it is important to remember that the residents own their sanitary sewer lines out to the connection to the public sanitary sewer. Any rehabilitation work regarding pipe between the public sanitary sewer and the residence is considered to be the responsibility of the resident.

**Table No. 3-3: Subbasin Evaluation and Rehabilitation - Phased Implementation Budget Tracking**

City of St. Charles, IL

Year	Step 1: Flow Monitoring				Step 2: Sewer System Evaluation Survey				Step 3: Rehabilitation				Totals		
	Annual Subbasin	Budgeted Cost	Actual Cost	Budget Evaluation	Annual Subbasin	Budgeted Cost	Actual Cost	Budget Evaluation	Annual Subbasin	Budgeted Cost	Actual Cost	Budget Evaluation	Total Budgeted Cost	Total Actual Cost	Budget Evaluation
FY17	SC02	\$ 75,000			-	\$ -			-	\$ -			\$ 75,000		
FY18	WOR - West	\$ 77,300			SC02	\$ 103,000			-	\$ -			\$ 180,300		
FY19	SC05_R3 & SC05_T1	\$ 79,600			WOR - West	\$ 106,100			SC02	\$ 371,400			\$ 557,100		
FY20	SC05_T2 & SC05_C1	\$ 82,000			SC05_R3 & SC05_T1	\$ 109,300			WOR - West	\$ 382,500			\$ 573,800		
FY21	WOR - East	\$ 84,500			SC05_T2 & SC05_C1	\$ 112,600			SC05_R3 & SC05_T1	\$ 394,000			\$ 591,100		
FY22	Northern	\$ 87,000			WOR - East	\$ 116,000			SC05_T2 & SC05_C1	\$ 405,800			\$ 608,800		
FY23	SecondPlace And NorthCentral	\$ 89,600			Northern	\$ 119,500			WOR - East	\$ 418,000			\$ 627,100		
FY24	Eastern 1	\$ 92,300			SecondPlace And NorthCentral	\$ 123,000			Northern	\$ 430,500			\$ 645,800		
FY25	Eastern 2	\$ 95,100			Eastern 1	\$ 126,700			SecondPlace And NorthCentral	\$ 443,400			\$ 665,200		
FY26	Eastern 3	\$ 97,900			Eastern 2	\$ 130,500			Eastern 1	\$ 456,700			\$ 685,100		
FY27	SouthEastCentral and Main	\$ 100,800			Eastern 3	\$ 134,400			Eastern 2	\$ 470,400			\$ 705,600		
FY28	SouthEastCentral2	\$ 103,900			SouthEastCentral and Main	\$ 138,500			Eastern 3	\$ 484,500			\$ 726,900		
FY29	WestWWTFtributary	\$ 107,000			SouthEastCentral2	\$ 142,600			SouthEastCentral and Main	\$ 499,100			\$ 748,700		
FY30	WOR - West	\$ 110,200			WestWWTFtributary	\$ 146,900			SouthEastCentral2	\$ 514,000			\$ 771,100		
FY31	SC05_R3 & SC05_T1	\$ 113,500			WOR - West	\$ 151,300			WestWWTFtributary	\$ 529,500			\$ 794,300		
<b>Totals:</b>		<b>\$ 1,395,700</b>	<b>\$ -</b>	<b>\$ -</b>		<b>\$ 1,760,400</b>	<b>\$ -</b>	<b>\$ -</b>		<b>\$ 5,799,800</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 8,955,900</b>	<b>\$ -</b>	<b>\$ -</b>

\*Total budgeted cost is measured through 2030, Actual Cost and Budget Evaluation is measured to date

\*Budgeted Costs are based on 2016 Dollars with an assumed 3% annual inflation rate

\*Budgeted Costs are rounded up to the nearest hundred dollars



**3.5.1.2 Lift Station Budget** – The lift station budget covers the O&M needed to maintain the lift stations each year as well as the rehabilitation or replacement any of the lift stations as needed. There is currently a budget of \$72,000 per year for lift station rehabilitation and replacement activities. The present candidates for rehab are: Riverside, 7<sup>th</sup> and Division, Country Club, Pheasant Run Trails, and Wild Rose lift stations. More information regarding planned rehabilitation for these lift stations can be found in Appendix B, Lift Stations Overview.

**3.5.1.3 O&M Budget** – The bypass pumping, maintenance, and other equipment for the sanitary sewers must also be maintained. This budget includes costs for the upkeep of equipment, as well as the purchase of new equipment. Over the next three years, St. Charles is planning to spend \$52,000 per year for purchase or rehabilitation of bypass pumps and a one-time, \$400,000 purchase for a new vac-truck. Recent major purchases include televising equipment and jetting equipment.

**3.5.3 Emergency O&M Activities Budget** - Because there will be unexpected maintenance for the sanitary sewer system, lift stations, and other equipment; it is prudent to know the resources that will be used to accommodate these sorts of funds. All emergency activity funds are included in the general O&M budget so there is not a specific contingency budget. If an emergency activity requires extra monetary aid, funds will be diverted from other categories in order to cover the emergency activity.

**3.5.4 Other Budget Items** – There are other items in the City's sewer budget for non-tangible assets, such as training or the Homeowner Sewer Assistance Program. These items, although non-tangible, are necessary for the sanitary sewer program.

The City of St. Charles has \$4,000 per year budgeted for safety and training. The items in this budget can include internal or external training programs for employees. The training of employees is further covered in section 3.6.3

The Homeowner Assistance Program assists homeowners who have encountered issues with SSOs or stormwater leaking into their residences. The program reimburses property owners up to fifty percent (50%) of the total project cost with a maximum contribution of \$2,500. Additional details for the Homeowner Sewer Assistance Policy are included in Section 3.7.2.

**3.5.5 Total Budget** – Table No. 3-4 includes a total budget overview table. This table only contains budgeting information related to the City's CMOM project. It does not include salary or benefit budgetary information for employees in the Sewer or Wastewater Divisions. Full information regarding the City's Sewer and Wastewater budget can be found on the City's website.

**Table No. 3-4: Overview of CMOM Sewer Budget (FY17 - FY20)**

City of St. Charles, IL

Year	Subbasin Evaluation and Rehabilitation			Lift Stations			O&M			Other			Totals		
	Budgeted Cost	Actual Cost	Budget Evaluation	Budgeted Cost	Actual Cost	Budget Evaluation	Budgeted Cost	Actual Cost	Budget Evaluation	Budgeted Cost	Actual Cost	Budget Evaluation	Budgeted Cost	Actual Cost	Budget Evaluation
FY17	\$ 75,000	\$ -		\$ 72,000			\$ 452,000			\$ 324,000			\$ 923,000	\$ -	
FY18	\$ 180,300	\$ -		\$ 72,000			\$ 52,000			\$ 324,000			\$ 628,300	\$ -	
FY19	\$ 557,100	\$ -		\$ 72,000			\$ 52,000			\$ 324,000			\$ 1,005,100	\$ -	
FY20	\$ 573,800	\$ -		\$ 72,000			\$ -			\$ 324,000			\$ 969,800	\$ -	
<b>Totals:</b>	<b>\$ 1,386,200</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 288,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 556,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,296,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 3,526,200</b>	<b>\$ -</b>	<b>\$ -</b>

Notes:

- 1) Budgeted Costs for 'Subbasin Evaluation and Rehabilitation' work are based on 2016 Dollars with an assumed 3% annual inflation rate
- 2) Budgeted Costs are rounded up to the nearest hundred dollars
- 3) 'Other' budgeted costs include safety and training (4k), the current lining costs (300k), and the current homeowner's sewer assistance program (20k)
- 4) Budget does not include Sewer and Wastewater Division personnel salaries and benefits



### 3.6 Employees, Training, and Safety

Part of the sanitary sewer system is the personnel that oversee and perform the maintenance on the system. Of course, it is vital that these employees are well trained in both the overall function and maintenance of the sanitary sewer system as well as job safety. Sanitary sewer systems contain many potential hazards such as harmful gases and enclosed spaces, and necessary training must be enforced to ensure the safety and well-being of the employees. Many different entities on the Public Works staff work together to maintain a functioning sewer system and a safe environment for employees.

3.6.1 Managerial Staff – In the event of an emergency situation, it may be required to contact managerial staff off-hours. See table No. 3-7 for a listing of the managerial staff and their contact information. In the event of an SSO, it is required to contact the City municipal managerial staff even if it is non-business hours. The staff should be called in the order listed; if one cannot be reached, the caller should call the next number on the list until someone can be reached.

**Table No. 3-5: City of St. Charles Municipal Contacts**  
City of St. Charles, IL

Order	Point of Contact	Position	Number
1	Michael Burnett	Environmental Services Division Manager	Cell: 630-816-6303 Office: 630-443-3925
2	John Lamb	Environmental Services Manager	Office: 630-377-4918
3	Christopher Adesso	Asst. Director Public Works - Operations	Office: 630-377-4459 Cell: 630-770-6475
4	Peter Suhr	Director of Public Works	Office: 630-377-4916 Cell: 630-667-6430

3.6.2 Employees - The City of St. Charles currently employs seven people in their sewer division and seven people in their wastewater division. There is a Wastewater Division Manager who supervises the Sewer Division and the Wastewater Division and there is an Environmental Services Manager that supervises the Water and Wastewater Division. The Sewer Division typically maintains the sewer collection system (piping and manholes). The Wastewater Division typically operates and maintains the lift stations and the two WWTF's. The Public Works Organization chart, complete with names, can be found in Appendix D.

3.6.3 Employee Training - Proper training is vital for the success of the CMOM, as well as for the best management of the Sanitary Sewer System. The City of St. Charles currently has five people who have completed NASSCO Pipeline Assessment & Certification Program (PACP) training and certificates. PACP training is useful for the knowledge of how to properly maintain and rehabilitate sewer lines, as it provides a



standardization of how sewer pipe conditions are evaluated. The PACP training certificates for all five (5) employees can be found in below in Table No. 3-6.

**Table No. 3-6: City of St. Charles PACP Certified Personnel**  
City of St. Charles, IL

Employee	Certification No.	Date Issued
Dave Todd	U-1115-07001972	01/29/2016
Randy Scott	U-1115-07001966	01/29/2016
Francisco Lopez	U-1115-07001968	01/29/2016
Tom Gette	U-1115-07001970	01/29/2016
Tim Moran	U-1115-07001971	01/29/2016

\*All certifications expire 3 years after date issued

The City also has two personnel who are scheduled to complete NASSCO's Manhole Assessment & Certification Program (MACP) training within the next year. Additionally, The City offers the following training sessions to its personnel on a frequent, rotating basis: lock out tag out (annual), safe lifting (annual), arc flash, flagger (mandatory), confined space entry, trenching and shoring, and other safety classes.

**3.7 Coordination with the Public**

While the sanitary sewer system is used by virtually everyone in St. Charles, not many users spend time thinking about it. When an issue, such as a basement backup, SSO, or malodorous smell occurs, it is vital that the individual with the concern is able to reach the right personnel in a reasonable amount of time. Additionally, it is necessary for the City to have communication guidelines in place for when rehabilitation activities or other non-emergency activities will affect the people of St. Charles.

3.7.1 Public Initiated Communication - In the case of an SSO or other sewer emergency, the public can reach the City of St. Charles by calling 630-443-3681. Sections 3.3 and 3.4 (O&M sections) outline the steps that are taken to alleviate SSOs and respond to other emergencies.

3.7.2 Homeowner Sewer Assistance Policy – The City of St. Charles approved a Homeowner Assistance Policy in October 2010 to offer financial assistance to residents that experience flooding due to sewer backups or storm water leakage. Eligible projects for the Homeowners Assistance Program for wastewater include installation of overhead sewers, stand pipes, or backflow devices; eligible projects for storm water include foundation water proofing, re-grading for improved drainage, drain tile and foundation wall repairs, and private storm sewer repairs. The Policy and its associated application forms are included in Appendix F. The Policy outlines the eligibility requirements, application process, and reimbursement process for this program.



**3.7.3 Notice Plans regarding SSOs and other Non-Compliance** - The City of St. Charles works to decrease the number of SSOs and non-compliances to the best of their ability. When an SSO or non-compliance occurs, the City must notify various third party entities of any issues, as described further in Section 3.8. The City should also notify affected residents of any issues related to SSO's. The City is currently evaluating options for public notification of SSO's.

**3.7.4 Notice Plans Regarding Planned Maintenance** - As mentioned previously in this report, the City of St. Charles may be performing smoke testing, dye testing, and other sanitary sewer rehabilitation work. These events will require communication with the residents in the affected areas to help alleviate public concerns about these projects. Communication with the public may include notice letters, door hangers, and the information may also be posted on the City's website.

**3.7.4.1 Smoke Testing** – The City of St. Charles may begin smoke testing as early as Fiscal Year (FY) 2018. Although smoke testing uses a substance that looks like actual smoke, it will not leave stains or cause harm to plants or animals. Due to the fact that any vapor can be an irritant, direct contact with the smoke may cause minor respiratory irritation in some people. Although the smoke is not harmful, it is important to create a public campaign in order to prevent people from thinking that the smoke testing from the sewers is from a real fire. It is also important for the public to know that smoke testing is not harmful to them or their belongings.

**3.7.4.2 Dye Testing** – Dye testing can be used to find or confirm illegal connections in the sanitary sewer system. Dye testing works by placing a dye into a certain point in the storm or sanitary sewer and tracking the dye through the system to see if the flow is as planned. If dye testing occurs on a residential property, the City must notify the residents ahead of time.

**3.7.4.3 Rehabilitation** – When problems are found in the sanitary sewer system and rehabilitation is required, the City needs to be cognizant of the affects that rehabilitation projects will have on residents that are near the rehabilitation site. Heavy machinery, road closings, or other setbacks may affect the residents negatively and unless proper communication is used, can lead to public backlash. When the City is planning on performing a major rehabilitation project, they will inform the residents ahead of time.

### **3.8 Third Party Notice Plans**

The NPDES permit which required the CMOM stated that the City must have a third party notice plan. Of course, different scenarios call for different third party notice plans.

**3.8.1 Notice Plans following SSOs or other non-compliances** – When an SSO occurs, City Staff should contact City Managers in the order seen in table 3-5. If the first person cannot be reached, the City staff should continue to the next person. It is the responsibility of the manager to contact the external agencies listed in this section; however, if the managerial staff cannot be reached city staff are responsible for contacting the external agencies. Appendix E contains the SSO Incident form for St. Charles as well as the SSO incident form for the IEPA. These forms are to be completed and filed for each SSO location and event.



3.8.1.1 *The City of Aurora* - Due to the fact that the City of Aurora, which is downstream of St. Charles on the Fox River, obtains a portion of its potable water from the Fox River, St. Charles must inform Aurora immediately when there is an SSO into the river. See Table No. 3-7 for the appropriate Aurora contacts.

**Table No. 3-7: City of Aurora Points of Contact**

City of St. Charles, IL

Order	Point of Contact	Number
1	General WTP number	630-256-3250
2	Operator I – Control Room	630-256-3264
3	Operator II – Control Room	630-256-3265
4	Operator I – mobile phone	630-327-6058
5	Operator II – mobile phone	630-327-1887

3.8.1.2 *IEPA, Des Plaines Regional Office* – When an SSO occurs, the City of St. Charles must alert the IEPA Des Plaines Regional Office. A phone call, fax, email, or voicemail must be made within 24 hours of the SSO. The number that the Des Plaines Regional Office can be reached at is 847-294-4000. This office can be called anytime, if IEPA staff is not available, the City staff must leave a detailed voice mail with the date and time of the SSO occurrence and the date and time of the call. Additionally, a form documenting the SSO must be completed by the Environmental Services Manager or Division Manager and sent to the IEPA within five days of the SSO. This form can be found in Appendix E. This reporting procedure must be followed for each incident location and for each event.

3.8.2 Notice Plans for Non-Emergency Events - The City of St. Charles has NPDES permits for both their East and West WWTFs. In Illinois, the NPDES permit, and therefore the CMOM, is regulated by the Illinois Environmental Protection Agency (IEPA). Depending on the circumstances and as applicable laws and procedures govern, the City may be required to report events to other entities, such as the Army Corps of Engineers, Illinois Pollution Control Board, or IEMA.



## Section 4: Updating and Auditing the CMOM

### 4.1 Updating the CMOM

It is mandated, based on the regulations set forth by the NPDES permit, that St. Charles monitors the effectiveness of the CMOM Program. This requires the City to frequently evaluate the system in order to see if their number of complaints, time of response for each complaint, time to resolve complaints, maintenance activities, etc. have followed a desirable trend. It is suggested to perform this evaluation annually. Some of the tables within the CMOM are meant to be updated each year with the latest data in order to observe trends. As part of this Report, the City will be provided all relevant digital spreadsheet files, so that the City will be able to update tables and exhibits; thus tracking their progress over the years.

### 4.2 Auditing the CMOM

Updating the CMOM ensures that the CMOM has the most recent information while auditing the CMOM means making sure the CMOM is still relevant and may involve adding or removing sections of the plan. Updating CMOM metrics can be done by anyone who has enough knowledge of the City’s collection system, while auditing the CMOM should be done only by those who have a strong background in CMOM activity and a comprehensive knowledge of the City’s collection system.

See Table No. 4-1 for a suggested table for tracking the CMOM audits as well as any changes that have occurred as a result of an audit.

**Table No. 4-1: CMOM Audit Chart**  
City of St. Charles, IL

Manual No.	Name	Entity	Date	Revisions Made
1.1	Joe Smith	City of St. Charles	6/30/2017	Updated sections 1.2 and 4.1



## References

- 1) **Phase 1 Report, St. Charles, West of the Fox River Flow Metering Project Draft Report**, Prepared by RJN, [Report]. – 2009
- 2) **Capacity Management Operation and Maintenance Plan (CMOM) -**  
[dnr.mo.gov/env/wpp/permits/docs/cmom-template.doc](http://dnr.mo.gov/env/wpp/permits/docs/cmom-template.doc)
- 3) **Quick Guide For Estimating Infiltration and Inflow -**  
<http://www3.epa.gov/region1/sso/pdfs/QuickGuide4EstimatingInfiltrationInflow.pdf> - 2014

# ***Appendix A***

## ***East WWTF NPDES Permit***



# ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217)782-2829

PAT QUINN, GOVERNOR

LISA BONNETT, DIRECTOR

217/782-0610

November 21, 2014

City of St. Charles  
Two East Main Street  
St. Charles, Illinois 60174

RECEIVED  
NOV 25 2014  
PUBLIC WORKS

Re: City of St. Charles  
City of St. Charles - Eastside WWTF  
NPDES Permit No. IL0022705  
Final Permit

Gentlemen:

Attached is the final NPDES Permit for your discharge. The Permit as issued covers discharge limitations, monitoring, and reporting requirements. Failure to meet any portion of the Permit could result in civil and/or criminal penalties. The Illinois Environmental Protection Agency is ready and willing to assist you in interpreting any of the conditions of the Permit as they relate specifically to your discharge.

The Agency has begun a program allowing the submittal of electronic Discharge Monitoring Reports (NetDMRs) instead of paper Discharge Monitoring Reports (DMRs). If you are interested in NetDMRs, more information can be found on the Agency website, <http://epa.state.il.us/water/net-dmr/index.html>. If your facility is not registered in the NetDMR program, a supply of preprinted paper DMR Forms for your facility will be sent to you prior to the initiation of DMR reporting under the reissued permit. Additional information and instructions will accompany the preprinted DMRs upon their arrival.

The attached Permit is effective as of the date indicated on the first page of the Permit. Until the effective date of any re-issued Permit, the limitations and conditions of the previously-issued Permit remain in full effect. You have the right to appeal any condition of the Permit to the Illinois Pollution Control Board within a 35 day period following the issuance date.

Should you have questions concerning the Permit, please contact Amy Dragovich at 217/782-0610.

Sincerely,

Alan Keller, P.E.  
Manager, Permit Section  
Division of Water Pollution Control

SAK:AAH:11020301.bah

Attachment: Final Permit

cc: Records  
Compliance Assurance Section  
Des Plaines Region  
Billing  
CMAP  
US EPA

4302 N. Main St., Rockford, IL 61103 (815)987-7760  
595 S. State, Elgin, IL 60123 (847)608-3131  
2125 S. First St., Champaign, IL 61820 (217)278-5800  
2009 Mall St., Collinsville, IL 62234 (618)346-5120

9511 Harrison St., Des Plaines, IL 60016 (847)294-4000  
5407 N. University St., Arbor 113, Peoria, IL 61614 (309)693-5462  
2309 W. Main St., Suite 116, Marion, IL 62959 (618)993-7200  
100 W. Randolph, Suite 10-300, Chicago, IL 60601 (312)814-6026

NPDES Permit No. IL0022705  
Illinois Environmental Protection Agency  
Division of Water Pollution Control  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, Illinois 62794-9276

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

Reissued (NPDES) Permit

Expiration Date: November 30, 2017

Issue Date: November 21, 2014  
Effective Date: December 1, 2014

Name and Address of Permittee:

City of St. Charles  
Two East Main Street  
St. Charles, Illinois 60174

Facility Name and Address:

City of St. Charles - Eastside WWTF  
East end of Devereaux Way  
St. Charles, Illinois  
(Kane County)

Receiving Waters: Fox River

In compliance with the provisions of the Illinois Environmental Protection Act, Title 35 of the Ill. Adm. Code, Subtitle C, Chapter I, and the Clean Water Act (CWA), the above-named Permittee is hereby authorized to discharge at the above location to the above-named receiving stream in accordance with the standard conditions and attachments herein.

Permittee is not authorized to discharge after the above expiration date. In order to receive authorization to discharge beyond the expiration date, the Permittee shall submit the proper application as required by the Illinois Environmental Protection Agency (IEPA) not later than 180 days prior to the expiration date.



Alan Keller, P.E.  
Manager, Permit Section  
Division of Water Pollution Control

SAK:AAH:11020301.bah

## NPDES Permit No. IL0022705

Effluent Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): B01 STP Internal Outfall

Load limits computed based on a design average flow (DAF) of 9.0 MGD (design maximum flow (DMF) of 18.35 MGD).

From the effective date of this Permit until the expiration date, the effluent of the above discharge(s) shall be monitored and limited at all times as follows:

<u>Parameter</u>	<u>LOAD LIMITS lbs/day</u> <u>DAF (DMF)*</u>			<u>CONCENTRATION</u> <u>LIMITS mg/L</u>			<u>Sample</u> <u>Frequency</u>	<u>Sample</u> <u>Type</u>
	<u>Monthly</u> <u>Average</u>	<u>Weekly</u> <u>Average</u>	<u>Daily</u> <u>Maximum</u>	<u>Monthly</u> <u>Average</u>	<u>Weekly</u> <u>Average</u>	<u>Daily</u> <u>Maximum</u>		
Flow (MGD)							Continuous	
CBOD <sub>5</sub> ** <sup>1</sup>	1501 (3061)	3002 (6122)		20	40		2 Days/Week	Composite
Suspended Solids <sup>1</sup>	1877 (3826)	3378 (6887)		25	45		2 Days/Week	Composite
pH	Shall be in the range of 6 to 9 Standard Units						2 Days/Week	Grab
Fecal Coliform***	The monthly geometric mean shall not exceed 200 per 100 mL (May through October)						5 Days/Week	Grab
Chlorine Residual						0.05	***	Grab
Ammonia Nitrogen:								
As (N)								
March-May/Sept.-Oct.	113 (230)		135 (275)	1.5		1.8	2 Days/Week	Composite
June-August	98 (199)		105 (214)	1.3		1.4	2 Days/Week	Composite
November-February	----		255 (520)	----		3.4	2 Days/Week	Composite
Total Nitrogen****	Monitor Only						1 Day/Month	Composite
Dissolved Phosphorus	Monitor Only						1 Day/Month	Composite
Nitrate/Nitrite	Monitor Only						1 Day/Month	Grab
Total Kjeldahl Nitrogen (TKN)	Monitor Only						1 Day/Month	Grab
Alkalinity	Monitor Only						1 Day/Month	Grab
Temperature	Monitor Only						1 Day/Month	Grab
Total Phosphorus (as P)*****		<u>Annual</u> <u>Average</u>			<u>Annual</u> <u>Average</u>		1 Day/Week	Composite
		75 (153)			1.0			
				<u>Monthly</u> <u>Average</u> <u>not less</u> <u>than</u>	<u>Weekly</u> <u>Average</u> <u>not less</u> <u>than</u>	<u>Daily</u> <u>Minimum</u>		
Dissolved Oxygen								
March-July				N/A	6.0	5.0	2 Days/Week	Grab
August-February				5.5	4.0	3.5	2 Days/Week	Grab

\*Load limits based on design maximum flow shall apply only when flow exceeds design average flow.

\*\*Carbonaceous BOD<sub>5</sub> (CBOD<sub>5</sub>) testing shall be in accordance with 40 CFR 136.

\*\*\*See Special Condition 10. During the weeks of Memorial Day, July Fourth and Labor Day, the sampling frequency shall be 3 Days/Week.

\*\*\*\*See Special Condition 15. Total Nitrogen shall be reported on the DMR as a daily maximum value.

\*\*\*\*\* See Special Condition 19. The annual phosphorus limit has been included in the permit pending the completion of the Fox River Implementation Plan.

NPDES Permit No. IL0022705

Effluent Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): B01 STP Internal Outfall (continued)

Flow shall be reported on the Discharge Monitoring Report (DMR) as monthly average and daily maximum.

Fecal Coliform shall be reported on the DMR as a monthly geometric mean. No more than 10% of the samples during the month shall exceed 400 per 100 ml.

Chlorine Residual shall be reported on the DMR as a daily maximum value.

pH shall be reported on the DMR as minimum and maximum value.

The rolling annual monthly average total phosphorus values shall be computed monthly beginning 12 months after the effective date of the permit and shall include the previous 12 months of data. The rolling annual monthly average, monthly average and daily maximum values for total phosphorus shall be reported on the DMR. The rolling annual monthly average shall be calculated by adding the sum of the total phosphorus monitoring values from the previous 12 months of data expressed in milligrams/liter and divided by the number of samples collected.

Dissolved Oxygen shall be reported on DMR as Minimum value.

<sup>1</sup>BOD<sub>5</sub> and Suspended Solids (85% removal required): In accordance with 40 CFR 133, the 30-day average percent removal shall not be less than 85 percent except as provided in Sections 133.103 and 133.105. The percent removal need not be reported to the IEPA on DMRs but influent and effluent data must be available, as required elsewhere in this Permit, for IEPA inspection and review. For measuring compliance with this requirement, 5 mg/L shall be added to the effluent CBOD<sub>5</sub> concentration to determine the effluent BOD<sub>5</sub> concentration.

NPDES Permit No. IL0022705

Effluent, Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): A01 Excess Flow Outfall (Flow in excess of 18.35 MGD)

These flow facilities shall not be utilized until the main treatment facility is receiving its design maximum flow (DMF)\* (flow in excess of 18.35 MGD).

From the effective date of this Permit until the expiration date, the effluent of the above discharge(s) shall be monitored and limited at all times as follows:

CONCENTRATION  
LIMITS (mg/L)

<u>Parameter</u>	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Sample Frequency</u>	<u>Sample Type</u>
Total Flow (MG)			Daily When Discharging	Continuous
BOD <sub>5</sub>		Monitor Only	Daily When Discharging	Grab
Suspended Solids		Monitor Only	Daily When Discharging	Grab
Ammonia Nitrogen (as N)		Monitor Only	Daily When Discharging	Grab
Total Phosphorus (as P)		Monitor Only	Daily When Discharging	Grab

\*An explanation shall be provided in the comment section of the DMR should these facilities be used when the main treatment facility is not receiving Design Maximum Flow (DMF). The explanation shall identify the reasons the main facility is at a diminished treatment capacity. Additionally, the Permittee shall comply with the provisions of Special Condition 7.

The duration of each A01 discharge and rainfall event (i.e., start and ending time) including rainfall intensity shall be provided in the comment section of the DMR.

Total flow in million gallons shall be reported on the Discharge Monitoring Report (DMR) in the quantity maximum column.

Report the number of days of discharge in the comments section of the DMR.

BOD<sub>5</sub> and Suspended Solids shall be reported on the DMR as a daily maximum value.

Ammonia Nitrogen shall be reported on the DMR as a daily maximum value.

Total Phosphorus shall be reported on the DMR as a daily maximum value.

## NPDES Permit No. IL0022705

Effluent, Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): 001 Combined Discharge from A01 and B01 Outfall

From the effective date of this Permit until the expiration date, the effluent of the above discharge(s) shall be monitored and limited at all times as follows:

Parameter	CONCENTRATION LIMITS (mg/L)		Sample Frequency	Sample Type
	Monthly Average	Weekly Average		
Total Flow (MG)			Daily When A01 is Discharging	Continuous
BOD <sub>5</sub> **	30	45	Daily When A01 is Discharging	Grab
Suspended Solids**	30	45	Daily When A01 is Discharging	Grab
pH	Shall be in the range of 6 to 9 Standard Units		Daily When A01 is Discharging	Grab
Fecal Coliform	The monthly geometric mean shall not exceed 200 per 100 mL		Daily When A01 is Discharging	Grab
Chlorine Residual	0.75		Daily When A01 is Discharging	Grab
Ammonia Nitrogen (as N)***	Monitor only		Daily When A01 is Discharging	Grab
Total Phosphorus (as P)	Monitor only		Daily When A01 is Discharging	Grab
Dissolved Oxygen	Monitor only		Daily When A01 is Discharging	Grab

\*An explanation shall be provided in the comment section of the DMR should these facilities be used when the main treatment facility is not receiving Design Maximum Flow (DMF). The explanation shall identify the reasons the main facility is at a diminished treatment capacity. Additionally, the Permittee shall comply with the provisions of Special Condition 7.

\*\*BOD<sub>5</sub> and Suspended Solids (85% removal required): In accordance with 40 CFR 133, the 30-day average percent removal shall not be less than 85 percent except as provided in Sections 133.103 and 133.105. The percent removal need not be reported to the IEPA on DMRs but influent and effluent data must be available, as required elsewhere in this Permit, for IEPA inspection and review. For measuring compliance with this requirement, 5 mg/L shall be added to the effluent CBOD<sub>5</sub> concentration to determine the effluent BOD<sub>5</sub> concentration.

\*\*\*See Special Condition 20.

Total flow in million gallons shall be reported on the Discharge Monitoring Report (DMR) in the quantity maximum column. Report the number of days of discharge in the comments section of the DMR.

Fecal Coliform shall be reported on the DMR as a monthly geometric mean. No more than 10% of the samples during the month shall exceed 400 per 100 ml.

Chlorine Residual shall be reported on the DMR as monthly average value.

pH shall be reported on the DMR as a minimum and a maximum value.

BOD<sub>5</sub> and Suspended Solids shall be reported on the DMR as a monthly and weekly average concentration.

A monthly average value for ammonia shall be computed for each month that A01 discharges beginning one month after the effective date of the permit. A monthly average concentration shall be determined by combining data collected from 001 and B01 (only B01 data from days when A01 is not discharging) for the reporting period. These monitoring results shall be submitted to the Agency on the DMR. Ammonia Nitrogen shall also be reported on the DMR as a maximum value.

A monthly and weekly average value for Dissolved Oxygen (DO) shall be computed for each month that A01 discharges beginning one month after the effective date of the permit. The monthly and weekly average concentrations for 001 shall be determined by combining data collected from 001 and B01 (only B01 data from days when A01 is not discharging) for the reporting period. These monitoring results shall be submitted to the Agency on the DMR. DO shall also be reported on the DMR as a minimum value.

Total Phosphorus shall be reported on the DMR as a maximum value.

NPDES Permit No. IL0022705

Influent Monitoring, and Reporting

The influent to the plant shall be monitored as follows:

<u>Parameter</u>	<u>Sample Frequency</u>	<u>Sample Type</u>
Flow (MGD)	Continuous	
BOD <sub>5</sub>	2 Days/Week and Daily When Outfall A01 is Discharging	Composite
Suspended Solids	2 Days/Week and Daily When Outfall A01 is Discharging	Composite

Influent samples shall be taken at a point representative of the influent.

Flow (MGD) shall be reported on the Discharge Monitoring Report (DMR) as monthly average and daily maximum.

BOD<sub>5</sub> and Suspended Solids shall be reported on the DMR as a monthly average concentration.

Special Conditions

SPECIAL CONDITION 1. This Permit may be modified to include different final effluent limitations or requirements which are consistent with applicable laws and regulations. The IEPA will public notice the permit modification.

SPECIAL CONDITION 2. The use or operation of this facility shall be by or under the supervision of a Certified Class1 operator.

SPECIAL CONDITION 3. The IEPA may request in writing submittal of operational information in a specified form and at a required frequency at any time during the effective period of this Permit.

SPECIAL CONDITION 4. The IEPA may request more frequent monitoring by permit modification pursuant to 40 CFR § 122.63 and Without Public Notice.

SPECIAL CONDITION 5. The effluent, alone or in combination with other sources, shall not cause a violation of any applicable water quality standard outlined in 35 Ill. Adm. Code 302.

SPECIAL CONDITION 6. The Permittee shall record monitoring results on Discharge Monitoring Report (DMR) Forms using one such form for each outfall each month.

In the event that an outfall does not discharge during a monthly reporting period, the DMR Form shall be submitted with no discharge indicated.

The Permittee may choose to submit electronic DMRs (NetDMRs) instead of mailing paper DMRs to the IEPA. More information, including registration information for the NetDMR program, can be obtained on the IEPA website, <http://www.epa.state.il.us/water/net-dmr/index.html>.

The completed Discharge Monitoring Report forms shall be submitted to IEPA no later than the 25th day of the following month, unless otherwise specified by the permitting authority.

Permittees not using NetDMRs shall mail Discharge Monitoring Reports with an original signature to the IEPA at the following address:

Illinois Environmental Protection Agency  
Division of Water Pollution Control  
Attention: Compliance Assurance Section, Mail Code # 19  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, Illinois 62794-9276

SPECIAL CONDITION 7. The provisions of 40 CFR Section 122.41(m) & (n) are incorporated herin by reference.

SPECIAL CONDITION 8.

- A. For Outfall Number B01: Samples for all effluent limitations and monitoring parameters applicable to Outfall B01 shall be taken at a point representative of the flows from Outfall B01 but prior to entry into the receiving stream. On days when there are discharges from Outfall A01, samples for all effluent limitations and monitoring parameters applicable to Outfall B01 shall be representative of discharges from B01 and shall be taken at a point prior to admixture with discharges from Outfall A01.
- B. For Outfall Number A01: Samples for all effluent limitations and monitoring parameters applicable to Outfall A01 shall be taken at a point representative of the discharge from Outfall A01 and shall be taken at a point prior to admixture with discharges from Outfall B01.
- C. For Outfall Number 001: Samples for all effluent limitations and monitoring parameters applicable to Outfall 001 shall be taken at a point representative of the discharge from Outfall 001 but prior to entry into the receiving stream and shall include all flow from Outfalls A01 and B01. On days when there are no discharges through Outfall A01, samples for discharges through Outfall 001 can be taken at the location of sampling for Outfall B01. When there are discharges from Outfall A01, samples for all effluent limitations and monitoring parameters applicable to Outfall 001 shall be representative of the discharge from Outfall 001 and shall be taken at a point after flows from Outfalls A01 and B01 are mixed.

SPECIAL CONDITION 9. This Permit may be modified to include requirements for the Permittee on a continuing basis to evaluate and detail its efforts to effectively control sources of infiltration and inflow into the sewer system and to submit reports to the IEPA if necessary.

SPECIAL CONDITION 10. Fecal Coliform limits for Discharge Number B01 are effective May thru October. Sampling of Fecal Coliform is only required during this time period.

Any use of chlorine to control slime growths, odors or as an operational control, etc. shall not exceed the limit of 0.05 mg/L (daily maximum) total residual chlorine in the effluent. Sampling is required on a daily grab basis during the chlorination process. Reporting

Special Conditions

shall be submitted on the DMR's on a monthly basis.

SPECIAL CONDITION 11.A. Publicly Owned Treatment Works (POTW) Pretreatment Program General Provisions

1. The Permittee shall implement and enforce its approved Pretreatment Program which was approved on September 18, 1985 and all approved subsequent modifications thereto. The Permittee shall maintain legal authority adequate to fully implement the Pretreatment Program in compliance with Federal (40 CFR 403), State, and local laws and regulations. All definitions in this section unless specifically otherwise defined in this section, are those definitions listed in 40 CFR 403.3. USEPA Region 5 is the Approval Authority for the administration of pretreatment programs in Illinois. The Permittee shall:
  - a. Develop and implement procedures to ensure compliance with the requirements of a pretreatment program as specified in 40 CFR 403.8 (f) (2).
  - b. Carry out independent inspection and monitoring procedures at least once per year, which will determine whether each significant industrial user (SIU) is in compliance with applicable pretreatment standards;
  - c. Evaluate whether each SIU needs a slug control plan or other action to control slug discharges. If needed, the SIU slug control plan shall include the items specified in 40 CFR 403.8(f)(2)(vi). For Industrial Users (IUs) identified as significant prior to November 14, 2005, this evaluation must have been conducted at least once by October 14, 2006; additional SIUs must be evaluated within 1 year of being designated an SIU;
  - d. Update its inventory of Industrial Users (IUs) at least annually and as needed to ensure that all SIUs are properly identified, characterized, and categorized;
  - e. Receive and review self monitoring and other IU reports to determine compliance with all pretreatment standards and requirements, and obtain appropriate remedies for noncompliance by any IU with any pretreatment standard and/or requirement;
  - f. Investigate instances of noncompliance, collect and analyze samples, and compile other information with sufficient care as to produce evidence admissible in enforcement proceedings, including judicial action;
  - g. Require development, as necessary, of compliance schedules by each industrial user to meet applicable pretreatment standards; and,
  - h. Maintain an adequate revenue structure and staffing levels for continued operation of the Pretreatment Program.
2. The Permittee shall issue/reissue permits or equivalent control mechanisms to all SIUs prior to expiration of existing permits or prior to commencement of discharge in the case of new discharges. The permits at a minimum shall include the elements listed in 40 CFR § 403.8(f)(1)(iii).
3. The Permittee shall develop, maintain, and enforce, as necessary, local limits to implement the general and specific prohibitions in 40 CFR § 403.5 which prohibit the introduction of any pollutant(s) which cause pass through or interference and the introduction of specific pollutants to the waste treatment system from any source of nondomestic discharge.
4. In addition to the general limitations expressed in Paragraph 3 above, applicable pretreatment standards must be met by all industrial users of the POTW. These limitations include specific standards for certain industrial categories as determined by Section 307(b) and (c) of the Clean Water Act, State limits, or local limits, whichever are more stringent.
5. The USEPA and IEPA individually retain the right to take legal action against any industrial user and/or the POTW for those cases where an industrial user has failed to meet an applicable pretreatment standard by the deadline date regardless of whether or not such failure has resulted in a permit violation.
6. The Permittee shall establish agreements with all contributing jurisdictions, as necessary, to enable it to fulfill its requirements with respect to all IUs discharging to its system.
7. Unless already completed, the Permittee shall within one (1) year of the effective date of this Permit submit to USEPA and IEPA a proposal to modify and update its approved Pretreatment Program to incorporate Federal revisions to the general pretreatment regulations. The proposal shall include all changes to the approved program and the sewer use ordinance which are necessary to incorporate the revisions of the Pretreatment Streamlining Rule (which became effective on November 14, 2005), which are considered required changes, as described in the Pretreatment Streamlining Rule Fact Sheet 2.0: Required changes, available at: [http://cfpub.epa.gov/npdes/whatsnew.cfm?program\\_id=3](http://cfpub.epa.gov/npdes/whatsnew.cfm?program_id=3). This includes any necessary revisions to the Permittee's Enforcement Response Plan (ERP).

Special Conditions

8. Within 1 year from the effective date of this permit, the Permittee shall conduct a technical re-evaluation of its local limitations consistent with U.S. EPA's Local Limits Development Guidance (July 2004), and submit the evaluation and any proposed revisions to its local limits to IEPA and U.S. EPA Region 5 for review and approval. U.S. EPA Region 5 will request Permittee to submit the evaluation and any proposed revisions to its local limits on the spreadsheet found at <http://www.epa.gov/region5/water/npdestek/Locallmt.XLS>. To demonstrate technical justification for new local industrial user limits or justification for retaining existing limits, the following information must be submitted to U.S. EPA:
- a. Total plant flow
  - b. Domestic/commercial pollutant contributions for pollutants of concern
  - c. Industrial pollutant contributions and flows
  - d. Current POTW pollutant loadings, including loadings of conventional pollutants
  - e. Actual treatment plant removal efficiencies, as a decimal (primary, secondary, across the wastewater treatment plant)
  - f. Safety factor to be applied
  - g. Identification of applicable criteria:
    - i. NPDES permit conditions
      - Specific NPDES effluent limitations
      - Water-quality criteria
      - Whole effluent toxicity requirements
      - Criteria and other conditions for sludge disposal
    - ii. Biological process inhibition
      - Nitrification
      - Sludge digester
    - iii. Collection system problems
  - h. The Permittee's sludge disposal methods (land application, surface disposal, incineration, landfill)
  - i. Sludge flow to digester
  - j. Sludge flow to disposal
  - k. % solids in sludge to disposal, not as a decimal
  - l. % solids in sludge to digester, not as a decimal
  - m. Plant removal efficiencies for conventional pollutants
  - n. If revised industrial user discharge limits are proposed, the method of allocating available pollutants loads to industrial users
  - o. A comparison of maximum allowable headworks loadings based on all applicable criteria listed in g, above
  - p. Pollutants that have caused:
    - i. Violations or operational problems at the POTW, including conventional pollutants
    - ii. Fires and explosions
    - iii. Corrosion
    - iv. Flow obstructions
    - v. Increased temperature in the sewer system
    - vi. Toxic gases, vapors or fumes that caused acute worker health and safety problems
    - vii. Toxicity found through Whole Effluent Toxicity testing
    - viii. Inhibition
  - q. Pollutants designated as "monitoring only" in the NPDES permit
  - r. Supporting data, assumptions, and methodologies used in establishing the information a through q above.
9. The Permittee's Pretreatment Program has been modified to incorporate a Pretreatment Program Amendment approved by USEPA on October 1, 1996. The amendment became effective on the date of approval and is a fully enforceable provision of your Pretreatment Program.

Modifications of your Pretreatment Program shall be submitted in accordance with 40 CFR § 403.18, which established conditions for substantial and nonsubstantial modifications. All requests should be sent in electronic format to [r5npdes@epa.gov](mailto:r5npdes@epa.gov), attention: NPDES Programs Branch.

B. Reporting and Records Requirements

1. The Permittee shall provide an annual report briefly describing the permittee's pretreatment program activities over the previous calendar year. Permittees who operate multiple plants may provide a single report providing all plant-specific reporting requirements are met. Such report shall be submitted no later than April 28th of each year to USEPA, Region 5, 77 West Jackson Blvd., Chicago, Illinois 60604, Attention: Water Enforcement and Compliance Assurance Branch, and shall be in the format set forth in IEPA's POTW Pretreatment Report Package which contains information regarding:
  - a. An updated listing of the Permittee's significant industrial users, indicating additions and deletions from the previous year, along with brief explanations for deletions. The list shall specify which categorical Pretreatment standards, if any, are applicable to each Industrial User.

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- b. A descriptive summary of the compliance activities including numbers of any major enforcement actions, (i.e., administrative orders, penalties, civil actions, etc.), and the outcome of those actions. This includes an assessment of the compliance status of the Permittee's industrial users and the effectiveness of the Permittee's Pretreatment Program in meeting its needs and objectives.
  - c. A description of all substantive changes made to the Permittee's Pretreatment Program. Changes which are "substantial modifications" as described in 40 CFR § 403.18(c) must receive prior approval from the USEPA.
  - d. Results of sampling and analysis of POTW influent, effluent, and sludge.
  - e. A summary of the findings from the priority pollutants sampling. As sufficient data becomes available the IEPA may modify this Permit to incorporate additional requirements relating to the evaluation, establishment, and enforcement of local limits for organic pollutants. Any permit modification is subject to formal due process procedures pursuant to State and Federal law and regulation. Upon a determination that an organic pollutant is present that causes interference or pass through, the Permittee shall establish local limits as required by 40 CFR § 403.5(c).
2. The Permittee shall maintain all pretreatment data and records for a minimum of three (3) years. This period shall be extended during the course of unresolved litigation or when requested by the IEPA or the Regional Administrator of USEPA. Records shall be available to USEPA and the IEPA upon request.
  3. The Permittee shall establish public participation requirements of 40 CFR 25 in implementation of its Pretreatment Program. The Permittee shall at least annually, publish the names of all IU's which were in significant noncompliance (SNC), as defined by 40 CFR § 403.8(f)(2)(viii), in a newspaper of general circulation that provides meaningful public notice within the jurisdictions served by the Permittee or based on any more restrictive definition of SNC that the POTW may be using.
  4. The Permittee shall provide written notification to the USEPA, Region 5, 77 West Jackson Blvd., Chicago, Illinois 60604, Attention: NPDES Programs Branch and to the Deputy Counsel for the Division of Water Pollution Control, IEPA, 1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276 within five (5) days of receiving notice that any Industrial User of its sewage treatment plant is appealing to the Circuit Court any condition imposed by the Permittee in any permit issued to the Industrial User by Permittee. A copy of the Industrial User's appeal and all other pleadings filed by all parties shall be mailed to the Deputy Counsel within five (5) days of the pleadings being filed in Circuit Court.

C. Monitoring Requirements

1. The Permittee shall monitor its influent, effluent and sludge and report concentrations of the following parameters on monitoring report forms provided by the IEPA and include them in its annual report. Samples shall be taken at semi-annual intervals at the indicated reporting limit or better and consist of a 24-hour composite unless otherwise specified below. Sludge samples shall be taken of final sludge and consist of a grab sample reported on a dry weight basis.

STORET CODE	PARAMETER	Minimum reporting limit
01097	Antimony	0.07 mg/L
01002	Arsenic	0.05 mg/L
01007	Barium	0.5 mg/L
01012	Beryllium	0.005 mg/L
01027	Cadmium	0.001 mg/L
01032	Chromium (hex) (grab not to exceed 24 hours)*	0.01 mg/L
01034	Chromium (total)	0.05 mg/L
01042	Copper	0.005 mg/L
00718	Cyanide* (grab) (available **** or amenable to chlorination)	5.0 ug/L
00720	Cyanide (total) (grab)	5.0 ug/L
00951	Fluoride*	0.1 mg/L
01045	Iron (total)	0.5 mg/L
01046	Iron (Dissolved)*	0.5 mg/L
01051	Lead	0.05 mg/L
01055	Manganese	0.5 mg/L
71900	Mercury (effluent grab)***	1.0 ng/L**
01067	Nickel	0.005 mg/L
00556	Oil (hexane soluble or equivalent) (Grab Sample only)*	5.0 mg/L
32730	Phenols (grab)	0.005 mg/L
01147	Selenium	0.005 mg/L
01077	Silver (total)	0.003 mg/L
01059	Thallium	0.3 mg/L
01092	Zinc	0.025 mg/L

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Minimum reporting limits are defined as - (1) The minimum value below which data are documented as non-detects. (2) Three to ten times the method detection limit. (3) The minimum value of the calibration range.

All sample containers, preservatives, holding times, analyses, method detection limit determinations and quality assurance/quality control requirements shall be in accordance with 40 CFR 136.

\* Influent and effluent only

\*\*1 ng/L = 1 part per trillion.

\*\*\*Utilize USEPA Method 1631E and the digestion procedure described in Section 11.1.1.2 of 1631E, other approved methods may be used for influent (composite) and sludge.

\*\*\*\* USEPA Method OIA-1677.

Unless otherwise indicated, concentrations refer to the total amount of the constituent present in all phases, whether solid, suspended or dissolved, elemental or combined including all oxidation states. Where constituents are commonly measured as other than total, the phase is so indicated.

2. The Permittee shall conduct an analysis for the one hundred and ten (110) organic priority pollutants identified in 40 CFR 122 Appendix D, Table II as amended. This monitoring shall be done annually and reported on monitoring report forms provided by the IEPA and shall consist of the following:

- a. The influent and effluent shall be sampled and analyzed for the one hundred and ten (110) organic priority pollutants. The sampling shall be done during a day when industrial discharges are expected to be occurring at normal to maximum levels.

Samples for the analysis of acid and base/neutral extractable compounds shall be 24-hour composites.

Five (5) grab samples shall be collected each monitoring day to be analyzed for volatile organic compounds. A single analysis for volatile pollutants (Method 624) may be run for each monitoring day by compositing equal volumes of each grab sample directly in the GC purge and trap apparatus in the laboratory, with no less than one (1) mL of each grab included in the composite.

Wastewater samples must be handled, prepared, and analyzed by GC/MS in accordance with USEPA Methods 624 and 625 of 40 CFR 136 as amended.

- b. The sludge shall be sampled and analyzed for the one hundred and ten (110) organic priority pollutants. A sludge sample shall be collected concurrent with a wastewater sample and taken as final sludge.

Sampling and analysis shall conform to USEPA Methods 624 and 625 unless an alternate method has been approved by IEPA.

- c. Sample collection, preservation and storage shall conform to approved USEPA procedures and requirements.

3. In addition, the Permittee shall monitor any new toxic substances as defined by the Clean Water Act, as amended, following notification by the IEPA.

4. Permittee shall report any noncompliance with effluent or water quality standards in accordance with Standard Condition 12(f) of this Permit.

5. Analytical detection limits shall be in accordance with 40 CFR 136. Minimum detection limits for sludge analyses shall be in accordance with 40 CFR 503.

D. Pretreatment Reporting

USEPA Region 5 is the Approval Authority for administering the pretreatment program in Illinois. All requests for modification of pretreatment program elements should be submitted in redline/strikeout electronic format and must be sent to USEPA at [r5npdes@epa.gov](mailto:r5npdes@epa.gov).

Permittee shall upon notice from USEPA, modify any pretreatment program element found to be inconsistent with 40 CFR 403.

SPECIAL CONDITION 12. During January of each year the Permittee shall submit annual fiscal data regarding sewerage system operations to the Illinois Environmental Protection Agency/Division of Water Pollution Control/Compliance Assurance Section. The Permittee may use any fiscal year period provided the period ends within twelve (12) months of the submission date.

Submission shall be on forms provided by IEPA titled "Fiscal Report Form For NPDES Permittees".

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SPECIAL CONDITION 13. For the duration of this Permit, the Permittee shall determine the quantity of sludge produced by the treatment facility in dry tons or gallons with average percent total solids analysis. The Permittee shall maintain adequate records of the quantities of sludge produced and have said records available for IEPA inspection. The Permittee shall submit to the IEPA, at a minimum, a semi-annual summary report of the quantities of sludge generated and disposed of, in units of dry tons or gallons (average total percent solids) by different disposal methods including but not limited to application on farmland, application on reclamation land, landfilling, public distribution, dedicated land disposal, sod farms, storage lagoons or any other specified disposal method. Said reports shall be submitted to the IEPA by January 31 and July 31 of each year reporting the preceding January thru June and July thru December interval of sludge disposal operations.

Duty to Mitigate. The Permittee shall take all reasonable steps to minimize any sludge use or disposal in violation of this Permit.

Sludge monitoring must be conducted according to test procedures approved under 40 CFR 136 unless otherwise specified in 40 CFR 503, unless other test procedures have been specified in this Permit.

Planned Changes. The Permittee shall give notice to the IEPA on the semi-annual report of any changes in sludge use and disposal.

The Permittee shall retain records of all sludge monitoring, and reports required by the Sludge Permit as referenced in Standard Condition 23 for a period of at least five (5) years from the date of this Permit.

If the Permittee monitors any pollutant more frequently than required by the Sludge Permit, the results of this monitoring shall be included in the reporting of data submitted to the IEPA.

The Permittee shall comply with existing federal regulations governing sewage sludge use or disposal and shall comply with all existing applicable regulations in any jurisdiction in which the sewage sludge is actually used or disposed.

The Permittee shall comply with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish the standards for sewage sludge use or disposal even if the permit has not been modified to incorporate the requirement.

The Permittee shall ensure that the applicable requirements in 40 CFR Part 503 are met when the sewage sludge is applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator.

Monitoring reports for sludge shall be reported on the form titled "Sludge Management Reports" to the following address:

Illinois Environmental Protection Agency  
Bureau of Water  
Compliance Assurance Section  
Mail Code #19  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, Illinois 62794-9276

SPECIAL CONDITION 14. This Permit may be modified to include alternative or additional final effluent limitations pursuant to either an approved Total Maximum Daily Load (TMDL) Study or an approved Fox River Implementation Plan.

SPECIAL CONDITION 15. Monitoring for Total Nitrogen is required to document the actual total nitrogen effluent concentration. The Permittee shall monitor the effluent for total nitrogen one/month. The monitoring shall be a composite sample and the results reported as a daily maximum on the Permittee's Discharge Monitoring Forms.

SPECIAL CONDITION 16. The Permittee shall conduct biomonitoring of the effluent from Discharge Number(s) B01.

Biomonitoring

1. Acute Toxicity - Standard definitive acute toxicity tests shall be run on at least two trophic levels of aquatic species (fish, invertebrate) representative of the aquatic community of the receiving stream. Testing must be consistent with Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (Fifth Ed.) EPA/821-R-02-012. Unless substitute tests are pre-approved; the following tests are required:
  - a. Fish - 96 hour static LC<sub>50</sub> Bioassay using fathead minnows (*Pimephales promelas*).
  - b. Invertebrate 48-hour static LC<sub>50</sub> Bioassay using *Ceriodaphnia*.

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2. Testing Frequency - The above tests shall be conducted using 24-hour composite samples unless otherwise authorized by the IEPA. Samples must be collected in the 18th, 15th, 12th, and 9th month prior to the expiration date of this Permit.
3. Reporting - Results shall be reported according to EPA/821-R-02-012, Section 12, Report Preparation, and shall be submitted to IEPA, Bureau of Water, Compliance Assurance Section within one week of receipt from the laboratory. Reports are due to the IEPA no later than the 16th, 13th, 10th, and 7th month prior to the expiration date of this Permit.
4. Toxicity - Should a bioassay result in toxicity to >20% of organisms test in the 100% effluent treatment, the IEPA may require, upon notification, six (6) additional rounds of monthly testing on the affected organism(s) to be initiated within 30 days of the toxic bioassay. Results shall be submitted to IEPA within (1) week of becoming available to the Permittee. Should any of the additional bioassays result in toxicity to  $\geq$ 50% of organisms tested in the 100% effluent treatments, the Permittee shall immediately notify IEPA in writing of the test results.
5. Toxicity Reduction Evaluation and Identification - Should the biomonitoring program identify toxicity and result in notification by IEPA, the permittee shall develop a plan for toxicity reduction evaluation and identification. The plan shall be developed and implemented in accordance with Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants, EPA/833B-99/002, and shall include an evaluation to determine which chemicals have a potential for being discharged in the plant wastewater, a monitoring program to determine their presence or absence and to identify other compounds which are not being removed by treatment, and other measures as appropriate. The Permittee shall submit to the IEPA its plan within ninety (90) days following notification by the IEPA. The Permittee shall implement the plan within ninety (90) days of notification of the permittee above or other such date as is received by letter from IEPA.

The IEPA may modify this Permit during its term to incorporate additional requirements or limitations based on the results of the biomonitoring. In addition, after review of the monitoring results and toxicity reduction evaluation, the IEPA may modify this Permit to include numerical limitations for specific toxic pollutants and additional whole effluent toxicity monitoring to confirm the results of the evaluation. Modifications under this condition shall follow public notice and opportunity for hearing.

SPECIAL CONDITION 17. The Permittee shall monitor the wastewater effluent for Total Phosphorus, Dissolved Phosphorus, Nitrate/Nitrite, Total Kjeldahl Nitrogen (TKN), Ammonia, Total Nitrogen (calculated), Alkalinity and Temperature at least once a month beginning on the effective date of this permit. The results shall be submitted on Discharge Monitoring Report (DMR) Forms or NetDMRs to IEPA unless otherwise specified by the IEPA.

SPECIAL CONDITION 18. The Permittee shall participate in the Fox River Study Group (FRSG). The Permittee shall work with other watershed members of the FRSG to determine the most cost effective means to remove dissolved oxygen (DO) and offensive condition impairments in the Fox River. This Permit may be modified to include additional conditions and effluent limitations to include implementation measures based on the Fox River Implementation Plan (Implementation Plan). The following tasks will be completed during the life of this permit:

1. The Permittee shall prepare a phosphorus removal feasibility report specific to its plant(s) on the method, time frame and costs for reducing its loading of phosphorus to levels equivalent to monthly average discharges of 1 mg/L and 0.5 mg/L on a seasonal basis and on a year round basis. The feasibility report shall be submitted to the IEPA twelve (12) months from the effective date of the Permit. The feasibility report shall also be shared with the FRSG.
2. The Permittee shall submit the Fox River Study Group Watershed Investigation Phase III Report, which includes stream modeling, to the IEPA within 1 month of the effective date of this Permit.
3. The FRSG will complete an Implementation Plan that identifies phosphorus input reductions by point source discharges, non-point source discharges and other measures necessary to remove DO and offensive condition impairments in the Fox River. The Implementation Plan shall be submitted to the IEPA by December 31, 2015. The Permittee shall initiate the recommendations of the Implementation Plan that are applicable to said Permittee during the remaining term of this Permit. This Permit may be modified to include additional pollutant reduction activities necessary to implement the Implementation Plan.
4. In its application for renewal of this permit, the Permittee shall consider and incorporate recommended FRSG phosphorus input reduction implementation projects that the Permittee will implement during the next permit term.
5. The Permittee shall operate the existing facilities to optimize the removal of phosphorus.

SPECIAL CONDITION 19. A phosphorus limit of 1.0 mg/L (Annual Average) shall become effective four and one-half (4 1/2) years from the effective date of this Permit.

In order for the Permittee to achieve the above limit, it will be necessary to modify existing treatment facilities to include phosphorus removal, reduce phosphorus sources or explore other ways to prevent discharges that exceed the limit. The Permittee must implement the following compliance measures consistent with the schedule below:

- |  |   |
|--|---|
| 1. Interim Report on Phosphorus Removal Feasibility Report | 6 months from the effective date of this Permit |
|--|---|

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2. Phosphorus Removal Feasibility Report submitted	12 months from the effective date of this Permit
3. Progress Report on Phosphorus Input Reductions and Implementation Plan	18 Months from the effective date of this Permit
4. Progress Report on Recommendations of Implementation Plan	24 months from the effective date of this Permit
5. Plans and specifications submitted	30 months from the effective date of this Permit
6. Progress Report on Construction	36 months from the effective date of this Permit
7. Complete Construction	42 months from the effective date of this Permit
8. Progress Report on Optimizing Treatment System	48 months from the effective date of this Permit
9. Achieve Annual Concentration and Loading Effluent Limitations for Total Phosphorus	54 months from the effective date of this Permit

Compliance dates may be modified based on the results of the Phosphorus Removal Feasibility Report required by Special Condition 18 of this Permit. All modifications of this Permit must be in accordance with 40 CFR 122.62 or 40 CFR 122.63.

Reporting shall be submitted on the DMR's on a monthly basis.

REPORTING

The Permittee shall submit progress reports for items 1, 2, 3, 4, 6, 7, 8 and 9 of the compliance schedule indicating: a) the date the item was completed, or b) that the item was not completed, the reasons for non-completion and the anticipated completion date to the Agency Compliance Section.

SPECIAL CONDITION 20. The Agency shall consider all monitoring data submitted by the discharger in accordance with the monitoring requirements of this permit for all parameters, including but not limited to data pertaining to ammonia and dissolved oxygen for discharges from Discharge Number 001, to determine whether the discharges are at levels which cause, have the reasonable potential to cause or contribute to exceedances of water quality standards; and, if so, to develop appropriate water quality based effluent limitations. If the discharger wants the Agency to consider mixing when determining the need for and establishment of water quality based effluent limitations, the discharger shall submit a study plan on mixing to the Agency for the Agency's review and comment within two (2) months of the effective date of this Permit.

SPECIAL CONDITION 21. The Permittee shall work towards the goals of achieving no discharges from sanitary sewer overflows or basement backups and ensuring that overflows or backups, when they do occur do not cause or contribute to violations of applicable standards or cause impairment in any adjacent receiving water. In order to accomplish these goals, the Permittee shall develop, implement and submit to the IEPA a Capacity, Management, Operations, and Maintenance (CMOM) plan within twelve (12) months of the effective date of this Permit. The Permittee should work as appropriate, in consultation with affected authorities at the local, county, and/or state level to develop the plan components involving third party notification of overflow events. The Permittee may be required to construct additional sewage transport and/or treatment facilities in future permits or other enforceable documents should the implemented CMOM plan indicate that the Permittee's facilities are not capable of conveying and treating the flow for which they were designed.

The CMOM plan shall include the following elements:

## a. Measures and Activities:

1. A complete map of the collection system owned and operated by the Permittee;
2. Schedules, checklists, and mechanisms to ensure that preventative maintenance is performed on equipment owned and operated by the Permittee;
3. An assessment of the capacity of the collection and treatment system owned and operated by the Permittee at critical junctions and immediately upstream of locations where overflows and backups occur or are likely to occur; and
4. Identification and prioritization of structural deficiencies in the system owned and operated by the Permittee.

## b. Design and Performance Provisions:

1. Monitor the effectiveness of CMOM;
2. Upgrade the elements of the CMOM plan as necessary; and

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3. Maintain summary of CMOM activities.
- c. Overflow Response Plan:
    1. Know where overflows within the facilities owned and operated by the Permittee occur;
    2. Respond to each overflow to determine additional actions such as clean up; and
    3. Locations where basement back-ups and/or sanitary sewer overflows occur shall be evaluated as soon as practicable for excessive inflow /infiltration, obstructions or other causes of overflows or back-ups as set forth in the System Evaluation Plan.
  - d. System Evaluation Plan.
  - e. Reporting and Monitoring Requirements.
  - f. Third Party Notice Plan:
    1. Describes how, under various overflow scenarios, the public, as well as other entities, would be notified of overflows within the Permittee's system that may endanger public health, safety or welfare;
    2. Identifies overflows within the Permittee's system that would be reported, giving consideration to various types of events including events with potential widespread impacts;
    3. Identifies who shall receive the notification;
    4. Identifies the specific information that would be reported including actions that will be taken to respond to the overflow;
    5. Includes a description of the lines of communication; and
    6. Includes the identities and contact information of responsible POTW officials and local, county, and/or state level officials.

SPECIAL CONDITION 22. The Permittee may collect data in support of developing site-specific effluent limitations for ammonia nitrogen. In-stream monitoring for pH and temperature would be required. Samples should be taken downstream at a point representative of substantial mixing with the receiving stream and below the surface. A monitoring plan must be submitted to the Agency for approval which indicates the location, sample frequency and the duration of the monitoring program.

**Attachment H**  
**Standard Conditions**

**Definitions**

**Act** means the Illinois Environmental Protection Act, 415 ILCS 5 as Amended.

**Agency** means the Illinois Environmental Protection Agency.

**Board** means the Illinois Pollution Control Board.

**Clean Water Act** (formerly referred to as the Federal Water Pollution Control Act) means Pub. L 92-500, as amended. 33 U.S.C. 1251 et seq.

**NPDES** (National Pollutant Discharge Elimination System) means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 402, 318 and 405 of the Clean Water Act.

**USEPA** means the United States Environmental Protection Agency.

**Daily Discharge** means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurements, the "daily discharge" is calculated as the average measurement of the pollutant over the day.

**Maximum Daily Discharge Limitation** (daily maximum) means the highest allowable daily discharge.

**Average Monthly Discharge Limitation** (30 day average) means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

**Average Weekly Discharge Limitation** (7 day average) means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

**Best Management Practices** (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

**Aliquot** means a sample of specified volume used to make up a total composite sample.

**Grab Sample** means an individual sample of at least 100 milliliters collected at a randomly-selected time over a period not exceeding 15 minutes.

**24-Hour Composite Sample** means a combination of at least 8 sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over a 24-hour period.

**8-Hour Composite Sample** means a combination of at least 3 sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over an 8-hour period.

**Flow Proportional Composite Sample** means a combination of sample aliquots of at least 100 milliliters collected at periodic intervals such that either the time interval between each aliquot or the volume of each aliquot is proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot.

- (1) **Duty to comply.** The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action, permit termination, revocation and reissuance, modification, or for denial of a permit renewal application. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirements.
- (2) **Duty to reapply.** If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. If the permittee submits a proper application as required by the Agency no later than 180 days prior to the expiration date, this permit shall continue in full force and effect until the final Agency decision on the application has been made.
- (3) **Need to halt or reduce activity not a defense.** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (4) **Duty to mitigate.** The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.
- (5) **Proper operation and maintenance.** The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up, or auxiliary facilities, or similar systems only when necessary to achieve compliance with the conditions of the permit.
- (6) **Permit actions.** This permit may be modified, revoked and reissued, or terminated for cause by the Agency pursuant to 40 CFR 122.62 and 40 CFR 122.63. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- (7) **Property rights.** This permit does not convey any property rights of any sort, or any exclusive privilege.
- (8) **Duty to provide information.** The permittee shall furnish to the Agency within a reasonable time, any information which the Agency may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. The permittee shall also furnish to the Agency upon request, copies of records required to be kept by this permit.

(9) **Inspection and entry.** The permittee shall allow an authorized representative of the Agency or USEPA (including an authorized contractor acting as a representative of the Agency or USEPA), upon the presentation of credentials and other documents as may be required by law, to:

- (a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- (d) Sample or monitor at reasonable times, for the purpose of assuring permit compliance, or as otherwise authorized by the Act, any substances or parameters at any location.

(10) **Monitoring and records.**

- (a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- (b) The permittee shall retain records of all monitoring information, including all calibration and maintenance records, and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of this permit, measurement, report or application. Records related to the permittee's sewage sludge use and disposal activities shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503). This period may be extended by request of the Agency or USEPA at any time.
- (c) Records of monitoring information shall include:
  - (1) The date, exact place, and time of sampling or measurements;
  - (2) The individual(s) who performed the sampling or measurements;
  - (3) The date(s) analyses were performed;
  - (4) The individual(s) who performed the analyses;
  - (5) The analytical techniques or methods used; and
  - (6) The results of such analyses.
- (d) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit. Where no test procedure under 40 CFR Part 136 has been approved, the permittee must submit to the Agency a test method for approval. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals to ensure accuracy of measurements.

(11) **Signatory requirement.** All applications, reports or information submitted to the Agency shall be signed and certified.

- (a) **Application.** All permit applications shall be signed as follows:
  - (1) For a corporation: by a principal executive officer of at least the level of vice president or a person or position having overall responsibility for environmental matters for the corporation;
  - (2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
  - (3) For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.
- (b) **Reports.** All reports required by permits, or other information requested by the Agency shall be signed by a person described in paragraph (a) or by a duly authorized representative of that person. A person is a duly

authorized representative only if:

- (1) The authorization is made in writing by a person described in paragraph (a); and
  - (2) The authorization specifies either an individual or a position responsible for the overall operation of the facility, from which the discharge originates, such as a plant manager, superintendent or person of equivalent responsibility; and
  - (3) The written authorization is submitted to the Agency.
- (c) **Changes of Authorization.** If an authorization under (b) is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of (b) must be submitted to the Agency prior to or together with any reports, information, or applications to be signed by an authorized representative.
- (d) **Certification.** Any person signing a document under paragraph (a) or (b) of this section shall make the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

(12) **Reporting requirements.**

- (a) **Planned changes.** The permittee shall give notice to the Agency as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required when:
  - (1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source pursuant to 40 CFR 122.29 (b); or
  - (2) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements pursuant to 40 CFR 122.42 (a)(1).
  - (3) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
- (b) **Anticipated noncompliance.** The permittee shall give advance notice to the Agency of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- (c) **Transfers.** This permit is not transferable to any person except after notice to the Agency.
- (d) **Compliance schedules.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.
- (e) **Monitoring reports.** Monitoring results shall be reported at the intervals specified elsewhere in this permit.
  - (1) Monitoring results must be reported on a Discharge Monitoring Report (DMR).

- (2) If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR 136 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.
- (3) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Agency in the permit.
- (f) **Twenty-four hour reporting.** The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24-hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and time; and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The following shall be included as information which must be reported within 24-hours:
- (1) Any unanticipated bypass which exceeds any effluent limitation in the permit.
  - (2) Any upset which exceeds any effluent limitation in the permit.
  - (3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Agency in the permit or any pollutant which may endanger health or the environment.  
The Agency may waive the written report on a case-by-case basis if the oral report has been received within 24-hours.
- (g) **Other noncompliance.** The permittee shall report all instances of noncompliance not reported under paragraphs (12) (d), (e), or (f), at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (12) (f).
- (h) **Other information.** Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to the Agency, it shall promptly submit such facts or information.
- (13) **Bypass.**
- (a) Definitions.
    - (1) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.
    - (2) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
  - (b) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (13)(c) and (13)(d).
  - (c) Notice.
    - (1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.
    - (2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph (12)(f) (24-hour notice).
  - (d) Prohibition of bypass.
    - (1) Bypass is prohibited, and the Agency may take enforcement action against a permittee for bypass, unless:
      - (i) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
      - (ii) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
      - (iii) The permittee submitted notices as required under paragraph (13)(c).
    - (2) The Agency may approve an anticipated bypass, after considering its adverse effects, if the Agency determines that it will meet the three conditions listed above in paragraph (13)(d)(1).
- (14) **Upset.**
- (a) Definition. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
  - (b) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (14)(c) are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
  - (c) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
    - (1) An upset occurred and that the permittee can identify the cause(s) of the upset;
    - (2) The permitted facility was at the time being properly operated; and
    - (3) The permittee submitted notice of the upset as required in paragraph (12)(f)(2) (24-hour notice).
    - (4) The permittee complied with any remedial measures required under paragraph (4).
  - (d) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.
- (15) **Transfer of permits.** Permits may be transferred by modification or automatic transfer as described below:
- (a) Transfers by modification. Except as provided in paragraph (b), a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued pursuant to 40 CFR 122.62 (b) (2), or a minor modification made pursuant to 40 CFR 122.63 (d), to identify the new permittee and incorporate such other requirements as may be necessary under the Clean Water Act.
  - (b) Automatic transfers. As an alternative to transfers under paragraph (a), any NPDES permit may be automatically

transferred to a new permittee if:

- (1) The current permittee notifies the Agency at least 30 days in advance of the proposed transfer date;
  - (2) The notice includes a written agreement between the existing and new permittees containing a specified date for transfer of permit responsibility, coverage and liability between the existing and new permittees; and
  - (3) The Agency does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement.
- (16) All manufacturing, commercial, mining, and silvicultural dischargers must notify the Agency as soon as they know or have reason to believe:
- (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant identified under Section 307 of the Clean Water Act which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:
    - (1) One hundred micrograms per liter (100 ug/l);
    - (2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6 dinitrophenol; and one milligram per liter (1 mg/l) for antimony.
    - (3) Five (5) times the maximum concentration value reported for that pollutant in the NPDES permit application; or
    - (4) The level established by the Agency in this permit.
  - (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the NPDES permit application.
- (17) All Publicly Owned Treatment Works (POTWs) must provide adequate notice to the Agency of the following:
- (a) Any new introduction of pollutants into that POTW from an indirect discharge which would be subject to Sections 301 or 306 of the Clean Water Act if it were directly discharging those pollutants; and
  - (b) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
  - (c) For purposes of this paragraph, adequate notice shall include information on (i) the quality and quantity of effluent introduced into the POTW, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.
- (18) If the permit is issued to a publicly owned or publicly regulated treatment works, the permittee shall require any industrial user of such treatment works to comply with federal requirements concerning:
- (a) User charges pursuant to Section 204 (b) of the Clean Water Act, and applicable regulations appearing in 40 CFR 35;
  - (b) Toxic pollutant effluent standards and pretreatment standards pursuant to Section 307 of the Clean Water Act; and
  - (c) Inspection, monitoring and entry pursuant to Section 308 of the Clean Water Act.
- (19) If an applicable standard or limitation is promulgated under Section 301(b)(2)(C) and (D), 304(b)(2), or 307(a)(2) and that effluent standard or limitation is more stringent than any effluent limitation in the permit, or controls a pollutant not limited in the permit, the permit shall be promptly modified or revoked, and reissued to conform to that effluent standard or limitation.
- (20) Any authorization to construct issued to the permittee pursuant to 35 Ill. Adm. Code 309.154 is hereby incorporated by reference as a condition of this permit.
- (21) The permittee shall not make any false statement, representation or certification in any application, record, report, plan or other document submitted to the Agency or the USEPA, or required to be maintained under this permit.
- (22) The Clean Water Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Clean Water Act is subject to a civil penalty not to exceed \$25,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318 or 405 of the Clean Water Act is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than one year, or both. Additional penalties for violating these sections of the Clean Water Act are identified in 40 CFR 122.41 (a)(2) and (3).
- (23) The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or both.
- (24) The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.
- (25) Collected screening, slurries, sludges, and other solids shall be disposed of in such a manner as to prevent entry of those wastes (or runoff from the wastes) into waters of the State. The proper authorization for such disposal shall be obtained from the Agency and is incorporated as part hereof by reference.
- (26) In case of conflict between these standard conditions and any other condition(s) included in this permit, the other condition(s) shall govern.
- (27) The permittee shall comply with, in addition to the requirements of the permit, all applicable provisions of 35 Ill. Adm. Code, Subtitle C, Subtitle D, Subtitle E, and all applicable orders of the Board or any court with jurisdiction.
- (28) The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit is held invalid, the remaining provisions of this permit shall continue in full force and effect.

# ***Appendix B***

## ***Lift Stations Overview***

**APPENDIX B: LIFT STATION OVERVIEW**

City of St. Charles, Illinois

Lift Station Name	Connected To SCADA	Candidate For Rehab	Ground Elevation (ft)	Bottom Elevation (ft)	Force Main Size (in)	Force Main Length (ft)	Gravity Sewer Inv. (ft)	Gravity Sewer Diameter (in)	Year Constructed	Building	Generator Type	Bypass Capability	Pump Number	Pump Type	Pump Vendor	HP	TDH (ft)	Pump Rating (gpm)	Maintenance
Riverside	Yes	Yes	683.3	664.25	950' of 8" Main 885' of 10" Main 879' of 15" Main 930' of 16" Main			24", 27", 36"	1930	Yes	600kW Caterpillar Model D3508 w/ ATS	None	1	Submersible	Flygt	75	59	3,480	DAF = 1.97 MGD, PWWF = 28.2 MGD Control panel and generator are not in the same room as the wet well <b>Rehabbed in 2010</b> -There used to be a 20 HP pump which was removed from service. -Both 75 HP pumps were serviced, one had the motor stator replaced, one had the stator rewound <b>Issues with the station</b> -Ball check valve is likely the cause of former broken pipes and other issues, it needs to be replaced -Leaks reported in the pump check valves -Bridge crane hoist needs to be replaced and the integrity of the structure should be evaluated -Roof needs to be replaced -The generator room floor slab has settled about 2 inches from its original elevation -The underground diesel tank south of the station should be removed -The generator is beyond its service life and should be replaced -HVAC system should be replaced -SCADA should be modified -The whole lift station should be considered for replacement -Mains should be televised to investigate potential blockages -Mechanical fine screens do not operate efficiently -Both 75 HP pumps need to be replaced <b>Issues regarding the replacement of the pump</b> -Site constraints due to the Fox River and Route 25 -Groundwater concerns -Disposal of contaminated soils -Unknown bedrock conflicts -Traffic control, material and equipment storage, parking and access
													2	Submersible	Flygt	75	59	3,480	
													3	Submersible	Flygt	180	74	6,700	
													4	Submersible	Flygt	180	74	6,700	
East Side	Yes	No	705.7	681.07	16"	697	24" North, 21" East	24"; there is a 21" bypass	1973	Yes	250kW Generac Model 92A012113-3 w/ ATS	Automatic bypass to Riverside	1	Submersible	Flowserve	100	62	4,345	<b>Rehabbed in 2010</b> -Replacement of the existing 50 HP dry well pumps with 100 HP submersible pumps, installation of variable frequency drives and controls, replacement of the bar screen with a mechanical fine screen and washer/grinder/compactor -Rehab expanded the lift station's rated capacity to 14.0 MGD <b>Issues with the station</b> -The replacement of the current HVAC system to improve climate control is recommended. The current conditions promote mold growth. -The mechanical fine screen is causing much head loss and should be shipped back to the manufacturer in order to determine the problem -Maintenance of the washer/grinder/compactor -Space constraints should be reduced by modifying the walls of the station (and perhaps thusly the trolley beam) and/or modifying the orientation of the washer/grinder/compactor. -Roadway to the lift station should be widened -Slight difference in flow rate readings between the control panel and mag meter -Programming of the VFDs should be modified -Diesel generator and tank are old -Programming within SCADA should be modified
													2	Submersible	Flowserve	100	62	4,345	
													3	Submersible	Flowserve	100	62	4,345	
													4	Submersible	Flowserve	100	62	4,345	
7th & Division	No	Yes	Not Listed	721.5	6"	677'	726.5	8"	1974	No	50kW Kohler Model 50RZGB w/ ATS	6" QC Above Ground	1	Submersible	Gorman-Rupp	4	35	220	Has the ability to bypass flow. <b>Rehabbed in 2007</b> -Installation of a new precast concrete lids, pumps, flow meter, controls, generator, and transfer switch, pumps were installed <b>Rehabbed in 2009</b> -Pumps were replaced <b>Rehabbed in 2014</b> -Pumps were replaced <b>Issues with the Station</b> -Ragging and grease are a problem -Control panel is in poor condition, it is old and deteriorating -Rehab should convert the current two wet well system to a single wet well with a valve vault -Improve vehicle access, control systems, and integration into City's SCADA system.
													2	Submersible	Gorman-Rupp	4	35	220	
Washington Ave.	No	No	722.7	707	2, 2"	200	710.4 (8"West)	8"	1987	No	No Generator	None	1	Submersible	Meyers Grinder	2	15	22	This pump station only services 7 houses Located in a the front yard of a private residence It's been speculated that there are backups here, but the residents may not be reporting them. <b>Rehabbed at an unknown time</b> -Replacement of one pump -Replacement of the guiderail system <b>Issues with the station</b> -No major issues, one pump needs cleaning. -Needs a new hatch -No transducer, no bypass capabilities
													2	Submersible	Meyers Grinder	2	15	22	

Highlighted cells are in the process of being confirmed by the City

Lift Station Name	Connected To SCADA	Candidate For Rehab	Ground Elevation (ft)	Bottom Elevation (ft)	Force Main Size (in)	Force Main Length (ft)	Gravity Sewer Inv. (ft)	Gravity Sewer Diameter (in)	Year Constructed	Building	Generator Type	Bypass Capability	Pump Number	Pump Type	Pump Vendor	HP	TDH (ft)	Pump Rating (gpm)	Maintenance
Country Club	No	Yes	757.3	738	4"	1074'	744 (North)	two 8" pipes	1988	No	15kW Kohler Model 15REOZD w/ ATS	3" Male QC, No cap	1	Submersible	Meyers	5	47	80	<b>Issues with the station</b> -City would like to replace the current generator with a natural gas generator. -Not connected to SCADA -The existing wet well cover is fiberglass and has deteriorated from exposure to UV sunlight. A new cover is highly recommended for safety and liability purposes. -The vault valve is unusually shallow and routinely fills with ground water. Standing water has been noted by the staff in the valve vault above the piping. Maintenance requires installation of a sump pump prior to access and working room is limited. -A grease trap should be added prior to the lift station (there's a good amount of grease from the Country Club kitchens). It's likely that the grease is making it past the County Club's grease traps because the water is so hot when it leaves the site that it doesn't catch. The main is choked with grease and access to the force main is a concern. -The control panel and pumps are old
													2	Submersible	Meyers	5	47	80	
Pheasant Run Trails	No	Yes	761.3	739	Data Discrepancy: 6" according to data from Trotter Report 8" according to GIS data	1819'	744 (North)/(East)	two 8" pipes	1997	No	60kW Olympian Model 97A03119-S w/ ATS	6" 3-way Plug Valve w/ 4" bypass riser blind flanged	1	Submersible	Hydromatic	15	42	468	-Should be considered for rehab once the more critical lift stations have been rehabbed -They are currently building a car dealership near this site, after the construction is complete, they will have better access to the site. <b>Rehabbed in 2009</b> -All issues rehabbed were very minor <b>Issues with the station</b> -The influent line to the wet well deposits flow, including rags and grease, directly on top of one of the pumps. Debris builds up over time which makes the pumps difficult to remove for maintenance. The issue may be addressed by physically rotating the pumps and corresponding rails within the wet well. -To address excessive ragging, the City may install a pump that will pass larger solids, install a chopper pump to reduce the solid size, or require that the tributary users provide pretreatment screening. -Vehicle access is a concern -Fencing is broken in certain places and does not provide adequate protection - it should be replaced -Bypassing the lift station is difficult because the bypass connection is located in a confined space -Should be connected to SCADA
													2	Submersible	Hydromatic	15	42	468	
Royal Fox # 2	Yes	No	757.7	721.04	8"	2766'	729.45 (10"North)/(8" West)	8", 10"	1988	No	100kW Kohler Model 100RZG w/ ATS	4" Plug Valve w/ 4" Male Quick Connect	1	Submersible	4-inch ABS XFP 100 G CB1	28	95	650	This pump station has large amounts of I&I <b>Rehabbed in 2013</b> -Replacement of pumps, valves, and piping within the station -Replacement of the control systems and traffic box, rehabilitation of the lift station structure with a spray-applied structural lining, installation of a magnetic flow meter and bypass pump connection vault, installation of a new concrete lid, connection to the City SCADA, site improvements -Occasionally a pump will fail to start in automatic mode -Large amounts of tributary I&I
													2	Submersible	4-inch ABS XFP 100 G CB1	28	95	650	
Royal Fox # 1	No	No	743.9	723.97	6"	2206'	727.38 (8" East)	8"	1988	No	50kW Kohler Model 50RZGB w/ ATS	6" Cleanout at grade	1	Submersible	4-inch ABS XFPD 100E-CB1	10	60	200	The lift station has plenty of remaining lift capacity <b>Rehabbed in 2014</b> -Rehab included replacement of pumps, valves, and piping within the station, replacement of the control systems, and traffic box, rehabilitation of the lift station structure with a spray-applied structural lining, installation of above-grade bypass pump connection, installation of a new concrete lid, and site improvements. -Grease deposits were cleaned -Grease cleanout connections and structures were installed along the discharge force main <b>Issues with the station</b> -It is recommended that the discharge force main be fitted with pressure gauges to ensure that the pumps are operating within the safe operating range on the manufacturer's pump curve
													2	Submersible	4-inch ABS XFPD 100E-CB1	10	60	200	
Woods of Fox Glen	No	No	719.7	688	6"	3560'	692 (W)/708	two 8" pipes	1989	No	50kW Kohler Model 50RZGB w/ ATS	4" x 3" Tee w/ 3" Plug Valve & 3" Female QC	1	Submersible	Meyers	20	111	180	Station is in good condition - there are no issues that require immediate attention. The station has bypass capabilities The station is exceptionally deep <b>Rehabbed in 2009</b> <b>Rehabbed in 2013</b> <b>Issues with the station</b> -Station should be upgraded with a flow meter and connected to the City's SCADA system
													2	Submersible	Meyers	20	111	180	

Highlighted cells are in the process of being confirmed by the City

Lift Station Name	Connected To SCADA	Candidate For Rehab	Ground Elevation (ft)	Bottom Elevation (ft)	Force Main Size (in)	Force Main Length (ft)	Gravity Sewer Inv. (ft)	Gravity Sewer Diameter (in)	Year Constructed	Building	Generator Type	Bypass Capability	Pump Number	Pump Type	Pump Vendor	HP	TDH (ft)	Pump Rating (gpm)	Maintenance
Kingswood	No	No	770.7	745	6"	1091'	751.5 (8" East)	8"	1996	No	60kW Olympian Model 95A05229-S w/ ATS	6" 3-Way Plug Valve w/ 4" bypass riser blind flanged	1	Submersible	Hydromatic	15	50	400	Station is in excellent condition Bypass connection available but difficult to access <b>Issues with the Station</b> -Ragging is an issue, consider pumps that will pass larger solids or a chopper pump to reduce the solid size -Piping issues have been reported by operational staff -Not connected to SCADA
													2	Submersible	Hydromatic	15	50	400	
Wild Rose	No	Yes	701.1	679.88	4"	111'	683.88 (10" NE)	10"	1980	No	15kW Onan Model 20ES w/ ATS	4" Plug Valve - no by-pass per plan	1	Submersible	Hydromatic	5	25	106	<b>Rehabbed in 2011</b> -The height of the wet well was raised <b>Issues with the Station</b> -Not connected to SCADA -Pumps need to be upsized -Pumps are in good condition, but are nearing the end of their service and should be replaced -Grading around the lift station directs surface water into the well -Piping, valves, generator, control panel, lift station lid, access hatches, and control system should be replaced -The wet well is rusting through -Ragging and greasing is a problem -The City is considering paving the road leading to the station and raising the grade of the station.
													2	Submersible	Hydromatic	5	25	106	
Red Gate	No	No	708.9	691.63	6"	1939'	696.88	12", Also an abandoned 8"	1988	No	80kW Olympian Model G80F3 w/ ATS	6" x 4" Tee - Threaded Hose Connection w/Cap	1	Submersible	Hydromatic	20	66	506	This lift station has a significant amount of reserve capacity The station is in relatively good condition Station has bypass capabilities Upgraded in 1999 Replaced in 2006 -Was changed to a packaged system with 2 submersible pumps, valve vault and stand-by generator <b>Issues with the station</b> -There is a crack in the check valve in the valve vault -Control panel shuts off -Not connected to SCADA -Needs better traffic protection -Station frequently has issues with ragging and greasing <b>Verify Facility Plan Update Information</b>
													2	Submersible	Hydromatic	20	66	506	
Oak Crest	No	No	804.6	787.7	4"	458'	792.88 (8"NW)/792.88 (8" SW)	two 8" pipes	2000	No	30kW Olympian Model G30FIS w/ ATS	3-way 4" Plug Valve w/Bypass Riser	1	Submersible	Hydromatic	7.5	43	100	There is a replacement pump available in case of failure <b>Issues with the station</b> -There is a reported seal failure in one of the pumps, the pump continues to operate properly -Pumps, piping, and control system are nearing the end of their useful life -Traffic protection improvements needed -Should be connected with City's SCADA system
													2	Submersible	Hydromatic	7.5	43	100	
Pine Ridge	No	No	777.0	744.3	4"	910'	748.37	8"	2007	No	60kW Olympian Model G60F3 w/ ATS	4" Plug Valve w/ Bypass Riser	1	Submersible	Hydromatic	15	61	160	Station has bypass capabilities No significant I&I No significant issues with this pump station are noted <b>Issues with the station</b> -Not connected to SCADA
													2	Submersible	Hydromatic	15	61	160	
Renaux Manor	No	No	746.5	713.34	12"	1602'	719.67/735.03 (N)	8", 15"	1998	No	375kW Generac Model 98A02219-S w/ ATS	4" Plug Valve w/ QC for bypass	1	Submersible	Hydromatic	7.5	29	690	Station has bypass capabilities <b>Rehabbed in 2013</b> <b>Issues with the station</b> -Not connected to SCADA -Lock missing on an access hatch -One of the three pumps needs to be replaced -Decommissioned VFDs
													2	Submersible	Hydromatic	7.5	29	690	
													3	Submersible	Hydromatic	7.5	29	690	
Zylstra	No	No	782.0	761.9	4"	3403'	766.97	8"	2007	No	30kW Olympian Model G30F3 w/ ATS	4" Plug Valve w/ 4" Female QC Riser	1	Submersible	Hydromatic	15	87.6	150	Station has bypass capabilities No significant I&I <b>Issues with the pump</b> -Only one pump operational -Not connected to SCADA
													2	Submersible	Hydromatic	15	87.6	150	

a - Generator has recently failed and is in the process of being replaced  
Highlighted cells are in the process of being confirmed by the City

# ***Appendix C***

*City Code, Chapter 13.12 - Sewers*

Chapter 13.12

**SEWERS**

Sections:

13.12.100	Purpose and Policy
13.12.110	Administration
13.12.120	Abbreviations
13.12.130	Definitions
13.12.200	Sewer Engineering and Installation
13.12.201	Overhead Sanitary Sewers
13.12.202	Connection Permit Requirements - Application and Issuance
13.12.205	Discharge of Stormwater and Other Unpolluted Drainage to Sanitary Sewer Prohibited
13.12.210	Unlawful Use or Construction of Private Sewer Disposal Systems
13.12.215	Connections of Certain Sewer to Public Sanitary Sewer Prohibited
13.12.220	Construction of Combined Sewer Prohibited
13.12.225	Installation of Toilet Facilities Required by Owner
13.12.230	Unauthorized destruction or defacement of Sewage Equipment
13.12.235	Private Sewage Disposal System Requirement Generally
13.12.240	Building Sewers - Requirements Generally
13.12.245	Building Sewers - Owner and Occupant Responsibility for Cost of Installation and Connection
13.12.250	Owner and Occupant Responsibility for Maintenance
13.12.265	Inspections of Residences to be Connected to Sewer System
13.12.300	Use of Storm Sewers
13.12.310	Unlawful discharge of Polluted Substances into Natural Outlets
13.12.320	Connection of Devices Discharging Polluting Substances to Stormwater Drains Prohibited
13.12.330	Maintenance of Stormwater Detention and Retention Basins
13.12.400	Prohibited Discharge Standards
13.12.410	National Categorical Pretreatment Standards
13.12.420	State Pretreatment Standards
13.12.430	Local Limits
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### **13.12.100 Purpose and Policy**

This chapter sets forth uniform requirements for Users of the Publicly Owned Treatment Works for the purpose of enabling the City to comply with applicable State and Federal laws, including the Clean Water Act (33 United States Code § 1251 *et seq.*) and the General Pretreatment Regulations (40 Code of Federal Regulations Part 403). The objectives of this chapter are:

- A. To prevent the introduction of pollutants into the Publicly Owned Treatment Works that will interfere with its operation;
- B. To prevent the introduction of pollutants into the Publicly Owned Treatment Works that will pass through the Publicly Owned Treatment Works, inadequately treated, into receiving waters, or otherwise be incompatible with the Publicly Owned Treatment Works;
- C. To protect both Publicly Owned Treatment Works personnel who may be affected by wastewater and sludge in the course of their employment and the general public;
- D. To promote reuse and recycling of industrial wastewater and sludge from the Publicly Owned Treatment Works;
- E. To provide for fees for the equitable distribution of the cost of operation, maintenance, and improvement of the Publicly Owned Treatment Works; and
- F. To enable the City to comply with its National Pollutant Discharge Elimination System permit conditions, sludge use and disposal requirements, and any other Federal or State laws to which the Publicly Owned Treatment Works is subject.

This chapter shall apply to all Users of the Publicly Owned Treatment Works. The chapter authorizes the issuance of wastewater discharge permits; provides for monitoring, compliance, and enforcement activities; establishes administrative review procedures; requires User reporting; and provides for the setting of fees for the equitable distribution of costs resulting from the program established herein.

### **13.12.110 Administration**

Except as otherwise provided herein, the Director of Public Works shall administer, implement, and enforce the provisions of this chapter. Any powers granted to or duties imposed upon the Director of Public Works may be delegated by the Director of Public Works to other City personnel.

### **13.12.120 Abbreviations**

The following abbreviations, when used in this chapter, shall have the designated meanings:

- BOD - Biochemical Oxygen Demand
- CFR - Code of Federal Regulations
- COD - Chemical Oxygen Demand
- EPA - U.S. Environmental Protection Agency
- FOG - Fats, oil and grease

- GPD - gallons per day
- IEPA - Illinois Environmental Protection Agency
- MG/L - milligrams per liter
- NPDES- - National Pollutant Discharge Elimination System
- POTW - Publicly Owned Treatment Works
- RCRA - Resource Conservation and Recovery Act
- SIC - Standard Industrial Classification
- TSS - Total Suspended Solids
- U.S.C. - United States Code

### 13.12.130 Definitions

Unless a provision explicitly states otherwise, the following terms and phrases, as used in this chapter, shall have the meanings hereinafter designated.

1. Accidental Discharges. Unplanned release of substances either directly or indirectly in such magnitude to cause substantial effects on receiving systems or treatment processes. Release is the result of accident, act of nature or operational malfunctions.
2. Act or "the Act." The Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, 33 U.S.C. § 1251 *et seq.*
3. Administrator. The Administrator of the United States Environmental Protection Agency.
4. Applicable Pretreatment Standards. For any specified pollutant, the prohibitive discharge standards, specific limitations on discharge, the State of Illinois pretreatment standards or the National Categorical Pretreatment Standards (when effective), whichever standard is most stringent.
5. Approved. Item or procedure must meet the conditions of and be accepted by the City of St. Charles.
6. Approval Authority. USEPA
7. Authorized Representative.
  - a. If the User is a corporation:
    - 1) The president, secretary, treasurer, or a vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or
    - 2) The manager of one or more manufacturing, production, or operation facilities employing more than two hundred fifty (250) persons or having gross annual sales or expenditures exceeding twenty-five (25) million dollars (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
  - b. If the User is a partnership or sole proprietorship: a general partner or proprietor, respectively.
  - c. If the User is a federal, state or local governmental facility: a director or highest official appointed or designated to oversee the operation and performance of the activities of the government facility, or their designee.
  - d. If the User is a limited liability partnership, limited liability company, or any other entity not previously described:
    - 1) a person in charge of principal business functions or any other person who performs similar policy or decision-making functions for the entity; or
    - 2) the manager of one or more manufacturing, production, or operation facilities employing more than two hundred-fifty (250) persons or having gross annual sales or expenditures exceeding twenty-five (25) million dollars (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with the entity's procedures; or

- 3) any person having written authorization satisfying the requirements of paragraph e from such entity.
- e. The individuals described in paragraphs a through d, above, may designate another authorized representative if the authorization is in writing, the authorization specifies the individual or position responsible for the overall operation of the facility from which the discharge originates or having overall responsibility for environmental matters for the company, and the written authorization is submitted to the City.
- f. If an authorization under paragraph e is no longer accurate because a different individual or position has responsibility for the overall operation of the facility or overall responsibility for the environmental matters for the company, a new authorization satisfying the requirements of paragraph e must be submitted to the City prior to or together with any reports to be signed by an authorized representative.
8. Biochemical Oxygen Demand or BOD. The quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedures for five (5) days at 20° centigrade, usually expressed as a concentration (e.g., mg/l).
9. Building Sanitary Sewer. A sewer, which carries only sewage and industrial wastes from the building plumbing to the public sanitary sewer.
10. Building Storm Sewer. A sewer, which carries storm drainage, surface water, foundation drainage and roof drainage but excludes sewage and industrial wastes from the building plumbing to a public storm sewer or natural outlet.
11. Bypass. The intentional diversion of waste streams from any portion of a User's treatment facility.
12. Categorical Pretreatment Standard or Categorical Standard. Any regulation containing pollutant discharge limits promulgated by EPA in accordance with Sections 307(b) and (c) of the Act (33 U.S.C. § 1317) which apply to a specific category of Users and which appear in 40 CFR Chapter I, Subchapter N, Parts 405-471.
13. Carbonaceous Biochemical Oxygen Demand or CBOD. The quantity of oxygen utilized in the biochemical oxidation of organic matter, excluding the quantity of oxygen utilized for nitrogenous oxygen demand.
14. City. The City of St. Charles, Kane and DuPage Counties, Illinois.
15. Compatible Pollutant. Biochemical oxygen demand, suspended solids, FOG, pH and fecal coli form bacteria.
16. Composite Sample. Sample of wastewater based on a flow proportional or time proportional method.
17. Concentration Limitations. The limits imposing the amount of a given substance in a discrete unit volume of a solution or applied to a unit weight of solid.
18. Control Authority. The City of St. Charles.
19. Cooling Water. The water discharged from any use such as air conditioning, cooling or refrigeration, to which the only pollutant added is heat.
20. Director of Public Works. The Director of Public Works of the City, or his authorized deputy, agent or representative.
21. Discharge. The discharge of treated or untreated wastewater to the POTW.
22. Discharger. Any person, firm, establishment, or institution, which discharges wastewater, excluding inflow and infiltration, to a sanitary sewer, which eventually leads into a City-owned sanitary sewer or treatment plant. Each single connection is a separate discharge by a discharger. "User" is used interchangeably with "Discharger".
23. Easement. An acquired legal right for the specific use of land owned by others.
24. Environmental Protection Agency or EPA. The U.S. Environmental Protection Agency or, where appropriate, the Regional Water Management Division Director of Public Works, or other duly authorized official of said agency.

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25. Environmental Remediation Water. Discharges from soil and/or groundwater remediations.
26. Existing Source. Any source of discharge, the construction or operation of which commenced prior to the publication by EPA of proposed categorical pretreatment standards, which will be applicable to such source if the standard is thereafter promulgated in accordance with Section 307 of the Act.
27. FOG. Any hydrocarbons, fatty acids, soaps, fats, waxes, oils, and any other material that is extracted by freon solvent.
28. Garbage. Solid wastes from the preparation, cooking and dispensing of food and from the handling, storage and sale of produce.
29. General Pretreatment Regulations. The General Pretreatment Regulations for Existing and New Sources, 40 CFR Part 403, as amended.
30. Grab Sample. A sample, which is taken from a waste stream with no regard to the flow in the waste stream and over a period of time not to exceed fifteen (15) minutes.
31. Hazardous Waste. Any substance which, if otherwise disposed of, would be a hazardous waste under 40 CFR Part 261.
32. Illinois Act. The Environmental Protection Act, as amended 415 ILCS 5/1 et seq.
33. Indirect Discharge or Discharge. The introduction of pollutants into the POTW from any nondomestic source regulated under Section 307(b), (c), or (d) of the Act.
34. Incompatible Pollutant. Any pollutant which is not a compatible pollutant as defined in this section.
35. Industrial User. A source of indirect discharge, including but not limited to, a manufacturing, commercial or process facility, or other facility engaged in the purchase or sale of goods, transaction of business or who otherwise renders services to the public.
36. Industrial Wastes. The liquid wastes from industrial processes as distinct from sanitary sewage.
37. Instantaneous Maximum Allowable Discharge Limit. The maximum concentration of a pollutant allowed to be discharged at any time, determined from the analysis of any discrete or composited sample collected, independent of the industrial flow rate and the duration of the sampling event.
38. Interference. A discharge, which, 1) alone or in conjunction with a discharge or discharges from other sources, inhibits or disrupts a POTW, its treatment processes or operations or its sludge processes, use or disposal; and, 2) therefore, is a cause of a) a violation of any NPDES permit or other permit of the City issued by any State or Federal agency or b) of the prevention of sewage sludge use or disposal in compliance with any of the following statutory provisions and regulations or of permits issued thereunder, or of any more stringent State or local regulations: Section 405 of the Act; the Solid Waste Disposal Act, including Title II commonly referred to as the Resource Conservation and Recovery Act (RCRA); any State regulations contained in any State sludge management plan prepared pursuant to Subtitle D of the Solid Waste Disposal Act; the Clean Air Act; the Toxic Substances Control Act; and the Marine Protection, Research, and Sanctuaries Act.
39. Local Limits. Limits on discharges established by the City in Section 13.12.430.
40. Mass Limitation. Limits imposed upon a discharger based upon volumes or concentrations that are converted to weight units.
41. Medical Waste. Isolation wastes, infectious agents, human blood and blood products, pathological wastes, sharps, body parts, contaminated bedding, surgical wastes, potentially contaminated laboratory wastes, and dialysis wastes.
42. Milligrams per liter. A unit of the concentration of water or wastewater constituent. It is 0.001 grams of the constituent in one thousand milliliters of water.
43. National Pretreatment Standard. Any regulation containing pollutant discharge limits promulgated by the USEPA in accordance with Section 307(b) and (c) of the Act, which

applies to Industrial Users. This term includes prohibitive discharge limits established pursuant to 40 CFR Section 403.5.

44. Natural outlet. Any outlet into watercourse, pond, ditch, lake or other body of surface water or groundwater.
45. New Source.
  - (1) Any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced after the publication in the Code of Federal Regulations of proposed pretreatment standards under Section 307(c) of the Act which will be applicable to such source if such standards are thereafter promulgated in accordance with that Section 307(c), provided that:
    - (a) The building, structure, facility, or installation is constructed at a site at which no other source is located; or
    - (b) The building, structure, facility, or installation totally replaces the process or production equipment that causes the discharge of pollutants at an existing source; or
    - (c) The production or wastewater generating processes of the building, structure, facility, or installation are substantially independent of an existing source at the same site. In determining whether these are substantially independent, factors such as the extent to which the new facility is integrated with the existing plant, and the extent to which the new facility is engaged in the same general type of activity as the existing source, should be considered.
  - (2) A site at which an existing source is located and where construction results in a modification rather than a source as defined in Paragraph 43(1) above, provided the construction does not create a new building, structure, facility, or installation meeting the criteria of Paragraph 43 (1)(b) or (c) above but otherwise alters, replaces, or adds to existing process or production equipment.
  - (3) A site where construction has commenced, including where the owner or operator has:
    - (a) Begun, or caused to begin, as part of a continuous onsite construction program,
      - (i) any placement, assembly, or installation of facilities or equipment; or
      - (ii) site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which are necessary for the placement, assembly, or installation of new source facilities or equipment; or
    - (b) Entered into a binding contractual obligation for the purchase of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under this paragraph.
46. Non-Residential Dischargers. All dischargers excluding residential dischargers.
47. Noncontact Cooling Water. Water used for cooling which does not come into direct contact with any raw material, intermediate product, waste product, or finished product.
48. NPDES Permit. Any permit or equivalent document or requirements issued by the Administrator or, where appropriate, by the Director of the IEPA, after enactment of the Federal Water Pollution Control Amendments of 1972, to regulate the discharge of pollutants pursuant to Section 402 of the Act.
49. Pass Through. A discharge which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of violation of any requirement of a City NPDES Permit, including an increase in the magnitude or duration of a violation.
50. Person. Any individual, partnership, co-partnership, firm, company, corporation, association, joint stock company, trust, estate, limited liability company, limited liability partnership,

- governmental entity, or any other legal entity; or their legal representatives, agents, or assigns. This definition includes all Federal, State, and local governmental entities.
51. pH. A measure of the acidity or alkalinity of a solution, expressed in standard units.
  52. Pollutant. Dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, medical wastes, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, municipal, agricultural and industrial wastes, and certain characteristics of wastewater (e.g., pH, temperature, TSS, turbidity, color, BOD, COD, toxicity, or odor).
  53. Pretreatment. The reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to, or in lieu of, introducing such pollutants into the POTW. This reduction or alteration can be obtained by physical, chemical, or biological processes; by process changes; or by other means, except by diluting the concentration of the pollutants unless allowed by an applicable pretreatment standard.
  54. Pretreatment Requirements. Any substantive or procedural requirement related to pretreatment imposed on a User, other than a pretreatment standard.
  55. Pretreatment Standards. Prohibited discharge standards, categorical standards, and local limits.
  56. Prohibited Discharge Standard. Any regulation developed under the authority of Section 307 (b) of the Act and 40 CFR Part 403.5.
  57. Prohibited Discharges. Absolute prohibitions against the discharge of certain substances; such prohibitions appear in Section 13.12.400.
  58. Publicly Owned Treatment Works or POTW. A “treatment works,” as defined by Section 212 of the Act (33 U.S.C. §1292) which is owned by the City. This definition includes any devices or systems used in the collection, storage, treatment, recycling, and reclamation of sewage or industrial wastes of a liquid nature and any conveyances which convey wastewater to a treatment plant owned by the City.
  59. RCRA. The Resource Conservation and Recovery Act, Public Law 94-482 including all subsequent amendments and applicable regulations promulgated pursuant thereto.
  60. Required. That the tasks stated must be done.
  61. Residential User or Commercial User. A nonindustrial User and means any User of the treatment works not classified as an Industrial User or excluded as an Industrial User by this Chapter.
  62. Shall and May. shall is required; may is permissive.
  63. Septic Tank Waste. Any sewage from holding tanks such as vessels, chemical toilets, campers, trailers, and septic tanks.
  64. Sewage. Human excrement and gray water (household showers, dishwashing operations, etc.).
  65. Significant Industrial User.
    - (1) A User subject to categorical pretreatment standards; or
    - (2) A User that:
      - (a) Discharges an average of twenty-five thousand (25,000) gpd or more of process wastewater to the POTW (excluding sanitary, noncontact cooling, and boiler blowdown wastewater);
      - (b) Contributes a process waste stream which makes up five (5) percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant;
      - (c) Is designated as such by the City on the basis that it has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement.
    - (3) Upon a finding that a User meeting the criteria in paragraph (2) above has no reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement, the City may at any time, on its own initiative or in response to a

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petition received from a User, and in accordance with procedures in 40 CFR 403.8(f)(6), determine that such User should not be considered a Significant Industrial User.

66. Slug Load or Slug. Any discharge at a flow rate or concentration which potentially would cause interference with the POTW and/or a violation of the prohibited discharge standards in Section 13.12.400. Any discharge of water, sewage, or industrial waste which, in concentration of any given constituent or in quantity of flow, exceeds, for any period or duration longer than fifteen minutes, more than five times the average twenty-four hour concentration of flows during normal operation and in no event more than five times the allowable concentration of constituents set forth in this Chapter or the User's permit or any pollutant, including oxygen demanding pollutants (BOD, etc.) released in a discharge at a flow rate and/or pollutant concentration which potentially will cause interference with the POTW and/or violate prohibited discharge standards in Section 13.12.400.
67. Solid Wastes. Any trash, ashes, rags, bottles, tin cans, tree limbs, manure of domestic animals, offal, dead animals or portions thereof, foodstuffs, and wastes thereof other than normally contained in sanitary sewage and any and all other solid objects, materials, refuse or debris. The term ashes shall include the residuum resulting from the combustion of coal, coke, wood or any other material or substance and shall include soot, cinders, slag, and charcoal.
68. Standard Industrial Classification (SIC) Code. A classification pursuant to the *Standard Industrial Classification Manual* issued by the United States Office of Management and Budget.
69. Storm Water. Any flow occurring during or following any form of natural precipitation, and resulting from such precipitation, including snowmelt.
70. Suspended Solids. The total suspended matter that floats on the surface of, or is suspended in, water, wastewater, or other liquid, and which is removable by laboratory filtering. Non-filterable solids expressed in milligrams per liter, contained in wastewater and measured by the methods set forth in "Standard Methods for the Examination of Water and Wastewater" or such other method as approved by the United States Environmental Protection Agency.
71. SWDA. The Solid Waste Disposal Act, 42 U.S.C. §6901 et seq.
72. TSS. Solids that either float on the surface of, or are in suspension in, water, sewage, or other liquids, and which are removable by laboratory filtering.
73. Toxic Pollutants. Any pollutant or combination of pollutants listed in regulations promulgated by the Administrator under provision of the Act.
74. Unpolluted Water. Water of quality equal to or better than effluent criteria in effect, or water that would not cause violation of receiving stream quality standards and would not be benefited by discharge to the sanitary sewers and wastewater treatment facilities provided.
75. User. A source of indirect discharge.
76. User Severe Property Damage. Substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
77. Wastewater. Liquid and water-carried industrial wastes and sewage from residential dwellings, commercial buildings, industrial and manufacturing facilities, and institutions, whether treated or untreated, which are contributed to the POTW.
78. Wastewater Treatment Plant or Treatment Plant. That portion of the POTW which is designed to provide treatment of municipal sewage and industrial waste.
79. Watercourse. A channel in which a flow of water occurs, either continuously or intermittently.
80. Utility Services – Electric, water, sewer, yard waste, and refuse services that are provided by the City or its designated provider.

(Ord. 2010-M-9 § 1.)

**13.12.200 Sewer engineering and installation.**

All sanitary and storm sewer systems shall be engineered and installed in accordance with Chapter 16, Subdivisions and Land Improvement and 18, Flood Damage Protection, respectively, of the St. Charles Municipal Code.

**13.12.201 Overhead Sanitary Sewers**

- A. All building sewers shall be overhead sewers, and are required where the subdivision's preliminary plan was approved after the effective date of this Chapter. No building sewers shall be laid parallel to or within three feet (3') of any bearing wall which might thereby be weakened. The depth shall be sufficient to afford protection from frost. The building sewer shall be laid at uniform grade in a straight alignment insofar as possible. Changes in direction shall be made only with properly curved pipe and fittings.
- B. An overhead sewer shall be required to be constructed in the lowest level of all new structures where the lowest level is three feet below the elevation of the crown of the street adjacent to the structure when such structures contain a toilet or shower facility within the lowest level. Plumbing fixtures to be served by an overhead sewer shall drain into an ejection pit with pump and tight seal lid which meets the requirements of the Illinois State Plumbing Code. The ejector pit shall be properly sealed, vented and located to receive sewage by gravity flow from which the liquid shall be lifted and discharged into the sanitary sewer service. The discharge size of the pump shall be a minimum of two inches, and discharge line shall be equipped with a backwater check valve, and ball valve. Plumbing fixtures above the aforesaid elevation shall drain entirely by gravity and shall not be drained through the ejection pit.
- C. Where an overhead sanitary sewer system is not required by this Section, a threaded floor drain and plug shall be required to be constructed in the basement of any structure with a level lower than three feet below the elevation of the crown of the street adjacent to the residence.
- D. Where an overhead sanitary sewer system is not required by this Section, a manual shutoff valve will be required for all utility tubs which are installed in the basement of any structure with a level lower than three feet below the elevation of the crown of the adjacent street.

(Ord. 1997-M-135 § 1.)

**13.12.202 Connection permit requirements - Application and issuance.**

- A. It is unlawful to make any connection with any City sewer without first having obtained a permit therefore.
- B. Applications for connection permits shall be made to the Building Commissioner and shall be accompanied by a statement setting forth the purpose of connecting to a City sewer, the premises to be served, the specifications of the sewer pipe to be connected and the drain from the house to the sewer pipe.
- C. No permit for connection to any City sewer shall be issued by the Building Commissioner unless it is determined that all applicable ordinances of the City are complied with including all applicable state and federal requirements.
- D. No unauthorized person shall uncover, make any connections with or opening into, use, alter, or disturb any public sewer or appurtenance thereof without first obtaining a written permit from the Building Commissioner.

**13.12.205 Discharge of stormwater and other unpolluted drainage to sanitary sewer prohibited.**

- A. No person owning, or in possession of real estate, shall discharge, or cause or permit to be discharged any stormwater, surface water, groundwater, roof runoff, subsurface drainage, uncontaminated cooling water or unpolluted waters to any sanitary sewer.
- B. All downspouts, outside stairwells and roof drains shall discharge onto the ground or be connected to storm sewers, drainage ditches or storm drainage systems. Footing drains shall be connected to sump

pumps and discharge shall be made into storm sewers, sewer lines connected to storm sewers, drainage ditches or storm drainage systems. Sump pumps installed to receive and discharge groundwaters or surface waters shall be connected to a storm sewer or into a drainage ditch or storm drainage system. Sump pumps installed to receive and discharge building floor drain flow, laundry tubs or other wastewater shall be connected to the sanitary sewers pursuant to Section 15.04.050. Each individual sump pump shall be used for one function only, either the discharge of uncontaminated storm related groundwaters or the discharge of wastewater.

**13.12.210 Unlawful use or construction of private sewage disposal systems.**

It is unlawful to construct or maintain any privy, privy vault, septic tank, cesspool, or other facility intended or used for the disposal of sewage except as provided in Section 13.12.235.

**13.12.215 Connection of certain sewers to public sanitary sewer prohibited.**

It is unlawful for any person owning or in possession of real estate to connect, permit to be connected or permit to remain connected any sewer to a public sanitary sewer which sewer receives roof drainage, foundation drainage, surface water or groundwater.

**13.12.220 Construction of combined sewers prohibited.**

It is unlawful to construct combined sewers or other facilities intended to receive both runoff and sewage. Separate sanitary sewers and separate storm sewers shall be provided.

**13.12.225 Installation of toilet facilities required by owner.**

The owners of all houses, buildings or properties used for human occupancy, employment, recreation or other purpose, situated in the City and abutting on any street, alley, right-of-way, or easement in which there is now located, or may in the future be located, a public sanitary sewer of the City, are required at their expense to install suitable toilet facilities connecting directly with the proper public sewer in accordance with the provisions of this Chapter, within ninety days after date of official notice to do so; provided, that said public sewer is within one hundred feet of the property line and any downstream portion of the wastewater facilities has sufficient capacity to handle the additional flow.

**13.12.230 Unauthorized destruction or defacement of sewage equipment prohibited.**

No unauthorized person shall maliciously, willfully, or negligently break, damage, destroy, uncover, deface or tamper with any structure, appurtenances, or equipment which is a part of the City sewage works.

**13.12.235 Private sewage disposal systems requirements generally.**

- A. Where a public sanitary sewer is not available under the provisions of this Chapter, the building sanitary sewer shall be connected to a private sewage disposal system complying with the provisions of the section.
- B. Permit and Fee. No construction shall be permitted for any private sewage disposal system or for any building to be served by a private sewage disposal system, within the City limits, unless a permit for private sewage disposal system has first been obtained from Kane or DuPage Counties. In addition, no permit will be issued unless the construction is to be done by an Illinois Department of Public Health licensed private sewage disposal system contractor. All percolation tests and private sewage disposal system plans shall be completed in conformance with Kane or DuPage County regulations, based on location of property and shall conform to City ordinances. No criteria shall be less stringent than the criteria of the Illinois State Plumbing Code, 225 ILCS 320/1 and the Private Sewage Disposal Licensing Act, 225 ILCS 225/1. Percolation tests shall be conducted and evaluated under the supervision of a registered professional engineer licensed to practice in Illinois.
- C. Adoption of Code. There is adopted by the City Council those certain codes, three copies of which have been and are now on file in the Office of the Clerk of the City, which are known as the Illinois

State Plumbing Code and the Private Sewage Disposal Licensing Act, the same being hereby adopted and incorporated as fully as if set out at length herein.

- D. Inspections and Cleaning. All private sewage disposal systems installed and operated within the City limits may be subject to inspection by the City, to determine if the system is functioning properly and which determination shall include, but not be limited to, a finding concerning the following:
1. Contaminated surface or ground water;
  2. Odorant production;
  3. Depth of sludge in the septic tank;
  4. Clogged seepage field;
  5. Improper draining of the plumbing fixtures as a result of clogged septic tank and/or seepage field;
  6. Contaminated footing drain sump water.
- If, after inspection, it is determined that the private sewage system is not functioning properly, the owner and/or occupant shall be notified in writing to have the necessary work performed to correct the malfunction. If modifications to the system are required and are allowable, pursuant to the Illinois State Plumbing Code and the Private Sewage Disposal Licensing Act and Code, both as modified herein, said modifications shall be done by a licensed private sewage disposal contractor. The owner and/or occupant shall be given a reasonable amount of time. It is the responsibility of the property owner and occupant to have the septic tank cleaned no less than once every five years. The City may require the property owner to submit a copy of the paid bill for such cleaning and services rendered by a licensed private sewage disposal contractor. The City may maintain a file system to inform property owners and occupants of the necessity for cleaning the septic tank.
- E. In the event the malfunction cannot be corrected by cleaning and the property is within one hundred (100) feet of an accessible public sewer system, the private system shall be disconnected and connection made to the public sewer system.

**13.12.240 Building sewers - Requirements generally.**

- A. A separate and independent building sanitary sewer shall be provided for every building. The sanitary sewer service shall be installed to within ten (10) feet of the center of each lot or as otherwise approved by the Building Commissioner. A building having one common wall with another building is considered a separate building and shall have its own sanitary sewer.
- B. Existing building sanitary sewers and/or storm sewers may be used in connection with new buildings only when they are found on examination and test by the Building Commissioner to meet all requirements of this chapter.
- C. New building sanitary and/or storm sewers shall be installed in accordance with the standards and procedures set forth in Chapter 16.

**13.12.245 Building sewers - Owner and Occupant responsibility for cost of installation and connection.**

All costs and expense incidental to the installation and connection of the building sewers shall be borne by the owner and occupant jointly and severally. The owner shall indemnify and hold the City harmless from any liability or loss including reasonable attorney's fees arising out of or in connection with the installation of the sewer for a building, except, to the extent prohibited by law.

**13.12.250 Owner and Occupant Responsibility for Maintenance**

The owner and occupant of the premises served by the public sewer system shall jointly and severally properly maintain and operate a building service sewer, house connection or sanitary sewer line to the point of connection to the City sewer system. Maintenance means keeping the sanitary sewer connection, sewer lines and other sewer facilities in satisfactory working condition and in a good state of repair (including but not limited to preventing any obstruction of extraneous material or flows from entering said facilities,

protecting said facilities from any damage and keeping same free from defects or malfunctions), and making necessary provisions and taking necessary precautions to assure that said sewer facilities are at all times capable of satisfactorily performing the services and adequately discharging the facilities are intended to perform, discharge or produce.

**13.12.265 Inspections of residences to be connected to sewer system.**

- A. Upon payment of the permit fee, the Building Commissioner shall make the following inspections of each residence to be connected to the sewage system:
  - 1. An inspection shall be made at the time the sewer ditch is opened and the connection is made to the sewer system to determine that there is proper grade and connection.
  - 2. An inspection shall be made before the fill is put around the foundation and while the tile is still exposed around the foundation to see that there has been no connection of such drain tile with the sanitary sewer system. The second inspection shall also include the inspection of rough plumbing on the inside of the residence.
  - 3. A third and final inspection shall be made after the eaves-troughs and downspouts have been installed to see that there is no connection of the aforesaid with the sanitary sewer. This final inspection shall also include an inspection of the fixture connections within the residence.
- B. The provisions of the St. Charles Municipal Code relating to excavations in streets shall be complied with in making excavations in streets or other public places for sewer connections.

**13.12.300 Use of storm sewers.**

Stormwater and all other unpolluted drainage shall be discharged to such sewers as are specifically designated as storm sewers, or to an outlet approved by the Director of Public Works. Industrial cooling water or unpolluted water may be discharged, upon approval of the Director of Public Works, to a storm sewer, or natural outlet, subject however, to the delivery of a copy of all necessary State and Federal Permits to the Director of Public Works.

**13.12.310 Unlawful discharge of polluted substances into natural outlets.**

It is unlawful to discharge into any natural outlet within the City, or in any area under the jurisdiction of the City, any sanitary sewage, industrial wastes, or any other polluted water, except where suitable treatment has been provided in accordance with the provisions of this Chapter.

**13.12.320 Connection of devices discharging polluting substances to stormwater drains prohibited.**

It is unlawful for any person, firm, or corporation to connect or cause to be connected, any drain carrying, or to carry, any toilet sink, basement, septic tank, cesspool, industrial waste, or any fixture or device discharging polluting substances, to any stormwater drain.

**13.12.330 Maintenance of stormwater detention and retention basins.**

- A. Maintenance. The owner or person in possession, if not the owner, of a detention or retention basin shall maintain the same as follows:
  - 1. Control the growth of noxious weeds;
  - 2. Control the creation of conditions which support the growth of mosquitoes and other insects;
  - 3. Control the decrease in available storage by accumulated sediments; and
  - 4. Clean up accumulated debris, flotsam and other materials after run off events have subsided.
 The City may accept maintenance assignments of basins, but only through specific acceptance and approval by resolution of the City Council.
- B. Inspections. All privately owned detention and retention basins installed and operated within the City limits shall be subject to inspection by the City to determine the physical conditions of required storage capacity and the operational conditions of key elements of the basin and appurtenances.

- C. **Corrective Measures.** If, after inspection, it is determined that the basin and appurtenances are not functioning properly, the owner and person in possession, if not the owner, shall be notified in writing to have the necessary work performed to eliminate the malfunctions. If modifications to the basin and appurtenances are required, they shall be completed in accordance with the provisions of Sections 18.34.52 through 18.34.53 of the St. Charles Municipal Code. The owner and occupant shall be given a reasonable amount of time. The City shall maintain a file system to inform the owner or person in possession, if not the owner, of the necessity for cleaning the basin and appurtenances. The failure of the City to maintain such file system or failure to notify an owner or person in possession shall be no defense to an action taken pursuant to this section.

### **13.12.400 Prohibited Discharge Standards**

- A. **General Prohibitions.** No User shall introduce or cause to be introduced into the POTW any pollutant or wastewater which causes pass through or interference. These general prohibitions and the specific prohibitions in paragraph B of this section apply to all Users of the POTW whether or not they are subject to categorical pretreatment standards or any other Federal, State, or local pretreatment standards or requirements.
- B. **Specific Prohibitions.** No User shall introduce or cause to be introduced into the POTW the following pollutants, substances, or wastewater:
- (1) Pollutants which create a fire or explosive hazard in the POTW, including, but not limited to, waste streams with a closed-cup flashpoint of less than 140°F (60°C) using the test methods specified in 40 CFR 261.21;
  - (2) Wastewater having a pH less than 5.5 or more than 9, or otherwise causing corrosive structural damage to the POTW or equipment;
  - (3) Solid or viscous substances in amounts which will cause obstruction of the flow in the POTW resulting in interference but in no case solids greater than one-half inch (1/2") or 1.27 centimeters;
  - (4) Pollutants, including oxygen-demanding pollutants (BOD, etc.), released in a discharge at a flow rate and/or pollutant concentration which, either singly or by interaction with other pollutants, will cause interference with the POTW;
  - (5) Wastewater having a temperature greater than 157°F (65°C), or which will inhibit biological activity in the treatment plant resulting in interference, but in no case wastewater which causes the temperature at the introduction into the treatment plant to exceed 104°F (40°C);
  - (6) Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin, in amounts that will cause interference or pass through;
  - (7) Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems;
  - (8) Trucked or hauled pollutants;
  - (9) Noxious or malodorous liquids, gases, solids, or other wastewater which, either singly or by interaction with other wastes, are sufficient to create a public nuisance or a hazard to life, or to prevent entry into the sewers for maintenance or repair;
  - (10) Wastewater which imparts color which cannot be removed by the treatment process, such as, but not limited to, dye wastes and vegetable tanning solutions, which consequently imparts color to the treatment plant's effluent, thereby causing a violation of a City NPDES permit;
  - (11) Wastewater containing any radioactive wastes or isotopes except in compliance with applicable State or Federal regulations;
  - (12) Storm water, surface water, ground water, artesian well water, roof runoff, subsurface drainage, swimming pool drainage, condensate, deionized water, noncontact cooling water, and unpolluted wastewater, unless specifically authorized by the Director of Public Works in a wastewater discharge permit;

- (13) Sludges, screenings, or other residues from the pretreatment of industrial wastes;
- (14) Medical wastes, except as specifically authorized by the Director of Public Works in a wastewater discharge permit;
- (15) Wastewater causing, alone or in conjunction with other sources, the treatment plant's effluent to fail a toxicity test;
- (16) Detergents, surface-active agents, or other substances which may cause excessive foaming in the POTW;
- (17) Fats, oils, or greases of animal or vegetable origin in concentrations greater than 100 mg/l.
- (18) Wastewater causing two readings on an explosion hazard meter at the point of discharge into the POTW, or at any point in the POTW, of more than five percent (5%) or any single reading over ten percent (10%) of the Lower Explosive Limit of the meter;
- (19) Hazardous Waste.

Pollutants, substances, or wastewater prohibited by this section shall not be processed or stored in such a manner that they could be discharged to the POTW.

#### **13.12.410 National Categorical Pretreatment Standards**

The categorical pretreatment standards found at 40 CFR Chapter I, Subchapter N, Parts 405-471, as published in the Code of Federal Regulations, revised as of July 1, 1994, published by the Office of the Federal Register, National Archives and Records Administration are hereby incorporated by reference.

- (1) Where a categorical pretreatment standard is expressed only in terms of either the mass or the concentration of a pollutant in wastewater, the Director of Public Works may impose equivalent concentration or mass limits in accordance with 40 CFR 403.6(c).
- (2) When wastewater subject to a categorical pretreatment standard is mixed with wastewater not regulated by the same standard, the Director of Public Works shall impose an alternate limit using the combined waste stream formula in 40 CFR 403.6(e).
- (3) A User may obtain a variance from USEPA, or if authorized, IEPA of a categorical pretreatment standard if the User can prove, pursuant to the procedural and substantive provisions in 40 CFR 403.13, that factors relating to its discharge are fundamentally different from the factors considered by EPA when developing the categorical pretreatment standard.
- (4) A User may obtain a net gross adjustment to a categorical standard in accordance with 40 CFR 403.15.
- (5) The User shall identify the Pretreatment Standards applicable to each regulated process.

#### **13.12.420 State Pretreatment Standards**

State pretreatment standards located at Title 35: Subtitle C, Chapter 1, Section 302 are hereby incorporated by reference.

#### **13.12.430 Local Limits**

The following pollutant limits are established to protect against pass through and interference. No person shall discharge wastewater containing pollutants in excess of the following:

<u>62.0</u>	mg/L	Ammonia
<u>0.69</u>	mg/L	Arsenic
<u>2.00</u>	mg/L	Barium
<u>574</u>	mg/L	CBOD
<u>0.85</u>	mg/L	Cadmium
<u>0.50</u>	mg/L	Chromium (hex)
<u>3.00</u>	mg/L	Chromium
<u>1.00</u>	mg/L	Chromium (tri)
<u>1000</u>	mg/L	COD

<u>1.00</u>	mg/L	Copper
<u>0.50</u>	mg/L	Cyanide
<u>123</u>	mg/L	FOG
<u>45.0</u>	mg/L	Fluoride
<u>3.00</u>	mg/L	Iron (dissolved)
<u>32.0</u>	mg/L	Iron
<u>0.50</u>	mg/L	Lead
<u>4.00</u>	mg/L	Manganese
<u>0.0005</u>	mg/L	Mercury
<u>3.00</u>	mg/L	Nickel
<u>0.80</u>	mg/L	Phenols
<u>1.00</u>	mg/L	Selenium
<u>0.20</u>	mg/L	Silver
<u>3500</u>	mg/L	Total Dissolved Solids
<u>540</u>	mg/L	Total Suspended Solids
<u>7.50</u>	mg/L	Zinc

The above limits apply at the point where the wastewater is discharged to the POTW. All concentrations for metallic substances are for “total” metal unless indicated otherwise. The Director of Public Works may impose mass limitations in addition to, or in place of, the concentration based limitations above.

(Ord. 1996-M-72 § 1.)

#### **13.12.440 The City's Right of Revision**

The City reserves the right to establish, by chapter or in wastewater discharge permits, more stringent standards or requirements on discharges to the POTW.

#### **13.12.450 Dilution**

No User shall ever increase the use of process water, or in any way attempt to dilute a discharge, as a partial or complete substitute for adequate treatment to achieve compliance with a discharge limitation unless expressly authorized by an applicable pretreatment standard or requirement. The Director of Public Works may impose mass limitations on Users who are using dilution to meet applicable pretreatment standards or requirements, or in other cases when the imposition of mass limitations is appropriate.

#### **13.12.460 Pretreatment Facilities**

Users shall provide wastewater treatment as necessary to comply with this chapter and shall achieve compliance with all categorical pretreatment standards, local limits, and the prohibitions set out in this chapter including Sections 13.12.400, 13.12.410, 13.12.420, and 13.12.430 within the time limitations specified by EPA, the State, or the Director of Public Works, whichever is more stringent. Any facilities necessary for compliance shall be provided, operated, and maintained at the User's expense. Detailed plans describing such facilities and operating procedures shall be submitted to the Director of Public Works for review, and shall be approved in writing by the Director of Public Works before such facilities are constructed. The review of such plans and operating procedures shall in no way relieve the User from the responsibility of modifying such facilities as necessary to produce a discharge acceptable to the City under the provisions of this chapter.

#### **13.12.470 Additional Pretreatment Measures**

- A. Whenever deemed necessary, the Director of Public Works may require Users to restrict their discharge during peak flow periods, designate that certain wastewater be discharged only into specific sewers, relocate and/or consolidate points of discharge, separate sewage waste streams from industrial

waste streams, and such other conditions as may be necessary to protect the POTW and determine the User's compliance with the requirements of this chapter.

- B. The Director of Public Works may require any User discharging into the POTW to install and maintain, on the User's property and at the User's expense, a suitable storage and flow-control facility to ensure equalization of flow. A wastewater discharge permit may be issued solely for flow equalization.
- C. Grease, oil, and sand interceptors shall be provided when, in the opinion of the Director of Public Works, they are necessary for the proper handling of wastewater containing excessive amounts of grease and oil, or sand; except that such interceptors shall not be required for residential Users. All interception units shall be of type and capacity approved by the Director of Public Works and shall be so located to be easily accessible for cleaning and inspection. Such interceptors shall be inspected, cleaned, and repaired regularly, as needed, by the User at the User's expense.
- D. Users with the potential to discharge flammable substances may be required to install and maintain an approved combustible gas detection meter.

#### **13.12.480 Accidental Discharge/Slug Control Plans**

At least once every two (2) years, the Director of Public Works shall evaluate whether each Significant Industrial User needs an accidental discharge/slug control plan. The Director of Public Works may require any Significant Industrial User to develop, submit for approval, and implement such a plan. An accidental discharge/slug control plan shall address, at a minimum, the following:

- A. Description of discharge practices, including nonroutine batch discharges;
- B. Description of stored chemicals;
- C. Procedures for immediately notifying the Director of Public Works of any accidental or slug discharge, as required by Section 13.12.570; and
- D. Procedures to prevent adverse impact from any accidental or slug discharge. Such procedures include, but are not limited to, inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site runoff, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants, including solvents, and/or measures and equipment for emergency response.

#### **13.12.485 Accidental Discharges**

Each User shall provide protection from an accidental discharge of prohibited materials, regulated materials or any other substances regulated. Where necessary, facilities to prevent an accidental discharge of the above mentioned materials shall be provided and maintained at the User's own cost and expense. Detailed plans showing facilities and operating procedures to the city for review, and shall be approved by the city before construction and operation of the facility. Review and approval of such plans and operating procedures shall not relieve the User from the responsibility to modify the User's facility as necessary to meet all the requirements.

Users shall notify the City immediately upon knowing of the discharge of substances prohibited or regulated by this chapter. Notification shall include location of discharge, date and time thereof, type of waste, concentrations and volume, and corrective actions to be taken. The User shall be required to submit a written explanation of any "slug loads" or accidental discharges within five working days after the first notification.

Signs shall be permanently posted in conspicuous places advising employees whom to call in the event of an accidental spill of prohibited materials. In lieu of using signs, User may use an alternative method for training employees in the procedures for reporting of accidental discharges.

Follow up reports may be required as needed. Such report, or reports, shall not relieve the User of any expense, loss, damage or other liability which may be incurred as a result of damage to the POTW, fish kills, or any other damage to person or property; nor shall such report relieve the User of any fines, civil penalties, or other liability which may be imposed by this chapter or otherwise. Failure to report accidental

or deliberate discharges may, in addition to any other remedies available, result in the revocation of the discharger's wastewater permit.

**13.12.500 Wastewater Discharge Permit Requirement**

- A. No Significant Industrial User shall discharge wastewater into the POTW without first obtaining a wastewater discharge permit from the Director of Public Works, except that a Significant Industrial User that has filed a timely application pursuant to Section 13.12.540 of this chapter may continue to discharge for the time period specified therein, provided the discharge in all other respects does not violate any provision of this chapter.
- B. The Director of Public Works may require other Users as well as Significant Industrial Users to obtain wastewater discharge permits as necessary to carry out the purposes of this chapter.
- C. Any violation of the terms and conditions of a wastewater discharge permit shall be deemed a violation of this chapter and subjects the wastewater discharge permittee to the sanctions set forth in this Chapter. Obtaining a wastewater discharge permit does not relieve a permittee of its obligation to comply with all Federal and State pretreatment standards or requirements and local limits or with any other requirements of Federal, State, and local law.

**13.12.505 Wastewater Analysis**

When requested by the Director of Public Works, a User shall submit information on the nature and characteristics of its wastewater within thirty (30) days of the request. The Director of Public Works is authorized to prepare a form for this purpose and may periodically require Users to update this information.

**13.12.510 Industrial User Wastewater Discharge Permit Application.**

- A. Applications for discharge permits shall be made to the Director of Public Works and shall be accompanied by a statement setting forth the purpose of connecting to a City sewer, the premises to be served, the specifications of the sewer pipe to be connected and the drain or drains from the structure to the sewer pipe.
- B. Industrial Users, when issued a wastewater discharge permit by the City shall pay a fee of \$100.00. Such fee is due and payable prior to the discharge permit being issued, modified or renewed.

**13.12.520 Wastewater Discharge Permitting: Existing Source**

Any User required to obtain a wastewater discharge permit who was discharging wastewater into the POTW prior to May 25, 1995 and who wishes to continue such discharges in the future, shall, within ninety (90) days after May 25, 1995, apply to the Director of Public Works for a wastewater discharge permit in accordance with Section 13.12.540 of this chapter, and shall not cause or allow discharges to the POTW to continue after one hundred eighty (180) days of the effective date of this chapter except in accordance with a wastewater discharge permit issued by the Director of Public Works.

**13.12.530 Wastewater Discharge Permitting: New Source**

Any User required to obtain a wastewater discharge permit who proposes to begin or recommence discharging into the POTW shall obtain such permit prior to the beginning or recommencing of such discharge. An application for this wastewater discharge permit, in accordance with Section 13.12.540 of this chapter, shall be filed at least one hundred eighty (180) days prior to the date upon which any discharge will begin or recommence.

**13.12.540 Wastewater Discharge Permit Application Contents**

All Users required to obtain a wastewater discharge permit shall submit a permit application. The Director of Public Works may require all Users to submit as part of an application the following information:

- A. All information required by Section 13.12.600(B);

- B. Description of activities, facilities, and plant processes on the premises, including a list of all raw materials and chemicals used or stored at the facility which are, or could accidentally or intentionally be, discharged to the POTW;
- C. Number and type of employees, hours of operation, and proposed or actual hours of operation;
- D. Each product produced by type, amount, process or processes, and rate of production;
- E. Type and amount of raw materials processed (average and maximum per day);
- F. Site plans, floor plans, mechanical and plumbing plans, and details to show all sewers, floor drains, and appurtenances by size, location, and elevation, and all points of discharge;
- G. Time and duration of discharges; and
- H. Any other information as may be deemed necessary by the Director of Public Works to evaluate the wastewater discharge permit application.

Incomplete or inaccurate applications will not be processed and will be returned to the User for revision.

#### **13.12.550 Application Signatories and Certification**

All wastewater discharge permit applications and User reports shall be signed by an authorized representative of the User and contain the following certification statement:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

#### **13.12.560 Wastewater Discharge Permit Decisions**

The Director of Public Works will evaluate the data furnished by the User and may require additional information. A wastewater discharge permit application shall be deemed complete when the Director of Public Works has received all such data and additional information required, if any. Within ninety (90) days of receipt of a complete wastewater discharge permit application, the Director of Public Works will determine whether or not to issue a wastewater discharge permit. The Director of Public Works may deny any application for a wastewater discharge permit. No permit shall issue without the specific approval of the Director of Public Works.

#### **13.12.565 Wastewater Discharge Permit Duration**

A wastewater discharge permit shall be issued for a specified time period, not to exceed five (5) years from the effective date of the permit. A wastewater discharge permit may be issued for a period less than five (5) years, at the discretion of the Director of Public Works. Each wastewater discharge permit will indicate a specific date upon which it will expire.

#### **13.12.570 Wastewater Discharge Permit Contents**

A wastewater discharge permit shall include such conditions as are deemed reasonably necessary by the Director of Public Works to prevent pass through or interference, protect the quality of the water body receiving the treatment plant's effluent, protect worker health and safety, facilitate sludge management and disposal, and protect against damage to the POTW.

- A. Wastewater discharge permits shall contain the following matters; provided, however, a failure to include any such matter shall not invalidate or limit the requirements of such permit:
  - (1) A statement that indicates wastewater discharge permit duration, which in no event shall exceed five (5) years;

- (2) A statement that the wastewater discharge permit is nontransferable;
  - (3) Effluent limits based on applicable pretreatment standards;
  - (4) Self-monitoring, sampling, reporting, notification, and record-keeping requirements. These requirements shall include an identification of pollutants to be monitored, sampling location, sampling frequency, and sample type based on Federal, State, and local law; and
  - (5) A statement of applicable civil and criminal penalties for violation of pretreatment standards and requirements, and any applicable compliance schedule. Such schedule may not extend the time for compliance beyond that required by applicable Federal, State, or local law.
  - (6) Notification requirement to report to the City either orally or in writing, any violation of applicable pretreatment standards within twenty-four (24) hours of occurrence.
- B. Wastewater discharge permits may contain, but need not be limited to, the following conditions:
- (1) Limits on the average and/or maximum rate of discharge, time of discharge, and/or requirements for flow regulation and equalization;
  - (2) Requirements for the installation of pretreatment technology, pollution control, or construction of appropriate containment devices, designed to reduce, eliminate, or prevent the introduction of pollutants into the treatment works;
  - (3) Requirements for the development and implementation of spill control plans or other special conditions including management practices necessary to adequately prevent accidental, unanticipated, or nonroutine discharges;
  - (4) Development and implementation of waste minimization plans to reduce the amount of pollutants discharged to the POTW;
  - (5) The unit charge or schedule of User charges and fees for the management of the wastewater discharged to the POTW;
  - (6) Requirements for installation and maintenance of inspection and sampling facilities and equipment;
  - (7) A statement that compliance with the wastewater discharge permit does not relieve the permittee of responsibility for compliance with all applicable Federal, State and local pretreatment standards, including those which become effective during the term of the wastewater discharge permit;
  - (8) Notification requirement to report to the City, either orally or in writing any slug load discharges into the POTW, within 24 hours of occurrence; and
  - (9) Other conditions as deemed appropriate by the Director of Public Works to ensure compliance with this chapter, and State and Federal laws, rules, and regulations.

### **13.12.575 Wastewater Discharge Permit Appeals**

The Director of Public Works shall provide public notice of the issuance of a wastewater discharge permit. Any person, including the User, may petition the Director of Public Works to reconsider the terms of a wastewater discharge permit within thirty (30) days of notice of its issuance.

- A. Failure to submit a timely petition for review shall be deemed to be a waiver of the administrative appeal.
- B. In its petition, the appealing party shall indicate the wastewater discharge permit provisions objected to, the reasons for this objection, and the alternative condition, if any, it seeks to place in the wastewater discharge permit.
- C. The effectiveness of the wastewater discharge permit shall not be stayed pending the appeal.
- D. If the Director of Public Works fails to act within thirty (30) days, a request for reconsideration shall be deemed to be denied. Decisions not to reconsider a wastewater discharge permit, not to issue a wastewater discharge permit, or not to modify a wastewater discharge permit shall be considered final administrative actions for purposes of judicial review.
- E. Aggrieved parties seeking judicial review of the final administrative wastewater discharge permit decision shall do so by filing a complaint with the Circuit Court for Kane County within thirty-five

(35) days of the date of the final administrative wastewater discharge permit decision. Such proceeding shall be in accordance with the applicable statutes for judicial review of administrative decisions, or declaratory judgement, whichever applies.

### **13.12.580 Wastewater Discharge Permit Modification**

The Director of Public Works may modify a wastewater discharge permit for good cause, including, but not limited to, the following reasons:

- A. To incorporate any new or revised Federal, State, or local pretreatment standards or requirements;
- B. To address significant alterations or additions to the User's operation, processes, or wastewater volume or character since the time of wastewater discharge permit issuance;
- C. A change in the POTW that requires either a temporary or permanent reduction or elimination of the authorized discharge;
- D. Information indicating that the permitted discharge poses a threat to the City's POTW, City personnel, or the receiving waters;
- E. Violation of any terms or conditions of the wastewater discharge permit;
- F. Misrepresentations or failure to fully disclose all relevant facts in the wastewater discharge permit application or in any required reporting;
- G. Revision of or a grant of variance from categorical pretreatment standards pursuant to 40 CFR 403.13;
- H. To correct typographical or other errors in the wastewater discharge permit; or
- I. To reflect a transfer of the facility ownership or operation to a new owner or operator.

### **13.12.585 Wastewater Discharge Permit Revocation**

The Director of Public Works may revoke a wastewater discharge permit for good cause, including, but not limited to, the following reasons:

- A. Failure to notify the Director of Public Works of significant changes to the wastewater prior to the changed discharge;
- B. Failure to provide prior notification to the Director of Public Works of changed conditions pursuant to Section 13.12.620;
- C. Misrepresentation or failure to fully disclose all relevant facts in the wastewater discharge permit application;
- D. Falsifying self-monitoring reports;
- E. Tampering with monitoring equipment;
- F. Refusing to allow the Director of Public Works timely access to the facility premises and records;
- G. Failure to meet effluent limitations;
- H. Failure to pay fines;
- I. Failure to pay sewer charges;
- J. Failure to meet compliance schedules;
- K. Failure to complete and submit a wastewater survey or the wastewater discharge permit application;
- L. Failure to provide advance notice of the transfer of business ownership of a permitted facility;
- M. Violation of any pretreatment standard or requirement, or any terms of the wastewater discharge permit or this chapter.
- N. Violation of this chapter, its permit, the Illinois Act or the Act, or regulations promulgated under either act.
- O. Failure of a User to factually report the wastewater constituents and characteristics of its discharge as determined by the User's or City's analysis.
- P. Failure to report an accidental discharge of a pollutant.
- Q. Failure to report an upset of User's treatment facilities.

Wastewater discharge permits automatically expire upon cessation of operations or transfer of business ownership, unless a transfer is authorized by the Director of Public Works pursuant to Section 13.12.587.

All wastewater discharge permits issued to a particular User automatically expire and are void upon the issuance of a new wastewater discharge permit to that User.

### **13.12.586      Procedures for Revocation**

- A. The Director of Public Works may order any User who causes or allows any action relative to a permit which is subject to revocation under Section 13.12.585 above to show cause before a hearing officer designated by the Mayor with advice and consent of the City Council why the permit should not be revoked. A notice shall be served on the User specifying the time and place of a hearing to be held by such hearing officer regarding the violation, the reasons why the action is to be taken, the proposed action, and directing the User to show cause before the hearing why its permit should not be revoked. The notice of the hearing shall be served personally or by registered or certified mail, return receipt requested, except where the Director of Public Works determines an emergency exists, at least ten (10) days before the hearing. Service may be made on any agent or officer of a User.
- B. The City Council may itself conduct the hearing and take the evidence, or may designate any of its members, its attorney or other person as a hearing officer to:
  - 1. Issue in the name of the City notices of hearings requesting the attendance and testimony of witnesses and the production of evidence relevant to any matter involved in such hearing;
  - 2. Take the evidence;
  - 3. Transmit a report of the evidence and hearing, including transcripts and other evidence, together with recommendation to the City Council for action thereon.
- C. At any hearing held pursuant to this chapter, testimony taken shall be under oath and recorded. The transcript, so recorded, will be made available to any party to the hearing upon payment of the usual copying charges therefore.
- D. After the City Council has reviewed the evidence, it may issue an order to the User responsible for the discharge directing:
  - 1. that the discharge permit be revoked and the service be disconnected;
  - 2. that following a specified time the permit shall be revoked and sewer service discontinued unless adequate treatment facilities, devices or other related appurtenances have been installed and operated properly to comply with the discharge permit;
  - 3. direct the User to cease the unauthorized discharge effective after a specified period of time; or
  - 4. that such other relief as deemed necessary by the City Council to abate the discharge be granted. Further orders and directives as are necessary may be issued.
- E. Following an order of revocation, the User shall cease discharging to the City's POTW. Failure to do so shall be evidence of continuing harm to the City and provide grounds for the granting of injunctive relief or temporary restraining orders.

### **13.12.587      Transfer of Permits**

- A. The Director of Public Works may authorize a transfer of a wastewater discharge permit upon application, providing notice of proposed transfer of business ownership has been given him which contains such information the Director of Public Works may require.
- B. At a minimum, the Director of Public Works will require the new owner or operator to provide a written certification that:
  - (1) states that the new owner or operator has no immediate intent to change the facility's operations and processes;
  - (2) identifies the specific date on which the transfer is to occur; and
  - (3) acknowledges full responsibility for complying with the existing wastewater discharge permit.

### **13.12.590      Wastewater Discharge Permit Reissuance**

A User with an expiring wastewater discharge permit shall apply for wastewater discharge permit reissuance by submitting a complete permit application, in accordance with Section 13.12.510, a minimum of one hundred eighty (180) days prior to the expiration of the User's existing wastewater discharge permit.

### **13.12.600 Baseline Monitoring Reports**

- A. Within either one hundred eighty (180) days after the effective date of a categorical pretreatment standard, or the final administrative decision on a category determination under 40 CFR 403.6(a)(4), whichever is later, any existing categorical User currently discharging to or scheduled to discharge to the POTW shall submit to the Director of Public Works a report which contains the information listed in paragraph B, below. At least ninety (90) days prior to commencement of its discharge, a new source, or source that becomes a categorical User subsequent to the promulgation of an applicable categorical standard, shall submit to the Director of Public Works a report which contains the information listed in paragraph B, below. A new source shall report the method of pretreatment it intends to use to meet applicable categorical standards. A new source also shall give estimates of its anticipated flow and quantity of pollutants to be discharged.
- B. Users described above shall submit the information set forth below.
- (1) Identifying Information. The name and address of the facility, including the name of the operator and owner.
  - (2) Environmental Permits. A list of any environmental control permits held by or for the facility.
  - (3) Description of Operations. A brief description of the nature, average rate of production, and standard industrial classifications of the operation(s) carried out by such User. This description should include a schematic process diagram which indicates points of discharge to the POTW from the regulated processes.
  - (4) Flow Measurement. Information showing the measured average daily and maximum daily flow, in gallons per day, to the POTW from regulated process streams and other streams, as necessary, to allow use of the combined waste stream formula set out in 40 CFR 403.6(e).
  - (5) Measurement of Pollutants.
    - (a) The categorical pretreatment standards applicable to each regulated process.
    - (b) The results of sampling and analysis identifying the nature and concentration, and/or mass, where required by the standard or by the Director of Public Works, of regulated pollutants in the discharge from each regulated process. Instantaneous, daily maximum, and long-term average concentrations, or mass, where required, shall be reported. The sample shall be representative of daily operations and shall be analyzed in accordance with procedures set out in Section 13.12.645.
    - (c) Sampling shall be performed in accordance with procedures set out in Section 13.12.645.
  - (6) Certification. A statement, reviewed by the User's authorized representative and certified by a qualified professional, indicating whether pretreatment standards are being met on a consistent basis, and, if not, whether additional operation and maintenance (O&M) and/or additional pretreatment is required to meet the pretreatment standards and requirements.
  - (7) Compliance Schedule. If additional pretreatment and/or O&M will be required to meet the pretreatment standards, the shortest schedule by which the User will provide such additional pretreatment and/or O&M. The completion date in this schedule shall not be later than the compliance date established for the applicable pretreatment standard. A compliance schedule pursuant to this section shall meet the requirements set out in Section 13.12.605.
  - (8) Signature and Certification. All baseline monitoring reports shall be signed and certified in accordance with Section 13.12.550.

### **13.12.605 Compliance Schedule Progress Reports**

The following conditions shall apply to the compliance schedule required by Section 13.12.600.

- A. The schedule shall contain progress increments in the form of dates for the commencement and completion of major events leading to the construction and operation of additional pretreatment required for the User to meet the applicable pretreatment standards (such events include, but are not limited to, hiring an engineer, completing preliminary and final plans, executing contracts for major components, commencing and completing construction, and beginning and conducting routine operation);
- B. No increment referred to above shall exceed nine (9) months;
- C. The User shall submit a progress report to the Director of Public Works no later than fourteen (14) days following each date in the schedule and the final date of compliance including, as a minimum, whether or not it complied with the increment of progress, the reason for any delay, and, if appropriate, the steps being taken by the User to return to the established schedule; and
- D. In no event shall more than nine (9) months elapse between such progress reports to the Director of Public Works.

#### **13.12.610 Reports on Compliance with Categorical Pretreatment Standard Deadline**

Within ninety (90) days following the date for final compliance with applicable categorical pretreatment standards, or in the case of a new source following commencement of the introduction of wastewater into the POTW, any User subject to such pretreatment standards and requirements shall submit to the Director of Public Works a report containing the information described in Section 13.12.615. For Users subject to equivalent mass or concentration limits established in accordance with the procedures in 40 CFR 403.6(c), this report shall contain a reasonable measure of the User's long-term production rate. For all other Users subject to categorical pretreatment standards expressed in terms of allowable pollutant discharge per unit of production (or other measure of operation), this report shall include the User's actual production during the appropriate sampling period. All compliance reports shall be signed and certified in accordance with Section 13.12.550.

#### **13.12.615 Periodic Compliance Reports**

- A. All Significant Industrial Users shall, at a frequency determined by the Director of Public Works but in no case less than twice per year (in June and December), submit a report indicating the nature and concentration of pollutants in the discharge which are limited by pretreatment standards and the measured or estimated average and maximum daily flows for the reporting period. All periodic compliance reports shall be signed and certified in accordance with Section 13.12.550.
- B. Such reports shall contain:
  - (1) **Flow Measurement.** Information showing the measured average daily and maximum daily flow, in gallons per day, to the POTW from regulated process streams and other streams, as necessary, to allow use of the combined waste stream formula set out in 40 CFR 403.6(e).
  - (2) **Measurement of Pollutants.**
    - (a) The categorical pretreatment standards applicable to each regulated process.
    - (b) The results of sampling and analysis identifying the nature and concentration, and/or mass, where required by the standard or by the Director of Public Works, of regulated pollutants in the discharge from each regulated process. Instantaneous, daily maximum, and long-term average concentrations, or mass, where required, shall be reported. The sample shall be representative of daily operations and shall be analyzed in accordance with procedures set out in Section 13.12.645.
    - (c) Sampling shall be performed in accordance with procedures set out in Section 13.12.650.
  - (3) **Certification.** A statement, reviewed by the User's authorized representative and certified by a qualified professional, indicating whether pretreatment standards are being met on a consistent basis, and, if not, whether additional operation and maintenance (O&M) and/or additional pretreatment is required to meet the pretreatment standards and requirements.

- C. All wastewater samples shall be representative of the User's discharge. Wastewater monitoring and flow measurement facilities shall be properly operated, kept clean, and maintained in good working order at all times. The failure of a User to keep its monitoring facility in good working order shall not be grounds for the User to claim that sample results are unrepresentative of its discharge.
- D. If a User subject to the reporting requirement in this section monitors any pollutant more frequently than required by the Director of Public Works, using the procedures prescribed in Section 13.12.650, the results of this monitoring shall be included in the report.

#### **13.12.620 Reports of Changed Conditions**

Each User shall notify the Director of Public Works of any planned significant changes to the User's operations or system which might alter the nature, character, or volume of its wastewater at least thirty (30) days before the change.

- A. The Director of Public Works may require the User to submit such information as may be deemed necessary to evaluate the changed condition, including the submission of a wastewater discharge permit application under Section 13.12.540.
- B. The Director of Public Works may issue a wastewater discharge permit under Section 13.12.570 or modify an existing wastewater discharge permit under Section 13.12.580 in response to changed conditions or anticipated changed conditions.
- C. For purposes of this requirement, significant changes include, but are not limited to, flow increases of twenty percent (20%) or greater, and the discharge of any previously unreported pollutants.

#### **13.12.625 Reports of Potential Problems**

- A. In the case of any discharge, including, but not limited to, accidental discharges, discharges of a nonroutine, episodic nature, a noncustomary batch discharge, or a slug load, that may cause potential problems for the POTW, the User shall immediately telephone and notify the Director of Public Works of the incident. This notification shall include the location of the discharge, type of waste, concentration and volume, if known, and corrective actions taken by the User.
- B. Within ten (10 days) following such discharge, the User shall, unless waived by the Director of Public Works, submit a detailed written report describing the cause(s) of the discharge and the measures to be taken by the User to prevent similar future occurrences. Such notification shall not relieve the User of any expense, loss, damage, or other liability which may be incurred as a result of damage to the POTW, natural resources, or any other damage to person or property; nor shall such notification relieve the User of any fines, penalties, or other liability which may be imposed pursuant to St. Charles Municipal Code.
- C. A notice shall be permanently posted on the User's bulletin board or other prominent place advising employees whom to call in the event of a discharge described in paragraph A, above. Employers shall ensure that all employees, who may cause such a discharge to occur, are advised of the emergency notification procedure.

#### **13.12.630 Reports from Unpermitted Users**

All Users not required to obtain a wastewater discharge permit shall provide appropriate reports to the Director of Public Works as the Director of Public Works may require.

#### **13.12.635 Notice of Violation/Repeat Sampling and Reporting**

If sampling performed by a User indicates a violation, the User shall notify the Director of Public Works within twenty-four (24) hours of becoming aware of the violation. The User shall also repeat the sampling and analysis and submit the results of the repeat analysis to the Director of Public Works within thirty (30) days after becoming aware of the violation. The User is not required to resample if the Director of Public Works monitors at the User's facility at least once a month, or if the Director of Public Works

samples between the User's initial sampling and when the User receives the results of this sampling unless the Director of Public Works requires otherwise.

#### **13.12.645 Analytical Requirements**

All measurements, tests and analyses of the characteristics of water and wastes to which reference is made in Sections 13.12.400, 13.12.430, 13.12.460 and 13.12.600 shall be determined in accordance with 40 CFR Part 136 and amendments thereto or any other test procedures approved by the Administrator.

#### **13.12.650 Sample Collection**

- A. Except as indicated in Paragraph B, below, the User shall collect wastewater samples using flow proportional composite collection techniques. In the event flow proportional sampling is not feasible, the Director of Public Works may authorize the use of time proportional sampling or a minimum of four (4) grab samples where the User demonstrates that this will provide a representative sample of the effluent being discharged. In addition, grab samples may be required to show compliance with instantaneous discharge limits.
- B. Samples for oil and grease, temperature, pH, cyanide, phenols, sulfides, and volatile organic compounds shall be obtained using grab collection techniques. A minimum of four (4) grab samples are required.

#### **13.12.655 Timing**

Written reports will be deemed to have been submitted on the date received.

#### **13.12.660 Record Keeping**

Users subject to the reporting requirements of this chapter shall retain, and make available for inspection and copying, all records of information obtained pursuant to any monitoring activities required by this chapter and any additional records of information obtained pursuant to monitoring activities undertaken by the User independent of such requirements. Records shall include the date, exact place, method, and time of sampling, and the name of the person(s) taking the samples; the dates analyses were performed; who performed the analyses; the analytical techniques or methods used; and the results of such analyses. Such records shall be retained and made available for a period of at least three (3) years. Such period shall be automatically extended for the duration of any litigation concerning the User or the City, or where the User has been specifically notified of a longer retention period by the Director of Public Works.

#### **13.12.670 Falsification**

Any person who knowingly makes any false statement, representation or certification in any application, record, report, plan or other document filed or required to be maintained pursuant to this chapter or General and/or Supplemental Wastewater Discharge Permit, or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required under this chapter, shall be subject to the penalties and costs provided in Section 13.12.750 and shall in addition be guilty of a misdemeanor and upon conviction, be punished by a fine of not more than one thousand dollars (\$1000.00) or shall be incarcerated in a penal institution other than the penitentiary for a period not to exceed six (6) months.

#### **13.12.690 Confidential Information**

Information and data on a User obtained from reports, surveys, wastewater discharge permit applications, wastewater discharge permits, and monitoring programs, and from the Director of Public Works' inspection and sampling activities, shall be available to the public without restriction, unless the User specifically requests, and is able to demonstrate to the satisfaction of the Director of Public Works, that the release of such information would divulge information, processes, or methods of production entitled to protection as trade secrets under applicable State law. Any such request shall be asserted at the time of submission of the information or data. When requested and demonstrated by the User furnishing a report

that such information should be held confidential, the portions of a report which might disclose trade secrets or secret processes shall not be made available for inspection by the public, but shall be made available immediately upon request to governmental agencies for uses related to the NPDES program or pretreatment program, and in enforcement proceedings involving the person furnishing the report. Wastewater constituents and characteristics and other "effluent data" as defined by 40 CFR 2.302 will not be recognized as confidential information and will be available to the public without restriction.

#### **13.12.700 Public Notification of Significant Non-Compliance**

The Director of Public Works shall publish annually, in the largest daily newspaper published in the City, a list of the Users which, during the previous twelve (12) months, were in significant noncompliance with applicable pretreatment standards and requirements. The term "significant noncompliance" shall mean:

- A. Chronic violations of wastewater discharge limits, defined here as those in which sixty-six percent (66%) or more of wastewater measurements taken during a six-(6) month period exceed the daily maximum limit or average limit for the same pollutant parameter by any amount;
- B. Technical Review Criteria (TRC) violations, defined here as those in which thirty-three percent (33%) or more of wastewater measurements taken for each pollutant parameter during a six- (6-)month period equals or exceeds the product of the daily maximum limit or the average limit multiplied by the applicable criteria (1.4 for BOD, TSS, fats, oils and grease, and 1.2 for all other pollutants except pH);
- C. Any other discharge violation that the Director of Public Works believes has caused, alone or in combination with other discharges, interference or pass through, including endangering the health of POTW personnel or the general public;
- D. Any discharge of pollutants that has caused imminent endangerment to the public or to the environment, or has resulted in the Director of Public Works' exercise of his or her emergency authority to halt or prevent such a discharge;
- E. Failure to meet, within ninety (90) days of the scheduled date, a compliance schedule milestone contained in a wastewater discharge permit or enforcement order for starting construction, completing construction, or attaining final compliance;
- F. Failure to provide within thirty (30) days after the due date, any required reports, including baseline monitoring reports, reports on compliance with categorical pretreatment standard deadlines, periodic self-monitoring reports, and reports on compliance with compliance schedules;
- G. Failure to accurately report noncompliance; or
- H. Any other violation(s) which the Director of Public Works determines will adversely affect the operation or implementation of the City pretreatment program.

#### **13.12.705 Notice of Violation**

When the Director of Public Works or his/her authorized designee finds that a User has violated, or continues to violate, any provision of this chapter, a wastewater discharge permit or order issued hereunder, or any other pretreatment standard or requirement, the Director of Public Works or designee may serve upon that User a written Notice of Violation. Within ten (10) days of the receipt of this notice, an explanation of the violation and a plan for the satisfactory correction and prevention thereof, to include specific required actions, shall be submitted by the User to the Director of Public Works. Submission of this plan in no way relieves the User of liability for any violations occurring before or after receipt of the Notice of Violation. Nothing in this section shall limit the authority of the Director of Public Works to take any action, including emergency actions or any other enforcement action, without first issuing a Notice of Violation.

#### **13.12.710 Consent Orders**

The Director of Public Works or his/her authorized designee may enter into Consent Orders, assurances of voluntary compliance, or other similar documents establishing an agreement with any User responsible for noncompliance. Such documents will include specific action to be taken by the User to correct the noncompliance within a time period specified by the document. Such documents shall have the

same force and effect as the administrative orders issued pursuant to Sections 13.12.720 and 13.12.725 and shall be judicially enforceable. Issuance of a consent order shall not be a bar against, or a prerequisite for, taking any other action against the User.

#### **13.12.715 Show Cause Hearing**

The Director of Public Works may order a User which has violated, or continues to violate, any provision of this chapter, a wastewater discharge permit or order issued hereunder, or any other pretreatment standard or requirement, to appear before the Director of Public Works and show cause why the proposed enforcement action should not be taken. Notice shall be served on the User specifying the time and place for the meeting, the proposed enforcement action, the reasons for such action, and a request that the User show cause why the proposed enforcement action should not be taken. The notice of the meeting shall be served personally or by registered or certified mail (return receipt requested) at least three (3) days prior to the hearing, unless the Director of Public Works determines an emergency exists and less time is warranted. Such notice may be served on any authorized representative of the User. A show cause hearing shall not be a bar against, or prerequisite for, taking any other action against the User.

#### **13.12.720 Compliance Orders**

When the Director of Public Works finds that a User has violated, or continues to violate, any provision of this chapter, a wastewater discharge permit or order issued hereunder, or any other pretreatment standard or requirement, the Director of Public Works may issue an order to the User responsible for the discharge directing that the User come into compliance within a specified time. If the User does not come into compliance within the time provided, sewer service may be discontinued unless adequate treatment facilities, devices, or other related appurtenances are installed and properly operated. Compliance orders also may contain other requirements to address the noncompliance, including additional self-monitoring and management practices designed to minimize the amount of pollutants discharged to the sewer. A compliance order may not extend the deadline for compliance established for a pretreatment standard or requirement, nor does a compliance order relieve the User of liability for any violation, including any continuing violation. Issuance of a compliance order shall not be a bar against, or a prerequisite for, taking any other action against the User.

#### **13.12.725 Cease and Desist Orders**

When the Director of Public Works or his/her authorized designee finds that a User has violated, or continues to violate, any provision of this chapter, a wastewater discharge permit or order issued hereunder, or any other pretreatment standard or requirement, or that the User's past violations are likely to recur, the Director of Public Works may issue an order to the User directing it to cease and desist all such violations and directing the User to:

- A. Immediately comply with all requirements; and
- B. Take such appropriate remedial or preventive action as may be needed to properly address a continuing or threatened violation, including halting operations and/or terminating the discharge.

Issuance of a cease and desist order shall not be a bar against, or a prerequisite for, taking any other action against the User.

#### **13.12.730 Administrative Settlement in Lieu of Civil Penalty**

- A. When the Director of Public Works finds that a User has violated, or continues to violate, any provision of this chapter, a wastewater discharge permit or order issued hereunder, or any other pretreatment standard or requirement, the Director of Public Works may upon agreement of the User, enter an order of administrative settlement in lieu of civil penalty against such User in an amount not to exceed \$1000.00. Such settlements shall be assessed on a per violation, per day basis. In the case of monthly or other long term average discharge limits, administrative settlements in lieu of civil penalty shall be assessed for each day during the period of violation.

- B. Users desiring to dispute such settlements shall file a written request for the Director of Public Works to reconsider the administrative settlements in lieu of civil penalty along with full payment of the administrative settlement in lieu of civil penalty amount within ten (10) days of being notified of the administrative settlement in lieu of civil penalty. Where a request has merit, the Director of Public Works may convene a hearing on the matter. In the event the User's appeal is successful, the payment, together with any interest accruing thereto, shall be returned to the User. The Director of Public Works may add the costs of preparing administrative enforcement actions, such as notices and orders, to the administrative settlement in lieu of civil penalty.
- C. Issuance of an administrative settlement in lieu of civil penalty shall not be a bar against, or a prerequisite for, taking any other action against the User.

#### **13.12.735 Emergency Suspensions**

The Director of Public Works or his/her authorized designee may immediately suspend a User's discharge, after informal notice to the User, whenever such suspension is necessary to stop an actual or threatened discharge which reasonably appears to present or cause an imminent or substantial endangerment to the health or welfare of persons. The Director of Public Works or designee may also immediately suspend a User's discharge, after notice and opportunity to respond, that threatens to interfere with the operation of the POTW, or which presents, or may present, an endangerment to the environment.

- A. Any User notified of a suspension of its discharge shall immediately stop or eliminate its contribution. In the event of a User's failure to immediately comply voluntarily with the suspension order, the Director of Public Works may take such steps as deemed necessary, including immediate severance of the sewer connection, to prevent or minimize damage to the POTW, its receiving stream, or endangerment to any individuals. The Director of Public Works may allow the User to recommence its discharge when the User has demonstrated to the satisfaction of the Director of Public Works that the period of endangerment has passed, unless the termination proceedings in Section 13.12.740 are initiated against the User.
- B. A User that is responsible, in whole or in part, for any discharge presenting imminent endangerment shall submit a detailed written statement, describing the causes of the harmful contribution and the measures taken to prevent any future occurrence, to the Director of Public Works prior to the date of any show cause or termination hearing under Sections 13.12.715 or 13.12.740.

Nothing in this section shall be interpreted as requiring a hearing prior to any emergency suspension under this section.

#### **13.12.740 Termination of Discharge**

In addition to the provisions in Section 13.12.585, any User who violates the following conditions is subject to discharge termination:

- A. Violation of wastewater discharge permit conditions;
- B. Failure to accurately report the wastewater constituents and characteristics of its discharge;
- C. Failure to report significant changes in operations or wastewater volume, constituents, and characteristics prior to discharge;
- D. Refusal of reasonable access to the User's premises for the purpose of inspection, monitoring, or sampling; or
- E. Violation of the pretreatment standards in Sections 13.12.410, 13.12.420 and 13.12.430.

Such User will be notified of the proposed termination of its discharge and be offered an opportunity to show cause under Section 13.12.715 of this chapter why the proposed action should not be taken. Exercise of this option by the Director of Public Works shall not be a bar to, or a prerequisite for, taking any other action against the User.

#### **13.12.745 Injunctive Relief**

When the Director of Public Works finds that a User has violated, or continues to violate, any provision of this chapter, a wastewater discharge permit, or order issued hereunder, or any other pretreatment standard or requirement, the Director of Public Works may petition the Circuit Court through the City's Attorney for the issuance of a temporary or permanent injunction, as appropriate, which restrains or compels the specific performance of the wastewater discharge permit, order, or other requirement imposed by this chapter on activities of the User. The Director of Public Works may also seek such other action as is appropriate for legal and/or equitable relief, including a requirement for the User to conduct environmental remediation. A petition for injunctive relief shall not be a bar against, or a prerequisite for, taking any other action against a User.

**13.12.750 Civil Penalties/Penalties and costs.**

Any User who is found to have violated an order of the City Council or who has failed to comply with any provision of this chapter, any rules and regulations, permits or orders issued hereunder, shall be fined in an amount not less than five dollars (\$5.00) nor more than one thousand dollars (\$1000.00). For the purpose of this section, each day in which any such violation shall occur or continue, shall be deemed a separate violation, and a separate violation shall be deemed to have occurred for each constituent found to exceed the limits established in this chapter during any such day. For each separate violation, each such person shall be fined an amount not to exceed one thousand dollars (\$1000.00). In addition to the penalties provided in this Chapter, the City may recover reasonable attorney's fees, court costs, court reporter fees and other expenses of litigation by appropriate suit against the person found to have violated this chapter or the rules, regulations, permits or orders issued hereunder.

**13.12.755 Criminal Prosecution**

- A. A User who willfully or negligently violates any provision of this chapter, a wastewater discharge permit, or order issued hereunder, or any other pretreatment standard or requirement shall, upon conviction, be guilty of a misdemeanor, punishable by a fine of not more than \$1000.00 per violation, or imprisonment for not more than six (6) months, or both. Each day on which a violation occurs or continues shall be deemed a separate violation.
- B. A User who willfully or negligently introduces any substance into the POTW which causes personal injury or property damage shall, upon conviction, be guilty of a misdemeanor and be subject to a penalty of not more than \$1000.00, or be subject to imprisonment for not more than six (6) months, or both. Each day on which a violation occurs or continues shall be deemed a separate violation. This penalty shall be in addition to any other cause of action for personal injury or property damage available under State law.
- C. A User who knowingly makes any false statements, representations, or certifications in any application, record, report, plan, or other documentation filed, or required to be maintained, pursuant to this chapter, wastewater discharge permit, or order issued hereunder, or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required under this chapter shall, upon conviction, be punished by a fine of not more than \$1000.00 per violation, or imprisonment for not more than six (6) months, or both.
- D. In the event of a second conviction, a User shall be punished by a fine of not more than \$1000.00 per violation, or imprisonment for not more than six (6) months, or both. Each day on which a violation occurs or continues shall be deemed a separate violation.

**13.12.760 Remedies Nonexclusive**

The remedies provided for in this chapter are not exclusive. The Director of Public Works may take any, all, or any combination of these actions against a noncompliant User. Enforcement of pretreatment violations will generally be in accordance with the City's enforcement response plan; provided, however, the Director of Public Works may take other action against any User when the circumstances warrant. Further,

the Director of Public Works is empowered to take more than one enforcement action against any noncompliant User.

**13.12.770 Performance Bonds**

The Director of Public Works may decline to issue or reissue a wastewater discharge permit to any User who has failed to comply with any provision of this chapter, a previous wastewater discharge permit, or order issued hereunder, or any other pretreatment standard or requirement, unless such User first files a satisfactory bond, payable to the City, in a form and of a sum not to exceed a value determined by the Director of Public Works to be necessary to achieve consistent compliance.

**13.12.777 Liability Insurance**

The Director of Public Works may decline to issue or reissue a wastewater discharge permit to any User who has failed to comply with any provision of this chapter, a previous wastewater discharge permit, or order issued hereunder, or any other pretreatment standard or requirement, unless the User first submits proof that it has obtained liability insurance or provides financial assurances sufficient to restore or repair any damage to the POTW it may cause by its discharge.

**13.12.780 Water Supply Severance**

Whenever a User has violated or continues to violate any provision of this chapter, a wastewater discharge permit, or order issued hereunder, or any other pretreatment standard or requirement, water service to the User may be severed. Service will only recommence, at the User's expense, after it has satisfactorily demonstrated its ability to comply.

**13.12.783 Public Nuisances**

A violation of any provision of this chapter, a wastewater discharge permit, or order issued hereunder, or any other pretreatment standard or requirement is hereby declared a public nuisance and shall be corrected or abated as directed by the Director of Public Works. Any person(s) creating a public nuisance shall be subject to the provisions governing such nuisances, including reimbursing the City for any costs incurred in removing, abating, or remedying said nuisance.

**13.12.785 Disqualification Contractor Listing**

Users which have not achieved compliance with applicable pretreatment standards and requirements may not be eligible to receive a contractual award for the sale of goods or services to the City.

**13.12.786 Disconnect Notice Fee**

If it is determined that a notice of disconnection of service shall be issued to a customer due to utility charges being over 30 days past due, a payment being returned unpaid by a bank, a deposit not being paid by the due date, and/or a violation of the terms of this Code, an additional fee (a disconnect notice fee) will be charged. This fee will escalate based on the number of disconnect notices previously issued to the customer in the last twelve months. The disconnect notice fee schedule is \$20.00 for the first notice, \$35.00 for the second notice and \$50.00 for any subsequent notices.  
(Ord. 2011-M-32 § 1.)

**13.12.787 Right of cut-off service - Reconnection procedure for non-payment.**

A. The City shall have the right to discontinue any utility service provided to the customer on due notice and to remove its property from the customer's premises whenever monthly City bills, or a portion thereof, remain unpaid for 30 days after the due date specified, or in case the customer fails to comply with, or perform, any of the conditions or obligations of this chapter.  
(Ord. 2010-M-4 § 1.)

- B. A customer's service so discontinued shall be connected after the customer has made settlement for City utility bills in arrears, plus any current amount outstanding at the City Clerk's office, or has, to the City's satisfaction, complied with or performed such other conditions or obligations which were in default, as the case may be. A minimum fee shall be charged equal to two times one and one-half the midpoint of the wage rate for a meter technician at the time of reconnection. In the event the City incurs expense for labor in excess of the average cost of reconnection, the City may charge that additional cost for disconnection and reconnection to the customer.  
(Ord. 2010-M-4 § 1.)

**13.12.788 Lien rights.**

- A. Whenever a bill for sewer service, including any charge, penalty or fine pursuant to this chapter, remains unpaid sixty days after it has been rendered, the City Attorney shall file with the Recorder of Deeds of the appropriate county a statement of lien claim. This statement shall contain a legal description of the premises served, the amount of the unpaid bill, and a notice that the City claims a lien for such amount as well as for all charges for sewer service subsequent to the period covered by the bill.
- B. If the customer whose bill is unpaid is not the owner of the premises, the City Clerk shall notify the owner of the premises if his address is known to the Clerk, whenever such bill remains unpaid for a period of ninety days after it has been rendered.
- C. The failure of the City Attorney to record such lien claim or to mail such notice, or the failure of the owner to receive such notice shall not affect the right to foreclose the lien for unpaid sewer bills mentioned in subsection D of this Section.
- D. Property subject to a lien for unpaid sewer service charges shall be sold for nonpayment of the same, and the proceeds of the sale shall be applied to pay the charges, after deducting costs as is the case in the foreclosure of statutory liens. Such foreclosure shall be by bill in equity or other appropriate proceeding in the name of the City. The City Attorney is authorized and directed to institute such proceedings in the name of the City in any court having jurisdiction over such matters against any property for which the bill for sewer service has remained unpaid ninety days after it has been rendered:

**13.12.790 Affirmative Defense - Upset**

- A. For the purposes of this section, "upset" means an exceptional incident in which there is unintentional and temporary noncompliance with categorical pretreatment standards because of factors beyond the reasonable control of the User. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- B. An upset shall constitute an affirmative defense to an action brought for noncompliance with categorical pretreatment standards if the requirements of paragraph (C), below, are met.
- C. A User who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
- (1) An upset occurred and the User can identify the cause(s) of the upset;
  - (2) The facility was at the time being operated in a prudent and workman-like manner and in compliance with applicable operation and maintenance procedures; and
  - (3) The User has submitted the following information to the Director of Public Works within twenty-four (24) hours of becoming aware of the upset if this information is provided orally, a written submission shall be provided within five (5) days:
    - (a) A description of the indirect discharge and cause of noncompliance;
    - (b) The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue; and

- (c) Steps being taken and/or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
- D. In any enforcement proceeding, the User seeking to establish the occurrence of an upset shall have the burden of proof.
- E. Users will have the opportunity for a judicial determination on any claim of upset only in an enforcement action brought for noncompliance with categorical pretreatment standards.
- F. Users shall control production of all discharges to the extent necessary to maintain compliance with categorical pretreatment standards upon reduction, loss, or failure of its treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things, the primary source of power of the treatment facility is reduced, lost, or fails.

### **13.12.795 Affirmative Defense to Prohibited Discharge Standards**

A User shall have an affirmative defense to an enforcement action brought against it for noncompliance with the general prohibitions in Section 13.12.400 or the specific prohibitions in Sections 12.12.410, 13.12.420, and 13.12.430 if it can prove that it did not know, or have reason to know, that its discharge, alone or in conjunction with discharges from other sources, would cause pass through or interference and that either:

- A. A local limit exists for each pollutant discharged and the User was in compliance with each limit directly prior to, and during, the pass through or interference; or
- B. No local limit exists, but the discharge did not change substantially in nature or constituents from the User's prior discharge when the City was regularly in compliance with its NPDES permit, and in the case of interference, was in compliance with applicable sludge use or disposal requirements.

### **13.12.799 Bypass**

- A. A User may allow any User Bypass to occur which does not cause pretreatment standards or requirements to be violated, but only if it also is for essential maintenance to assure efficient operation. Such User Bypasses are not subject to the provision of paragraphs (C) and (D) of this section.
- B.
  - (1) If a User knows in advance of the need for a User Bypass, it shall submit prior notice to the Director of Public Works, at least ten (10) days before the date of the User Bypass, if possible.
  - (2) A User shall submit oral notice to the Director of Public Works of an unanticipated bypass that exceeds applicable pretreatment standards within twenty-four (24) hours from the time it becomes aware of the User Bypass. A written submission shall also be provided within five (5) days of the time the User becomes aware of the User Bypass. The written submission shall contain a description of the User Bypass and its cause; the duration of the bypass, including exact dates and times, and, if the User Bypass has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the User Bypass. The Director of Public Works may waive in writing the written report on a case-by-case basis if the oral report has been received within twenty-four (24) hours.
- C.
  - (1) User Bypass is prohibited, and the Director of Public Works may take an enforcement action against a User for a bypass, unless
    - (a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
    - (b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

- (c) The User submitted notices as required under paragraph (C) of this section.
- (2) The Director of Public Works may approve an anticipated User Bypass, after considering its adverse effects, if the Director of Public Works determines that it will meet the three conditions listed in paragraph (D)(1) of this section.

### **13.12.800 Pretreatment Charges and Fees**

The City may adopt reasonable fees for reimbursement of costs of setting up and operating the City of St. Charles's Pretreatment Program which may include:

- A. Fees for wastewater discharge permit applications including the cost of processing such applications;
- B. Fees for monitoring, inspection, and surveillance procedures including the cost of collection and analyzing a User's discharge, and reviewing monitoring reports submitted by Users;
- C. Fees for reviewing and responding to accidental discharge procedures and construction;
- D. Fees for filing appeals; and
- E. Other fees as the City may deem necessary to carry out the requirements contained herein. These fees relate solely to the matters covered by this chapter and are separate from all other fees, fines, and penalties collectable by the City.
- F. Fees for sampling and testing as described in Section 13.12.900 are as follows:
- |                                |                  |
|--------------------------------|------------------|
| Sample Collection              | \$13.00/sampling |
| Heavy Metal Analysis           | \$10.00/test     |
| Acid Digestion                 | \$10.00/sample   |
| Biological Oxygen Demand       | \$ 6.00/sample   |
| Fats, oils, and grease         | \$ 6.00/sample   |
| Fluoride                       | \$ 6.00/sample   |
| Total Dissolved Solids         | \$ 6.00/sample   |
| pH                             | \$ 2.00/sample   |
| Nitrogen, ammonia              | \$10.00/sample   |
| Nitrogen, ammonia distillation | \$10.00/sample   |
| Chemical Oxygen demand         | \$10.00/sample   |
| Total Suspended Solids         | \$ 6.00/sample   |

Bills for monitoring services shall be sent out monthly for all customers and shall be due and payable thirty days from the billing date. An additional charge of ten percent shall be made on all bills which have not been paid when due, except that one late payment shall be allowed within each calendar year at no increase in cost.

### **13.12.810 Surcharge to Industrial Users for Discharge of Compatible Pollutants**

- A. All Users shall comply with the limits imposed upon the discharge of Compatible Pollutants. Upon written request by a User, the Director of Public Works may, in his or her sole discretion, approve the discharge of such pollutants in excess of the stated concentration limits, provided that such User shall pay a surcharge calculated in accordance with this Section 13.12.810. Approval of such discharge and the surcharge requirement shall be set forth in the User's wastewater discharge permit.
- B. Users permitted to discharge Compatible Pollutants in excess of the stated limits, either singly or collectively, shall pay a surcharge according to the following schedule:
- \$0.49 for every pound of BOD discharged above the stated limits
  - \$0.37 for every pound of TSS discharged above the stated limits
  - \$0.17 for every pound of FOG discharged above the stated limits
- The following formula shall be used for calculating the pounds of excess in the User's discharge:  
(actual concentration {mg/L}-Code limit {mg/L})

(8.34 lbs./gal.)(Volume of discharge)"

(Ord. 2015-M-31§ 1; Ord. 2014-M-11 § 1; Ord. 2013-M-33 § 1; Ord. 2012-M-17 § 1.)

- C. All measurements, tests, and analysis of the characteristics of the wastewater to determine the User surcharge shall be conducted as under Sections 13.12.645 and 13.12.690.
- D. All Industrial Users shall be charged for sample collection and laboratory analysis in accordance with Section 13.12.800.
- E. Environmental Remediation  
 Surcharge: \$0.10 per gallon of discharge  
 (Ord. 1998-M-12 § 1.)
- F. Charge for Use Outside of City Limits: Any customer discharging Compatible Pollutants into the sewer system at a service location outside the corporate limits of the City of St. Charles shall pay an additional charge of 20% of all user surcharges imposed by Section 13.12.810B. above unless the customer has a sewer service agreement with the City that was in existence prior to May 6, 2013 that provides for a different additional charge.  
 (Ord. 2013-M-33 § 1.)

**13.12.820 Connection fees.**

- A. The fees for each permit allowing connection with the City sewer systems and tributary to the Fox River Wastewater Treatment Facility located along IL Route 25 shall be as follows:

- 1. Residential Dwelling Units

Single and multiple family dwelling units.

<u>Class</u>	<u>Description</u>	<u>Square Feet</u>	<u>Connection Fee</u>
1	Dwelling Unit	Over 1,000	\$1,520
2	Dwelling Unit	Under 1,000	\$1,120
3	Dwelling Unit	800 Maximum	\$1,000

- 2. Other Uses

- a. All Users other than residential dwelling units, described above, shall pay a connection fee based upon the estimated daily maximum (i.e., peak) water usage as determined by the City Engineer. The Building Commissioner and/or City Engineer may require the applicant to provide an estimate certified to by an engineer licensed in the state of Illinois. The charge per gallon of the daily maximum (i.e., peak) water usage for calculating the connection fee is \$4.30. In no case shall the connection fee be less than the fee for a Class 1 dwelling unit.
- b. Once the actual usage begins and it is determined that the actual daily maximum (i.e., peak) water usage is larger than the estimated daily maximum (i.e., peak) water usage, there will be an additional fee for the gallons per day over the original estimated daily maximum (i.e., peak) water usage based on \$4.30 per gallon. There will be no rebates if the actual daily maximum (i.e., peak) water usage falls below the estimated daily maximum (i.e., peak) water usage.

- B. The fees for each permit allowing connection with the City sewer systems and tributary to the West Side Wastewater Treatment Facility located along IL Route 38 shall be as follows:

- 1. Residential Dwelling Units

Single and multiple family dwelling units.

<u>Description</u>	<u>Connection Fee</u>
Single Family Detached	\$2,985.50
Single Family Attached	\$2,559.00

- 2. Public Land District – Correctional Facility

- a. A Public Land District – Correctional Facility shall pay a connection fee based upon fifty percent (50%) of the estimated daily wastewater discharge as determined by the City Engineer. The Building Commissioner and/or City Engineer may require the applicant to provide an estimate certified to by an engineer licensed in the state of

Illinois. The charge per gallon of the daily wastewater discharge for calculating the connection fee is \$8.53.

- b. After twelve (12) months of full occupancy the balance of the connection fee shall be paid based on the actual daily wastewater discharge at the facility. The charge per gallon of the daily wastewater discharge is \$8.53.
3. Other Uses
- a. All Users other than residential dwelling units and public land district – correctional facility described above, shall pay a connection fee based upon the estimated daily maximum (i.e. peak) water usage, as determined by the City Engineer. The Building Commissioner and/or City Engineer may require the applicant to provide an estimate certified to by an engineer licensed in the state of Illinois. The charge per gallon of the daily maximum (i.e. peak) water usage for calculating the connection fee is “\$8.53. In no case shall the connection fee be less than the fee for a single-family detached dwelling unit.
  - b. Once the actual usage begins and it is determined that the actual daily maximum (i.e. peak) water usage is larger than the estimated daily maximum (i.e. peak) water usage, there will be an additional fee for the gallons per day over the original estimated daily maximum (i.e. peak) water usage based on \$8.53 per gallon. There will be no rebates if the actual daily maximum (i.e. peak) water usage falls below the estimated daily maximum (i.e. peak) water usage.

(Ord. 2008-M-23 § 1; Ord. 2000-M-3 § 1; Ord. 1998-M-117§1; Ord. 1998-M-30§1; Ord. 1997-M-65 § 1; Ord. 1996-M-36 § 1; Ord. 1995-M-18 § 1.)

### **13.12.830 Charges for Residential Users**

- A. The residential sewer user charge shall be as follows:
1. The following rate shall be charged for sewer service to all residential users of City sewers based upon metered water consumption: fifteen dollars and seventy nine (\$15.79) demand charge per month plus four dollars and seventy nine cents (\$4.79) per one thousand gallons of water used with a maximum sewer charge not to exceed 130% of a residential user’s winter quarter water usage average. The residential user’s “winter quarter” water usage shall be defined as the water that is billed to the user in the months of January, February, and March. When the 130% calculation produces a fractional result, the customer maximum will be raised to the next whole number.”  
(Ord. 2015-M-31§ 1; Ord. 2014-M-11 § 1; Ord. 2013-M-33 § 1; Ord. 2012-M-16 § 1; Ord. 2011-M-19 § 1; Ord. 2010-M-32 § 1.)
  2. Residential users in a building with more than one dwelling unit and with each unit having a sewer connection but no city water meter shall be charged the existing residential sewer demand charge per month. Sewer usage charge shall be billed to the customer billed for the water service and shall be based on the water used at the existing residential sewer rate per one thousand gallons.
  3. Residential users in a building with only one dwelling unit with sewer connection but no city water purchases shall be charged for eight thousand gallons of usage at the existing residential rate per one thousand gallons plus the existing demand charge per month.
  4. For new or recently constructed residential buildings or other customers which have a water meter and an incomplete history of water consumption during a winter quarter, the existing residential rate per thousand gallons plus the existing demand charge per month shall be applied to their metered water consumption until the completion of a winter quarter.
  5. Charge for Use outside of City Limits: Any customer receiving sewer service at a location outside the corporate limits of the City of St. Charles shall pay an additional charge of 20% of all user charges imposed for sewer service unless the customer has a sewer service agreement

with the City that was in existence prior to May 6, 2013 that provides for a different additional charge.

(Ord. 2013-M-33 § 1.)

(Ord. 2009-M-24 § 1; Ord. 2008-M-30 § 1; Ord. 2007-M-40 § 1; Ord. 2005-M-19 § 1; Ord. 2002-M-28 § 1; Ord. 2000-M-44 § 1; Ord. 1999-M-34 § 1; Ord. 1998-M-30 § 2; Ord. 1997-M-82 § 1; Ord. 1997-M-18; Ord. 1996-M-80 § 1; Ord. 1996-M-79 § 1; Ord. 1996-M-36 § 1; Ord. 1995-M-18 § 1.)

### **13.12.840 User Charges for Metered Water Consumption and Nonresidential Use**

A. The non-residential sewer user charge shall be as follows:

1. The following rate shall be charged for sewer service to all non-residential users of City sewers based upon metered water consumption: fifteen dollars and seventy nine cents (\$15.79) demand charge per month plus four dollars and seventy nine cents (\$4.79) per one thousand gallons of water used.

(Ord. 2015-M-31§ 1; Ord. 2014-M-11 § 1; Ord. 2013-M-33 § 2; Ord. 2012-M-17 § 1; Ord. 2011-M-19 § 1; Ord. 2010-M-32 § 1.)

2. The following rate shall be charged for sewer service to all non-residential users of City sewers where water consumption does not reflect the actual quantity of wastewater tributary to the wastewater treatment works: fifteen dollars and seventy nine cents (\$15.79) demand charge plus four dollars and seventy nine cents (\$4.79) per one thousand gallons of wastewater actually discharged into the sewer system.”

(Ord. 2015-M-31§ 1; Ord. 2014-M-11§ 1; Ord. 2013-M-33 § 1; Ord. 2012-M-17 § 1; Ord. 2011-M-19 §1; Ord. 2010-M-32 § 1.)

3. Non-residential users in a building with more than one non-residential unit and with each unit having a sewer connection but no city water meter shall be charged the existing non-residential sewer demand charge per month. Sewer usage charge shall be billed to the customer billed for the water service and shall be based on the water used at the existing non-residential sewer rate per one thousand gallons.

4. Non-residential users in a building with no water purchases and a sewer connection without flow measurement equipment shall be charged the existing non-residential sewer demand charge per month, plus a user charge equivalent to six thousand gallons of usage at the existing non-residential sewer use rate per one thousand gallons. Non-residential users may be required to install flow measurement equipment pursuant to the conditions set forth in Section 13.12.940B.

5. Charge for Use Outside of City Limits: Any customer receiving sewer service at a location outside the corporate limits of the City of St. Charles shall pay an additional charge of 20% of all user charges imposed for sewer service unless the customer has a sewer service agreement with the City that was in existence prior to May 6, 2013 that provides for a different additional charge.

(Ord. 2013-M-33 § 1.)

(Ord. 2010-M-32 § 1; Ord. 2009-M-24 § 2; Ord. 2008-M-30 § 2; Ord. 2007-M-39 § 1; Ord. 2005-M-19 § 2; Ord. 2002-M-28 § 2; Ord. 1999-M-34 § 2; Ord. 1998-M-118 § 1; Ord. 1998-M-30 § 3; Ord. 1998-M-8 § 1; Ord. 1997-M-65 § 1; Ord. 1996-M-80 § 2; Ord. 1996-M-79 § 2; Ord. 1996-M-36 § 1; Ord. 1995-M-18 § 1.)

### **13.12.850 Bills - When due and payable and charge for late payment.**

Bills for sewer service shall be sent out monthly for all customers and shall be due and payable no less than eighteen days from the billing date. An additional charge of ten percent shall be made on all bills which have not been paid when due except that one late payment shall be allowed within each calendar year at no increase in cost.

**13.12.900 Monitoring program by City.**

The Director of Public Works shall maintain a program of monitoring Industrial User discharges; provided, that any Significant Industrial User shall be monitored no less than twelve times annually and any Industrial User that has a population equivalent, as determined by Section 13.12.810, equal to or greater than one hundred shall be monitored no less than once annually. All other Industrial Users shall be monitored at such frequency as deemed necessary by the Director of Public Works. Monitoring shall consist of the taking and testing of grab samples or twenty-four hour composite samples as deemed reasonably necessary by the Director of Public Works for determination of the population equivalent of the industrial User. The monitoring data collected shall be used to determine the population equivalent in accordance with Section 13.12.810. In the event that a sampling manhole does not exist, the "sampling manhole" shall be considered to be the nearest downstream manhole in the public sewer to the point at which the building sewer is connected, until such time as the sampling manhole has been constructed. Industrial Users shall be subject to fees for sampling and testing of their discharge as it pertains to the City's monitoring program.

Where required by the City, additional control manholes or sampling chambers shall be provided at the end of each industrial process within an Industrial User's facility suitable for the determination of compliance with pretreatment standards.

**13.12.910 Right of Entry: Inspection and Sampling**

The Director of Public Works or his/her authorized designee shall have the right to enter the premises of any User to determine whether the User is complying with all requirements of this chapter and any wastewater discharge permit or order issued hereunder. Users shall allow the Director of Public Works or designee ready access to all parts of the premises for the purposes of inspection, sampling, records examination and copying, and the performance of any additional duties.

- A. Where a User has security measures in force which require proper identification and clearance before entry into its premises, the User shall make necessary arrangements with its security guards so that, upon presentation of suitable identification, the Director of Public Works or designee will be permitted to enter without delay for the purposes of performing specific responsibilities.
- B. The Director of Public Works or his/her authorized designee shall have the right to set up on the User's property, or require installation of, such devices as are necessary to conduct sampling and/or metering of the User's operations.
- C. The industrial User may request that the representative of the City state the purpose of any inspection, and further, may request that such representative abide by reasonable safety and hygiene requirements.
- D. The Director of Public Works may require the User to install monitoring equipment as necessary in accordance with Section 13.12.690. The facility's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the User at its own expense. All devices used to measure wastewater flow and quality shall be calibrated bi-annually to ensure their accuracy.
- E. Any temporary or permanent obstruction to safe and easy access to the facility to be inspected and/or sampled shall be promptly removed by the User at the written or verbal request of the Director of Public Works and shall not be replaced. The costs of clearing such access shall be borne by the User.
- F. Nothing herein shall be construed to limit or restrict any User from exercising any right it may have to object to the nature and extent of any inspection access request or to object to any inspection access request as not necessary to carry out the purposes of the City pursuant to this chapter.
- G. Unreasonable delays in allowing the Director of Public Works or his/her authorized designee access to the User's premises shall be a violation of this chapter.

**13.12.920 Search Warrants**

If the Director of Public Works or his/her authorized designee has been refused access to a building, structure, or property, or any part thereof, and is able to demonstrate probable cause to believe that there may be a violation of this chapter, or that there is a need to inspect and/or sample as part of a routine inspection and sampling program of the City designed to verify compliance with this chapter or any permit or order issued hereunder, or to protect the overall public health, safety and welfare of the community, then the Director of Public Works or his/her authorized designee may seek issuance of a search warrant from the Circuit Court.

**13.12.940 Control manhole device and sampling requirements: Location, construction, maintenance and facility monitoring**

- A. When required by the Director of Public Works, the owner and/or occupant of any property served by a building sanitary sewer carrying industrial waste shall install a suitable control manhole in the building sanitary sewer to facilitate observation, sampling and measurement of the wastes. Such manhole, when required, shall include but not be limited to being accessible, safely located, and provide for 110 volt hookup and shall be constructed in accordance with plans approved by the Director of Public Works. The manhole shall be installed by the owner and/or occupant at his expense, and shall be maintained by him so as to be safe and accessible to the City at all times.
- B. When in the judgment of the Director of Public Works there exists sufficient volumes and/or quantities of contaminants that may interfere with the performance of the City sewage system, the Director of Public Works may require the owner and/or occupant of any property and/or an Industrial User served by a building sanitary sewer carrying industrial wastes to install composite sampling equipment and/or flow measurement equipment. Said composite sampling and flow measurement equipment shall be installed by the property owner and/or occupant at its expense and shall be maintained by it as to be functional at all times, safe and accessible to the City.
- C. The owner and/or occupant shall be responsible for monitoring its effluent to insure that its discharge meets City chapters, state and federal law. It is also responsible for having knowledge of the contaminants in its wastewater and the specific limitations relative to its discharge. Records shall be kept by the owner and/or occupant of the results of all sampling and/or flow measurements. Such documentation shall be available to appropriate City personnel at all reasonable times. Records shall be kept by the owner and/or occupant no less than three years or longer if required by state or federal laws prior to discard or if an enforcement action is pending.
- D. Where composite sampling equipment is available, the City shall utilize such composite samples for purposes of calculating surcharges pursuant to Section 13.12.810. The average of all composite samples during the monitoring period shall be used to determine the multiplier. Should the composite sampling equipment malfunction or if it does not exist, the City shall use composited grab samples of not less than four aliquots in a 24 hour period, unless the User agrees to less than four grab samples in a 24 hour period, to determine surcharges as set forth in Section 13.12.810. The average of all grab samples taken by the City during the billing period shall be used for the multiplier. Where nonfunctional composite equipment exists and at such time that a grab sample exceeds the limitations specified in Section 13.12.400 hereof for total suspended solids, C.B.O.D., ammonia, phosphorous or grease, the City and waste generator shall split grab samples no less than five samples per week until the composite sampler is once again functional. Should the composite sampler become functional prior to the end of the billing period, composite samples shall be taken no less than five per week for the remainder of the billing period for computing the average of the grab and composite samples to determine the billing multiplier. The Director of Public Works shall decide the time when split sampling will be taken. Should there be a significant discrepancy

between the owner's and/or occupant's test results and the City's test results on split samples, the owner and/or occupant may request billing to be based upon testing results from an independent testing laboratory. Upon investigation by the Director of Public Works as to the reasons for the discrepancy in sample results, the Director of Public Works shall take appropriate corrective actions and/or authorize in writing the terms of using a certified independent testing laboratory. The choice of independent laboratory shall be at the discretion of the Director of Public Works. All expenses incurred for monitoring by an independent certified laboratory shall be at the expense of the owner and/or occupant.

- E. In the event that no special manhole is available, the control manhole shall be considered to be the downstream manhole in the public sewer nearest to the point at which the building sanitary sewer is connected.
- F. Should the Director of Public Works find violations of standards set forth in this Chapter including Section 13.12.410, Section 13.12.420, and/or Section 13.12.430, the Director of Public Works may require the owner and/or occupant to provide access for the use of laboratory testing equipment or to contract for laboratory testing services and provide the City with a copy of the test results of the constituent(s) monitored. Upon review of the products and by products of the owner and/or occupant operation and the type of wastewater that is indigenous to the operation, the Director of Public Works shall also stipulate what constituents are to be monitored to insure proper performance by the City sewerage system in compliance with this Chapter, state and federal law.
- G. Where nonfunctional or malfunctioning flow measurement equipment exists, the waste generator and/or Industrial User shall notify the Director of Public Works within twenty-four hours of his or her knowledge of the malfunction so appropriate interim measurement arrangements can be made.

#### **13.12.950 Severability**

If any provision of this chapter is invalidated by any court of competent jurisdiction, the remaining provisions shall not be affected and shall continue in full force and effect."  
(Ord. 1995-M-15 § 1.)

#### **13.12.960 Deposit – Required – Refund – Exemption.**

- A. Deposit shall be charged to any customer, whether owner or non-owner, at any time if such customer meets any of the following criteria:
  1. The customer pays late four times during the prior twelve-month period, or
  2. The utility has disconnected service within the last twelve-month period for violation of the provisions of the St. Charles Municipal Code, or
  3. The utility finds out that the application for service was falsified, or
  4. The customer has two or more checks returned unpaid by the bank during the prior twelve-month period.

The deposit charged shall be in the amount equal to the aggregate of the two highest monthly billings for the twelve-month period ending immediately prior to the request for the deposit; or if a twelve-month period is unavailable, then any portion thereof, which amount shall be reduced by the amount of the deposit on hand.

The deposits set forth above shall be repaid to such applicant when the City has discontinued or refused the service for which such application was made and when all bills have been paid in full; provided, however, that if the applicant has not paid all bills owing the City for such service within thirty days after such service has been discontinued, then the Finance Department shall deduct the amount of the bills so owing from the deposit and remit the balance, if any, to such applicant.

- B. All deposits made by applicants as provided in subsection A of this section who are not delinquent shall be refunded by the City after one year of continuous service during which the applicant has not paid late more than one time during the latest twelve-month period and has received no

## SEWERS

disconnection notice during that same twelve-month period. Such a deposit may be returned by crediting the customer's utility bill for the amount of deposit at the discretion of the City Finance Director.

(Ord. 2010-M-12 § 1.)

# ***Appendix D***

## ***Public Works Organizational Chart***



# ***Appendix E***

## ***SSO Notification Reporting Policy***



**City of St. Charles  
Environmental Services Division  
Sanitary Sewer Overflow Notification and Reporting Policy**

The following policy is to be implemented when City staff determines a sanitary sewer overflow (SSO) situation exists. It is imperative this policy is followed so the City adheres to regulatory requirements of the Illinois Environmental Protection Agency (IEPA) and to ensure downstream users are notified of any discharge to the Fox River.

**Notification**

After an SSO has been discovered City staff should contact the following City Managers in the order listed. If the first person cannot be reached continue on to the next person.

If an SSO is discharging to the Fox River, a stream tributary to, or land adjacent to the Fox River **the City of Aurora Water Department must be contacted immediately**. It will be the responsibility of the Manager to contact the external agencies listed, unless Managerial personnel cannot be reached.

**Administrative Staff**

Michael Burnett	Environmental Services Division Manager	Office Cell	630-443-3925 630-816-6303
John Lamb	Environmental Services Manager	Office	630-377-4918
Christopher Adesso	Asst. Director Public Works - Operations	Office Cell	630-377-4459 630-770-6475
Peter Suhr	Director of Public Works	Office Cell	630-377-4916 630-667-6430

**External Agencies**

Illinois Environmental Protection Agency (IEPA)	
Emergency Response Unit – Springfield	217-782-3637
Des Plaines Regional Office	847-294-4000
Illinois Emergency Management Agency (IEMA)	
	800-782-7860
City of Aurora Water Department	
General Water Treatment Plant	630-256-3250
Operator I – Control Room	630-256-3264
Operator II – Control Room	630-256-3265
Operator I – mobile phone	630-327-6058
Operator II – mobile phone	630-327-1887

**The IEPA Regional Office must be notified within 24 hours of any SSO occurrence. Call this office at any time, if staff is not available leave detailed voice mail with date and time of SSO occurrence and date and time of call.**

### **Reporting**

Complete the attached SSO Incident Form for each SSO that occurs. If there are multiple locations during a storm event fill out separate forms for each location.

IEPA reports will be completed by the Environmental Services Manager or Division Manager and must be submitted to IEPA within five days of the overflow incident.

Use the data recorded on the SSO Incident Form to assist with completing the **IEPA SSO Reporting Form**, which is available on the IEPA website under the forms tab. (<http://www.epa.state.il.us/water/forms.html>). These forms must be submitted to the IEPA within five (5) days of the event.

In addition to submitting the corresponding IEPA SSO Reporting form to the IEPA, please attach a copy of the completed IEPA SSO Report to the City's SSO Incident form for the City's records. The City's SSO Incident Form as well as the IEPA SSO Reporting Form should be filed in the Sewer Assistant Division Manager's Office, in the binder designated for these reports. The forms should be kept for a minimum of five (5) years after the event.



**City of St. Charles  
Environmental Services Division  
Sanitary Sewer Overflow (SSO) Incident Form**

Date: \_\_\_\_\_ Time: \_\_\_\_\_ AM PM

Location: \_\_\_\_\_

Address: \_\_\_\_\_

Intersection: \_\_\_\_\_

Other reference for area: \_\_\_\_\_

Start Date and Time of Pumping: \_\_\_\_\_

Finish Date and Time of Pumping: \_\_\_\_\_

Total Pump Time: \_\_\_\_\_ Pump Information: gpm: \_\_\_\_\_

Total Volume Pumped: \_\_\_\_\_

**Type of SSO:**

Surcharging Manhole: \_\_\_\_\_

Lift Station Discharge: \_\_\_\_\_

Other: \_\_\_\_\_

**Cause for SSO:**

Equipment failure: \_\_\_\_\_

Charged sanitary line: \_\_\_\_\_

Other: \_\_\_\_\_

Rainfall (if known): \_\_\_\_\_ Rainfall Duration: \_\_\_\_\_

\* File form, along with correlating IEPA SSO Report, in the Sewer Assistant Division Manager's Office, in the binder designated for these reports. The forms should be kept for a minimum of five (5) years after the event.



# Illinois Environmental Protection Agency

Bureau of Water • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Sanitary Sewer Overflow or Bypass Notification Summary Report

- Within 24 hours of the occurrence, notify the Illinois EPA regional wastewater staff by telephone, FAX, email or voice mail, if staff are unavailable.
- Within 5 days of the occurrence, provide a written report describing the overflow or bypass, including all information requested on this form. The permittee is required to submit this form or other equivalent written notification to the Illinois EPA at:

Bureau of Water/Compliance Assurance Section - MC #19  
 1021 North Grand Avenue East  
 P.O. Box 19276  
 Springfield, IL 62794-9276

NOTE: You may complete this form online, save a copy locally, print, sign and submit it to the BOW/CAS MC #19, at the above address. You may also print the form before completing it by hand, signing and submitting it.

Failure to notify the Illinois EPA as specified may result in fines up to \$10,000 for each day of violation.

Instructions: Use this form to report all unscheduled sanitary sewer overflow or bypass occurrences. Attach additional information as necessary to explain or document the overflow or bypass. For the purpose of this report, an overflow or bypass is defined as the discharge of untreated sewage from the sanitary sewer collection system to a surface water and/or ground due to circumstances such as those identified by the check boxes in the overflow or bypass details section of this form.

Use one form per occurrence. A single occurrence may be more than one day if the circumstances causing the overflow or bypass results in a discharge duration of more than 24 hours. If there is a stop and restart of the overflow or bypass within 24 hours, but it is caused by the same circumstances, report it as one occurrence. If the discharges are separated by more than 24 hours, they should be reported as separate occurrences.

### 24 Hour Notification Information

Permittee (Municipality or Facility Name): \_\_\_\_\_ Permit Number: \_\_\_\_\_ Person Representing Permittee Who Contacted IEPA: \_\_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_ AM  PM  IEPA Office Contacted: \_\_\_\_\_ Name of IEPA Employee Contacted: \_\_\_\_\_

### Sanitary Sewer Overflow or Bypass Details

Date and Duration of Overflow or Bypass Occurrence (complete a separate form for each occurrence):

Start Date: \_\_\_\_\_ Time: \_\_\_\_\_ AM  PM  Duration of the overflow or bypass (hours and minutes): \_\_\_\_\_

Estimated Volume of Wastewater Discharged (gallons): \_\_\_\_\_ WWTP Flow During bypass (report in MGD): Not applicable for a collection system SSO. \_\_\_\_\_ Location of the Overflow or Bypass: \_\_\_\_\_

### Circumstances Causing the Overflow or Bypass (check all that apply)

- WPC 733  
11/2011
- Rain  Power Outage  Equipment Failure  Other (explain below)  
 Snow Melt  Broken Sewer  Widespread Flooding

Provide a narrative description to further explain why the overflow or bypass occurred. For example, describe what equipment failed. What caused the power outage, or what plugged the sewer. Flooding should only be indicated, as a cause if there is significant flooding that is caused by high river, stream, or lake water levels, not just localized high water in the street.

**Wet Weather (if applicable)**

Date(s) and Duration of Rainfall:

Start Date: \_\_\_\_\_ Time: \_\_\_\_\_ AM PM \_\_\_\_\_ End Date: \_\_\_\_\_ Time: \_\_\_\_\_ AM PM \_\_\_\_\_ Amount of Rainfall (inches) \_\_\_\_\_ Amount of Snow Melt (inches) \_\_\_\_\_

Contributing Soil Conditions (saturated, frozen, soil type) \_\_\_\_\_

**Where Did the Discharge from the Overflow or Bypass Go? (check all that apply)**

Provide the name of the local receiving water that the wastewater enters, which could be a nearby stream, river, lake, or wetland. If discharge does not enter directly into surface water, but indirectly by way of a ditch or storm sewer, trace the path of the ditch or storm sewer to find the receiving water.

- Runs on ground and absorbs into the soil
- Ditch: Name of surface water it drains to: \_\_\_\_\_
- Storm Sewer: Name of surface water it drains to: \_\_\_\_\_
- Surface water direct discharge: \_\_\_\_\_
- Basement Back-ups, (Number & use (i.e.residential, commercial) of buildings affected): \_\_\_\_\_
- Other, describe: \_\_\_\_\_

**Actions to Correct This Occurrence and Prevent Future Owerflows or Bypasses**

Describe what actions were taken to minimize the volume of wastewater discharged from the overflow or bypass reported on this form. Also describe what actions are planned to prevent or minimize future overflows or bypasses. Illinois law and NPDES permits prohibit overflows or bypasses, unless certain specified conditions are met. Sanitary sewer overflows and bypasses may be the subject of enforcement action.

**Report Completed By**

Contact Person: \_\_\_\_\_  
Street Address: \_\_\_\_\_  
PO Box: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_  
Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_  
County: \_\_\_\_\_

**Authorized Representative Contact Information**

Contact Person: \_\_\_\_\_  
Title: \_\_\_\_\_  
Street Address: \_\_\_\_\_  
PO Box: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_  
Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_  
County: \_\_\_\_\_

**Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))**

Authorized Representative Name (Print) \_\_\_\_\_ Title \_\_\_\_\_

Authorized Representative Signature

Date

# ***Appendix F***

## ***Homeowner Sewer Assistance Policy***

Title Homeowner Sewer Assistance Policy

Policy # 2010-01

Approval Date October 4, 2010

Revision Date



**Sections:**

- Introduction
- Program Criteria
- Application Process
- Reimbursement Process

**Exhibits:**

- Application Form
- Reimbursement Form

**I. INTRODUCTION**

The City of St. Charles offers financial assistance to residents that may experience flooding problems inside a home due to either sanitary sewer back up or storm water leaking in. The City Homeowner Sewer Assistance Program will reimburse property owners fifty percent (50%) of total project cost with a maximum contribution amount of twenty-five hundred dollars (\$2,500.00). The City has a limited dollar amount in the City budget for this program, therefore eligibility is on a first come first serve basis.

Examples of eligible projects for sanitary sewer back ups are; installation of overhead sewers, stand pipes or backflow prevention devices. Storm water projects examples may be; foundation water proofing, re-grading for improved drainage, drain tile and foundation wall repairs, private storm sewer repairs.

**II. PROGRAM CRITERIA**

To qualify a homeowner must have experienced either sanitary sewer backup or storm water infiltration in the interior of residence and provide documentation of the event. One or more of the following items must be submitted as documentation:

1. Copy of insurance company claim.
2. Copy of receipt from cleaning company. (Ex: ServiceMaster)
3. Photographs of backup.
4. Confirmed through a meeting with a City of St. Charles' representative.

Only costs related to the following devices or work are eligible for reimbursement. Paint, wall, floor coverings or other associated cosmetic costs are not eligible.

Standpipe	Water Proofing
Backflow Valve	Foundation wall, drain tile repair
Overhead Sewer	Drainage improvements

### III. APPLICATION PROCESS

If resident meets the established criteria an application shall be submitted to the Director of Public Works or designee for prior approval. The application is available at the City Department of Public Works, the Building & Code Enforcement Office and on the City of St. Charles' website.

**An application must be filed within six (6) months of the event and the work completed within one year of the application date.**

The application shall contain the following information:

1. Applicant name, property address and Property Index Number (PIN).
2. Description of work, devices to be installed.
3. Projected date of start of work and completion.
4. Copies of quotes from minimum of two licensed and bonded contractors.

The applicant may use any qualified contractor, however the City of St. Charles reimbursement amounts will be based on the lowest quote.

Two weeks should be allowed for review and pre-approval of application. In addition the applicant must also:

1. Sign a waiver indemnifying the City of any liability.
2. Obtain applicable permits for the City of St. Charles Building and Code Enforcement Office.

### IV. REIMBURSEMENT PROCESS

**Reimbursement is for fifty percent (50%) of the total cost with a maximum amount of twenty-five hundred dollars (\$2,500.00). The City of St. Charles shall make payments to applicants only, not to contractors or suppliers once the work is completed.**

After work is completed the resident shall notify the City of St. Charles Building and Code Enforcement Office to schedule a final inspection. After the inspection the resident must submit the following documentation to receive reimbursement:

1. Reimbursement form.
2. Copies of paid receipts for all work included in project.
3. Copy of approved application.
4. Copy of approved City permits and final inspections.

Once reimbursement form is submitted the resident should allow approximately two weeks for processing and payment. Homeowners are limited to a one-time only reimbursement.



### Homeowner Sewer Assistance Policy Application

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

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Property Index Number: \_\_\_\_\_

Phone Number: Home: \_\_\_\_\_

Cell: \_\_\_\_\_

email: \_\_\_\_\_

Do you own this home? Yes \_\_\_\_\_ No \_\_\_\_\_

Is this your permanent residence (more than 9 months of the year)? Yes \_\_\_\_\_ No \_\_\_\_\_

How many times have you experienced sanitary sewer back-ups into your home?

\_\_\_\_\_

Do you recall the date(s) of the back-ups? Please document.

\_\_\_\_\_

Where is the point of entry of the sanitary back-up into your home?

\_\_\_\_\_

This home has neither illegal sump pump nor any foundation drain connections to the sanitary collection system to my knowledge. \_\_\_\_\_ (initials)

To qualify for reimbursement a homeowner must provide documentation of the event. A copy of one or more of the following items must be submitted as documentation.

1. Copy of insurance company claim.
2. Copy of receipt from cleaning company. (Ex: ServiceMaster)
3. Photographs of backup.
4. Confirmed through a meeting with a City of St. Charles' representative.

Is one or more of the above items included with the application? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes which ones? \_\_\_\_\_

Only costs related to the following devices are eligible for reimbursement. Paint, wall, floor coverings or other associated cosmetic costs are not eligible.

Standpipe  
Backflow Valve

Water Proofing  
Foundation wall, drain tile repair

Overhead Sewer  
Drainage improvements

Description of work to be done, devices to be installed.

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Projected dates of start of work and completion. Start \_\_\_\_\_ Completion: \_\_\_\_\_

***NOTE: An application must be filed within six months of the most recent back-up and the work completed within one year of the application date.***

Please attach quotes from a minimum of two licensed and bonded contractors.

The applicant may use any qualified contractor, however the City of St. Charles reimbursement amount will be based on the lowest quote.

Additional information:

- Applicant should allow two weeks for review and approval of application.
- Applicant must obtain applicable permits and inspections for the work from the City of St. Charles Building and Code Enforcement Office. Required for reimbursement.
- Applicant must sign attached waiver indemnifying the City of St. Charles of an liability.
- The City of St. Charles assumes no responsibility for any defective work or other damage, injury or loss resulting in any act of negligence by the property owner or their contractor while installing, operating, or maintaining the devices installed.

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Signature of Applicant (must be property owner)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Printed Name

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

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**City of St. Charles Office Use**

**Project #:** \_\_\_\_\_

This application has been:      Approved \_\_\_\_\_

Not Approved \_\_\_\_\_

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

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

The following information / corrections need to be completed prior to re-applying.

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**City of St. Charles  
Public Works Department  
Environmental Services Office  
Homeowner Sewer Assistance Policy Reimbursement Form**



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

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Property Index Number: \_\_\_\_\_

Phone Number: Home: \_\_\_\_\_

Cell: \_\_\_\_\_

email: \_\_\_\_\_

Date of Application: \_\_\_\_\_

Date Project Completed: \_\_\_\_\_

Copy of Approved Application Attached: Yes \_\_\_\_\_ No \_\_\_\_\_

Copy of Paid Receipts / Invoices Attached: Yes \_\_\_\_\_ No \_\_\_\_\_

Copy of Permit for Work Attached: Yes \_\_\_\_\_ No \_\_\_\_\_

Copy of Final Inspection Attached: Yes \_\_\_\_\_ No \_\_\_\_\_

Signature of Applicant (must be property owner)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Printed Name

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

**City of St. Charles Office Use**

**Project #:** \_\_\_\_\_

This reimbursement has been: Approved \_\_\_\_\_

Not Approved \_\_\_\_\_

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

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

The following information / corrections need to be completed prior to re-submittal.

\_\_\_\_\_  
\_\_\_\_\_



ST. CHARLES  
SINCE 1834

## AGENDA ITEM EXECUTIVE SUMMARY

Title: Presentation of 10<sup>th</sup> Street/Milburn & Westfield Park Subdivision Sanitary Sewer Issues

Presenter: Peter Suhr & Chris Adesso

*Please check appropriate box:*

	Government Operations	X	Government Services 07.25.16
	Planning & Development		City Council
	Public Hearing		

Estimated Cost:	N/A	Budgeted:	YES		NO	
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If NO, please explain how item will be funded:

**Executive Summary:**

At the June Government Services Committee meeting, it was requested by the Committee that staff make a presentation to inform the Committee on the issues surrounding the sanitary sewer collection system in the 1200 block of S. 10<sup>th</sup> & 11<sup>th</sup> Streets, also known as the Milburn & Westfield Park Subdivisions.

Staff has prepared a presentation to supplement the information presented this evening by EEI for the CMOM program, while providing specific details and responses to questions about the area of the 1200 block of S 10<sup>th</sup> and 11<sup>th</sup> Streets. Also included in the presentation will be specific information surrounding the issue of the basement sewer back up at 1231 S 10<sup>th</sup> St.

**Attachments:** *(please list)*

Location Maps

**Recommendation / Suggested Action** *(briefly explain):*

None

*For office use only:*

*Agenda Item Number: 4.b*



Data Source:  
 City of St. Charles, Illinois  
 Kane County, Illinois  
 DuPage County, Illinois  
 Projection: Transverse Mercator  
 Coordinate System: Illinois State Plane East  
 North American Datum 1983  
 Printed on: July 14, 2016 02:13 PM



Millburn Sub Unit 1 to WEST  
 Westfield Park Unit 1 to EAST  
 Westfield Park Unit 2 to SOUTH

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 Powered by Precision GIS



ST. CHARLES  
SINCE 1834

## AGENDA ITEM EXECUTIVE SUMMARY

Title:	Recommendation to Approve Agreement with WBK, LLC for Professional Engineering and Surveying Services for the Active River (River Park) Concept Feasibility Study
Presenter:	Chris Adesso

*Please check appropriate box:*

	Government Operations	X	Government Services – 07.25.16
	Planning & Development		City Council
	Public Hearing		

Estimated Cost:	\$113,000	Budgeted:	YES		NO	X
-----------------	-----------	-----------	-----	--	----	---

If NO, please explain how item will be funded: Budget Transfer from projects that are under budget in the General Fund.

**Executive Summary:**

Pursuant to the presentation by the Active River Task Force at the June Government Services Committee Meeting, and in response to the motion from the Committee to review the River Park Concept Feasibility Study prepared by WBK, LLC., staff is prepared to answer questions from the Committee about the limitations of the scope of services of the study and provide feedback on specific tasks the study will complete.

In addition, as requested staff has met with Park District and River Corridor Foundation representatives and discussed a cost share to fund the \$113,000 study. The following table illustrates the cost share proposed, although a final Park District Board vote is pending, the group is open to a contribution in the range of \$30,000 to \$40,000.

City Costs Share	Park District Cost Share	River Corridor Foundation Cost Share	Total
\$68,000 - \$78,000	\$30,000 - \$40,000	\$5,000	\$113,000

An Intergovernmental Agreement (IGA) will be established with the Park District and River Corridor Foundation to solidify the relationship between all parties involved and will be presented to the Committee in the following months.

**Attachments:** *(please list)*

\* WBK, LLC Proposal

**Recommendation / Suggested Action** *(briefly explain):*

Recommendation to Approve Agreement with WBK, LLC for Professional Engineering and Surveying Services for the Active River (River Park) Concept Feasibility Study in the Amount of \$113,000.

*For office use only:*

*Agenda Item Number: 4.c*

# PROJECT PROPOSAL

River Park Concept Feasibility Study | Fox River – St. Charles, IL

July 13, 2016

Mr. Peter Suhr  
Director of Public Works  
City of St. Charles  
Two East Main Street  
St. Charles, IL 60174

**Subject: Proposal for Professional Engineering Services  
River Park Concept Feasibility, Fox River – St. Charles, IL**

Dear Mr. Suhr:

WBK Engineering, LLC (WBK) is pleased to provide this proposal to the City of St. Charles (Client) for professional engineering services to facilitate concept development and initial feasibility of the River Park project on the Fox River in Downtown St. Charles. WBK looks forward to the opportunity to assist the City of St. Charles as we believe this project has the ability to be transformative for the community and economic vitality of the downtown. Included below is our understanding of the assignment, scope of services, project assumptions, and estimate of fee.

## UNDERSTANDING OF THE ASSIGNMENT

The City of St. Charles is interested in determining the feasibility of water based river features or “park” on the Fox River from IL 64 to Pottawatomie Park. The “park” would include a paddle course that would seek to improve safety, improve fish passage and would become a destination for recreation while preserving existing recreational uses on the Fox River including rowing and boating.

Prior to a significant expenditure on the project the City would like to explore the feasibility of concepts by determining alternative geometries, maintenance and operational issues as well as identifying the regulatory approval process.

The concept presented in the Fox River Corridor Master Plan includes a new dam structure located near the UPRR trestle crossing the Fox River and modifications to the existing St. Charles dam structure. In accordance with IDNR-OWR procedures, approval of the design concept should be procured prior to initiation of a detailed design study for the project. The first step is to identify the feasibility of a design concept to achieve the goals determined by the City. The limits of the study area the Union Pacific Rail trestle crossing the Fox River to the north and Main Street (IL 64) bridge crossing the Fox River to the south.

## SCOPE OF SERVICES

**DATA COLLECTION** – This task consists of gathering the data required to complete the scope noted herein and engagement of resource agencies to procure the same.

1. Field Visit / Photo Documentation – Existing conditions of the project area will be documented to establish a baseline existing condition for the study. Documentation includes a field walk and written observation of conditions along with photo documentation of conditions such as structures, walls, landscaping and any other element considered to be potentially significant in defining an alternative for consideration.

2. Topographic mapping (2 foot contours) – The current Kane County 2 foot topographic contours will be procured to create base conditions outside ground survey limits. This data will assist to verify drainage sub areas and the relationship between existing roads and buildings and the proposed conditions.
3. Parcel Data, City Utility Information, Ownership of land and infrastructure (City GIS) – Parcel data will be procured from Kane County and the City of St. Charles to establish ownership of parcels adjacent to the project. Utility information will also be procured to identify sanitary sewer, electric or water supply infrastructure that will impact alternative development and selection.
4. Bathymetric Survey (USACE) - The USACE has performed a bathymetric survey of the Fox River from Algonquin to Montgomery and including the reach in which this project is considered. It is assumed the USACE bathymetric survey data will be made available to the City and there is no cost to the City for procurement. It is also assumed the data is readily “readable and useable” with ESRI – GIS software and significant conversion to make the data useable for the project is not necessary. The USACE bathymetric information will be used to establish river channel cross sections below water surface elevation.

### FIELD SURVEY & BASE MAP

1. Cross sections & Ground Topography – Ground survey will be performed within 100 feet of the east and west banks of the river within the project limits. Data will be gathered utilizing GPS and total station robotic survey equipment. Horizontal data will be captured in state plane coordinate and vertical datum will be consistent with FEMA benchmarks and datum requirements. Horizontal control will be set for use in future studies to tie in additional survey data. Existing utilities, wall, structures, trees and significant elements will be surveyed and documented. Topographic survey will be utilized to develop cross section for hydraulic modelling and to understand horizontal and vertical relationships of alternatives.
2. Wetland delineation – wetlands will be delineated along the Fox River within the project limits. Wetland limits will be surveyed and incorporated into the project base map.
3. Existing Conditions Base Map - All field data will be downloaded and a base map created depicting ground survey and bathymetric survey in one document. All parcel data, utility information and two foot contours will also be incorporated. The base map will be checked through a field review and will be presented to the City for review and comment prior to being finalized.

### HYDRAULICS

1. Procure FEMA regulatory hydraulic models – WBK will procure the regulatory HEC2 hydraulic model for the Fox River within the project limits. The model will be converted into HEC RAS for further refinements and alternatives analysis.
2. Existing Conditions Hydraulic Analysis – update existing model with current field data – The existing regulatory model will be reviewed, revised and updated to include additional cross sections as appropriate to establish a current and accurate existing conditions model. The baseline condition will be utilized to evaluate alternatives. Updated flood profiles will be established based on the updated model. A detailed regulatory review and verification of this model is not included in this task as initial coordination with regulatory agencies is considered in the Alternatives Analysis portion of this scope.

### ALTERNATIVES ANALYSIS

1. Purpose, location and configuration – The development of alternatives is an iterative process. The initial selection of alternatives will begin with a review of the base map and existing conditions and the goals for the project. The logical location and number of hydraulic “steps” to maintain the pool north of the UPRR crossing and to match the existing conditions at the IL 64 Bridge will be determined. Initial geometry will be developed through a series of discussions between S2O and WBK. An intense week long internal vetting of alternatives will result in an evolution of the alternatives most likely feasible and most likely permittable. These alternatives will be presented to City staff for review. Alternative geometry and locations will be prioritized for further analysis with selection of an initial preferred alternative. Project constraints will be identified and alternatives will be eliminated or revised to comply with goals and constraints.

## 2. Alternative development

- a. Hydraulic Evaluation – the initial preferred alternative will be evaluated with HEC-RAS to determine flood impacts, recreational impacts / opportunities, safety impacts and fish passage benefits. Based on the initial hydraulic analysis a second hydraulic analysis may be performed refining the initial preferred alternative or evaluating the next prioritized alternative.
- b. Alternative Refinement – The initial preferred alternative will be evaluated from various perspectives including structural, environmental (fish, sediment, water quality), constructability, recreational, land use, land rights, and safety. These evaluations will be high level based on the information available and within the scope of this effort. These evaluations are not exhaustive or final but intended to guide the process to a preferred alternative and to identify the challenges moving forward.
  - i. Concept Plans / exhibits – A concept plan for the preferred alternatives will be developed. The plan will utilize the topographic and bathymetric survey gathered in prior tasks and the existing conditions base map. The plan will define the hydraulic controls with preliminary geometry so the City can begin to quantify costs, impacts, land rights, etc. The plans will generally include these elements as either separate sheets or combined on a single sheet / exhibit.
    1. Geometric plans sheets
    2. River profile
    3. Cross sections
    4. Details
    5. Adjacent Land Use Opportunities
- c. Regulatory Compliance – the permitting feasibility of the preferred alternative relies on input from resource agencies (IDNR, USACE, USFWS). Since the response will be commensurate with the level of detail and project understanding we can offer, we have prioritized our effort to include only IDNR at this time. We believe their input to be most critical and would solicit their input and support as an initial step. Early coordination with other regulatory agencies is necessary but not included in the scope at this time.
  - i. Environmental Concerns – Environmental concerns will be identified such as fish passage, sediment management. Specific solutions are outside the scope of this report however, generic and previously successful solutions will be identified and determined if generally feasible and compatible with the initial preferred alternative.
  - ii. Permit Requirements – All permits will be identified based on the initial preferred alternative including permitting agency, application process, public involvement, necessary level of documentation for submittal and estimated timeline for review and response. Permits anticipated include, Dam Permit, USACE and City of St. Charles Stormwater Permit. Water Quality Certification may be required for the project however, until the project can be defined more clearly, it is out of the scope of this phase to coordinate and determine this requirement with the IEPA.
- d. Concept Level Costs – We will develop initial concept level project costs from the concept plans created for the initial preferred alternative noted in the previous task. Concept level costs will be developed to include:
  - i. Phase 1 Engineering
  - ii. Phase 2 Engineering
  - iii. Construction
  - iv. Operation and Maintenance

These costs will be based on the plans and project understanding developed in the prior task. We will also utilize our experience on other projects, consult the City for input, and compare to other similar facilities.

- e. Schedule – Based on the preferred alternative and regulatory input we will develop a preliminary project timeline and spread the expenditures identified in the concept level cost estimate across budget years. We will also identify primary action items, milestones and stakeholder engagement.
3. Funding Alternatives (grants, etc.) – We will research available grants and determine feasibility of other funding mechanisms based on the preferred alternative, program availability and current status of the same. A table identifying source, funding limits, match requirements, program goals and capability with preferred alternative will be developed.

### SUMMARY

Executive Summary – The preferred alternative will be summarized in a two page executive summary. Tables and graphics from prior tasks will be collated so the project can be understood and digested by elected officials, the public, regulatory agencies and funding opportunities. No additional exhibits are included with this task.

### MEETINGS AND COORDINATION

WBK and S2O will coordinate and facilitate several meetings to accomplish project objectives. Meetings include:

- Project initiation (kickoff) meetings
- Regulatory Coordination Meetings (3 meetings)
- City coordination meetings (2 meetings)
- Active River Coordination (1 meeting)
- Report review with City and Active River (1 meeting)

### PROJECT ASSUMPTIONS

In preparing this proposal, we have attempted to provide you with a scope of services to accomplish the goals of the project. In doing so, we have made some assumptions which will need to be verified during the engineering process. Any findings which are not consistent with our assumptions may increase the engineering budget for this project. We will thoroughly discuss any such findings with you and negotiate any budget revisions prior to proceeding. Our assumptions are as follows:

- The site was never used for storage of hazardous materials, and therefore the cost of an environmental assessment, mitigation, clean-up and permitting services are not included.
- Geotechnical borings and analysis is not included in this proposal. If it is determined that a study will be necessary we will assist you in soliciting a proposal for this work.
- USACE bathymetric survey data is available for use and incorporation into and existing conditions exhibit.

### ESTIMATE OF FEES

**i** Due to the nature of the tasks listed in the above Scope of Basic Services, we have provided time and material budgets. The actual amount invoiced will be based on the level of effort required to accomplish the task, but we will not exceed the budget without your prior approval. Our estimated fees are based on the entire Scope of Basic Services being awarded to us. In general, individual tasks cannot be broken out and awarded separately.

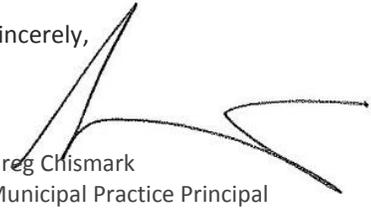
Task #	Task Name	Fee
Task 1	Data Collection	\$9,200
Task 2	Field Survey and Base Map	\$22,100
Task 3	Hydraulics	\$7,700
Task 4	Alternatives Analysis	\$59,800
Task 5	Summary Report	\$3,200
Task 6	Meetings and Coordination	\$6,500
	<b>TOTAL</b>	<b>\$108,500</b>
	Reimbursable Costs (Including Travel for S2O)	\$4,500

Please note that preparing this proposal requires the exercise of professional knowledge and judgment, and as such, this proposal remains the proprietary instrument of service of the firm WBK Engineering, LLC. No portion of this proposal may be shared with another firm providing similar services without permission.

We propose to bill you monthly based on the attached Schedule of Charges. We establish our contract in accordance with the attached General Terms and Conditions. These General Terms and Conditions are expressly incorporated into and are made an integral part of this contract for professional services. We reserve the right to increase our fees by five percent (5%) on December 31st of each calendar year.

If this proposal is acceptable, please return one (1) signed copy to us for our files to serve as a notice to proceed. Thank you for the opportunity to provide service to the City of St. Charles. If you have any questions, please do not hesitate to call.

Sincerely,



Greg Chismark  
Municipal Practice Principal

Encl: 2016 Schedule of Charges  
General Terms and Conditions for the City of St. Charles

THIS PROPOSAL, SCHEDULE OF CHARGES, AND GENERAL TERMS & CONDITIONS ACCEPTED FOR CITY OF ST. CHARLES:

BY: \_\_\_\_\_

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

**WBK ENGINEERING, LLC**  
**2016 Standard Charges for Professional Services**

<u>Classification</u>	<u>Hourly Rate</u>
Principal	\$ 210
Engineer VI	\$ 185
Engineer V	\$ 165
Engineer IV	\$ 140
Engineer III	\$ 117
Engineer II	\$ 98
Engineer I	\$ 84
Engineering Technician IV	\$ 138
Engineering Technician III	\$ 116
Engineering Technician II	\$ 97
Engineering Technician I	\$ 81
Senior Structural Engineer	\$ 170
Senior Scientist	\$ 170
Environmental Resource Specialist IV	\$ 123
Environmental Resource Specialist III	\$ 94
Environmental Resource Specialist II	\$ 85
Environmental Resource Specialist I	\$ 78
Urban Planner V	\$ 180
Urban Planner IV	\$ 144
Urban Planner III	\$ 120
Urban Planner II	\$ 98
Urban Planner I	\$ 80
Landscape Architect	\$ 94
Professional Land Surveyor	\$ 130
Engineering Intern	\$ 45
Office Professional	\$ 62
Direct Costs: Copies & Prints, Messenger & Delivery Services, Mileage, etc.	Cost +10%

*Charges include overhead and profit.*

*WBK Engineering, LLC reserves the right to increase rates and  
costs by 5% annually.*

**WBK ENGINEERING, LLC**  
**GENERAL TERMS AND CONDITIONS**  
**MODIFIED FOR CITY OF ST. CHARLES**  
**February 17, 2016**

1. Relationship Between Engineer and Client: WILLIS BURKE KELSEY ASSOCIATES, LTD. (Engineer) shall serve as Client's professional engineer consultant in those phases of the Project to which this Agreement applies. This relationship is that of a buyer and seller of professional services and as such the Engineer is an independent contractor in the performance of this Agreement and it is understood that the parties have not entered into any joint venture or partnership with the other. The Engineer shall not be considered to be the agent of the Client. Nothing contained in this Agreement shall create a contractual relationship with a cause of action in favor of a third party against either the Client or Engineer.

Furthermore, causes of action between the parties to this Agreement pertaining to acts of failures to act shall be deemed to have accrued and the applicable statute of limitations shall commence to run not later than the date of substantial completion.

2. Responsibility of the Engineer: Engineer will strive to perform services under this Agreement in accordance with generally accepted and currently recognized engineering practices and principles, and in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. No other representation, express or implied, and no warranty or guarantee is included or intended in this Agreement, or in any report, opinion, document, or otherwise.

Notwithstanding anything to the contrary which may be contained in this Agreement or any other material incorporated herein by reference, or in any Agreement between the Client and any other party concerning the Project, the Engineer shall not have control or be in charge of and shall not be responsible for the means, methods, techniques, sequences or procedures of construction, or the safety, safety precautions or programs of the Client, the construction contractor, other contractors or subcontractors performing any of the work or providing any of the services on the Project. Nor shall the Engineer be responsible for the acts or omissions of the Client, or for the failure of the Client, any architect, engineer, consultant, contractor or subcontractor to carry out their respective responsibilities in accordance with the Project documents, this Agreement or any other agreement concerning the Project. Any provision which purports to amend this provision shall be without effect unless it contains a reference that the content of this condition is expressly amended for the purposes described in such amendment and is signed by the Engineer.

3. Changes: Client reserves the right by written change order or amendment to make changes in requirements, amount of work, or engineering time schedule adjustments, and Engineer and Client shall negotiate appropriate adjustments acceptable to both parties to accommodate any changes, if commercially possible.
4. Suspension of Services: Client may, at any time, by written order to Engineer (Suspension of Services Order) require Engineer to stop all, or any part, of the services required by this Agreement. Upon receipt of such an order, Engineer shall

immediately comply with its terms and take all reasonable steps to minimize the costs associated with the services affected by such order. Client, however, shall pay all costs incurred by the suspension, including all costs necessary to maintain continuity and for the resumptions of the services upon expiration of the Suspension of Services Order. Engineer will not be obligated to provide the same personnel employed prior to suspension, when the services are resumed, in the event that the period of suspension is greater than thirty (30) days.

5. Termination: This Agreement may be terminated by either party upon thirty (30) days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party. This Agreement may be terminated by Client, under the same terms, whenever Client shall determine that termination is in its best interests. Cost of termination, including salaries, overhead and fee, incurred by Engineer either before or after the termination date shall be reimbursed by Client.
6. Documents Delivered to Client: Drawings, specifications, reports, and any other Project Documents prepared by Engineer in connection with any or all of the services furnished hereunder shall be delivered to the Client for the use of the Client. Engineer shall have the right to retain originals of all Project Documents and drawings for its files. Furthermore, it is understood and agreed that the Project Documents such as, but not limited to reports, calculations, drawings, and specifications prepared for the Project, whether in hard copy or machine readable form, are instruments of professional service intended for one-time use in the construction of this Project. These Project Documents are and shall remain the property of the Engineer. The Client may retain copies, including copies stored on magnetic tape or disk, for information and reference in connection with the occupancy and use of the Project.

When and if record drawings are to be provided by the Engineer, Client understands that information used in the preparation of record drawings is provided by others and Engineer is not responsible for accuracy, completeness, nor sufficiency of such information. Client also understands that the level of detail illustrated by record drawings will generally be the same as the level of detail illustrated by the design drawing used for project construction. If additional detail is requested by the Client to be included on the record drawings, then the Client understands and agrees that the Engineer will be due additional compensation for additional services.

It is also understood and agreed that because of the possibility that information and data delivered in machine readable form may be altered, whether inadvertently or otherwise, the Engineer reserves the right to retain the original tapes/disks and to remove from copies provided to the Client all identification reflecting the involvement of the Engineer in their preparation. The Engineer also reserves the right to retain hard copy originals of all Project Documentation delivered to the Client in machine readable form, which originals shall be referred to and shall govern in the event of any inconsistency between the two.

The Client understands that the automated conversion of information and data from the system and format used by the Engineer to an alternate system or format cannot be accomplished without the introduction of inexactitudes, anomalies, and errors. In

the event Project Documentation provided to the Client in machine readable form is so converted, the Client agrees to assume all risks associated therewith and, to the fullest extent permitted by law, to hold harmless and indemnify the Engineer from and against all claims, liabilities, losses, damages, and costs, including but not limited to attorney's fees, arising therefrom or in connection therewith.

The Client recognizes that changes or modifications to the Engineer's instruments of professional service introduced by anyone other than the Engineer may result in adverse consequences which the Engineer can neither predict nor control. Therefore, and in consideration of the Engineer's agreement to deliver its instruments of professional service in machine readable form, the Client agrees, to the fullest extent permitted by law, to hold harmless and indemnify the Engineer from and against all claims, liabilities, losses, damages, and costs, including but not limited to attorney's fees, arising out of or in any way connected with the modification, misinterpretation, misuse, or reuse by others of the machine readable information and data provided by the Engineer under this Agreement. The foregoing indemnification applies, without limitation, to any use of the Project Documentation on other projects, for additions to this Project, or for completion of this Project by others, excepting only such use as may be authorized, in writing, by the Engineer.

7. Reuse of Documents: All Project Documents including but not limited to reports, opinions of probable costs, drawings and specifications furnished by Engineer pursuant to this Agreement are intended for use on the Project only. They cannot be used by Client or others on extensions of the Project or any other project. Any reuse, without specific written verification or adaptation by Engineer, shall be at Client's sole risk, and Client shall indemnify and hold harmless Engineer from all claims, damages, losses, and expenses including attorney's fees arising out of or resulting therefrom.

The Engineer shall have the right to include representations of the design of the Project, including photographs of the exterior and interior, among the Engineer's promotional and professional materials. The Engineer's materials shall not include the Client's confidential and proprietary information if the Client has previously advised the Engineer in writing of the specific information considered by the Client to be confidential and proprietary.

8. Standard of Practice: The Engineer will strive to conduct services under this agreement in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions as of the date of this Agreement.
9. Compliance with Laws: The Engineer will strive to exercise usual and customary professional care in his/her efforts to comply with those laws, codes, ordinance and regulations which are in effect as of the date of this Agreement. With specific respect to prescribed requirements of the Americans with Disabilities Act of 1990 or certified state or local accessibility regulations (ADA), Client understands ADA is a civil rights legislation and that interpretation of ADA is a legal issue and not a design issue and, accordingly, retention of legal counsel (by Client) for purposes of interpretation is advisable. As such and with respect to ADA, Client agrees to waive any action against

Engineer, and to indemnify and defend Engineer against any claim arising from Engineer's alleged failure to meet ADA requirements prescribed.

Further to the law and code compliance, the Client understands that the Engineer will strive to provide designs in accordance with the prevailing Standards of Practice as previously set forth, but that the Engineer does not warrant that any reviewing agency having jurisdiction will not for its own purposes comment, request changes and/or additions to such designs. In the event such design requests are made by a reviewing agency, but which do not exist in the form of a written regulation, ordinance or other similar document as published by the reviewing agency, then such design changes (at substantial variance from the intended design developed by the Engineer), if effected and incorporated into the project documents by the Engineer, shall be considered as Supplementary Task(s) to the Engineer's Scope of Service and compensated for accordingly.

10. Affirmative Action: The Engineer is committed to the principles of equal employment opportunity. Moreover, as a government contractor bound by Executive Order 11246, Engineer takes its affirmative action obligations very seriously. Engineer states as its Policy of Affirmative Action the following:

It will be the policy of the Engineer to recruit, hire, train and promote persons in all job titles without regard to race, color, religion, sex, age, disability, veteran status, national origin, or any other characteristic protected by applicable law.

All employment decisions shall be consistent with the principle of equal employment opportunity, and only job-related qualifications will be required.

All personnel actions, such as compensation, benefits, transfers, tuition assistance, social and recreational programs, etc. will be administered without regard to race, color, religion, sex, age, disability, veteran status, national origin, or any other characteristic protected by applicable law.

11. Indemnification: Engineer shall indemnify and hold harmless Client up to the amount of Engineer's insurance coverage from loss or expense, including reasonable attorney's fees for claims for personal injury (including death) or property damage to the extent caused by the sole negligent act, error or omission of Engineer.

Client shall indemnify and hold harmless Engineer up to amount of Client's insurance coverage, from loss or expense, including reasonable attorney's fees, for claims for personal injuries (including death) or property damage arising out of the sole negligent act, error or omission of Client.

In the event of joint or concurrent negligence of Engineer and Client, each shall bear that portion of the loss or expense that its share of the joint or concurrent negligence bears to the total negligence (including that of third parties), which caused the personal injury or property damage.

Engineer shall not be liable for special, incidental or consequential damages, including, but not limited to loss of profits, revenue, use of capital, claims of customers, cost of purchased or replacement power, or for any other loss of any nature, whether

based on contract, tort, negligence, strict liability or otherwise, by reasons of the services rendered under this Agreement.

12. Opinions of Probable Cost: Since Engineer has no control over the cost of labor, materials or equipment, or over the Contractor(s) method of determining process, or over competitive bidding or market conditions, his/her opinions of probable Project Construction Cost provided for herein are to be made on the basis of his/her experience and qualifications and represent his/her judgement as a design professional familiar with the construction industry, but Engineer cannot and does not guarantee that proposal, bids or the Construction Cost will not vary from opinions of probable construction cost prepared by him/her. If prior to the Bidding or Negotiating Phase, Client wishes greater accuracy as to the Construction Cost, the Client shall employ an independent cost estimator Consultant for the purpose of obtaining a second construction cost opinion independent from Engineer.
13. Governing Law & Dispute Resolutions: This Agreement shall be governed by and construed in accordance with Articles previously set forth by (Item 9 of) this Agreement, together with the laws of the **State of Illinois**.

Any claim, dispute or other matter in question arising out of or related to this Agreement, which can not be mutually resolved by the parties of this Agreement, shall be subject to mediation as a condition precedent to arbitration (if arbitration is agreed upon by the parties of this Agreement) or the institution of legal or equitable proceedings by either party. If such matter relates to or is the subject of a lien arising out of the Engineer's services, the Engineer may proceed in accordance with applicable law to comply with the lien notice or filing deadlines prior to resolution of the matter by mediation or by arbitration.

The Client and Engineer shall endeavor to resolve claims, disputes and other matters in question between them by mediation which, unless the parties mutually agree otherwise, shall be in accordance with the Construction Industry Mediation Rules of the American Arbitration Association currently in effect. Requests for mediation shall be filed in writing with the other party to this Agreement and with the American Arbitration Association. The request may be made concurrently with the filing of a demand for arbitration but, in such event, mediation shall proceed in advance of arbitration or legal or equitable proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order.

The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

14. Successors and Assigns: The terms of this Agreement shall be binding upon and inure to the benefit of the parties and their respective successors and assigns: provided, however, that neither party shall assign this Agreement in whole or in part without the prior written approval of the other.

15. Waiver of Contract Breach: The waiver of one party of any breach of this Agreement or the failure of one party to enforce at any time, or for any period of time, any of the provisions hereof, shall be limited to the particular instance, shall not operate or be deemed to waive any future breaches of this Agreement and shall not be construed to be a waiver of any provision, except for the particular instance.
16. Entire Understanding of Agreement: This Agreement represents and incorporates the entire understanding of the parties hereto, and each party acknowledges that there are no warranties, representations, covenants or understandings of any kind, matter or description whatsoever, made by either party to the other except as expressly set forth herein. Client and the Engineer hereby agree that any purchase orders, invoices, confirmations, acknowledgments or other similar documents executed or delivered with respect to the subject matter hereof that conflict with the terms of the Agreement shall be null, void and without effect to the extent they conflict with the terms of this Agreement.
17. Amendment: This Agreement shall not be subject to amendment unless another instrument is duly executed by duly authorized representatives of each of the parties and entitled "Amendment of Agreement".
18. Severability of Invalid Provisions: If any provision of the Agreement shall be held to contravene or to be invalid under the laws of any particular state, county or jurisdiction where used, such contravention shall not invalidate the entire Agreement, but it shall be construed as if not containing the particular provisions held to be invalid in the particular state, country or jurisdiction and the rights or obligations of the parties hereto shall be construed and enforced accordingly.
19. Force Majeure: Neither Client nor Engineer shall be liable for any fault or delay caused by any contingency beyond their control including but not limited to acts of God, wars, strikes, walkouts, fires, natural calamities, or demands or requirements of governmental agencies.
20. Subcontracts: Engineer may subcontract portions of the work, but each subcontractor must be approved by Client in writing.
21. Access and Permits: Client shall arrange for Engineer to enter upon public and private property and obtain all necessary approvals and permits required from all governmental authorities having jurisdiction over the Project. Client shall pay costs (including Engineer's employee salaries, overhead and fee) incident to any effort by Engineer toward assisting Client in such access, permits or approvals, if Engineer performs such services.
22. Designation of Authorized Representative: Each party (to this Agreement) shall designate one or more persons to act with authority in its behalf in respect to appropriate aspects of the Project. The persons designated shall review and respond promptly to all communications received from the other party.
23. Notices: Any notice or designation required to be given to either party hereto shall be in writing, and unless receipt of such notice is expressly required by the terms hereof

shall be deemed to be effectively served when deposited in the mail with sufficient first class postage affixed, and addressed to the party to whom such notice is directed at such party's place of business or such other address as either party shall hereafter furnish to the other party by written notice as herein provided.

24. Limit of Liability: The Client and the Engineer have discussed the risks, rewards, and benefits of the project and the Engineer's total fee for services. In recognition of the relative risks and benefits of the Project to both the Client and the Engineer, the risks have been allocated such that the Client agrees that to the fullest extent permitted by law, the Engineer's total aggregate liability to the Client for any and all injuries, claims, costs, losses, expenses, damages of any nature whatsoever or claim expenses arising out of this Agreement from any cause or causes, including attorney's fees and costs, and expert witness fees and costs, shall not exceed the limits of Engineer's insurance coverage as applicable. Such causes included but are not limited to the Engineer's negligence, errors, omissions, strict liability or breach of contract. It is intended that this limitation apply to any and all liability or cause of action however alleged or arising, unless otherwise prohibited by law.
25. Client's Responsibilities: The Client agrees to provide full information regarding requirements for and about the Project, including a program which shall set forth the Client's objectives, schedule, constraints, criteria, special equipment, systems and site requirements.

The Client agrees to furnish and pay for all legal, accounting and insurance counseling services as may be necessary at any time for the Project, including auditing services which the Client may require to verify the Contractor's Application for Payment or to ascertain how or for what purpose the Contractor has used the money paid by or on behalf of the Client.

The Client agrees to require the Contractor, to the fullest extent permitted by law, to indemnify, hold harmless, and defend the Engineer, its consultants, and the employees and agents of any of them from and against any and all claims, suits, demands, liabilities, losses, damages, and costs ("Losses"), including but not limited to costs of defense, arising in whole or in part out of the negligence of the Contractor, its subcontractors, the officers, employees, agents, and subcontractors of any of them, or anyone for whose acts any of them may be liable, regardless of whether or not such Losses are caused in part by a party indemnified hereunder. Specifically excluded from the foregoing are Losses arising out of the preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs, or specifications, and the giving of or failure to give directions by the Engineer, its consultants, and the agents and employees of any of them, provided such giving or failure to give is the primary cause of Loss. The Client also agrees to require the Contractor to provide to the Engineer the required certificate of insurance.

The Client further agrees to require the Contractor to name the Engineer, its agents and consultants as additional insureds on the Contractor's policy or policies of comprehensive or commercial general liability insurance. Such insurance shall include products and completed operations and contractual liability coverages, shall be primary and noncontributing with any insurance maintained by the Engineer or its agents and consultants, and shall provide that the Engineer be given thirty days, unqualified written notice prior to any cancellation thereof.

In the event the foregoing requirements, or any of them, are not established by the Client and met by the Contractor, the Client agrees to indemnify and hold harmless the Engineer, its employees, agents, and consultants from and against any and all Losses which would have been indemnified and insured against by the Contractor, but were not.

When Contract Documents prepared under the Scope of Services of this contract require insurance(s) to be provided, obtained and/or otherwise maintained by the Contractor, the Client agrees to be wholly responsible for setting forth any and all such insurance requirements. Furthermore, any document provided for Client review by the Engineer under this Contract related to such insurance(s) shall be considered as sample insurance requirements and not the recommendation of the Engineer. Client agrees to have their own risk management department review any and all insurance requirements for adequacy and to determine specific types of insurance(s) required for the project. Client further agrees that decisions concerning types and amounts of insurance are specific to the project and shall be the product of the Client. As such, any and all insurance requirements made part of Contract Documents prepared by the Engineer are not to be considered the Engineer's recommendation, and the Client shall make the final decision regarding insurance requirements.

26. Information Provided by Others: The Engineer shall indicate to the Client the information needed for rendering of the services of this Agreement. The Client shall provide to the Engineer such information as is available to the Client and the Client's consultants and contractors, and the Engineer shall be entitled to rely upon the accuracy and completeness thereof. The Client recognizes that it is impossible for the Engineer to assure the accuracy, completeness and sufficiency of such information, either because it is impossible to verify, or because of errors or omissions which may have occurred in assembling the information the Client is providing. Accordingly, the Client agrees, to the fullest extent permitted by law, to indemnify and hold the Engineer and the Engineer's subconsultants harmless from any claim, liability or cost (including reasonable attorneys' fees and cost of defense) for injury or loss arising or allegedly arising from errors, omissions or inaccuracies in documents or other information provided by the Client to the Engineer.
27. Payment: Client shall be invoiced once each month for work performed during the preceding period. Client agrees to pay each invoice within thirty (30) days of its receipt. The client further agrees to pay interest on all amounts invoiced and not paid or objected to for valid cause within said thirty (30) day period at the rate of eighteen (18) percent per annum (or the maximum interest rate permitted under applicable law, whichever is the lesser) until paid. Client further agrees to pay Engineer's cost of collection of all amounts due and unpaid after sixty (60) days, including court costs and reasonable attorney's fees, as well as costs attributed to suspension of services accordingly and as follows:

Collection Costs: In the event legal action is necessary to enforce the payment provisions of this Agreement, the Engineer shall be entitled to collect from the

Client any judgement or settlement sums due, reasonable attorneys' fees, court costs and expenses incurred by the Engineer in connection therewith and, in addition, the reasonable value of the Engineer's time and expenses spent in connection with such collection action, computed at the Engineer's prevailing fee schedule and expense policies.

**Suspension of Services:** If the Client fails to make payments when due or otherwise is in breach of this Agreement, the Engineer may suspend performance of services upon five (5) calendar days' notice to the Client. The Engineer shall have no liability whatsoever to the Client for any costs or damages as a result of such suspension caused by any breach of this Agreement by the Client. Client will reimburse Engineer for all associated costs as previously set forth in (Item 4 of) this Agreement.

28. When construction observation tasks are part of the service to be performed by the Engineer under this Agreement, the Client will include the following clause in the construction contract documents and Client agrees not to modify or delete it:

**Kotecki Waiver:** Contractor (and any subcontractor into whose subcontract this clause is incorporated) agrees to assume the entire liability for all personal injury claims suffered by its own employees, including without limitation claims under the **Illinois** Structural Work Act, asserted by persons allegedly injured on the Project; waives any limitation of liability defense based upon the Worker's Compensation Act, court interpretations of said Act or otherwise; and to the fullest extent permitted by law, agrees to indemnify and hold harmless and defend Owner and Engineer and their agents, employees and consultants (the "Indemnitees") from and against all such loss, expense, damage or injury, including reasonable attorneys' fees, that the Indemnitees may sustain as a result of such claims, except to the extent that **Illinois** law prohibits indemnity for the Indemnitees' own negligence. The Owner and Engineer are designated and recognized as explicit third-party beneficiaries of the Kotecki Waiver within the general contract and all subcontracts entered into in furtherance of the general contract.

29. **Job Site Safety/Supervision & Construction Observation:** The Engineer shall neither have control over or charge of, nor be responsible for, the construction means, methods, techniques, sequences of procedures, or for safety precautions and programs in connection with the Work since they are solely the Contractor's rights and responsibilities. The Client agrees that the Contractor shall supervise and direct the work efficiently with his/her best skill and attention; and that the Contractor shall be solely responsible for the means, methods, techniques, sequences and procedures of construction and safety at the job site. The Client agrees and warrants that this intent shall be carried out in the Client's contract with the Contractor. The Client further agrees that the Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the work; and that the Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to all employees on the subject site and all other persons who may be affected thereby. The Engineer shall

have no authority to stop the work of the Contractor or the work of any subcontractor on the project.

When construction observation services are included in the Scope of Services, the Engineer shall visit the site at intervals appropriate to the stage of the Contractor's operation, or as otherwise agreed to by the Client and the Engineer to: 1) become generally familiar with and to keep the Client informed about the progress and quality of the Work; 2) to strive to bring to the Client's attention defects and deficiencies in the Work and; 3) to determine in general if the Work is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Engineer shall not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. If the Client desires more extensive project observation, the Client shall request that such services be provided by the Engineer as Additional and Supplemental Construction Observation Services in accordance with the terms of this Agreement.

The Engineer shall not be responsible for any acts or omissions of the Contractor, subcontractor, any entity performing any portions of the Work, or any agents or employees of any of them. The Engineer does not guarantee the performance of the Contractor and shall not be responsible for the Contractor's failure to perform its Work in accordance with the Contract Documents or any applicable laws, codes, rules or regulations.

When municipal review services are included in the Scope of Services, the Engineer (acting on behalf of the municipality), when acting in good faith in the discharge of its duties, shall not thereby render itself liable personally and is, to the maximum extent permitted by law, relieved from all liability for any damage that may accrue to persons or property by reason of any act or omission in the discharge of its duties. Any suit brought against the Engineer which involve the acts or omissions performed by it in the enforcement of any provisions of the Client's rules, regulation and/or ordinance shall be defended by the Client until final termination of the proceedings. The Engineer shall be entitled to all defenses and municipal immunities that are, or would be, available to the Client.

30. Insurance and Indemnification: The Engineer and the Client understand and agree that the Client will contractually require the Contractor to defend and indemnify the Engineer and/or any subconsultants from any claims arising from the Work. The Engineer and the Client further understand and agree that the Client will contractually require the Contractor to procure commercial general liability insurance naming the Engineer as an additional named insured with respect to the work. The Contractor shall provide to the Client certificates of insurance evidencing that the contractually required insurance coverage has been procured. However, the Contractor's failure to provide the Client with the requisite certificates of insurance shall not constitute a waiver of this provision by the Engineer.

The Client and Engineer waive all rights against each other and against the Contractor and consultants, agents and employees of each of them for damages to the extent covered by property insurance during construction. The Client and Engineer each shall require similar waivers from the Contractor, consultants, agents

and persons or entities awarded separate contracts administered under the Client's own forces.

31. Hazardous Materials/Pollutants: Unless otherwise provided by this Agreement, the Engineer and Engineer's consultants shall have no responsibility for the discovery, presence, handling, removal or disposal of or exposure of persons to hazardous materials/pollutants in any form at the Project site, including but not limited to mold/mildew, asbestos, asbestos products, polychlorinated biphenyl (PCB) or other toxic/hazardous/pollutant type substances.

Furthermore, Client understands that the presence of mold/mildew and the like are results of prolonged or repeated exposure to moisture and the lack of corrective action. Client also understands that corrective action is a operation, maintenance and repair activity for which the Engineer is not responsible.

**Concept Feasibility Study  
River Park Concept Feasibility Study**

**Fox River**

Local Agency      City of St. Charles

Project              14-0262

Date: 4/3/2016

**Cost Estimate of Consultant's Services in Dollars**

Element of Work		Employee Classification	Man-Hours	Hourly Rate	(MH) x Hourly Rate	Services by Others	In-House Direct Costs (IHDC)	Total	TOTAL COST BY TASK
1	Data Collection					\$ -	\$ 1,200.00	\$ 1,200.00	<b>Task: 1</b>
		Engineer VI	12.0	\$185.00	\$2,220.00			\$2,220.00	\$10,408.00
		Engineer III	12.0	\$117.00	\$1,404.00			\$1,404.00	\$9,208.00
		Engineering Technician III	14.0	\$116.00	\$1,624.00			\$1,624.00	
		S2O Shipley	18.0	\$220.00	\$3,960.00			\$3,960.00	
2	Field Survey & Base Map					\$ -	\$0.00	\$0.00	<b>Task: 2</b>
		Engineer VI	8.0	\$185.00	\$1,480.00			\$1,480.00	\$22,094.00
		Engineer V	2.0	\$165.00	\$330.00			\$330.00	\$22,094.00
		Engineering Technician III	60.0	\$116.00	\$6,960.00			\$6,960.00	
		Engineering Technician II	108.0	\$97.00	\$10,476.00			\$10,476.00	
		Senior Scientist	0.0	\$170.00	\$0.00			\$0.00	
		ERS III	12.0	\$94.00	\$1,128.00			\$1,128.00	
		S2O Shipley	1.0	\$220.00	\$220.00			\$220.00	
		S2O Engineer	10.0	\$150.00	\$1,500.00			\$1,500.00	
3	Hydraulics					\$ -	\$0.00	\$0.00	<b>Task: 3</b>
		Engineer V	9.0	\$165.00	\$1,485.00			\$1,485.00	\$7,705.00
		Engineer IV	37.0	\$140.00	\$5,180.00			\$5,180.00	
		S2O Shipley	2.0	\$220.00	\$440.00			\$440.00	
		S2O Engineer	4.0	\$150.00	\$600.00			\$600.00	
4	Alternatives Analysis					\$ -	\$ 1,200.00	\$ 1,200.00	<b>Task: 4</b>
		Engineer VI	63.0	\$185.00	\$11,655.00			\$11,655.00	\$61,033.00
		Engineer V	32.0	\$165.00	\$5,280.00			\$5,280.00	\$59,833.00
		Engineer IV	26.0	\$140.00	\$3,640.00			\$3,640.00	
		Engineering Technician III	64.0	\$116.00	\$7,424.00			\$7,424.00	
		Senior Scientist	20.0	\$170.00	\$3,400.00			\$3,400.00	
		ERS III	6.0	\$94.00	\$564.00			\$564.00	
		S2O Shipley	36.0	\$220.00	\$7,920.00			\$7,920.00	
		S2O Engineer	133.0	\$150.00	\$19,950.00			\$19,950.00	
5	Report and Summary					\$ -	\$835.92	\$835.92	<b>Task: 5</b>
		Engineer VI	6.0	\$185.00	\$1,110.00			\$1,110.00	\$4,065.92
		Engineer V	0.0	\$165.00	\$0.00			\$0.00	\$3,230.00
		Engineer IV	4.0	\$140.00	\$560.00			\$560.00	
		Engineering Technician III	0.0	\$116.00	\$0.00			\$0.00	
		Senior Scientist	0.0	\$170.00	\$0.00			\$0.00	
		S2O Shipley	3.0	\$220.00	\$660.00			\$660.00	
		S2O Engineer	6.0	\$150.00	\$900.00			\$900.00	
6	Meetings and Coordination					\$ -	\$1,200.00	\$1,200.00	<b>Task: 6</b>
		Engineer VI	13.0	\$185.00	\$2,405.00			\$2,405.00	\$7,655.00
		Engineer V	8.0	\$165.00	\$1,320.00			\$1,320.00	\$6,455.00
		S2O Shipley	9.0	\$220.00	\$1,980.00			\$1,980.00	
		S2O Engineer	5.0	\$150.00	\$750.00			\$750.00	
<b>Totals</b>			743.0		\$ 108,525.00	\$ -	\$ 4,435.92	\$ 112,960.92	



ST. CHARLES  
SINCE 1834

## AGENDA ITEM EXECUTIVE SUMMARY

Title: Recommendation to Approve the Kinetic Sculpture Project on Behalf of the River Corridor Foundation

Presenter: Chris Adesso

*Please check appropriate box:*

<input type="checkbox"/>	Government Operations	<input checked="" type="checkbox"/>	Government Services – 07.25.16
<input type="checkbox"/>	Planning & Development	<input type="checkbox"/>	City Council
<input type="checkbox"/>	Public Hearing	<input type="checkbox"/>	

Estimated Cost:	\$10,000	Budgeted:	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> X	<input type="checkbox"/> NO	<input type="checkbox"/>
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If NO, please explain how item will be funded:

**Executive Summary:**

The River Corridor Foundation in partnership with the Active River Task Force is requesting to install three kinetic sculptures that will be donated by the Anderson Family, on the City owned Right of Way at the east dead end of State Street, adjacent to the river, between the Carroll Towers parking lot and the City owned Parking Lot just to the north.

There are a few details to be vetted through but the Active River Task Force and the River Corridor Foundation would like to request approval of the concept and funds expenditure to investigate this new site in lieu of the originally planned location on “Johansen’s Island”.

Staff will present information on the financing behind the project, including the reallocation of the dollars budgeted in the FY 16/17 budget for the kinetic sculpture project.

**Attachments:** *(please list)*

\* Location Map \* Sculpture Example

**Recommendation / Suggested Action** *(briefly explain):*

Recommendation to Approve the Kinetic Sculpture Project on Behalf of the River Corridor Foundation

<i>For office use only:</i>	<i>Agenda Item Number: 4.d</i>
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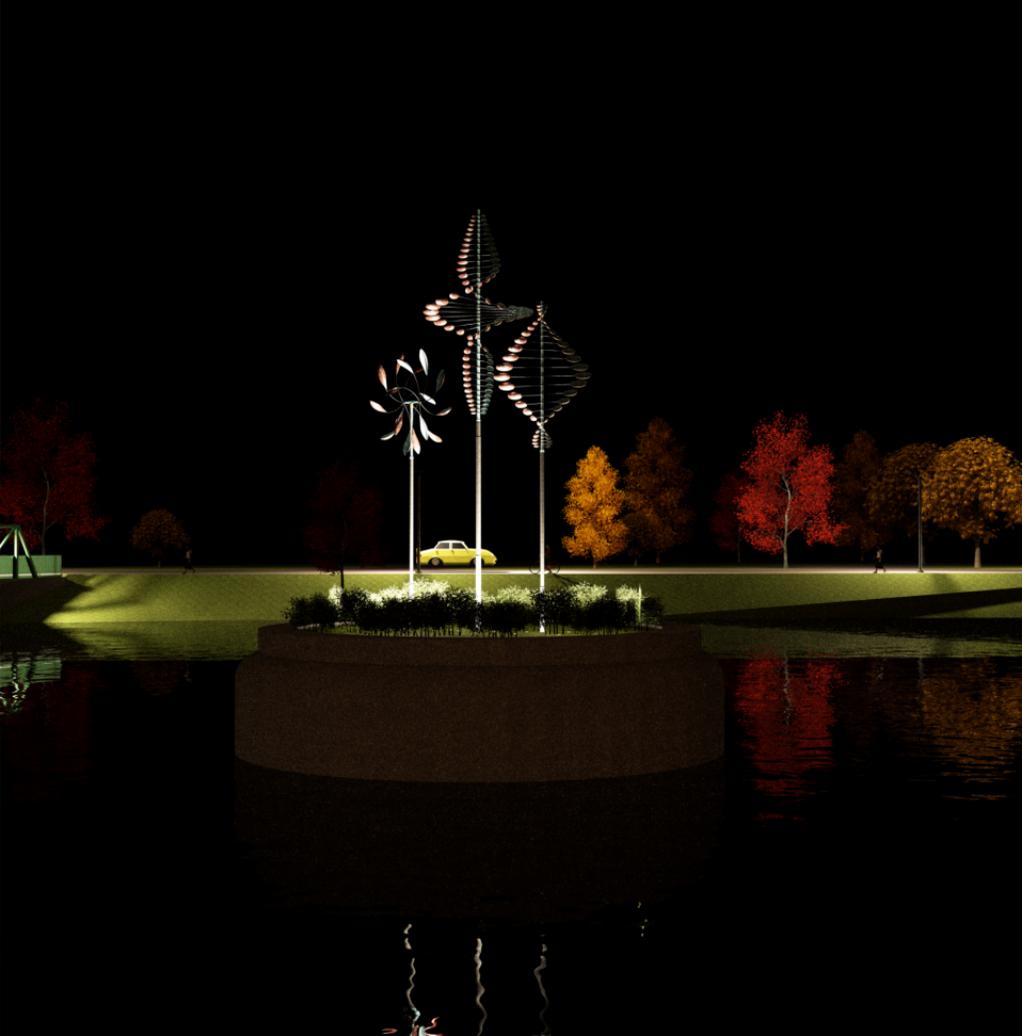


Data Source:  
City of St. Charles, Illinois  
Kane County, Illinois  
DuPage County, Illinois  
Projection: Transverse Mercator  
Coordinate System: Illinois State Plane East  
North American Datum 1983  
Printed on: July 12, 2016 04:52 PM



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Powered by Precision GIS

Concept view from riverbank





ST. CHARLES  
SINCE 1834

## AGENDA ITEM EXECUTIVE SUMMARY

Title:	Recommendation to Approve the Bob Leonard Walk Site Improvement Project on Behalf of the River Corridor Foundation
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Presenter:	Chris Adesso
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*Please check appropriate box:*

	Government Operations	X	Government Services – 07.25.16
	Planning & Development		City Council
	Public Hearing		

Estimated Cost:	\$0	Budgeted:	YES		NO	
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If NO, please explain how item will be funded:

**Executive Summary:**

The River Corridor Foundation in partnership with the Active River Task Force is requesting to complete the Bob Leonard Walk Site Improvement Project on Phase II of the Bob Leonard Walk, between Indiana Street and Prairie Street.

The project consists of installing new bench seating along the walk and in the gathering area near the “If I Could But Fly” sculpture, together with new trash receptacles. Landscaping additions and improvements consist of more perennials and trees consistent with the design that is present on the site today. Also, future public art locations are identified on the site plan, although at this time no installation of new art work is planned.

The financing behind this project is being provided through grants from the Community Foundation and Kane County River Boat with matching funds provided by the River Corridor Foundation of St. Charles.

**Attachments:** *(please list)*

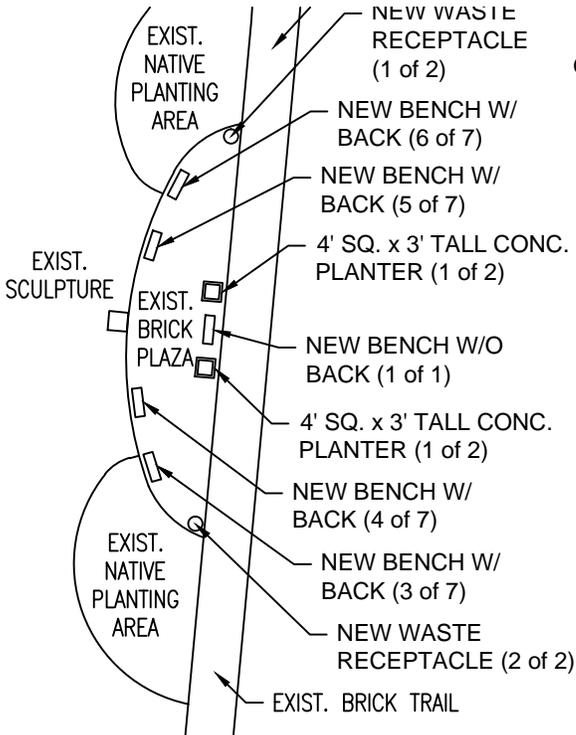
\* Location Map/Site Plan

**Recommendation / Suggested Action** *(briefly explain):*

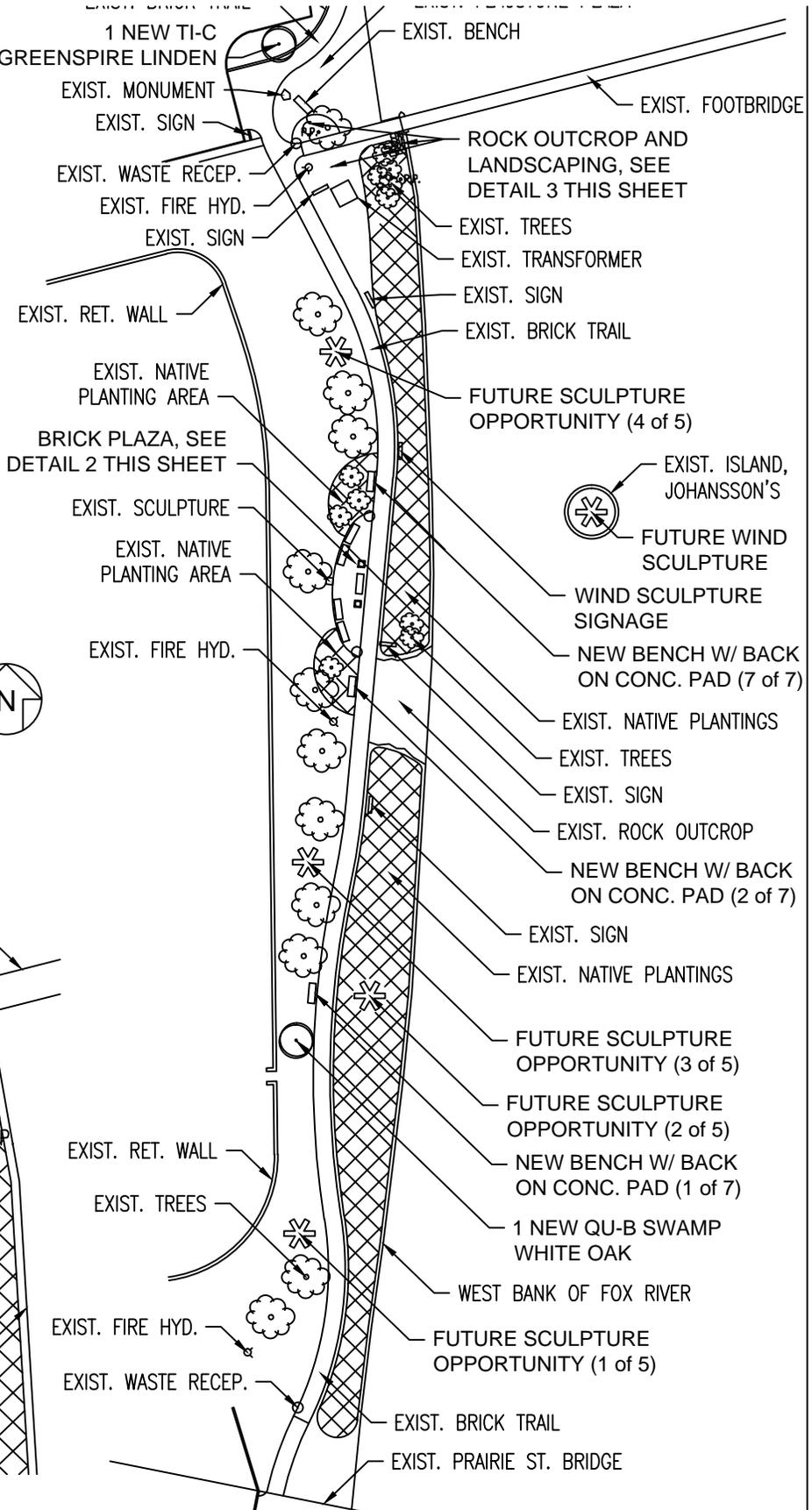
Recommendation to Approve the Bob Leonard Walk Site Improvement Project on Behalf of the River Corridor Foundation

*For office use only:*

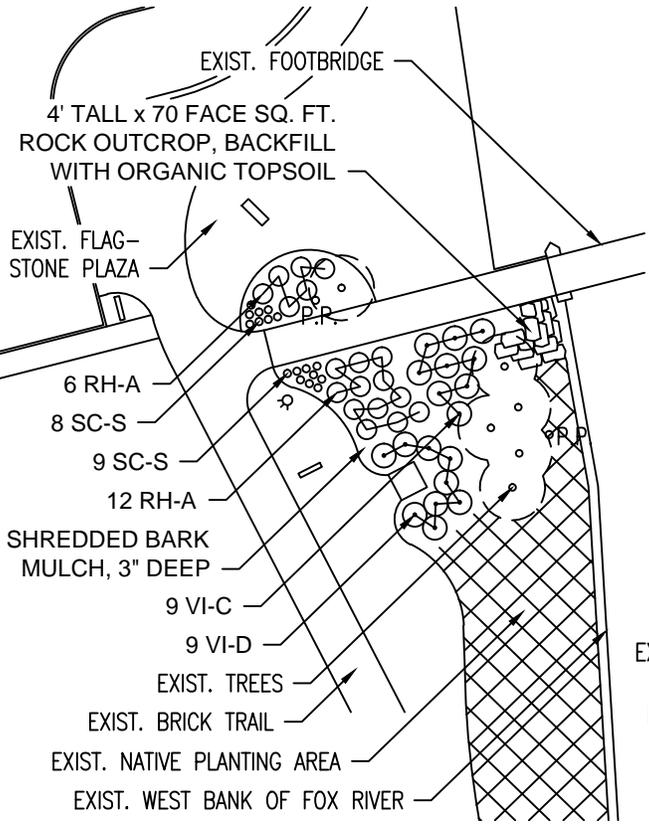
*Agenda Item Number: 4.e*



2 PLAZA PLAN  
1" = 40'=0" 



1 RIVERWALK PLAN  
1" = 100'=0" 



3 ROCK OUTCROP PLAN  
1" = 40'=0" 

**BOB LEONARD RIVER WALK IMPROVEMENTS  
ST. CHARLES RIVER CORRIDOR FOUNDATION**

	<b>AGENDA ITEM EXECUTIVE SUMMARY</b>					
	Title:	Recommendation to Award Contract for Design Engineering Services for Digested Sludge Storage and Digesters Rehabilitation Project				
	Presenter:	Timothy Wilson				
<i>Please check appropriate box:</i>						
	Government Operations		X	Government Services 07.25.16		
Estimated Cost:	\$ 480,000	Budgeted:	YES	X	NO	
Budgeted Project Amount/Engineers Estimate: \$492,000						
If NO, please explain how item will be funded:						
<b>Executive Summary:</b>						
<p>The digested sludge tanks and digesters are located at the main waste water treatment plant and are key components of the bio-solids process. Both components are in need of significant repairs and therefore have been included in this year's budget for design phase engineering.</p> <p>The digested sludge storage tank was constructed in 1951 as a clarifier but was repurposed in 1973 for sludge holding. Additional storage is needed to meet expected increase sludge loading from phosphorus removal and to increase plant flexibility.</p> <p>The digesters were constructed in 1991. Much of the equipment associated with the digesters has reached the end of their useful life. In order to maintain safe operations and to continue to meet EPA bio-solids regulations, the digester rehabilitation project is needed.</p> <p>In May staff sent out Request for Qualifications (RFQ) for design phase engineering services to six engineering firms. Out of the six firms, three declined due to the complexity of the project. The City received a total of three RFQ submittals. A committee of five staff members reviewed the submittals independently based on five competencies. These competencies had numeric values used to calculate scores for the firms. In addition to evaluating the proposals on these competencies, staff met to discuss general topics such as each firm's strengths and weaknesses, advantages, disadvantages, staff's comfort level with the firms and scheduling of project.</p> <p>As a result of the evaluation staff recommends awarding a contract to Trotter and Associates. At this time staff recommends awarding the design engineering phase of the project at the negotiated fee of \$480,000. The budget amount is \$492,000. Staff has determined that the proposed fee of 5.6% of the construction cost to be fair and reasonable based on several factors. For example, in comparison to IEPA interest loan project data from the past several years the average design fee is 6.9%. For our project, the difference is approximately a \$40,000 savings. The Trotter standard agreement has been reviewed by legal counsel and found to be acceptable. Staff will seek committee approval of construction engineering services at a later date, recognizing that phase of the project is budgeted in fiscal year FY17/18.</p>						
<b>Attachments:</b> <i>(please list)</i>						
None						
<b>Recommendation / Suggested Action</b> <i>(briefly explain):</i>						
Recommendation to award contract to Trotter & Associates for Design Engineering services for Digested Sludge Storage and Digester Rehabilitation Projects in the amount of \$480,000.						
<i>For office use only:</i>		<i>Agenda Item Number: 4.f</i>				



ST. CHARLES  
SINCE 1834

## AGENDA ITEM EXECUTIVE SUMMARY

Title: Recommendation to Award Bid for Sanitary Sewer and Storm Sewer Lining Program

Presenter: Timothy Wilson

*Please check appropriate box:*

	Government Operations	X	Government Services 07.25.16
	Planning & Development		City Council

Estimated Cost:	\$402,051	Budgeted:\$400,000	YES	X	NO
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If NO, please explain how item will be funded:

**Executive Summary:**

A key part of the City’s EPA CMOM plan is to control inflow and infiltration. The sanitary sewer lining program is an ongoing program to decrease the amount of inflow and infiltration. This program also repairs points of service within the sanitary system. The storm sewer lining program is to maintain the structural integrity and ensure maximum flow of the storm water system.

For bidding this year, the City teamed up with the Cities of Geneva and Batavia. This is the first year of the combined bidding; we will review the overall performances, management and benefits after this year’s program to see if the combined bidding is beneficial to continue in the future.

The bid opening was on July 14<sup>th</sup> 2016 and five companies bid on the project.

- SAK Construction - \$687,224.00
- Visu-Sewer - \$689,958.35
- Hoerr Construction- \$699,420.00
- Michaels Corp. - \$859,120.00
- Insituform -\$923,648.60

The low bidder was SAK Construction. The St. Charles Portion of the project is in the amounts below.

	<u>Budget Amount</u>	<u>Low Bid Amount</u>	<u>Award Amount</u>
Sanitary sewer:	\$325,000	\$218,580	\$320,000
Storm sewer:	<u>\$ 75,000</u>	<u>\$ 81,561</u>	<u>\$82,081</u>
Total:	\$400,000	\$ 300,141	\$402,051

The bid amounts are below the budgeted estimates; however, staff can increase amount of lining to take advantage of favorable bids. Therefore staff is requesting approval of the full awarded amounts. The budget overage of \$2,051 will be covered by the public services storm sewer maintenance funding.

**Attachments:** *(please list)*

\* Bid Summary

**Recommendation / Suggested Action** *(briefly explain):*

Recommendation to award bid to SAK Construction for sanitary and storm sewer lining in an amount not to exceed \$402,051.

*For office use only:* Agenda Item Number: 4.g

## 2016 Sanitary Sewer Lining Project - Joint Bid for Cities of Geneva, Batavia and St Charles - Bid tabulation

Bid opening- July 14, 2016 at 10 am

Location - City of Geneva

	Description	Units	City's Local Quantities			Total Quantities	Bid#1 SAK Construction			Bid #2 Visu-Sewer		Bid #3 Hoerr Construction		Bid #4 Michels Pipe		Bid #5 Insituform	
			St. Charles	Geneva	Batavia		Unit Price	Total Price	St Charles Cost	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price
1	Televis, Clean & Line 8 inch Cured in Place Pipe Lining - Sanitary	LF		2,095.00	590.00	2,685.00	24.00	64,440.00	-	28.75	77,193.75	28.00	75,180.00	31.00	83,235.00	25.50	68,467.50
2	Televis, Clean & Line 10 inch Cured in Place Pipe Lining - Sanitary	LF			1,663.00	1,663.00	25.00	41,575.00	-	25.75	42,822.25	26.00	43,238.00	34.00	56,542.00	20.00	33,260.00
3	Televis, Clean & Line 12 inch Cured in Place Pipe Lining - Sanitary	LF		70.00	2,351.00	2,421.00	41.00	99,261.00	-	34.30	83,040.30	34.00	82,314.00	44.00	106,524.00	30.10	72,872.10
4	Televis, Clean & Line 15 inch Cured in Place Pipe Lining - Sanitary	LF		735.00	376.00	1,111.00	57.00	63,327.00	-	57.25	63,604.75	40.00	44,440.00	50.00	55,550.00	46.50	51,661.50
5	Televis, Clean & Line 21 inch Cured in Place Pipe Lining - Sanitary	Lf	878.00			878.00	82.00	71,996.00	<b>71,996.00</b>	85.40	74,981.20	110.00	96,580.00	78.00	68,484.00	139.20	122,217.60
6	Televis, Clean & Line 24 inch Cured in Place Pipe Lining - Sanitary	Lf		1,170.00		1,170.00	84.00	98,280.00	-	92.00	107,640.00	90.00	105,300.00	122.00	142,740.00	155.00	181,350.00
7	Televis, Clean & Line 27 inch Cured in Place Pipe Lining - Sanitary	Lf	1,348.00			1,348.00	108.00	145,584.00	<b>145,584.00</b>	121.00	163,108.00	120.00	161,760.00	147.00	198,156.00	175.10	236,034.80
8	Internal Service Lateral Reinstatements	Each		50.00	108.00	158.00	25.00	3,950.00	-	75.00	11,850.00	75.00	11,850.00	152.00	24,016.00	114.70	18,122.60
9	Protruding Tap Removal	Each			1.00	1.00	250.00	250.00	-	300.00	300.00	300.00	300.00	350.00	350.00	268.10	268.10
10	Televis, Clean & Line 12 inch Cured in Place Pipe Lining - Storm	LF	133.00			133.00	63.00	8,379.00	<b>8,379.00</b>	34.30	4,561.90	51.00	6,783.00	59.00	7,847.00	70.90	9,429.70
11	Televis, Clean & Line 18 inch Cured in Place Pipe Lining - Storm	Lf	349.00			349.00	64.00	22,336.00	<b>22,336.00</b>	56.00	19,544.00	50.00	17,450.00	61.00	21,289.00	56.30	19,648.70
12	Televis, Clean & Line 21 inch Cured in Place Pipe Lining - Storm	LF	223.00			223.00	152.00	33,896.00	<b>33,896.00</b>	85.40	19,044.20	105.00	23,415.00	85.00	18,955.00	209.40	46,696.20
13	Televis, Clean & Line 24 inch Cured in Place Pipe Lining - Storm	LF	58.00			58.00	275.00	15,950.00	<b>15,950.00</b>	221.00	12,818.00	195.00	11,310.00	350.00	20,300.00	360.60	20,914.80
14	Traffic Control - Batavia	Lump			1.00	1.00	4,000.00	4,000.00	-	300.00	300.00	1,700.00	1,700.00	11,132.00	11,132.00	7,233.00	7,233.00
15	Traffic Control - Geneva	Lump		1.00		1.00	3,000.00	3,000.00	-	300.00	300.00	1,600.00	1,600.00	18,500.00	18,500.00	9,200.20	9,200.20
16	Traffic Control - St. Charles	Lump	1.00			1.00	2,000.00	2,000.00	<b>2,000.00</b>	300.00	300.00	1,800.00	1,800.00	10,500.00	10,500.00	8,916.80	8,916.80
17	Heavy Cleaning (As Required)	Per Hr	10.00	10.00	10.00	30.00	300.00	9,000.00		285.00	8,550.00	480.00	14,400.00	500.00	15,000.00	558.50	16,755.00
<b>Sum of Unit Pries x Quantities -</b>							<b>687,224.00</b>	<b>300,141.00</b>		<b>689,958.35</b>		<b>699,420.00</b>		<b>859,120.00</b>		<b>923,048.60</b>	



ST. CHARLES  
SINCE 1834

## AGENDA ITEM EXECUTIVE SUMMARY

Title:	Recommendation to Approve Resolution with the Illinois Department of Transportation for the Red Gate Road Resurfacing (LAFO) Project
Presenter:	Karen Young

*Please check appropriate box:*

Government Operations	<input checked="" type="checkbox"/>	Government Services 07.25.16
Planning & Development	<input type="checkbox"/>	City Council
Public Hearing	<input type="checkbox"/>	

Estimated Cost:	\$59,196.13	Budgeted:	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> x	<input type="checkbox"/> NO
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Budgeted Project Amount/Engineers Estimate: \$93,750

If NO, please explain how item will be funded:

**Executive Summary:**

A portion of the Red Gate Road Resurfacing (LAFO) Project will be paid for with Motor Fuel Tax (MFT) funds. The attached Resolution for Maintenance of Streets and Highways by Municipality Under the Illinois Highway Code is an agreement with the Illinois Department of Transportation. It specifies the street to be constructed and details the amount of Motor Fuel Tax funds appropriated for this project for construction. The total appropriation includes the total cost of the project award and only the final amount spent on the contract is what will be the final appropriation from the MFT fund.

**Attachments:** *(please list)*

Copy of IDOT Form BLR 09111 "Resolution for Maintenance of Streets and Highways by Municipality Under the Illinois Highway Code"

**Recommendation / Suggested Action** *(briefly explain):*

Recommendation to Approve Resolution with the Illinois Department of Transportation in the amount of \$59,196.13 to be used for the Red Gate Road Resurfacing (LAFO) Project.

*For office use only:*

*Agenda Item Number: 4.h*





ST. CHARLES  
SINCE 1834

## AGENDA ITEM EXECUTIVE SUMMARY

Title: Recommendation to Approve Design Engineering Services Agreement for the IL Route 31 Project

Presenter: Karen Young

*Please check appropriate box:*

<input checked="" type="checkbox"/>	Government Operations	X	Government Services 07.25.16
<input type="checkbox"/>	Planning & Development		City Council
<input type="checkbox"/>	Public Hearing		

Estimated Cost:	\$75,000	Budgeted:	YES	<input checked="" type="checkbox"/>	NO	<input type="checkbox"/>
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Budgeted Project Amount/Engineers Estimate: \$75,000

If NO, please explain how item will be funded:

**Executive Summary:**

The City has been working with the property owner at 1336 Geneva Road to secure additional right-of-way for the extension of the culvert and wingwalls under IL Route 31 to facilitate a pedestrian path as well as mitigate erosion at the invert of the culvert directly downstream and at the headwall of the culvert impacting the pavement of IL Route 31. The property owner has been cooperative and has dedicated to the City the necessary property to complete this work. This future proposed work will allow for the extension of sidewalk along the east side of IL Route 31 from the City of Geneva termini south to the existing sidewalk in the City of St. Charles. This is a key sidewalk connection point.

The next stage in the project includes the design and permitting for this work. WBK Engineering, LLC has been working with both the City of St. Charles and City of Geneva regarding the preliminary and land acquisition stages of this project. Due to the scope of work and permitting requirements it is necessary to hire a consultant. Staff has worked with Wills Burke Kelsey Associates (WBK) on a number of structural design and permitting projects, including the Illinois Bridge Repair Project. WBK's team has extensive knowledge of the IDOT and appropriate permitting requirements. Staff negotiated a fee for this work in the amount of \$75,000 for a not to exceed contract.

**Attachments:** *(please list)*

None.

**Recommendation / Suggested Action** *(briefly explain):*

Recommendation to approve Design Engineering Services Agreement for the IL Route 31 Culvert Project with WBK Engineering, LLC in the amount of \$75,000.

*For office use only:*

*Agenda Item Number: 4.i*



ST. CHARLES  
SINCE 1834

## AGENDA ITEM EXECUTIVE SUMMARY

Title:	Recommendation to Approve Consulting Engineering Services Agreement for the Watershed Plan for the 7 <sup>th</sup> Avenue Creek
Presenter:	Karen Young

*Please check appropriate box:*

Government Operations	<input checked="" type="checkbox"/>	Government Services 07.25.16
Planning & Development	<input type="checkbox"/>	City Council
Public Hearing	<input type="checkbox"/>	

Estimated Cost:	\$75,410	Budgeted:	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> X	<input type="checkbox"/> NO
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Budgeted Project Amount/Engineers Estimate: \$100,000

If NO, please explain how item will be funded:

**Executive Summary:**

The next stages of the 7<sup>th</sup> Avenue Creek project includes the development of a Watershed Plan in accordance with the nine elements as established in the guidelines of the United States Environmental Protection Agency (USEPA). A Watershed Plan summarizes the overall condition of the watershed and provides an integrated, holistic framework to effectively and efficiently restore water quality. The nine elements will; identify causes and sources of pollution, estimate load reductions expected, describe management measures and targeted critical areas, estimate technical and financial assistance needed, develop and information and education component, develop a project schedule, describe interim and measurable milestones, identify indicators to measure progress, develop a monitoring component. In addition to identifying environmental opportunities, this study when approved by the IEPA will allow the City to apply for Section 319 Grant Funding for construction of future projects within the 7<sup>th</sup> Avenue Creek watershed.

During earlier research and coordination with the IEPA, it was determined that there is an approved watershed plan for the Ferson/Otter Creek Watershed. The IEPA has suggested that the City prepare an addendum to this existing plan to include the 7<sup>th</sup> Avenue Creek, which would minimize the costs.

City Staff applied for the Kane County Riverboat Grant funding for the Watershed Masterplan for the 7<sup>th</sup> Avenue Creek Project. Kane County has notified the City that they are recommending this project be awarded \$61,482 in grant funding. The remaining \$13,928 will be paid for out of the overall budget for the 7<sup>th</sup> Avenue Creek Project.

**Attachments:** *(please list)*

None.

**Recommendation / Suggested Action** *(briefly explain):*

Recommendation to Approve Consulting Engineering Services Agreement with H.R. Green, Inc., in the amount of \$75,410 for the Watershed Plan for the 7<sup>th</sup> Avenue Creek.

<i>For office use only:</i>	<i>Agenda Item Number: 4.j</i>
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	<b>AGENDA ITEM EXECUTIVE SUMMARY</b>		
	Title:	Recommendation to Approve Consulting Engineering Services Agreement for State Street Creek Stormwater and Watershed Plan	
	Presenter:	Karen Young	

*Please check appropriate box:*

<input type="checkbox"/>	Government Operations	<input checked="" type="checkbox"/>	Government Services 07.25.16
<input type="checkbox"/>	Planning & Development	<input type="checkbox"/>	City Council

Estimated Cost:	\$131,620	Budgeted:	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> X	<input type="checkbox"/> NO
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Budgeted Project Amount/Engineers Estimate: \$125,000

If NO, please explain how item will be funded:

**Executive Summary:**

As part of the McDonald's Development at 1915 W. Main Street the City received fee in lieu funding, which is required to be utilized in the State Street Creek watershed area. Portions of the State Street Creek watershed experiences flooding during heavy rainfall events. Staff has identified the best use of this funding would be to complete both a Watershed Plan and Stormwater Plan for this watershed.

The State Street Creek Watershed Plan portion will be completed with the 7<sup>th</sup> Avenue Creek Watershed Plan at a minimal additional cost of \$6,286.

The purpose of the Stormwater Plan is to provide the City with a roadmap to identify the existing flooding problems, costs estimate and recommended prioritization of Capital Improvement Projects for flood reduction, flood protection, water quality and habitat restoration. This information will be utilized to continue to help staff develop a 10-year (and beyond) capital improvement plan for the stormwater utility infrastructure throughout the community.

Staff negotiated a fee for this work in the amount of \$131,620 for a not to exceed contract. The budgeted amount for this project is \$125,000. The foundation of this study will be based on the existing storm sewer system. Upon further investigation into the data currently available it was determined that portions of this watershed will require further data collection to accurately represent the current conditions to ensure that the final stormwater plan accurately reflects the current conditions. The remaining \$6,620 will be paid for through remaining funds available in the budget. HR Green has successfully completed Stormwater Plans for other communities and City staff has been pleased with the work they have performed on the 7<sup>th</sup> Avenue Creek Project.

**Attachments:** *(please list)*

None.

**Recommendation / Suggested Action** *(briefly explain):*

Recommendation to approve Consulting Engineering Services Agreement for the State Street Creek Stormwater and Watershed Plan with HR Green in the amount of \$131,620.

<i>For office use only:</i>	<i>Agenda Item Number: 4.k</i>
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## AGENDA ITEM EXECUTIVE SUMMARY

Title:	Recommendation to Approve Change Order No. 3 with Martam Contraction and Contract Addendum No. 1 with Trotter and Associates for the N. 5 <sup>th</sup> Avenue Watermain Project
Presenter:	Karen Young

*Please check appropriate box:*

Government Operations	<input checked="" type="checkbox"/>	Government Services 07.25.16
Planning & Development	<input type="checkbox"/>	City Council

Estimated Cost:	-\$466.95	Budgeted:	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> X	<input type="checkbox"/> NO
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Budgeted Project Amount/Engineers Estimate: \$3,014,798.59

If NO, please explain how item will be funded:

**Executive Summary:**

Staff is requesting approval of Project Change Order No. 3 with Martam Construction, which is a deduction in the amount of \$247,647.33. This amount includes the final approved construction quantities and a \$300,000 deduction assessed to Martam Construction for Liquidated Damages. The amount was arrived at through negotiation with the contractor. The City Attorney was consulted during this process.

Staff is also requesting approval of Contract Addendum No. 1 with Trotter and Associates for additional services. They have incurred additional expenses of \$285,000 due to the ongoing delay in construction completion.

The table reflects the final negotiated contract amounts and the funding information for this project. It should be noted that this project is being funded by an IEPA Loan and a reimbursement from the Collins Property (future development) for work completed under this contract. The final funding balance after all of these negotiations includes a credit to the City in the amount of \$466.95.

	Final Amounts
<b>Construction - Martam</b>	\$2,795,331.64
<b>Construction Contingency</b>	\$0.00
<b>Martam Liquidated Damages Settlement</b>	-\$300,000.00
<b>Martam Sub-Total</b>	<b>\$2,495,331.64</b>
<b>Construction Engineering Trotter Sub-Total</b>	<b>\$519,000.00</b>
<b>Overall Project Contract Totals (Martam &amp; Trotter)</b>	<b>\$3,014,331.64</b>
<b>IEPA Loan Funding</b>	\$2,992,085.59
<b>Collins Property Reimbursement</b>	\$22,713.00
<b>Total Available Funding</b>	<b>\$3,014,798.59</b>
<b>Funding Balance (+/-)</b>	<b>\$466.95</b>

**Attachments:** *(please list)*

Martam Change Order No. 3 Form & Trotter Contract Addendum No. 1

**Recommendation / Suggested Action** *(briefly explain):*

Recommendation to approve Change Order No. 3 in the amount of -\$247,647.33 for the N. 5<sup>th</sup> Avenue Watermain Project and Contract Addendum No. 1 with Trotter and Associates in the amount of \$285,000.

<i>For office use only:</i>	<i>Agenda Item Number: 4.1</i>
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**City of St. Charles - N. 5th Avneue Watermain Project  
Summary of Change Order #3 Martam Construction**

	<b>TOTAL COSTS</b>
Original Contract	\$2,677,753.00
Amount of Previous Change Orders	\$65,226.33
Current Contract Price Adjusted by Previous Change Order(s)	\$2,742,979.33
<b>Change in Contract Price Due this change Order #3</b>	<b>-\$247,647.33</b>
Final Balancing Change Order (\$52,352.67)	
Project Closeout Liquidated Damages (-\$300,000.00)	
<b>Final Contract price Including this Change Order</b>	<b>\$2,495,332.00</b>

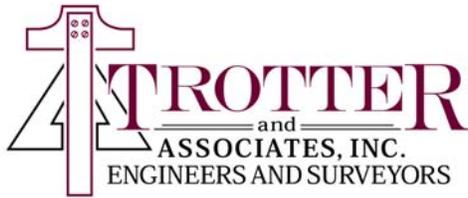
RECOMMENDED:

APPROVED:

\_\_\_\_\_  
Assistant Director of Public Works Engineering      Date

\_\_\_\_\_  
Finance Director      Date

\_\_\_\_\_  
Martam Construction      Date



## EXHIBIT D CONTRACT ADDENDUM

Project Name: N. 5<sup>th</sup> Avenue Watermain Improvements

Project No. STC-085

Addendum No. 1

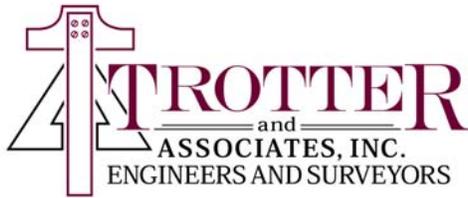
This is an addendum attached to, made part of and incorporated by reference into the Agreement between CLIENT and ENGINEER for modification of scope and compensation for the PROJECT. All other terms and conditions of the original Agreement between CLIENT and ENGINEER are unchanged by this Contract Addendum and shall remain in full force and effect and shall govern the obligations of both CLIENT and ENGINEER, including obligations created by this Contract Addendum.

The contract modifications are described below:

1. Trotter and Associates, Inc is hereby authorized to continue construction engineering services on a time and material basis beyond the original date of Substantial Completion and Final Completion, until such time as the work is complete.

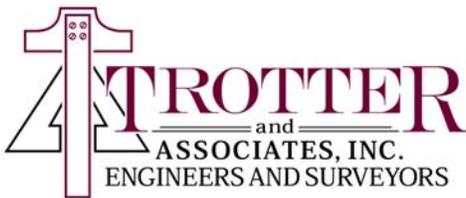
**The continued scope of services shall include the following:**

2. General Administration of Construction Contract. Consult with OWNER and act as OWNER's representative as provided in the General Conditions. The extent and limitations of the duties, responsibilities and authority of ENGINEER as assigned in said General Conditions shall not be modified, except as ENGINEER may otherwise agree in writing. All of OWNER's instructions to Contractor will be issued through ENGINEER, who shall have authority to act on behalf of OWNER in dealings with Contractor to the extent provided in this Agreement and said General Conditions except as otherwise provided in writing.
3. Resident Project Representative (RPR). Provide the services of an RPR at the Site to assist the ENGINEER and to provide more extensive observation of Contractor's work. Duties, responsibilities, and authority of the RPR are as set forth in Exhibit B. The furnishing of such RPR's services will not extend ENGINEER's responsibilities or authority beyond the specific limits set forth elsewhere in this Agreement.
4. Visits to Site and Observation of Construction. In connection with observations of Contractor's work in progress while it is in progress:
  - a. Make visits to the Site at intervals appropriate to the various stages of construction, as ENGINEER deems necessary, in order to observe as an experienced and qualified design professional the progress and quality of the Work. Such visits and observations by ENGINEER, and the Resident Project Representative, if any, are not intended to be exhaustive or to extend to every aspect of Contractor's work in progress or to involve detailed inspections of Contractor's work in progress beyond the responsibilities specifically assigned to ENGINEER in this Agreement and the Contract Documents, but rather are to be limited to spot checking, selective sampling, and similar methods of general observation of the Work based on ENGINEER's exercise of professional judgment as assisted by the Resident Project Representative, if any. Based on information obtained during such visits and such observations, ENGINEER will determine in general if Contractor's work is proceeding in accordance with the Contract Documents, and ENGINEER shall keep OWNER informed of the progress of the Work.
  - b. The purpose of ENGINEER's visits to, and representation by the Resident Project Representative, if any, at the Site, will be to enable ENGINEER to better carry out the duties and responsibilities assigned to and undertaken by ENGINEER during the Construction Phase, and, in addition, by the exercise of ENGINEER's efforts as an experienced and qualified design professional, to provide for OWNER a greater degree of confidence that the completed Work will conform in general to the Contract Documents and that the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents has been implemented and preserved by Contractor. ENGINEER shall not, during such visits or as a result of such observations of Contractor's work in progress, supervise, direct, or have control over Contractor's work, nor shall ENGINEER have authority over or responsibility for the means, methods, techniques, sequences, or procedures of construction selected by Contractor, for safety precautions and programs incident to Contractor's work, or for



any failure of Contractor to comply with Laws and Regulations applicable to Contractor's furnishing and performing the Work. Accordingly, ENGINEER neither guarantees the performance of any Contractor nor assumes responsibility for any Contractor's failure to furnish and perform its work in accordance with the Contract Documents.

5. Defective Work. Recommend to OWNER that Contractor's work be disapproved and rejected while it is in progress if, on the basis of such observations, ENGINEER believes that such work will not produce a completed Project that conforms generally to the Contract Documents or that it will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents.
6. Clarifications and Interpretations; Field Orders. Issue necessary clarifications and interpretations of the Contract Documents as appropriate to the orderly completion of Contractor's work. Such clarifications and interpretations will be consistent with the intent of and reasonably inferable from the Contract Documents. ENGINEER may issue Field Orders authorizing minor variations from the requirements of the Contract Documents.
7. Change Orders and Work Change Directives. Recommend Change Orders and Work Change Directives to OWNER, as appropriate, and prepare Change Orders and Work Change Directives as required.
8. Shop Drawings and Samples. Review and approve or take other appropriate action in respect to Shop Drawings and Samples and other data which Contractor is required to submit, but only for conformance with the information given in the Contract Documents and compatibility with the design concept of the completed Project as a functioning whole as indicated in the Contract Documents. Such reviews and approvals or other action will not extend to means, methods, techniques, sequences or procedures of construction or to safety precautions and programs incident thereto. ENGINEER has an obligation to meet any Contractor's submittal schedule that has earlier been acceptable to ENGINEER.
9. Substitutes and "or-equal." Evaluate and determine the acceptability of substitute or "or-equal" materials and equipment proposed by Contractor.
10. Inspections and Tests. Require such special inspections or tests of Contractor's work as deemed reasonably necessary, and receive and review all certificates of inspections, tests, and approvals required by Laws and Regulations or the Contract Documents. ENGINEER's review of such certificates will be for the purpose of determining that the results certified indicate compliance with the Contract Documents and will not constitute an independent evaluation that the content or procedures of such inspections, tests, or approvals comply with the requirements of the Contract Documents. ENGINEER shall be entitled to rely on the results of such tests.
11. Disagreements between OWNER and Contractor. Render formal written decisions on all claims of OWNER and Contractor relating to the acceptability of Contractor's work or the interpretation of the requirements of the Contract Documents pertaining to the execution and progress of Contractor's work. In rendering such decisions, ENGINEER shall be fair and not show partiality to OWNER or Contractor and shall not be liable in connection with any decision rendered in good faith in such capacity.
12. Applications for Payment. Based on ENGINEER's observations as an experienced and qualified design professional and on review of Applications for Payment and accompanying supporting documentation:
  - a. Determine the amounts that ENGINEER recommends Contractor be paid. Such recommendations of payment will be in writing and will constitute ENGINEER's representation to OWNER, based on such observations and review, that, to the best of ENGINEER's knowledge, information and belief, Contractor's work has progressed to the point indicated, the quality of such work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents and to any other qualifications stated in the recommendation), and the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is ENGINEER's responsibility to observe Contractor's work. In the case of unit price work, ENGINEER's recommendations of payment will include final determinations of quantities and classifications of Contractor's work (subject to any subsequent adjustments allowed by the Contract Documents). The responsibilities of ENGINEER contained in paragraph A1.05.A.6.a are expressly subject to the limitations set forth in paragraph A1.05.A.6.b and other express or general limitations in this Agreement and elsewhere.
  - b. By recommending any payment, ENGINEER shall not thereby be deemed to have represented that observations made by ENGINEER to check the quality or quantity of Contractor's work as it is performed and furnished have been exhaustive, extended to every aspect of Contractor's work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to ENGINEER in this Agreement and the Contract Documents. Neither ENGINEER's review of Contractor's work for the purposes of recommending payments nor ENGINEER's recommendation of any payment including final payment will



impose on ENGINEER responsibility to supervise, direct, or control Contractor's work in progress or for the means, methods, techniques, sequences, or procedures of construction or safety precautions or programs incident thereto, or Contractor's compliance with Laws and Regulations applicable to Contractor's furnishing and performing the Work. It will also not impose responsibility on ENGINEER to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or to determine that title to any portion of the work in progress, materials, or equipment has passed to OWNER free and clear of any liens, claims, security interests, or encumbrances, or that there may not be other matters at issue between OWNER and Contractor that might affect the amount that should be paid.

Duration of Construction Phase. The Construction Phase will commence with the execution of the first Construction Agreement for the Project or any part thereof and will terminate upon written recommendation by ENGINEER for final payment to Contractors. If the Project involves more than one prime contract, Construction Phase services may be rendered at different times in respect to the separate contracts.

Limitation of Responsibilities. ENGINEER shall not be responsible for the acts or omissions of any Contractor, or of any of their subcontractors, suppliers, or of any other individual or entity performing or furnishing any of the Work. ENGINEER shall not be responsible for failure of any Contractor to perform or furnish the Work in accordance with the Contract Documents.

**Contract Summary**

Original Contract Amount	\$234,000.00
Changes Prior to This Change	\$0.00
Amount of This Change	\$285,000.00
Revised Contract Amount:	\$519,000.00

For purposes of expediency, ENGINEER and CLIENT agree that an executed electronic version of this Contract Addendum shall suffice. The original of this Contract Addendum shall be returned to Engineer after execution.

CLIENT:  
City of St. Charles, IL

Engineer:  
Trotter and Associates, Inc.

Signed:

\_\_\_\_\_  
\_\_\_\_\_  
Title  
\_\_\_\_\_  
Date

Senior Project Manager  
Title

July 15, 2016  
Date



ST. CHARLES  
SINCE 1834

## AGENDA ITEM EXECUTIVE SUMMARY

**Title:** Recommendation to Award the Bid and Approve Purchase Order for the Public Works Roof Rehabilitation Project

**Presenter:** AJ Reineking

*Please check appropriate box:*

	Government Operations	X	Government Services 07.25.16
	Planning & Development		City Council
	Public Hearing		

Estimated Cost:	\$266,650	Budgeted:	YES	X	NO	
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Budgeted Project Amount/Engineers Estimate:

If NO, please explain how item will be funded:

**Executive Summary:**

The central roof for the Public Works Garage was constructed in the early 1980's and houses vehicles and equipment for the Electric, Public Services, and Environmental Services divisions. Over the last several years, the roof has been failing and is in need of rehabilitation to ensure the continued soundness of the structure.

The project consists of removing the opaque fiberglass skylights and replacing them with sheet metal panels, replacing and sealing the fasteners for all panels, sealing the seams, and coating the roof with a white urethane material.

The City received eight bids for this work with J.L. Adler Roofing and Sheet Metal of Joliet, IL being the lowest responsive, responsible bidder. Adler Roofing has performed numerous roof rehabilitation projects on commercial/industrial facilities, and their references have provided favorable feedback.

**Attachments:** *(please list)*

\* Bid Tabulation \* Adler Roofing Bid Sheet \* Bid Specifications

**Recommendation / Suggested Action** *(briefly explain):*

Recommendation to award the bid for the Public Works Roof Rehabilitation Project to J.L. Adler Roofing and Sheet Metal, Inc. in the amount of \$266,650.

*For office use only:*

*Agenda Item Number: 4.m*

Bid Tabulation  
Public Works Roof Rehabilitation  
Bid Opening: July 6, 2016

<b>Company</b>	<b>Total Price</b>
J.L. Adler Roofing and Sheet Metal, Inc. Joliet, IL	\$ 266,650.00
DCG Roofing Solutions, Inc. Des Plaines, IL	\$ 299,750.00
Anthony Roofing Tecta America, LLC Aurora, IL	\$ 302,450.00
CIC Corporation Wauconda, IL	\$ 324,920.00
Knickerbocker Roofing and Paving Co. Inc. Harvey, IL	\$ 349,000.00
Crowther Roofing and Sheet Metal, Inc. Romeoville, IL	\$ 350,000.00
Malcor Roofing of Illinois, Inc. St. Charles, IL	\$ 357,000.00
G.E. Riddiford Company, Inc. Arlington Heights, IL	\$ 441,350.00

**City of St. Charles**  
**Public Works Roof Rehabilitation Bid Sheet**

Bids will be accepted until 2:00 PM on Wednesday, July 6, 2016.

Company: J.L. Adler Roofing & Sheet Metal, Inc.

Company Address: 779 Joyce Road - Joliet, IL 60436

Contact: Christopher J. Adler Contact Phone Number: (815) 773-1200

Contact Email: chris.adler@adlerroofing.com

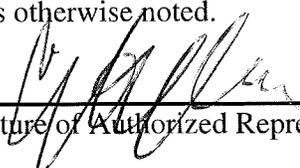
**BID**

**Public Works Roof Rehabilitation & Coating**  
**in accordance with attached specifications:      \$ 266,650.00**

List any and all deviations from minimum specifications:

None  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

I certify that I am acting as an agent for the firm designated below and that the firm will sell to the City of St. Charles the product(s) and service(s) described herein for the amount specified above. Further, I certify that all exceptions or deviations from the attached detailed specifications are clearly stated in writing and the price quoted shall include all terms specified unless otherwise noted.

  
\_\_\_\_\_  
Signature of Authorized Representative

**PLEASE TYPE OR NEATLY PRINT THE FOLLOWING INFORMATION**

<u>Christopher J. Adler</u>	<u>IL</u>	<u>60436</u>
Name of Authorized Representative	State	Zip Code
<u>J.L. Adler Roofing &amp; Sheet Metal, Inc.</u>		
Company Name		
<u>779 Joyce Road</u>		
Street Address		
<u>Joliet</u>	<u>IL</u>	<u>60436</u>
City	State	Zip Code
<u>(815) 773-1200</u>		
(Area Code) Phone Number		

SECTION 07563  
FLUID APPLIED ROOFING RESTORATION

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Metal Surface Roof Restoration (1.4.B)(2.3)
  - 1. Scope of Work:
    - a. Power wash entire roof with TSP or Simple Green and water to remove residue, debris and dirt.
    - b. Power wash entire roof a second time with water only to remove any cleaner residue.
    - c. Replace all panel-level fiberglass skylights with metal roof panels in a like profile and thickness. Attach per manufacturer's specifications.
    - d. Replace all backed out and partially backed out fasteners with next larger gauge Zac SFS intec zinc fastener.
    - e. Install Unibond ST seam tape on all panel field seams.
    - f. Coat entire roof with White Knight Plus Base Coat (or approve equivalent) at a rate of 2.5 gallons/square.
    - g. After 24 hours, coat entire roof with White Knight Plus Top Coat (or approve equivalent) at a rate of 2.0 gallons/square.
    - h. Clean up and haul away all debris.

1.2 RELATED SECTIONS

- A. Section 06100 - Rough Carpentry: Roof blocking installation and requirements.
- B. Section 07620 - Sheet Metal Flashing and Trim: Metal cap flashing and expansion joints.
- C. Section 07620 - Sheet Metal Flashing and Trim: Weather protection for base flashings.
- D. Section 07710 - Manufactured Roof Specialties: Counter flashing gravel stops, and fascia, scuppers, gutters and downspouts.
- E. Section 15430 - Plumbing Specialties: Piping vents and roof drains.

1.3 REFERENCES

- A. ASTM C 78 - Standard Test Method for Flexural Strength of Concrete.
- B. ASTM C 92 - Standard Test Methods for Sieve Analysis and Water Content of Refractory Materials.
- C. ASTM C 109 - Standard Test Method for Compressive Strength of Hydraulic Cement Mortars.
- D. ASTM C 920 - Standard Specification for Elastomeric Joint Sealants.
- E. ASTM C 1250 - Standard Test Method for Nonvolatile Content of Cold Liquid-Applied Elastomeric Waterproofing Membranes.
- F. ASTM D 5 - Standard Test Method for Penetration of Bituminous Materials.
- G. ASTM D 36 - Standard Test Method for Softening Point of Bitumen.

- H. ASTM D 43 - Standard Specification for Coal Tar Primer Used in Roofing, Dampproofing, and Waterproofing.
- I. ASTM D 71 - Standard Test Method for Relative Density of Solid Pitch and Asphalt.
- J. ASTM D 75 - Standard Practice for Sampling Aggregates.
- K. ASTM D 92 - Standard Test Method for Flash and Fire Points by Cleveland Open Cup Tester.
- L. ASTM D 93 - Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester.
- M. ASTM D 113 - Standard Test Method for Ductility of Bituminous Materials.
- N. ASTM D 412 - Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers-Tension.
- O. ASTM D 562 - Standard Test Method for Consistency of Paints Measuring Krebs Unit (KU) Viscosity Using a Stormer-Type Viscometer.
- P. ASTM D 624 - Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers
- Q. ASTM D 816 - Standard Test Methods for Rubber Cements.
- R. ASTM D 1002 - Standard Test Method for Apparent Shear Strength of Single-Lap-Joint Adhesively Bonded Metal Specimens by Tension Loading (Metal-to-Metal).
- S. ASTM D 1370 - Standard Test Method for Contact Compatibility Between Asphaltic Materials (Oliensis Test).
- T. ASTM D 1475 - Standard Test Method For Density of Liquid Coatings, Inks, and Related Products.
- U. ASTM D 1863 - Standard Specification for Mineral Aggregate Used on Built-Up Roofs.
- V. ASTM D 1876 - Standard Test Method for Peel Resistance of Adhesives (T-Peel Test).
- W. ASTM D 2042 - Standard Test Method for Solubility of Asphalt Materials in Trichloroethylene.
- X. ASTM D 2196 - Standard Test Methods for Rheological Properties of Non-Newtonian Materials by Rotational (Brookfield type) Viscometer.
- Y. ASTM D 2240 - Standard Test Method for Rubber Property-Durometer Hardness.
- Z. ASTM D 2369 - Standard Test Method for Volatile Content of Coatings.
- AA. ASTM D 2939 - Standard Test Methods for Emulsified Bitumens Used as Protective Coatings.
- BB. ASTM D 3111 - Standard Test Method for Flexibility Determination of Hot-Melt Adhesives by Mandrel Bend Test Method.
- CC. ASTM D 3960 - Standard Practice for Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings.
- DD. ASTM D 4209 - Standard Practice for Determining Volatile and Nonvolatile Content of Cellulosics, Emulsions, Resin Solutions, Shellac, and Varnishes.

- EE. ASTM D 4212 - Standard Test Method for Viscosity by Dip-Type Viscosity Cups.
- FF. ASTM D 4402 - Standard Test Method for Viscosity Determination of Asphalt at Elevated Temperatures Using a Rotational Viscometer.
- GG. ASTM D 4479 - Standard Specification for Asphalt Roof Coatings - Asbestos-Free.
- HH. ASTM D 5040 - Standard Test Methods for Ash Content of Adhesives.
- II. ASTM D 5420 - Standard Test Method for Impact Resistance of Flat, Rigid Plastic Specimen by Means of a Striker Impacted by a Falling Weight (Gardner Impact).
- JJ. ASTM E 1980 - Standard Practice for Calculating Solar Reflectance Index of Horizontal and Low-Sloped Opaque Surfaces
- KK. ASTM G 21 - Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi.
- LL. SRI - Solar Reflectance Index calculated according to ASTM E 1980.
- MM. South Coast AQMD Standards.
- NN. SMACNA Architectural Sheet Metal Manual.
- OO. ANSI/SPRI ES-1 - Testing and Certification Listing of Shop Fabricated Edge Metal
- PP. National Roofing Contractors Association (NRCA) - Roofing and Waterproofing Manual.

#### 1.4 SYSTEM DESCRIPTION

- A. Metal Surface Roof Restoration: Renovation work includes:
  1. Surface preparation: Remove loose flaking rust, dust, dirt, debris, secure all gaped panels and replace all loose fasteners with next size larger.
  2. Metal Flashings: Repair/Replace metal flashings, pitch pockets, etc.
  3. Primer: Prime entire roof surface. (For all White-Knight system only)

#### 1.5 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
  1. Preparation instructions and recommendations.
  2. Storage and handling requirements and recommendations.
  3. Installation methods.
- C. Shop Drawings: Submit shop drawings including installation details of roofing, flashing, fastening, insulation and vapor barrier, including notation of roof slopes and fastening patterns of insulation and base modified bitumen membrane, prior to job start.
- D. LEED Submittals: Provide documentation of how the requirements of Credit will be met:
  1. List of proposed materials with recycled content. Indicate post-consumer recycled content and pre-consumer recycled content for each product having recycled content.
  2. Product data and certification letter indicating percentages by weight of post-consumer and pre-consumer recycled content for products having recycled content.
  3. Product reflectivity and emissivity criteria to qualify for one point under the LEED credit category, Credit 7.2, Landscape & Exterior Design to Reduce Heat Island - Roof.

- E. Verification Samples: For each product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, and color.
- F. Manufacturer's Certificates: Certify products meet or exceed specified requirements.
- G. Closeout Submittals: Provide manufacturer's maintenance instructions that include recommendations for periodic inspection and maintenance of all completed roofing work. Provide product warranty executed by the manufacturer. Assist Owner in preparation and submittal of roof installation acceptance certification as may be necessary in connection with fire and extended coverage insurance on roofing and associated work.

#### 1.6 QUALITY ASSURANCE

- A. Perform Work in accordance with NRCA Roofing and Waterproofing Manual.
- B. Manufacturer Qualifications: Manufacturer: Company specializing in manufacturing products specified in this section with documented ISO 9001 certification and minimum ten years and experience.
- C. Installer Qualifications: Company specializing in performing Work of this section with minimum five years documented experience and be a manufacturer certified Pre-Approved Contractor.
- D. Installer's Field Supervision: Maintain a full-time Supervisor/Foreman on job site during all phases of roofing work while roofing work is in progress.
- E. Product Certification: Provide manufacturer's certification that materials are manufactured in the United States and conform to requirements specified herein, are chemically and physically compatible with each other, and are suitable for inclusion within the total roof system specified herein.
- F. Source Limitations: Obtain all components of roof system from a single manufacturer. Secondary products that are required shall be recommended and approved in writing by the roofing system Manufacturer. Upon request of the Architect or Owner, submit Manufacturer's written approval of secondary components in list form, signed by an authorized agent of the Manufacturer.

#### 1.7 PRE-INSTALLATION CONFERENCE

- A. Convene a pre-roofing conference approximately two weeks before scheduled commencement of roofing system installation and associated work.
- B. Require attendance of installers of deck or substrate construction to receive roofing, installers of rooftop units and other work in and around roofing which must precede or follow roofing work including mechanical work, Architect, Owner, roofing system manufacturer's representative.
- C. Objectives include:
  1. Review foreseeable methods and procedures related to roofing work, including set up and mobilization areas for stored material and work area.
  2. Tour representative areas of roofing substrates, inspect and discuss condition of substrate, roof drains, curbs, penetrations and other preparatory work.
  3. Review structural loading limitations of deck and inspect deck for loss of flatness and for required attachment.
  4. Review roofing system requirements, Drawings, Specifications and other Contract Documents.
  5. Review and finalize schedule related to roofing work and verify availability of materials, installer's personnel, equipment and facilities needed to make progress and

- avoid delays.
6. Review required inspection, testing, certifying procedures.
  7. Review weather and forecasted weather conditions and procedures for coping with unfavorable conditions, including possibility of temporary roofing.
  8. Record conference including decisions and agreements reached. Furnish a copy of records to each party attending.

#### 1.8 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store products in manufacturer's unopened packaging with labels intact until ready for installation.
- B. Store all roofing materials in a dry place, on pallets or raised platforms, out of direct exposure to the elements until time of application. Store materials at least 4 inches above ground level and covered with "breathable" tarpaulins.
- C. Stored in accordance with the instructions of the manufacturer prior to their application or installation. Store roll goods on end on a clean flat surface. No wet or damaged materials will be used in the application.
- D. Store at room temperature wherever possible, until immediately prior to installing the roll. During winter, store materials in a heated location with a 50 degree F (10 degree C) minimum temperature, removed only as needed for immediate use. Keep materials away from open flame or welding sparks.
- E. Avoid stockpiling of materials on roofs without first obtaining acceptance from the Architect/Engineer.
- F. Adhesive storage shall be between the range of above 50 degree F (10 degree C) and below 80 degree F (27 degree C). Area of storage shall be constructed for flammable storage.

#### 1.9 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.
- B. Weather Condition Limitations: Do not apply roofing system during inclement weather or when a 40 percent chance of precipitation or greater is expected.
- C. Proceed with roofing work only when existing and forecasted weather conditions will permit unit of work to be installed in accordance with manufacturer's recommendations and warranty requirements.
- D. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed during same day.
- E. When applying materials with spray equipment, take precautions to prevent over spray and/or solvents from damaging or defacing surrounding walls, building surfaces, vehicles or other property. Care should be taken to do the following:
  1. Close air intakes into the building.
  2. Have a dry chemical fire extinguisher available at the jobsite.
  3. Post and enforce "No Smoking" signs.
- F. Avoid inhaling spray mist; take precautions to ensure adequate ventilation.
- G. Protect completed roof sections from foot traffic for a period of at least 48 hours at 75

degrees F (24 degrees C) and 50 percent relative humidity or until fully cured.

- H. Take precautions to ensure that materials do not freeze.
- I. Minimum temperature for application is 40 degrees F (4 degrees C) and rising for solvent based materials and 50 degrees F (10 degrees C) and rising for water based.

#### 1.10 WARRANTY

- A. Upon completion of the work, provide the Manufacturer's written and signed limited labor and materials Warranty, warranting that, if a leak develops in the roof during the term of this warranty, due either to defective material or defective workmanship by the installing contractor, the manufacturer shall provide the Owner, at the Manufacturer's expense, with the labor and material necessary to return the defective area to a watertight condition.
  - 1. Warranty Period:
    - a. 5 plus 5 plus 5 (15 years): 5 years from date of acceptance plus 10 additional years after required inspection by the manufacturer.
- B. Installer is to guarantee all work against defects in materials and workmanship for a period indicated following final acceptance of the Work.
  - 1. Warranty Period:
    - a. 2 years from date of acceptance.

### PART 2 PRODUCTS

#### 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Garland Company, Inc. (The), which is located at: 3800 E. 91st St.; Cleveland, OH 44105; Toll Free Tel: 800-321-9336; Tel: 216-641-7500; Fax: 216-641-0633; Web:[www.garlandco.com](http://www.garlandco.com)
- B. Requests for substitutions will be considered in accordance with provisions of Section 01600.

#### 2.2 ROOF RESTORATION SYSTEM FOR METAL SURFACE ROOFS

- A. Cold Applied White-Knight Plus/ White-Stallion Plus:
  - 1. Primer: White-Knight Metal Primer/ White-Stallion Metal Primer:
  - 2. Coating: White-Knight Plus/ White-Stallion Plus:
  - 3. Flashing: None or repair as needed.
  - 4. Reinforcement: None.
  - 5. Surfacing: None

#### 2.3 EDGE TREATMENT AND ROOF PENETRATION FLASHINGS

- A. Flashing Boot - Rubbertite Flashing Boot: Neoprene pipe boot for sealing single or multiple pipe penetrations adhered in approved adhesives as recommended and furnished by the membrane manufacturer.
- B. Vents and Breathers: Heavy gauge aluminum and fully insulated vent that allows moisture and air to escape but not enter the roof system as recommended and furnished by the membrane manufacturer.
- C. Pitch pans, Rain Collar 24 gauge stainless or 20oz (567gram) copper. All joints should be welded/soldered watertight. See details for design.
- D. Drain Flashings should be 4lb (1.8kg) sheet lead formed and rolled.

- E. Plumbing stacks should be 4lb (1.8kg) sheet lead formed and rolled.
- F. Liquid Flashing - Tuff-Flash: An asphaltic-polyurethane, low odor, liquid flashing material designed for specialized details unable to be waterproofed with typical modified membrane flashings.
  - 1. Tensile Strength, ASTM D 412: 400 psi
  - 2. Elongation, ASTM D 412: 300%
  - 3. Density @77 degrees F 8.5 lb/gal typical
- G. Fabricated Flashings: Fabricated flashings and trim are specified in Section 07620.
  - 1. Fabricated flashings and trim shall conform to the detail requirements of SMACNA "Architectural Sheet Metal Manual" and/or the CDA Copper Development Association "Copper in Architecture - Handbook" as applicable.
- H. Manufactured Roof Specialties: Manufactured copings, fascia, gravel stops, control joints, expansion joints, joint covers and related flashings and trim are specified in Section 07710.
  - 1. Manufactured roof specialties shall conform to the detail requirements of SMACNA "Architectural Sheet Metal Manual" and/or the NRCA "Roofing and Waterproofing Manual" as applicable.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. Verify that work penetrating the roof deck, or which may otherwise affect the roofing, has been properly completed.
- C. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

### 3.2 ROOF PREPARATION AND REPAIR

- A. General:
  - 1. Remove existing roof flashings from curbs and parapet walls down to the surface of the roof. Remove existing flashings at roof drains and roof penetrations.
  - 2. Remove all wet, deteriorated, blistered or delaminated roofing membrane or insulation and fill in any low spots occurring as a result of removal work to create a smooth, even surface for application of new roof membranes.
  - 3. Install new wood nailers as necessary to accommodate insulation/recovery board or new nailing patterns.
  - 4. When mechanically attached, the fastening pattern for the insulation/recovery board shall be as recommended by the specific product manufacturer.
  - 5. Re-roofing over coal tar pitch requires a mechanically attached recovery board or insulation and a base sheet prior to the application of roofing system.
  - 6. Existing roof surfaces shall be primed as necessary and allowed to dry prior to installing the roofing system.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Repair all defects such as deteriorated roof decks; replace saturated insulation board, replace loose or brittle membrane or membrane flashings. Verify that existing conditions meet the following requirements:
  - 1. Existing membrane is either fully adhered or that the membranes mechanical fasteners are secured and functional.

2. Application of roofing materials over a brittle roof membrane is not recommended.
- D. Remove all loose dirt and foreign debris from the roof surface. Do not damage roof membrane in cleaning process.
  - E. Clean and seal all parapet walls, gutters and coping caps, and repair any damaged metal where necessary. Seal watertight all fasteners, pipes, drains, vents, joints and penetrations where water could enter the building envelope.
  - F. Clean the entire roof surface by removing all dirt, algae, paint, oil, talc, rust or foreign substance. Use a 10 percent solution of TSP (tri-sodium phosphate), Simple Green and warm water. Scrub heavily soiled areas with a brush. Rinse with fresh water to remove all TSP solution. Allow roof to dry thoroughly before continuing.
  - G. Repair existing roof membrane as necessary to provide a sound substrate for the liquid membrane. All surface defects (cracks, blisters, tears) must be repaired with similar materials.
  - H. Pre-Treatment of Known Growth - General Surfaces: Once areas of moss, mold, algae and other fungal growths or vegetation have been removed and surfaces have also been thoroughly cleaned, apply a biocide wash at a maximum spread rate of 0.2 gallons/square (0.08 liters/m), to guard against subsequent infection. Allow to dry onto absorbent surfaces before continuing with the application. On non-absorbent surfaces, allow to react before thoroughly rinsing to remove all traces of the solution.
  - I. Power washing of metal roof surfaces to remove all loose rust or scale is mandatory before application. Use a high volume air broom or compressed air to remove residual dust rust perforations, etc. Deteriorated metal roof decks must be repaired or replaced prior to the application of the coating system.

### 3.3 INSTALLATION

- A. General Installation Requirements:
  1. Install in accordance with manufacturer's instructions. Apply to minimum coating thickness required by the manufacturer.
  2. Cooperate with manufacturer, inspection and test agencies engaged or required to perform services in connection with installing the roof system.
  3. Insurance/Code Compliance: Where required by code, install and test the roofing system to comply with governing regulation and specified insurance requirements.
  4. Protect work from spillage of roofing materials and prevent materials from entering or clogging drains and conductors. Replace or restore work damaged by installation of the roofing system.
  5. All primers must be top coated within 24 hours of application. Re-prime If more time passes after priming.
  6. Keep roofing materials dry during application. Phased construction can be allowed as long as no, more than 7 days pass between coats excluding primers.
  7. Coordinate counter flashing, cap flashings, expansion joints and similar work with work specified in other Sections under Related Work.
  8. Coordinate roof accessories and miscellaneous sheet metal accessory items, including piping vents and other devices with work specified in other Sections under Related Work.
- B. Metal Surface Roof Restoration: Renovation work includes:
  1. Surface Preparation: Remove loose flaking rust, dust, dirt, debris, secure all gaped panels and replace all loose fasteners with next size larger.
    - a. Remove rust by the most rigorous method suitable for the particular project and as approved by the coating manufacturer.

- b. Tighten all fasteners and verify that neoprene washers are in place.
- c. Replace missing fasteners using oversize fasteners as necessary.
- d. Seal all fastener heads by applying a heavy dab of compatible sealant to the tops and around of all fastener heads.
  - 1) White-Knight Plus/ Stallion Plus
- 2. Flashings: Repair/Replace metal flashings, pitch pockets, etc.
- 3. Primer:
  - a. Immediately after rust has been removed, prime surfaces with White-Knight Metal Primer/ Stallion Metal Primer at 1/4 gallon per 100 SF to prevent rust from reoccurring.
- 4. Reinforcement: Base coat and treatment of field seams and around penetrations:
  - a. Application of White-Knight Plus Base Coat/ White-Stallion Plus Base Coat or White-Knight Plus Base Coat WC on field seams, flashings and around penetrations
    - 1) Verify that the surface to be coated is properly prepared.
    - 2) Restore the surface to a suitable condition if roof surface becomes contaminated with dirt, dust or other materials that will interfere with adhesion of the coatings.
    - 3) Apply materials at specified dry film thickness.
    - 4) Apply White-Knight Plus Base Coat/ White-Stallion Plus Base Coat or White-Knight Plus WC Base Coat at minimum 6 inch wide stripes over all seams, flashings and around penetrations at 2.0 gallons per 100 SF.
    - 5) Use fabric reinforcement when panels are gapped and cannot be be cured tightly together.
    - 6) Allow to dry for a minimum of 24 hours before applying finish coats.
    - 7) On vertical surfaces to achieve proper application rate cut your application into two coats to avoid sagging and runs of coating.
- 5. Coating:
  - a. Material: Apply in a uniform manner at 2.0 gallons per 100 SF over the entire roof surface.
    - 1) White-Knight Plus/ Stallion Plus
  - b. Use special attention to coating flashings and other critical areas to build adequate membrane thickness.
  - c. Use multiple coats on verticals to prevent sagging.
  - d. Apply to Garland's (or approved equivalent's) minimum membrane thickness over the entire roof surface.

### 3.4 INSTALLATION EDGE TREATMENT AND ROOF PENETRATION FLASHING

- A. Fabricated Flashings: Fabricated flashings and trim are provided as specified in Section 07620.
  - 1. Fabricated flashings and trim shall conform to the detail requirements of SMACNA "Architectural Sheet Metal Manual" and/or the Copper Development Association "Copper in Architecture - Handbook" as applicable.
- B. Manufactured Roof Specialties: Manufactured copings, fascia, gravel stops, control joints, expansion joints, joint covers and related flashings and trim are provided as specified in Section 07710.
  - 1. Manufactured roof specialties shall conform to the detail requirements of SMACNA "Architectural Sheet Metal Manual" and/or the National Roofing Contractor's Association "Roofing and Waterproofing Manual" as applicable.

### 3.5 CLEANING

- A. Clean-up and remove daily from the site all wrappings, empty containers, paper, loose particles and other debris resulting from these operations.

- B. Remove asphalt markings from finished surfaces.
- C. Repair or replace defaced or disfigured finishes caused by Work of this section.

### 3.6 PROTECTION

- A. Provide traffic ways, erect barriers, fences, guards, rails, enclosures, chutes and the like to protect personnel, roofs and structures, vehicles and utilities.
- B. Protect exposed surfaces of finished walls with tarps to prevent damage.
- C. Plywood for traffic ways required for material movement over existing roofs shall be not less than 5/8 inch (16 mm) thick.
- D. In addition to the plywood listed above, an underlayment of minimum 1/2 inch (13 mm) recover board is required on new roofing.
- E. Special permission shall be obtained from the Manufacturer before any traffic shall be permitted over new roofing.

### 3.7 FIELD QUALITY CONTROL

- A. Require attendance of roofing materials manufacturers' representatives at site during installation of the roofing system.
- B. Perform field inspection and [and testing] as required under provisions of Section 01410.
- C. Correct defects or irregularities discovered during field inspection.

### 3.8 FINAL INSPECTION

- A. At completion of roofing installation and associated work, meet with Contractor, Architect, installer, installer of associated work, roofing system manufacturer's representative and others directly concerned with performance of roofing system.
- B. Walk roof surface areas, inspect perimeter building edges as well as flashing of roof penetrations, walls, curbs and other equipment. Identify all items requiring correction or completion and furnish copy of list to each party in attendance.
- C. If core cuts verify the presence of damp or wet materials, the installer shall be required to replace the damaged areas at his own expense.
- D. Repair or replace deteriorated or defective work found at time above inspection as required to produce an installation that is free of damage and deterioration at time of Substantial Completion and according to warranty requirements.
- E. Architect upon completion of corrections.
- F. Following the final inspection, provide written notice of acceptance of the installation from the roofing system manufacturer.

### 3.9 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

### 3.10 SCHEDULES

A. Coatings:

1. Coating: White-Knight Plus/ White-Stallion Plus: Highly reflective multi- purpose, single-component aliphatic urethane, liquid waterproofing membrane.
  - a. Tensile Strength: ASTM D 412, 2100 psi
  - b. Tear Resistance: ASTM D 624, 160 lbs./in
  - c. Elongation: ASTM D 412, 320%
  - d. Density @ 77 degrees F (25 degrees C, ASTM D 2939) 10.4 lb./gal (1.2 g/m<sup>3</sup>)
  - e. Flash Point: ASTM D 93, 110 degrees F min. (43 degrees C)
  - f. Non-Volatile: ASTM D 75, Typical 83%
  - g. Viscosity @ 77 degrees F (25 degrees C); Brookfield RVT, #4 Spindle 10 rpm 9200 cP
  - h. Wet Film Thickness @ 2 gal./100 sq. ft. (0.82 l/m<sup>2</sup>)
  - i. VOC: 225 g/l
  - j. Reflectance: 0.87
  - k. Emittance: 0.89
  - l. SRI: 110

B. Flashings

1. Coating: White-Knight Plus/ White-Stallion Plus: highly reflective multi- purpose, single-component aliphatic urethane, liquid waterproofing membrane.
  - a. Tensile Strength: ASTM D 412, 2100 psi
  - b. Tear Resistance: ASTM D 624, 160 lbs./in
  - c. Elongation: ASTM D 412, 320%
  - d. Density @ 77 degrees F (25 degrees C, ASTM D 2939) 10.4 lb./gal (1.2 g/m<sup>3</sup>)
  - e. Flash Point: ASTM D 93, 110 degrees F min. (43 degrees C)
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  - h. Wet Film Thickness @ 2 gal./100 sq. ft. (0.82 l/m<sup>2</sup>)
  - i. VOC: 225 g/l
  - j. Reflectance: 0.87
  - k. Emittance: 0.89
  - l. SRI: 110

END OF SECTION



ST. CHARLES  
SINCE 1834

## AGENDA ITEM EXECUTIVE SUMMARY

Title:	Recommendation to Award the Bid and approve Purchase Order for the Stuarts Crossing Basin 106C Shoreline Stabilization Project
Presenter:	AJ Reineking

*Please check appropriate box:*

	Government Operations	X	Government Services 07.25.16
	Planning & Development		City Council
	Public Hearing		

Estimated Cost:	\$263,426.90	Budgeted:	YES	X	NO	
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Budgeted Project Amount/Engineers Estimate: \$350,000

If NO, please explain how item will be funded:

**Executive Summary:**

The shoreline of Basin 106c in the Stuarts Crossing development (southwest of the intersection of Fox Chase Drive and Foxfield Drive) has severely eroded and is now posing a concern for pedestrian safety as well as the integrity of the adjacent landscape/hardscape of the area.

On June 28, 2016 the City opened bids for the stabilization of this shoreline to prevent future erosion and to reduce the potential hazard caused by the steep bank. The project will consist of grading around the entire basin to soften the slop entering the pond, and planting of native, deep rooted – prairie style – plants to prevent future erosion of the shoreline. The City received ten bids for this work with V3 Construction Group of Woodridge, IL being the lowest responsive, responsible bidder.

Over the last ten years, V3 has performed numerous shoreline stabilization and prairie restoration projects in the Chicago-metro area with great success, and their references have provided very favorable feedback.

Special Assessments from SSA 21 will be used to fund this project.

**Attachments:** *(please list)*

\* Bid Tabulation \* ERA Recommendation \* Engineer’s Estimate \* V3 Bid Sheet \* V3 Bid

**Recommendation / Suggested Action** *(briefly explain):*

Recommendation to award the bid for the Stuarts Crossing Basin 106c Shoreline Stabilization Project to V3 Construction Group in the amount of \$263,426.90.

*For office use only:*

*Agenda Item Number: 4.n*

Bid Tabulation  
 Stuarts Crossing Basin 106c Shoreline Stabilization Project  
 Bid Opening: June 28, 2016

Company	Total Price
V3 Construction Group, Ltd.	
Woodridge, IL	\$ 263,423.90
Conservation Land Stewardship, LLC	
Elmhurst, IL	\$ 269,896.42
Curran Contracting Company	
Crystal Lake, IL	\$ 296,296.00
Earthwerks Land Improvement & Development Corp.	
Batavia, IL	\$ 306,221.50
Semper Fi Yard Services, Inc.	
Yorkville, IL	\$ 333,562.84
Nettle Creek Nursery, Inc.	
Morris, IL	\$ 337,381.00
Copenhaver Construction	
Gilberts, IL	\$ 387,860.00
Front Range Environmental	
McHenry, IL	\$ 403,801.50
Kovilic Construction Co., Inc.	
Franklin Park, IL	\$ 438,844.00
Applied Ecological Services	
Brodhead, WI	\$ 440,095.36



# ENGINEERING RESOURCE ASSOCIATES, INC.

Consulting Engineers, Scientists & Surveyors

June 28, 2016

AJ Reineking  
Public Works Manager  
2 E. Main Street  
St. Charles, IL 60174-1984

phone: 630.443.3709  
fax: 630.513.7442  
[areineking@stcharlesil.gov](mailto:areineking@stcharlesil.gov)

**Subject: Stuarts Crossing Basin Shoreline Stabilization**

Dear Mr. Reineking:

The above project was advertised by the City on June 10, 2016. Ten bids were received for the project on June 28, 2016 at 2:00pm. Engineering Resource Associates, Inc. (ERA) has reviewed the tabulation of the bid results for the subject project.

The apparent low bidder for the project is V3 Construction Group, Ltd. (V3) of Woodridge, Illinois in the amount of \$263,425.00. A review of their quantities revealed that there was an error in the Erosion Control Blanket line item resulting in a difference of \$1.10 and a resulting bid of \$263,423.90.

V3 has completed numerous streambank stabilization and shoreline restoration projects. V3 has provided eleven project profiles for similar projects and associated references. The project references meet the requirements of the Contractor Qualifications.

Therefore, based upon a detailed evaluation of the bids and references, Engineering Resource Associates, Inc. recommends that a contract be awarded to V3 Construction Group, Ltd. in the amount of \$263,423.90. Should you have any questions, please contact me at 630.393.3060.

Very Truly Yours,  
ENGINEERING RESOURCE ASSOCIATES, INC.

Erin Pande, PWS, CFM  
Project Manager

---

**Warrenville**  
3s701 West Avenue, Suite 150  
Warrenville, IL 60555  
P 630.393.3060

**Chicago**  
10 South Riverside Plaza, Suite 1800  
Chicago, IL 60606  
P 312.683.0110

**Champaign**  
3002 Crossing Court  
Champaign, IL 61822  
P 217.351.6268

City of St. Charles  
**ERA - ENGINEER'S COST OPINION**  
 Stuarts Crossing Basin  
 5/17/2016

ITEMS	Quantity	Unit Price	Total Price
PRECONSTRUCTION VIDEO TAPING	L Sum 1	\$ 3,000.00	\$ 3,000.00
CONSTRUCTION LAYOUT & AS-BUILT SURVEY	L Sum 1	\$ 5,000.00	\$ 5,000.00
MOBILIZATION	L Sum 1	\$ 6,000.00	\$ 6,000.00
TRAFFIC CONTROL and PROTECTION	L Sum 1	\$ 5,000.00	\$ 5,000.00
SHRUB REMOVAL	EACH 25	\$ 50.00	\$ 1,250.00
TREE REMOVALS (6 TO 15 UNITS)	UNIT 194	\$ 60.00	\$ 11,640.00
STABILIZED CONSTRUCTION ENTRANCE	EACH 1	\$ 5,000.00	\$ 5,000.00
TEMPORARY FENCE	LF 2150	\$ 4.00	\$ 8,600.00
INLET PROTECTION	EACH 3	\$ 250.00	\$ 750.00
SILT FENCE	LF 1250	\$ 2.50	\$ 3,125.00
DEWATERING	L Sum 1	\$ 8,000.00	\$ 8,000.00
TOPSOIL EXCAVATION AND PLACEMENT, 6"	SY 498	\$ 25.00	\$ 12,450.00
EARTH EXCAVATION, SPECIAL	CY 350	\$ 25.00	\$ 8,750.00
ROCK TOE	TON 305	\$ 200.00	\$ 61,000.00
COIR FIBER ROLL	FOOT 420	\$ 45.00	\$ 18,900.00
STONE OUTCROPPING	SF 1410	\$ 35.00	\$ 49,350.00
RESET 18" CONCRETE PIPE END-SECTION	EACH 1	\$ 600.00	\$ 600.00
RESET CONCRETE OUTLET TOE BLOCK	EACH 2	\$ 1,000.00	\$ 2,000.00
ROCK OUTLET PROTECTION, 15"	SQ YD 13	\$ 150.00	\$ 1,950.00
TEMPORARY COVER CROP SEEDING	ACRE 0.79	\$ 1,600.00	\$ 1,264.00
MULCH PLACEMENT, 3"	SQ YD 1785	\$ 6.00	\$ 10,710.00
LOW PROFILE GRASSES, SEDGES, & RUSHES SEEDING	ACRE 0.60	\$ 4,000.00	\$ 2,400.00
SHORELINE SEEDING	ACRE 0.04	\$ 4,500.00	\$ 180.00
TRANSITIONAL BUFFER SEEDING	ACRE 0.15	\$ 6,500.00	\$ 975.00
WEED CONTROL PRIOR TO PLANTING	ACRE 0.79	\$ 4,500.00	\$ 3,555.00
EROSION CONTROL BLANKET	SQ YD 3824	\$ 3.00	\$ 11,470.80
NATIVE PLANT PLUGS	EACH 5292	\$ 5.00	\$ 26,460.00
GOOSE HERBIVORY PROTECTION	ACRE 1.0	\$ 4,000.00	\$ 4,000.00
ECOLOGICAL MANAGEMENT (3 YEARS)	YEAR 3	\$ 5,000.00	\$ 15,000.00
MOWING (3/YEAR)	YEAR 3	\$ 4,500.00	\$ 13,500.00
PRESCRIBED BURN	ACRE 0.79	\$ 6,000.00	\$ 4,740.00

**TOTAL: \$ 306,619.80**

City of St. Charles  
 BID TAB  
 Stuarts Crossing Basin

ITEMS	Quantity	Unit Price	Total Price
PRECONSTRUCTION VIDEO TAPING	L Sum 1	\$ 750.00	\$ 750.00
CONSTRUCTION LAYOUT & AS-BUILT SURVEY	L Sum 1	\$ 9,000.00	\$ 9,000.00
MOBILIZATION	L Sum 1	\$ 21,560.60	\$ 21,560.60
TRAFFIC CONTROL and PROTECTION	L Sum 1	\$ 4,500.00	\$ 4,500.00
SHRUB REMOVAL	EACH 25	\$ 11.50	\$ 287.50
TREE REMOVALS (6 TO 15 UNITS)	UNIT 194	\$ 20.00	\$ 3,880.00
STABILIZED CONSTRUCTION ENTRANCE	EACH 1	\$ 4,500.00	\$ 4,500.00
TEMPORARY FENCE	LF 2150	\$ 2.25	\$ 4,837.50
INLET PROTECTION	EACH 3	\$ 230.00	\$ 690.00
SILT FENCE	LF 1250	\$ 2.15	\$ 2,687.50
DEWATERING	L Sum 1	\$ 10,000.00	\$ 10,000.00
TOPSOIL EXCAVATION AND PLACEMENT, 6"	SY 498	\$ 5.50	\$ 2,739.00
EARTH EXCAVATION, SPECIAL	CY 350	\$ 28.50	\$ 9,975.00
ROCK TOE	TON 305	\$ 90.00	\$ 27,450.00
COIR FIBER ROLL	FOOT 420	\$ 36.65	\$ 15,393.00
STONE OUTCROPPING	SF 1410	\$ 45.00	\$ 63,450.00
RESET 18" CONCRETE PIPE END-SECTION	EACH 1	\$ 800.00	\$ 800.00
RESET CONCRETE OUTLET TOE BLOCK	EACH 2	\$ 800.00	\$ 1,600.00
ROCK OUTLET PROTECTION, 15"	SQ YD 13	\$ 150.00	\$ 1,950.00
TEMPORARY COVER CROP SEEDING	ACRE 0.79	\$ 500.00	\$ 395.00
MULCH PLACEMENT, 3"	SQ YD 1785	\$ 1.75	\$ 3,123.75
LOW PROFILE GRASSES, SEDGES, & RUSHES SEEDING	ACRE 0.60	\$ 5,000.00	\$ 3,000.00
SHORELINE SEEDING	ACRE 0.04	\$ 10,000.00	\$ 400.00
TRANSITIONAL BUFFER SEEDING	ACRE 0.15	\$ 5,000.00	\$ 750.00
WEED CONTROL PRIOR TO PLANTING	ACRE 0.79	\$ 2,531.65	\$ 2,000.00
EROSION CONTROL BLANKET	SQ YD 3824	\$ 2.75	\$ 10,516.00
NATIVE PLANT PLUGS	EACH 5292	\$ 5.50	\$ 29,106.00
GOOSE HERBIVORY PROTECTION	ACRE 1.0	\$ 3,850.00	\$ 3,850.00
ECOLOGICAL MANAGEMENT (3 YEARS)	YEAR 3	\$ 6,000.00	\$ 18,000.00
MOWING (3/YEAR)	YEAR 3	\$ 265.00	\$ 795.00
PRESCRIBED BURN	ACRE 0.79	\$ 6,885.00	\$ 5,439.15

**TOTAL: \$ 263,425.00**

INVITATION TO BID  
AND  
SPECIFICATIONS  
FOR

STUARTS CROSSING BASIN SHORELINE STABILIZATION

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CITY OF ST. CHARLES  
ILLINOIS  
2016

SPECIFICATION #160628

BID OPENING: June 28, 2016

## CONTENTS

<u>SECTION</u>	<u>TITLE</u>
I.	NOTICE TO BIDDERS
II.	INFORMATION TO BIDDERS
III.	SPECIFICATIONS
IV.	PROPOSAL FORM

SPECIFICATION #160628

BID OPENING : June 28, 2016

/cjb

SECTION I

NOTICE TO BIDDERS

The City of St. Charles is seeking a qualified contractor to perform shoreline stabilization to Basin 106c, located in the Stuarts Crossing development of St. Charles. The basin is located on Foxfield Drive in St. Charles, just east of Kirk Road (immediately north of the Jewel-Osco store). The project predominately includes the grading and replanting of the shoreline with native vegetation.

Sealed bids will be received at the Office of the Purchasing Manager, Two East Main Street, St. Charles, Illinois, **no later than 2:00 p.m., Tuesday, June 28, 2016**, for Shoreline Stabilization of Stuarts Crossing Basin.

Bids will be opened publicly and read aloud in the Council Chambers at 2:00 p.m., Tuesday, June 28, 2016.

Anticipated Timeline:

June 10, 2016	Invitation to Bid Distributed
June 28, 2016	Bids Due
July 11, 2016	Documentation Sent for Council Review
July 25, 2016	Presentation to Government Services Committee
August 1, 2016	City Council Award
August 4, 2016	Notice to Proceed

These Bids are available via the City Website. Alternatively, specifications and bidder information may be obtained at the Office of the Purchasing Manager, City of St. Charles, 200 Devereaux Way, St. Charles, Illinois.

**All sealed envelopes must be clearly marked for which proposal they pertain to.**

**CITY OF ST. CHARLES**  
Mike Shortall  
Inventory Control & Purchasing Manager

**SECTION II**  
**INFORMATION TO BIDDERS**

1. **GENERAL CONDITIONS:**

- A. Bids shall be submitted in a sealed envelope, inserted in a larger sealed envelope. Both envelopes shall be clearly marked with the word "Bid", and the name of the project or subject of the bid. (Sec. 2.33.200A of the St. Charles Municipal Code). The outer envelope shall be addressed "Purchasing Manager, City of St. Charles, Two East Main Street, St. Charles, IL 60174." Include a return address on both envelopes. Bids received after the specified time and date will be returned unopened. Bids shall be on City of St. Charles bid form and shall be returned attached to the original specification sheets. Copies are not acceptable. **All bids submitted are binding for sixty (60) calendar days following the date of the bid opening.**
  
- B. All bid proposals must be signed with the firm name and by an authorized officer or employee of the company. One bid per bidder is allowed.
  
- C. The award of bids shall be made, after determination of the successful bidder by the City Council, by issuance of a City purchase order from the City of St. Charles purchasing manager to the successful bidder.
  
- D. The City of St. Charles reserves the right to waive minor specification deviations and reject any or all bids, and to accept the bid, which is in the opinion of the City Council, the lowest conforming bid from a responsible bidder as defined by state law and Sec. 2.33.230 of the St. Charles Municipal Code.
  
- E. All bids must be quoted on the basis of delivery to the City storeroom, 200 Devereaux Way in St. Charles, IL. The price shall be stated in units and bids made on each item separately. In case of conflict, the unit price shall govern. The City reserves the right to award the bid in aggregate or on individual items.
  
- F. All taxes, storage, handling and delivery costs incurred prior to receipt of the material by the City must be assumed by the successful bidder.
  
- G. All taxes, storage, handling and delivery costs incurred prior to receipt of the material by the City must be assumed by the successful bidder. The City of St. Charles is exempt from paying Illinois Use Tax, Illinois Retailers Occupation Tax, Federal Excise Tax, and Municipal Retailer's Occupation Tax.

The Illinois Department of Revenue tax exempt form can be obtained through the City of St. Charles Office of Purchasing.

The winning bidder will be required to complete the requested information included on this form. It is the purpose of this document to allow the winning bidder to purchase items for the bid project, tax free. It is the intent that the contractor will include the savings into the bid or quote.

Contractors will be responsible for utilizing this tax exempt form in a legal and responsible way. The contractor must sign a certification that the tax exempt form will be solely used for the purpose stated above. Abuse of the City's tax exempt status to avoid sales tax liability on other contractor purchases shall not be tolerated and may disqualify the contractor from being awarded future City contracts or business.

- H. If applicable, material is to be delivered on a flatbed trailer and ready to be unloaded from the side of the trailer without driving a forklift onto the trailer. Advance notice of 48 hours is required by calling 630-377-4421. Deliveries can be made to the City between the hours of 7:00 a.m. - noon and 12:30 p.m. - 3:30 p.m.
- I. Each bidder shall make an accurate statement in the proposal of the smallest number of calendar days in which delivery can be made after placement of the order.
- J. Any firm bidding this/these unit(s) must have a full service shop which includes parts and service mechanics capable of making any adjustments or repairs as may be required. The firm must also have service truck capabilities.
- K. Materials will be paid within 30 days of receipt/acceptance of same and receipt of invoice, or if a discount is allowed and is advantageous to the City, within five (5) days of receipt/acceptance of same and receipt of the invoice. Bids will be evaluated on both thirty (30) day and discount pricing.

REQUIRED \_\_\_\_\_ NOT REQUIRED X \_\_\_\_\_

- L. Travel time (incl. on-site repairs and/or pick up and delivery) is included within the labor or service warranty.

REQUIRED X \_\_\_\_\_ NOT REQUIRED \_\_\_\_\_

2. **MATERIALS:**

Only new, unused, first quality material and/or equipment shall be offered by the bidder.

3. **BID RESULTS:**  
The bidder must supply a self-addressed, stamped envelope for obtaining bid results. **NO** bid results will be given by telephone.

4. **ADDENDUM**  
Any interpretation of the specifications will be mailed to each bidder receiving a set of the bid documents. Bidders shall acknowledge receipt of such addendum by returning the addendum form.

5. **BID DEPOSIT**  
A 10% bid deposit (certified check, cashier's check, or bank draft) or bid bond is required to accompany this bid. Failure to do so will eliminate the bid.

**REQUIRED** \_\_\_\_\_ **NOT REQUIRED** **X** \_\_\_\_\_

6. **PERFORMANCE & PAYMENT BONDS**

A performance bond in the amount of 100% of the bid submitted is required within ten (10) calendar days of acceptance of the bidder's proposal by the City.

The performance bond of the successful bidder shall have a minimum "A" rating as defined in Best's Key Rating Guide, be conditioned on the faithful performance of the requirements of the contract, and shall have as surety a corporate surety authorized to act as such in Illinois. The performance and payment bonds shall cover payment for all labor and material, and insure completion of the project. The bidder will be responsible for all claims for injuries to persons or damages to property or premises arising out of or in connection with his or her operations prior to the acceptance of the finished work or supplies, and that he or she will promptly make payments to all persons supplying him or her or them with labor or materials in the prosecution of the work provided for in the contract; and shall guarantee to indemnify and save the City and its officers and employees harmless from all costs, damages, and expenses arising out of or by reason of the bidder's failure to comply and perform the work and complete the contract in accordance with the specifications.

The performance and payment bonds shall be in conformance with the requirements of the Illinois Act in relation to bonds of bidders entering into contracts for public construction. (Illinois Compiled Statutes Ch. 30, Sec. 550/1, et seq.)

**REQUIRED** \_\_\_\_\_ **NOT REQUIRED** **X** \_\_\_\_\_

7. **GENERAL GUARANTY**

The bidder agrees to (a) hold the City, its agents, and employees harmless from liability of any nature or kind for the use of any copyrighted or un-copyrighted

composition, secret process, patented or unpatented, invention, article, or appliance furnished or used in the performance of the contract in which the bidder is not the patentee, assignee, licensee, or owner; (b) protect the City against latent defective material or workmanship and to repair or replace any damages or marring occurring in transit or delivery; (c) pay for all permits, licenses, and fees and give all notices and comply with all laws, ordinances, and rules of the City and State of Illinois; (d) indemnify City against all claims for personal injury, death, and/or property damage arising out of the project.

8. **ASSIGNMENT**

Assignment of this contract or any part thereof, or any funds to be received thereunder by the bidder shall be subject to the approval of the City of St. Charles.

9. **DEFAULT**

The contract may be cancelled or annulled by the purchasing manager in whole or in part by written notice of default to the bidder upon nonperformance or violation of contract terms. An award may be made to the next lowest bidder, or articles specified may be purchased on the open market similar to those so terminated. In either event, the defaulting bidder (or his surety) shall be liable to the City for costs to the City in excess of the defaulted contract prices. The bidder shall continue the performance of this contract to the extent not terminated under the provisions of this clause. Failure of the bidder to deliver materials or services within the time stipulated on his or her bid, unless extended in writing by the purchasing manager, shall constitute contract default.

10. **INSURANCE**

Detailed insurance requirements are included under City of St. Charles Certificate of Insurance Requirements.

The bidder **shall** secure and maintain in effect at all times, at his or her expense, insurance of the following kinds and limits to cover all locations of the bidder's operations in connection with work on his or her company's projects, naming the City of St. Charles as an additional insured. The bidder shall furnish Certificates of Insurance to the City Finance Department Purchasing Office before starting construction or within 10 days after the execution of the contract, whichever date is reached first. All insurance policies shall include a non-cancellation clause provision preventing cancellation without 30 days written prior notice to the City. In case of insurance cancellation, bidder shall obtain a new insurance policy in compliance with this paragraph prior to the effective date of cancellation.

Certificates of insurance must be completed on the ACORD 25-S form, with the cancellation clause revised and revisions initialed. An example is enclosed.

**REQUIRED**   X   **NOT REQUIRED** \_\_\_\_\_

For this **specific** project, the City of St. Charles is requiring a liability umbrella of \$ 5,000,000 (aggregate for this project).

REQUIRED   X   NOT REQUIRED \_\_\_\_\_

11. **CERTIFICATE OF COMPLIANCE**

All bidders are required to complete the Certificate of Compliance (attached) as per the Illinois Compiled Statutes Ch. 65, Sec. 11-42.1-1, which will be returned with the bid.

12. **HEALTH AND SAFETY ACT**

All work under this contract shall comply with the Occupational Safety and Health Act (OSHA) of 1975, and all other federal, state or local statutes, rules or regulations affecting the work done under the contract.

13. **PREVAILING WAGE RATE**

This contract calls for the construction of a "public work," within the meaning of the Illinois Prevailing Wage Act, 820 ILCS 130/.01 *et seq.* ("the Act"). The Act requires contractors and subcontractors to pay laborers, workers and mechanics performing services on public works projects no less than the current "prevailing rate of wages" (hourly cash wages plus amount for fringe benefits) in the county where the work is performed. The Department publishes the prevailing wage rates on its website at <http://labor.illinois.gov/>. The Department revises the prevailing wage rates and the contractor/subcontractor has an obligation to check the Department's web site for revisions to prevailing wage rates. For information regarding current prevailing wage rates, please refer to the Illinois Department of Labor's website. All contractors and subcontractors rendering services under this contract must comply with all requirements of the Act, *including but not limited to*, all wage requirements and notice and record keeping duties.

The successful bidder and each subcontractor shall submit monthly, in person, by mail, or electronically, a certified payroll to the City of St. Charles. The certified payroll shall consist of records of all laborers, mechanics, and other workers employed by them on the project. The records shall include each worker's name, address, telephone number (when available), the last four digits of the worker's social security number, classification or classifications, the hourly wages paid in each period, the number of hours worked each day, and the starting and ending times of work each day. The certified payroll shall be accompanied by a statement signed by the bidder or subcontractor which avers that:

- A. Such records are true and accurate;
- B. The hourly rate paid to each worker is not less than the general prevailing rate of hourly wages required; and

- C. The bidder or subcontractor is aware that filing a certified payroll that he or she knows to be false is a Class B misdemeanor.

The City of St. Charles is required to keep the certification records submitted for a period of not less than five years. Furthermore, these records, except an employee's address, telephone number, and social security number, shall be made available in accordance with the Freedom of Information Act.

14. **EXECUTION OF CONTRACT, INSURANCE, & PERFORMANCE & PAYMENT BONDS**

The successful bidder, within ten (10) business days after acceptance of the bidder's offer by the City, shall execute all requested contract documents, supply satisfactory evidence of required insurance, and furnish a satisfactory performance and payment bonds when required by the bid documents. In the event that the bidder fails to furnish required documents, insurance, and performance and payment bonds within ten (10) business days after acceptance of the bidder's offer by the City, then the City's acceptance of the offer shall automatically terminate, and the bid deposit of the bidder shall be retained by the City as reimbursement for administrative costs.

15. **RELEASE OF BID DEPOSITS**

Within a reasonable time after the bid opening, bid deposits of all except the three lowest responsible bidders will be released. The remaining deposits will be released after the successful bidder has executed the contract documents and furnished evidence of the insurance and bonds required by the bid documents.

16. **EQUAL OPPORTUNITY EMPLOYER**

The City of St. Charles is an equal opportunity employer, and all bidders are required to be equal opportunity bidders as defined by all applicable state and federal laws and regulations.

17. **VETERANS PREFERENCE**

The City of St. Charles, per Illinois Compiled Statutes Ch. 330, par. 55/1-55/3, gives preference to veterans for public works contracts, should a tie bid arise between local OR non-local bidders.

18. **CERTIFICATE OF NON-DISQUALIFICATION**

All bidders are required to submit a completed Certificate of Non-Disqualification (attached), as required under Illinois Compiled Statutes, Ch. 720, Sec. 33 E-11.

19. **PROVISIONS OF ST. CHARLES MUNICIPAL CODE**

All bids and contracts shall be in accordance with Title 2, Ch. 2.33 of the City of St. Charles Illinois Municipal code, as from time to time amended, which shall take precedence over and control all aspects of this contract, and which are incorporated herein by reference.

20. **SURVIVAL**

The provisions hereof shall survive and shall not merge with the resulting purchase order or contract awarded to the successful bidder, but shall be additional terms thereof; and the submission of a bid shall be deemed as acceptance of these terms.

21. **CERTIFICATE OF COMPLIANCE WITH SAFETY STANDARDS**

All bidders are required to submit a completed Certificate of Compliance with Safety Standards (attached).

22. **CERTIFICATE OF COMPLIANCE WITH PUBLIC ACT 87-1257 OF THE ILLINOIS HUMAN RIGHTS ACT**

All bidders are required to submit a completed Certificate of Compliance with Public Act 87-1257 of the Illinois Human Rights Act (attached).

23. **WAIVERS OF MECHANICS LIEN**

A. With each application for payment, submit waivers of mechanics liens from the bidder, subcontractors, and suppliers for the construction period covered by the current application. Payment will not be released until the bidder has supplied the City with the waiver of liens.

1. Submit partial waivers on each item for the amount requested, prior to deduction for retainage, on each item.
2. When an application shows completion of an item, submit final or full waivers.
3. The City reserves the right to designate which entries involved in the work must submit waivers.
4. Waiver Delays: submit each application for payment with the bidder's waiver of mechanics lien for the period of construction covered by the application.

A. Initial application for payment: administrative actions and submittals, that must precede or coincide with submittal of the first application for payment, include the following:

1. List of subcontractors.
2. List of principal suppliers and fabricators.
3. Schedule of values.

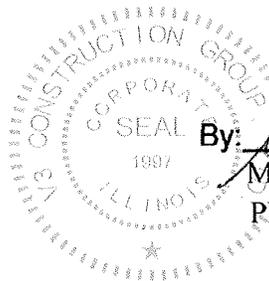
REQUIRED   X   NOT REQUIRED \_\_\_\_\_

**CERTIFICATE OF COMPLIANCE OF  
ILLINOIS COMPILED STATUTES, CH. 65, SEC. 11-42.1-1**

The undersigned, upon being first duly sworn, hereby certifies to the City of St. Charles, Kane and DuPage Counties, Illinois, that V3 CONSTRUCTION GROUP, LTD. (bidder) is not currently delinquent in the payment of any tax administered by or owed to the Illinois Department of Revenue, or otherwise in default upon any such tax as defined under Ch. 65, Sec. 11-42.1-1, Illinois Compiled Statutes.

V3 CONSTRUCTION GROUP, LTD.  
Name of Bidder

By:   
MICHAEL FAMIGLIETTI, P.E.  
PRESIDENT

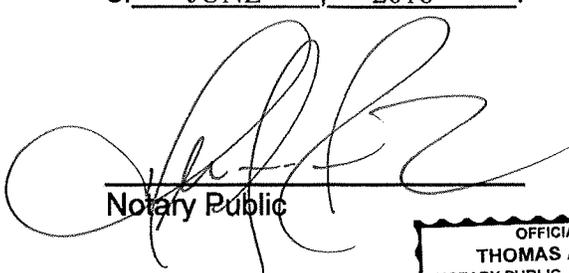


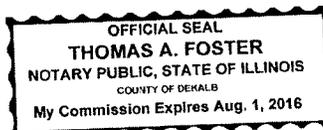
State of ILLINOIS ),

ss.

County of DeKALB )

Subscribed and sworn to  
before me this 28TH day  
of JUNE, 2016.

  
Notary Public

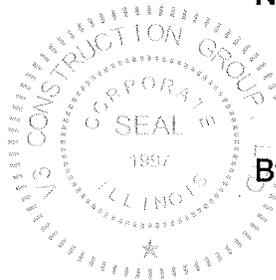




**CERTIFICATE OF COMPLIANCE WITH SAFETY STANDARDS**

The undersigned, upon being first duly sworn, hereby certifies to the City of St. Charles, Kane and DuPage Counties, Illinois, that V3 CONSTRUCTION GROUP, LTD. (bidder) shall comply with all local, state and federal safety standards.

V3 CONSTRUCTION GROUP, LTD.  
Name of Bidder

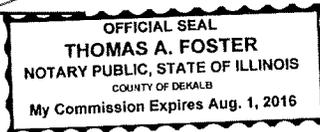


By:   
MICHAEL FAMIGLIETTI, P.E.  
PRESIDENT

State of ILLINOIS ),  
ss.  
County of DeKALB )

Subscribed and sworn to  
before me this 28TH day  
of JUNE, 2016.

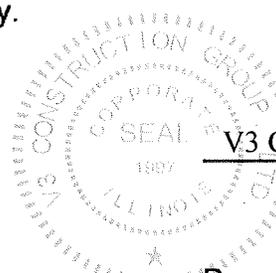
  
Notary Public





**CERTIFICATE OF COMPLIANCE WITH PREVAILING WAGE RATE ACT**

The undersigned, upon being first duly sworn, hereby certifies to the City of St. Charles, Kane and DuPage Counties, Illinois, that all work under this contract shall comply with the Illinois Prevailing Wage Act, 820 ILCS 130/.01, et. seq, (the "Act") and current City ordinance, to the extent required by law. Contractors shall submit monthly certified payroll records to the City.



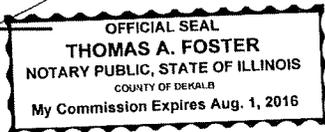
V3 CONSTRUCTION GROUP, LTD.  
Name of Contractor

By: *Michael Famiglietti*  
MICHAEL FAMIGLIETTI, P.E.  
PRESIDENT

State of ILLINOIS ),  
ss.  
County of DeKALB )

Subscribed and sworn to  
before me this 28TH day  
of JUNE, 2016.

*Thomas A. Foster*  
Notary Public



/cjb  
Bidders Section II





**Illinois Department of Revenue**  
 Office of Local Government Services  
 Sales Tax Exemption Section, 3-520  
 101 W. Jefferson Street  
 Springfield, IL 62702  
 217 782-8881

January 2, 2015

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

CITY OF ST CHARLES  
 DIRECTOR OF FINANCE  
 TWO EAST MAIN ST  
 ST CHARLES IL 60174

Effective January 1, 2015, we have renewed your governmental exemption from payment of the Retailers Occupation Tax, the Service Occupation Tax (both state and local), the Use Tax, and the Service Use Tax, as required by Illinois law.

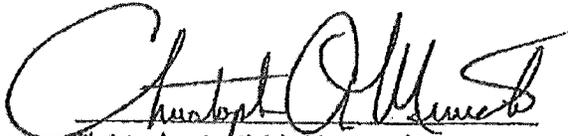
We have issued the following new tax exemption identification number:

E9996-0680-07  
 to  
 CITY OF ST CHARLES  
 of  
 ST CHARLES, IL

The terms and conditions governing use of your exemption number remain unchanged.

Office of Local Government Services  
 Illinois Department of Revenue

Issued To: \_\_\_\_\_  
 Company: \_\_\_\_\_  
 Date Issued: \_\_\_\_\_  
 Project: \_\_\_\_\_  
 Dates Valid: \_\_\_\_\_

  
 Christopher A. Minick, Director of Finance



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## City of St. Charles Certificate of Insurance Requirements

Contractors shall carry all insurance coverage required by law. In addition, the Contractor shall carry, at its own expense, at least the following insurance coverage with a duly licensed and registered insurance company in the State of Illinois having a minimum A.M. Best rating of A-VI:

- (a) Workers' Compensation & Occupational Diseases Insurance – Statutory amount for Illinois
- (b) General Liability Insurance:
  - 1) Bodily injury, with limits of not less than \$1,000,000 each occurrence/  
\$2,000,000 aggregate;
  - 2) Property damage, with limits of not less than \$1,000,000 each occurrence/  
\$2,000,000 aggregate;
  - 3) Contractual insurance – broad form, with limits of not less than \$1,000,000 each occurrence/\$2,000,000 aggregate.
- (c) Automotive Liability Insurance:
  - 1) \$1,000,000 each occurrence/  
\$2,000,000 aggregate;
  - 2) Property damage, with limits of not less than \$1,000,000 each occurrence/  
\$2,000,000 aggregate. Property damage insurance coverage shall include non-owned, hired, leased, or rented vehicles, as well as owned vehicles.
- (d) Umbrella liability \$5,000,000.



- 
- (e) Contractor's insurance policy shall name City as an additional insured on the General Liability, Automotive Liability and Excess Liability insurance policies. The insurance coverage shall be written with insurance companies acceptable to City. All insurance premiums shall be paid without cost to City. The Contractor shall furnish to City a Certificate of Insurance attesting to the respective insurance coverage for the full contract term. Contractor shall submit satisfactory proof of insurance simultaneously with the execution of the contract.
  
  - (f) All insurance policies shall provide that the City shall receive written notice of cancellation or reduction in coverage of any insurance policy thirty (30) days to the effective date of cancellation.

City of St. Charles  
 BID TAB  
 Stuarts Crossing Basin

ITEMS	Quantity	Unit Price	Total Price
PRECONSTRUCTION VIDEO TAPING	L Sum 1	\$ 750.00	\$ 750.00
CONSTRUCTION LAYOUT & AS-BUILT SURVEY	L Sum 1	\$ 9,000.00	\$ 9,000.00
MOBILIZATION	L Sum 1	\$ 21,560.60	\$ 21,560.60
TRAFFIC CONTROL and PROTECTION	L Sum 1	\$ 4,500.00	\$ 4,500.00
SHRUB REMOVAL	EACH 25	\$ 11.50	\$ 287.50
TREE REMOVALS (6 TO 15 UNITS)	UNIT 194	\$ 20.00	\$ 3,880.00
STABILIZED CONSTRUCTION ENTRANCE	EACH 1	\$ 4,500.00	\$ 4,500.00
TEMPORARY FENCE	LF 2150	\$ 2.25	\$ 4,837.50
INLET PROTECTION	EACH 3	\$ 230.00	\$ 690.00
SILT FENCE	LF 1250	\$ 2.15	\$ 2,687.50
DEWATERING	L Sum 1	\$ 10,000.00	\$ 10,000.00
TOPSOIL EXCAVATION AND PLACEMENT, 6"	SY 498	\$ 5.50	\$ 2,739.00
EARTH EXCAVATION, SPECIAL	CY 350	\$ 28.50	\$ 9,975.00
ROCK TOE	TON 305	\$ 90.00	\$ 27,450.00
COIR FIBER ROLL	FOOT 420	\$ 36.65	\$ 15,393.00
STONE OUTCROPPING	SF 1410	\$ 45.00	\$ 63,450.00
RESET 18" CONCRETE PIPE END-SECTION	EACH 1	\$ 800.00	\$ 800.00
RESET CONCRETE OUTLET TOE BLOCK	EACH 2	\$ 800.00	\$ 1,600.00
ROCK OUTLET PROTECTION, 15"	SQ YD 13	\$ 150.00	\$ 1,950.00
TEMPORARY COVER CROP SEEDING	ACRE 0.79	\$ 500.00	\$ 395.00
MULCH PLACEMENT, 3"	SQ YD 1785	\$ 1.75	\$ 3,123.75
LOW PROFILE GRASSES, SEDGES, & RUSHES SEEDING	ACRE 0.60	\$ 5,000.00	\$ 3,000.00
SHORELINE SEEDING	ACRE 0.04	\$ 10,000.00	\$ 400.00
TRANSITIONAL BUFFER SEEDING	ACRE 0.15	\$ 5,000.00	\$ 750.00
WEED CONTROL PRIOR TO PLANTING	ACRE 0.79	\$ 2,531.65	\$ 2,000.00
EROSION CONTROL BLANKET	SQ YD 3824	\$ 2.75	\$ 10,516.00
NATIVE PLANT PLUGS	EACH 5292	\$ 5.50	\$ 29,106.00
GOOSE HERBIVORY PROTECTION	ACRE 1.0	\$ 3,850.00	\$ 3,850.00
ECOLOGICAL MANAGEMENT (3 YEARS)	YEAR 3	\$ 6,000.00	\$ 18,000.00
MOWING (3/YEAR)	YEAR 3	\$ 265.00	\$ 795.00
PRESCRIBED BURN	ACRE 0.79	\$ 6,885.00	\$ 5,439.15

**TOTAL: \$ 263,425.00**



# Document A310™ - 2010

## Bid Bond

**CONTRACTOR:**

(Name, legal status and address)

V3 Construction Group, LTD  
7325 Janes Avenue  
Woodridge, IL 60517

**SURETY:**

(Name, legal status and principal place of business)

Washington International Insurance Company: New Hampshire Corporation  
475 N. Martingale Road Ste 850  
Schaumburg, IL 60173

**OWNER:**

(Name, legal status and address)

City of St. Charles  
Two East Main Street  
St. Charles, IL 60174

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

**BOND AMOUNT:** Ten Percent of the Amount of Bid----- (--10%--)

**PROJECT:**

(Name, location or address, and Project number, if any)

Stuarts Crossing Basin Shoreline Stabilization, Bid #160628

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

Signed and sealed this 28th day of June, 2016



(Witness)

*[Handwritten Signature]*

(Witness)

V3 Construction Group, LTD

(Principal) *[Handwritten Signature]* (Seal) VICE PRESIDENT

(Title)

Washington International Insurance Company

(Surety) *[Handwritten Signature]* (Seal)

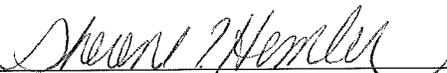
(Title) Carol A. Dougherty, Attorney In Fact

**CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.**

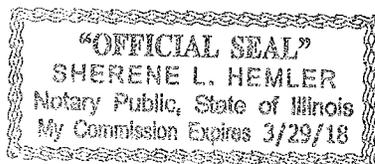
*Surety Company Acknowledgement*

STATE OF **ILLINOIS**  
COUNTY OF **COOK** SS.:

On this 28th day of June, 2016, before me personally appeared **Carol A. Dougherty**, to me known, who, being by me duly sworn, did depose and say: that (s)he resides at **Schaumburg, Illinois**, that (s)he is the **Attorney in Fact** of **Washington International Insurance Company**, the corporation described in and which executed the annexed instrument; that (s)he knows the corporate seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation; that (s)he signed his/her name thereto by like order; and that the liabilities of said corporation do not exceed its assets as ascertained in the manner provided by law.

  
\_\_\_\_\_  
Notary Public in and for the above County and State

My Commission Expires: 03/29/18



NAS SURETY GROUP

NORTH AMERICAN SPECIALTY INSURANCE COMPANY
WASHINGTON INTERNATIONAL INSURANCE COMPANY

GENERAL POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, THAT North American Specialty Insurance Company, a corporation duly organized and existing under laws of the State of New Hampshire, and having its principal office in the City of Manchester, New Hampshire, and Washington International Insurance Company, a corporation organized and existing under the laws of the State of New Hampshire and having its principal office in the City of Schaumburg, Illinois, each does hereby make, constitute and appoint:

J.S. POHL, ROBERT B. SCHUTZ, JAMES L. SULKOWSKI, CAROL A. DOUGHERTY, ROBERT E. KAPPUS, SHERENE L. HEMLER, MIKE POHL, MEREDITH H. MIELKE, JOHN E. ADAMS, GERALD C. OLSON, ROBERT W. MIELKE, JESSICA ANCONA, and KIRK LISKIEWITZ

JOINTLY OR SEVERALLY

Its true and lawful Attorney(s)-in-Fact, to make, execute, seal and deliver, for and on its behalf and as its act and deed, bonds or other writings obligatory in the nature of a bond on behalf of each of said Companies, as surety, on contracts of suretyship as are or may be required or permitted by law, regulation, contract or otherwise, provided that no bond or undertaking or contract or suretyship executed under this authority shall exceed the amount of: FIFTY MILLION (\$50,000,000.00) DOLLARS

This Power of Attorney is granted and is signed by facsimile under and by the authority of the following Resolutions adopted by the Boards of Directors of both North American Specialty Insurance Company and Washington International Insurance Company at meetings duly called and held on the 9th of May, 2012:

'RESOLVED, that any two of the Presidents, any Managing Director, any Senior Vice President, any Vice President, any Assistant Vice President, the Secretary or any Assistant Secretary be, and each or any of them hereby is authorized to execute a Power of Attorney qualifying the attorney named in the given Power of Attorney to execute on behalf of the Company bonds, undertakings and all contracts of surety, and that each or any of them hereby is authorized to attest to the execution of any such Power of Attorney and to attach therein the seal of the Company; and it is

FURTHER RESOLVED, that the signature of such officers and the seal of the Company may be affixed to any such Power of Attorney or to any certificate relating thereto by facsimile, and any such Power of Attorney or certificate bearing such facsimile signatures or facsimile seal shall be binding upon the Company when so affixed and in the future with regard to any bond, undertaking or contract of surety to which it is attached.'



By [Signature] Steven P. Anderson, Senior Vice President of Washington International Insurance Company & Senior Vice President of North American Specialty Insurance Company



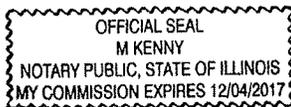
By [Signature] Michael A. Ito, Senior Vice President of Washington International Insurance Company & Senior Vice President of North American Specialty Insurance Company

IN WITNESS WHEREOF, North American Specialty Insurance Company and Washington International Insurance Company have caused their official seals to be hereunto affixed, and these presents to be signed by their authorized officers this June day of September, 2015.

North American Specialty Insurance Company
Washington International Insurance Company

State of Illinois ss:
County of Cook

On this June day of September, 2015, before me, a Notary Public personally appeared Steven P. Anderson, Senior Vice President of Washington International Insurance Company and Senior Vice President of North American Specialty Insurance Company and Michael A. Ito, Senior Vice President of Washington International Insurance Company and Senior Vice President of North American Specialty Insurance Company, personally known to me, who being by me duly sworn, acknowledged that they signed the above Power of Attorney as officers of and acknowledged said instrument to be the voluntary act and deed of their respective companies.



[Signature] M. Kenny, Notary Public

I, Jeffrey Goldberg, the duly elected Assistant Secretary of North American Specialty Insurance Company and Washington International Insurance Company, do hereby certify that the above and foregoing is a true and correct copy of a Power of Attorney given by said North American Specialty Insurance Company and Washington International Insurance Company, which is still in full force and effect.

IN WITNESS WHEREOF, I have set my hand and affixed the seals of the Companies this 28th day of June, 2016.

[Signature] Jeffrey Goldberg, Vice President & Assistant Secretary of Washington International Insurance Company & North American Specialty Insurance Company



Year	Project	Contract Amount	Location	Owner
2006	Clark Island Renovation	\$ 1,115,000	Batavia, IL	Batavia Park District
2007	Spring Brook Creek Re-Meander	\$ 3,550,000	Naperville, IL	Forest Preserve Dist. Of DuPage Co.
2008	McDowell Grove Dam Modification	\$ 1,400,000	Naperville, IL	DuPage County Stormwater Mgmt
2009	Hadley Valley Wetland Restoration	\$ 3,250,000	Will County, IL	Forest Preserve District of Will County
2010	Veterans Island Stabilization	\$ 1,000,000	Batavia, IL	Fox Valley Park District
2011	Cantigny Stream Stabilization	\$ 385,000	Wheaton, IL	Cantigny
2012	Prentiss Creek Naturalization	\$ 275,000	Downers Grove, IL	Village of Downers Grove
2013	West Branch Dupage River	\$ 8,000,000	Carol Stream, IL	DuPage County - Stormwater Mngmnt
2014	Dead Dog Creek Restoration	\$ 650,000	Winthrop Harbor, IL	Village of Winthrop Harbor
2015	Thorne Creek Stabilization	\$ 200,000	Joliet, IL	Joseph J. Henderson & Son, Inc.
2016	Tinley Creek	\$ 3,500,000	Crestwood, IL	Industria, Inc. (MWRD)

Owner	Contact	Phone	Fax
Batavia Park District	Jim Eby	630-879-5235	630-879-9537
Forest Preserve Dist. Of DuPage Co.	Leslie Burns	630.933.7671	630.933.7204
DuPage County Stormwater Mgmt	Sarah Ruthko	630-407-6676	630-407-6701
Forest Preserve District of Will Count	Ms. Juli Mason	815-722-5373	815-722-3608
Fox Valley Park District	Mr. Michael Erickson	630-897-0516	630-897-2080
Cantigny	Mr. Scott Witte	630-260-8179	630-260-8182
Village of Downers Grove	Andy Sikich	630-434-5467	630-434-5495
DuPage County - Stormwater Mngmn	Sarah Hunn	630-407-6676	630-407-6701
Village of Winthrop Harbor	Michael Novotney	847-377-7700	847-984-5747
Joseph J. Henderson & Son, Inc.	Tom Kegan	847-244-3222	847-244-9572
Industria, Inc. (MWRD)	Jon Kelecus	773-697-0190	773-697-0191



# 2006 CLARK ISLAND RENOVATIONS

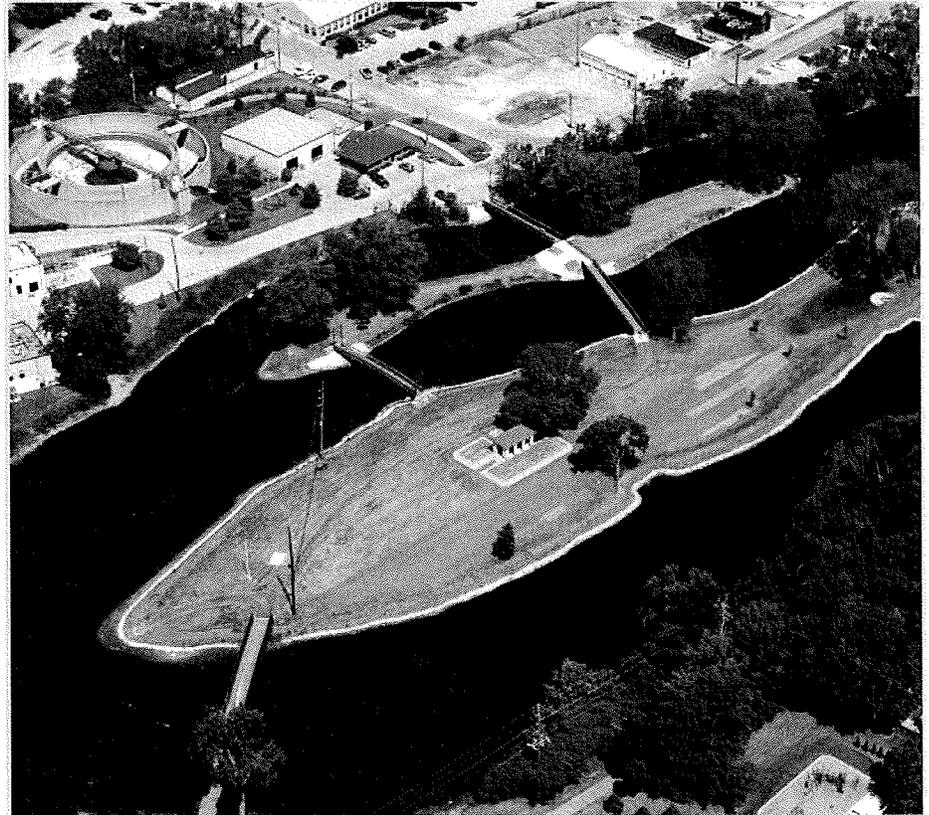
CLIENT: BATAVIA PARK DISTRICT

## V3 SERVICES

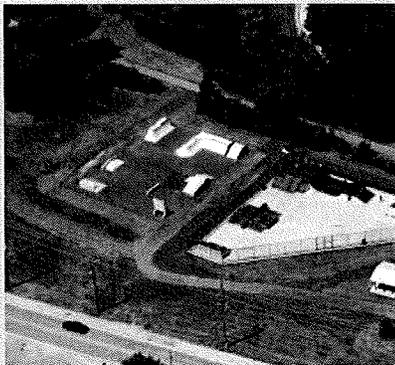
- Construction Management
- DuPage County, IDNR & Army Corps of Engineers permitting
- Sediment & Erosion Control Design
- Floodway & Floodplain Analyses

## PROJECT DETAILS

- Location: Batavia, Illinois



- This project focused on providing shoreline stabilization to Clark Island to prevent further erosion of the island
- Another goal was to improve public access to the island, which was achieved by replacing old pedestrian bridges with new steel bridges
- A unique aspect of this project was that two haul roads were required to be built through the Fox River to allow construction access; one from the east shoreline to Clark Island and one from Clark Island to a small island located between it and the west shoreline of the Fox River
- V3 was the general contractor on this project as well as self-performing the earthwork construction
- The scope of work included two temporary crossings installed in the Fox River, installation of shoreline stabilization for Clark Island including fishing stations, pedestrian bridge demolition, installing two new pedestrian bridges, renovation of the shelter on Clark Island and a new asphalt bike path
- Improvements were also made to the shoreline area of the park, which included a new BMX park, a new playground area, ball field lighting and restoration of an existing stone bridge





# 2007 SPRINGBROOK TRIBUTARY No. 2 MEANDER PROJECT

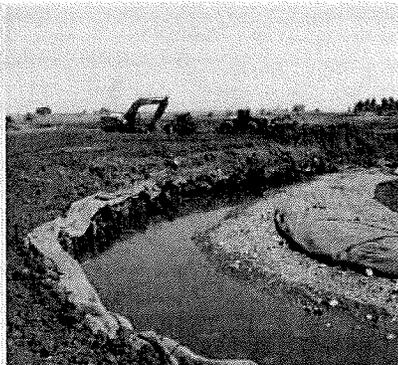
CLIENT: FOREST PRESERVE DISTRICT OF DUPAGE COUNTY

## V3 SERVICES

- Ecological Construction & Restoration
- Self-Performed Earthwork
- Native Plant & Seed Installation
- Construction Layout
- Record Drawing Preparation

## PROJECT DETAILS

- Location: Naperville, Illinois
- Construction Cost: \$4,981,113



- The project's primary ecological objectives were to improve habitat, reduce bank erosion and improve water quality within a 1.5-mile channelized stream running through this Springbrook Prairie Nature Preserve
- The project's engineering objectives focused on reconnecting the stream to the historic floodplain to improve its ability to absorb larger volumes of water and dissipate energy in major storm events
- The remeandered stream bed was designed to elevate it to normal entrenchment conditions and to saturate hydric soils to form a riparian wetland zone that would absorb floodwaters
- Constructed to mimic a naturally-made stream bed, each bend in the new channel was excavated deeper to create a pool, each crossover was elevated to create a riffle and the stone-lined channel bottom was sloped to follow the water flow
- The stream bank was stabilized using root wads and footer logs in the bends of the newly meandered creek and the top of the bank was stabilized with 10-foot-wide by 1-foot-deep burrito-style wrapped topsoil
- A major project challenge involved building the new channel over the old channel while maintaining stream flows
- All construction, stabilization, seeding restoration and planting were completed by V3
- This project won the Illinois ASCE Outstanding Civil Engineering Achievement Award (less than \$5 million)



2008

# McDOWELL GROVE DAM MODIFICATION

CLIENT: DuPAGE COUNTY DIVISION OF STORMWATER MANAGEMENT

## V3 SERVICES

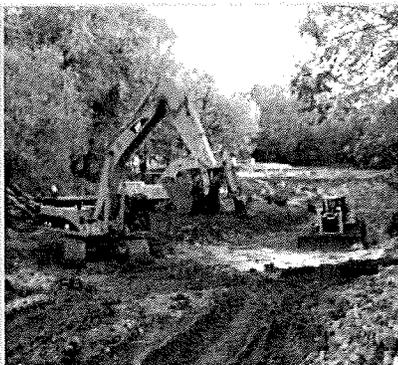
- Construction Management
- Eathwork
- Shroeline Stabilization
- Dredging
- Project Documentation
- Change Orders & Pay Estimates
- Record Drawings
- Construction Layout
- Measurement of Quantities
- Cost Control
- Schedule Preparation & Analysis



## PROJECT DETAILS

- Location: Naperville, Illinois
- Project Value: \$1,410,700

- The purpose of the project was to modify a three-foot-high dam at the McDowell Grove Forest Preserve to return a portion of the West Branch of the DuPage River to a healthier, more natural water way
- Goals of this project were to improve fish passage and species diversity upstream of the existing dam, along with safety improvements for canoe and kayak usage by removing the structure
- V3's project scope centered on diverting 700-linear-feet of the West Branch to allow for river reconstruction activities, involving the installation and maintenance of a bypass pumping system and modifications to the existing dam
- Restoration best management practices included removal of sediment from the river bed, the placement of bank load material and installation of aquatic habitat features
- To meet grant funding deadlines, the project required an aggressive schedule — one that started in August and ended in November of the same year
- A major challenge arose in the form of a 100-year-flood event that put the construction area nine feet under water and led to subsequent spikes in river flow volumes causing a three-week delay
- The project was funded by a grant from the Natural Resources Conservation Service





2009

# HADLEY VALLEY WEST PRESERVE

CLIENT: FOREST PRESERVE DISTRICT OF WILL COUNTY

## V3 SERVICES

- Creek Morphology Analysis, Hydraulic Modeling, Floodway Permitting
- Wetland Delineation & Assessment
- Native Planting Design & Specifications
- Construction Drawings & Contract Documents
- Earthwork & Grading
- Native Plant & Seed Installation
- Ecological Management & Monitoring



## PROJECT DETAILS

- Location: New Lenox, Illinois
- The restoration of 300 acres of wetland and savanna communities occurred as part of 1,200-acre greenway project related to a tollway extension project (managed by V3's construction engineering group)
- The existing agricultural ditch was analyzed, modeled and restored to a 7000-linear-foot remeandered creek that mirrored its 1939 condition; an increase of 1,150 linear feet
- Restoration design and construction included moving 64,000 cubic yards of earthwork, drain tile removal, riffle placement, erosion control measures, planting 148,000 wetland plugs, seeding seven tons of prairie and wetland seeds and on-going ecological management
- All restoration construction and ecological environment creation activities were conducted by V3's ecological and construction management teams
- V3 conducted all ecological monitoring, management and reporting from 2007-2011
- All performance standards were met in 2011 and a project sign-off was received from the USACE on September 5, 2012
- 2008 Conservation & Native Landscaping Award Winner from the USEPA/Chicago Wilderness Conservation





# VETERANS ISLAND<sup>2010</sup> SHORELINE STABILIZATION

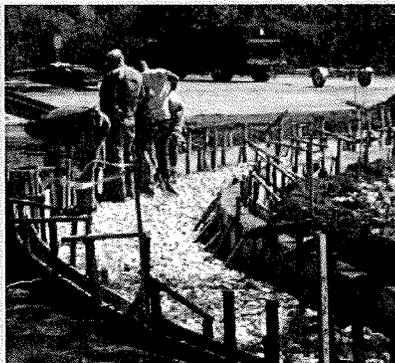
CLIENT: FOX VALLEY PARK DISTRICT

## V3 SERVICES

- General Contracting
- Excavation
- Lannon Stone Wall Construction
- Slope Stabilization
- Native Planting & Seeding
- Construction Layout

## PROJECT DETAILS

- Location: Aurora, Illinois



- V3 served as contractor for this \$700,000 shoreline stabilization and erosion protection project
- Project improvements included the installation of 3,000 lineal feet of lannon stone ledge rock retaining wall, outcroppings and footings and 750 lineal feet of five-foot-wide boulder toe
- Challenges included dewatering to install the footing for the retaining wall construction and the presence of sand subgrade (rather than the typical bedrock subgrade found along the Fox River); this made it impossible to excavate the area and keep material out of the footing area
- Further complicating construction efforts, a 100-year rain event and several intermittent storms significantly raised the Fox River water level
- V3 addressed the challenge by adding trench boxes to the dewatering plan and along with using sand bags to successfully excavate and dewater the area for the concrete footing
- A 2,000-square-foot paver-and-ledge rock seating plaza also was constructed, along with a permeable paver walkway and logo feature and stamped and colored accent concrete surfaces
- Portions of a deteriorating asphalt parking lot were restored as part of the project scope
- Activities also included construction of a coffer dam and installation of native plantings to further stabilize and restore the shoreline



2011

# WOODSIDE HOLE #2 STREAMBANK STABILIZATION & FAIRWAY GRADING

CLIENT: CANTIGNY GOLF COURSE

## V3 SERVICES

- General Contracting
- Excavation
- Lannon Stone Wall Construction
- Slope Stabilization
- Native Planting & Seeding
- Construction Layout

## PROJECT DETAILS

- Location: Wheaton, Illinois
- Total Construction Cost: \$424,000



- V3 served as contractor for this \$424,000 streambank stabilization and fairway grading project
- The project involved 2,200 linear feet of streambank stabilization and incorporated a holey boulder retaining wall, coir fiber logs and rock riffles
- Soil lifts were required and planting elements included a vegetated stone toe,, native planting and seeding
- Because of the stream's location on the golf course, the fairways required reshaping and grading
- V3 worked very closely with the golf course architect to achieve his vision for the hole layout





2012

# PRENTISS CREEK RESTORATION

CLIENT: VILLAGE OF DOWNERS GROVE

## V3 SERVICES

- Design/Build Project Delivery
- Ecological Design, Construction & Restoration
- Hydraulic Modeling
- Permit Coordination
- Vegetation Clearing
- Dam Removal
- Native Area Planting
- Gabion Basket Shoreline Stabilization
- Native Area Maintenance & Monitoring
- Construction Layout
- As-Built Record Drawings



## PROJECT DETAILS

- Location: Downers Grove, Illinois

- This project consisted of an existing on-line pond located along Prentiss Creek wherein creek sediment deposition, mud flats, low water levels and poor water quality was observed
- V3 dredged and excavated the sediment to create a deep permanent pool behind the existing concrete weir
- V3 stabilized 1,000-lineal-feet of shoreline with native plantings, constructed 100 lineal feet of 10-foot-high gabion wall construction to stabilize the adjacent property and installed 11,000 wetland, shoreline and emergent native plants to improve water quality and habitat
- Streambank stabilization was performed around the eroded areas to reduce potential for further sediment build-up within the pond
- Review of landscaping procedures and practices in the subdivision and the direct tributary drainage area was necessary. V3 proposed that the use of fertilizers high in nutrients, especially phosphorus, were contributing to the algae bloom and duckweed problem and suggested alternate fertilizing methods
- Although the impoundment had a vegetated edge around most of the pond, native vegetation was expanded which helped reduce the nutrients impact as well as discourage the presence of geese, which also likely contributed to water quality concerns
- V3 removed the existing dam to re-establish a flowing channel through the project area and plant the current impoundment area with native and wetland vegetation (outside the new stream corridor)





2013

# WEST BRANCH FOREST PRESERVE WETLAND, FEN & RIVER RESTORATION

CLIENT: DUPAGE COUNTY DEPARTMENT OF STORMWATER MANAGEMENT

## V3 SERVICES

- Prime Contractor Project Delivery
- Value Engineering & Alternative Methods Study
- Hydraulic Modeling
- IDNR, USACE, KDSW & County Permitting
- Invasive Species & Woody Debris Clearing
- River Diversion Channel Design & Construction
- Sheet Pile Installation
- Shoreline Stabilization (root wad, boulder, cobble, etc.)
- Native Area Planting
- Wetland, Emergent & Upland Seeding
- Native area Maintenance & Monitoring
- Construction Layout & As-Built Record Drawings

## PROJECT DETAILS

- Location: DuPage County, Illinois
- Project Value: \$8,400,000



- This multi-year project involved the restoration of a 350-acre preserve. It included a one-mile section of the West Branch of the DuPage River, 150-acres of wetlands, a 34-acre fen and 125-acres of prairie
- Project goals included improving stormwater management, enhancing aquatic and terrestrial habitat and replacing invasive species with native communities
- The river restoration posed a daunting challenge, requiring a solution that involved diverting the existing river while accommodating 100-year storm event volumes
- V3 restored the river in phases, building three 40-foot-wide by 20-foot-deep lined diversion channels along the length of the river
- The material excavated for the channels were stockpiled out of the floodplain prior to being placed back in the channels and restored
- River enhancements included placing 3,500 linear feet of root wads and 5,000 boulders along the shoreline and river bed to address erosion issues and stabilize the banks
- Strategic areas of the site were re-graded and structural berms constructed to enhance wetland hydrology
- V3 installed 150,000 native plants and will seed more than 200 acres with native plants
- V3 is conducting three years of ecological maintenance and monitoring
- In addition to the County, the Forest Preserve District of DuPage County also directed work related to the enhancement



2014

# DEAD DOG CREEK RESTORATION PHASE II

CLIENT: LAKE COUNTY STORMWATER MANAGEMENT COMMISSION

## V3 SERVICES

- Chemical & Mechanical Weed Control
- Construction Layout Services
- Earthwork
- Native Plant Installation
- Native Seeding
- Native Shoreline Stabilization
- Post-Construction As-Built Surveys
- Stone Shoreline Stabilization
- Tree Clearing



## PROJECT DETAILS

- Location: Winthrop Harbor, Illinois
  - V3 was Prime Contractor
  - Project Value: \$650,000
  - Year Completed: 2014
- Dead Dog Creek is a small tributary to Lake Michigan that drains approximately three square miles of land in northeastern Illinois and southeastern Wisconsin. This section of Dead Dog Creek is located directly upstream from the Illinois Beach State Park Nature Preserve where there are many high quality vegetated communities which need to be protected from sediment deposits
  - The project included restoration of 2875 linear feet of Dead Dog Creek located in Winthrop Harbor, Illinois
  - The scope of work included 17 rock riffles, five rock points, 2,345 linear feet rock toe, rock step pool, 300 linear feet vegetated geogrid lifts, 2,640 linear feet reshaping slopes, excess material excavation, 11,500 square yards of native seed and erosion control blanket and 12,375 native plugs
  - Two years of maintenance and management of the native seed and plugs is included in the project
  - This project was closely monitored by the Lake County Stormwater Management team to prevent any sediment from our construction activities to leave the work area. V3 successfully managed the erosion control of the work zone and allowed no additional sediment beyond our construction limits



2015

# THORNE CREEK STREAMBANK STABILIZATION

CLIENT: JOSEPH J. HENDERSON & SON INC.

## V3 SERVICES

- Earthwork
- Erosion Control Installations
- Gabion Basket Shoreline Stabilization
- Native Seeding
- Native Shoreline Stabilization
- Stone Shoreline Stabilization
- Tree Clearing

## PROJECT DETAILS

- Location: Joliet, Illinois
- V3 was Subcontractor
- Project Value: \$190,000
- Year Completed: 2015



- The intent of this project was to prevent further erosion of the streambank along 220 linear feet of Thorne Creek located in Joliet, Illinois
- Scope of work included: installation of 192 linear feet of rock toe; 50 linear feet of bluff stabilization which included Gabion Baskets and soil bag stabilization; pipe protection cap which included Gabion Baskets and grouted rip rap; grade control riffle upstream of streambank stabilization improvements; and installation of native seed, erosion control blanket and hydromulch
- Overhead power lines were located within the work zone so the crew had to execute the work in a way to be safe under these conditions





2016

# TINLEY CREEK STREAMBANK STABILIZATION

CLIENT: INDUSTRIA & METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

## V3 SERVICES

- Earthwork
- Erosion Control Installations
- Gabion Basket Shoreline Stabilization
- Management, Monitoring & Reporting
- Stone Shoreline Stabilization
- Storm Sewer Installation
- Watermain Installation

## PROJECT DETAILS

- Location: Crestwood, Illinois
- Construction Cost: \$3.5M



- V3 Companies and Industria is partnered to complete the this flood control/ streambank stabilization project on Tinley Creek for the Metropolitan Water Reclamation District of Greater Chicago
- Approximately 2,600 linear feet of Tinley Creek will be improved with three distinct stabilization styles:
  - Area one will include extensive widening of the existing creek corridor creating bankfull benches that will be planted with native trees, shrubs and plantings. Area one will also include the installation of nine pool and riffle structures
  - Area two will involve resloping of the creek banks and the subsequent armoring of the banks with approximately 2,000 ton of RR-5 Rip Rap; native trees, shrubs and seed will be installed on the banks above the rip rap
  - Area three will involve the armoring of the banks with approximately 1,200 linear feet of nine-foot-tall Gabion basket walls
- Work commenced in December 2015 and is anticipated to continue through the third quarter of 2016





# WALLY LEVERNIER

## Project Manager & Senior Ecologist

### YEARS OF EXPERIENCE

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With V3: 14  
Other: 2

### EDUCATION

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Bachelor of Arts  
Biology  
Augustana College

### CERTIFICATIONS

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Certificate of Training in  
Corp Wetland Delineation  
Manual, Institute for  
Wetland and Environmental  
Education and Research,  
Inc. (2006)

Basic Wildland Certification:  
I-100, S-130, S-190 and L-  
180 (2006)

Intermediate Wildland Fire  
Behavior S-290 (2009)

Illinois Applicator Pesticide  
License (2003-present)

Illinois Certified Prescribed  
Burn Manager (2010)  
#10-082

### CONTINUING EDUCATION

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Dr. Mohlenbrock Wetland  
Plant Identification Course  
(2012, 2013)

Mr. Levernier is a Project Manager and Ecologist in V3's Ecological Restoration Group. He is responsible for field management of many of V3's natural resource mitigation and restoration projects. Wally conducts and supervises ecological management activities including native planting and seeding, selective woodland thinning, and herbicide application. He also serves as a Field Ecologist related to stream studies (including the collection of chemical, physical and biological data), endangered species surveys and construction monitoring. Mr. Levernier also serves as V3's prescribed burn coordinator during burn seasons.

### NOTEWORTHY PROJECT EXPERIENCE

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**West Branch Forest Preserve, DuPage County Department of Stormwater Management, DuPage County, Illinois** – Senior Ecologist for this multi-year project involving the restoration of a 350-acre preserve. It includes a one-mile section of the West Branch of the DuPage River, 150-acres of wetlands, a 34-acre fen, a 3.5-acre savanna, 61-acres of mesic prairie and approximately 75-acres of additional maintenance. Project goals included improving stormwater management, enhancing aquatic and terrestrial habitat and replacing invasive species with native communities. All plant communities received selective and non-selective mechanical tree and shrub clearing to remove invasive species. Portion of the fen were cleared using hand crews due to potential soil compaction. All restored areas were seeded with native species that have a seed source within 100 miles. In addition, V3 installed 150,000 native plants in wetland areas and along the river corridor. A three-year maintenance and monitoring period is currently being conducted by V3 staff.

**Isolated Phragmites & RCG Control at Illinois Beach State Park, Lake County Forest Preserves, Zion, Illinois** – Project Manager for this invasive species control project for the 4,160-acre state park. Portions the project area include; State Nature Preserves; high quality pannes, sedge meadows and emergent marshes; and many species of rare plant and animal species. The goal for this project is to reduce the dominance of reed canary grass and phragmites to allow high quality communities to flourish.

**Kettle Woods Selective Brush Removal, Forest Preserve District of DuPage County, Darien, Illinois** – Project Manager of this 66-acre selective clearing in Waterfall Glen Forest Preserve. The goal for this project was to reduce the density of non-native trees and shrubs to aid in the restoration of the natural communities in the project area. V3 was responsible for identification of target species, cutting and applying the appropriate herbicide, removal of the remaining debris and re-sprout control the following growing season.

**Fish Lake Conservancy District, Northwater Consulting, LaPorte County, Indiana** – Senior Ecologist this watershed diagnostic study. Field investigation surveys were conducted by V3 to evaluate habitat, biological community and water chemistry characteristic of the watershed. Habitat was evaluated using IDEM's qualitative habitat evaluation index (QHEI) assessment method. Macroinvertebrate communities were sampled using the USEPA's rapid bioassessment protocol for use in wadeable streams and rivers. Water quality analysis was measured in the field using V3's water quality instruments and samples analyzed at a laboratory.



# WALLY LEVERNIER

## Project Manager & Senior Ecologist

**Hadley Valley West Preserve Wetland Mitigation, Forest Preserve District of Will County & IDOT, New Lenox, Illinois** – Senior Ecologist for this 300-acre restoration project. Mr. Levernier worked on all phases of the restoration project, including seeding, invasive species management, prescribed burning, herbicide applications, monitoring and reporting. Responsible for managing budgets and schedules, meeting contract requirements and managing subcontractors and field crews. All performance standards were met at the end of the 5 year monitoring and management period and the project has received sign-off from the USACE for successful wetland mitigation.

**Hadley Valley Central Forest Preserve Wetland Mitigation, Forest Preserve District of Will County, New Lenox, Illinois** – Senior Ecologist for this 180-acre wetland mitigation and restoration project. This project included native prairie and wetland seeding, installation of 180,000 wetland plugs, installation of native trees and shrubs, invasive species management, prescribed burning and ecological monitoring and reporting. Responsible for managing budgets and schedules, meeting contract requirements and managing subcontractors and field crews. Approximately one half mile of stream was re-meandered. Emergent, sedge meadow, wet prairie, prairie and savanna communities were restored. All performance standards were met at the end of the five year monitoring and management period and the project has received sign-off from the USACE for successful wetland mitigation.

**Messenger Woods State Nature Preserve Wetland Mitigation, Openlands, New Lenox, Illinois** – Senior Ecologist for this 90-acre wetland mitigation and restoration project. Site management included native prairie and wetland seeding, installation of 80,000 wetland plugs, installation of native trees and shrubs, invasive species management, prescribed burning, monitoring and reporting. Responsible for managing budgets and schedules, meeting contract requirement, managing subcontractors and field crews. Emergent, sedge meadow, wet prairie, prairie and savanna communities were restored. All performance standards were met at the end of the five year monitoring and management period and the project has received sign-off from the USACE for successful wetland mitigation.

**McLean Boulevard Fen Nature Preserve, Forest Preserve District of Kane County, Elgin, Illinois** – Project Manager for the ecological management of this nine-acre fen. Selective herbicide applications were conducted to reduce reed canary grass and common reed. Selective clearing included removing common buckthorn and box elder that were encroaching on seeps. Seed was collected on site and redistributed in cleared areas so no new genotypes were introduced in the fen.

**Anderson River Watershed Diagnostic Study, Perry, Spencer, Dubois and Crawford Counties, Indiana** – Lead field ecologist for this 164,000 acre watershed diagnostic study. Performed bioassessments using the USEPA's Rapid Bioassessment Protocol II and III. Evaluated streams using the Ohio EPA's Qualitative Habitat Evaluation Index. Low volume flow and high volume flow chemical analysis of water quality was conducted to determine the effects that field run-off have on the river system. A late summer macroinvertebrate community analysis and survey of riparian habitat were also conducted. Identified all macroinvertebrate specimens for this survey. A statistical analysis was conducted to show the relationship between physical, chemical and habitat factors compared to the biological quality.

**Barr Creek Post Construction Monitoring, Vanderburgh County, Indiana** – The Vanderburgh County Soil and Water Conservation District and the Indiana Department of Natural Resources retained V3 to perform post-construction monitoring study. Mr. Levernier is the field ecologist for this project. The study includes an analysis of historical trends in land use and how it corresponds to water quality changes, an evaluation of land and water conservation practices. A spring and fall analysis of water chemistry, analysis of benthic macroinvertebrate communities, and an evaluation of habitat are being conducted at this site. A statistical analysis was conducted to show the relationship between physical, chemical and habitat factors as they compare to biological quality.

**Duck Creek Watershed Diagnostic Study, Franklin County, Indiana** – The Franklin County Soil and Water Conservation District and the Indiana Department of Natural Resources retained V3 to perform water quality analysis. This study included an analysis of current and historical trends in land use and how it corresponds to water quality changes. An evaluation of land and water conservation practices was also conducted. An analysis of macroinvertebrates communities and an evaluation of habitat were conducted at six locations during the spring. Water chemistry was



# WALLY LEVERNIER

## Project Manager & Senior Ecologist

conducted during base flow and high flow. An analysis was done to show the relationship between physical, chemical, and biological elements of the creek. With the data that was collected, recommendations were given to improve water quality and habitat in areas of the watershed.

**Lost River Water Quality Analysis, Orange County, Indiana** – The Orange County Soil and Water Conservation District and the Indiana Department of Natural Resources retained V3 to perform water quality analysis. Lost River is a karst river system that included a sampling station in Tolliver Cavern that required spelunking. Study tasks include an analysis of historic trends in land use as it relates to water quality; an evaluation of current and past land and water conservation practices. Low volume flow and high volume flow chemical analysis of water quality are taken to see the effects that field run-off has on the river system. A late summer macroinvertebrate community analysis and survey of riparian habitat will also be conducted. A statistical analysis was conducted to show the relationship between physical, chemical, and habitat factors compared to the biological quality. Mr. Levernier is the field ecologist for this study (2004).

**Prescribed Burn Management** – V3's prescribed burn coordinator during burn season. This includes coordinating burn permits with local and regional agencies and the Illinois Environmental Protection Agency, scheduling burns factoring in weather conditions to safely and effectively conduct burns and leading prescribed burns. Prescribed burns are conducted in marshes, sedge meadows, prairies and savanna ecosystems in rural, urban and suburban settings throughout the Chicagoland area and range in size from less than one acre to 300 acres.

**Endangered Species Surveys** – Conducted biological and habitat surveys for the federally endangered Indiana Bat (*Myotis sodalis*) at three sites using mist netting to capture bats and participating in tree surveys to locate possible habitat for Indiana Bats. Participated in biological surveys for the state threatened Iowa Darter (*Etheostoma exile*) and Blackchin Shiner (*Notropis heterodon*) surveys at two sites using minnow traps, seining and backpack electrofishing. Has conducted biological or habitat surveys at three sites for the state threatened Blanding's Turtle (*Emydoidea blandingii*). Used road cruising and squareframe mesh turtle trap-sets to try and locate a Blanding's Turtle.

**Aquatic Plant Surveys** – Participated in the aquatic plant surveys for various lakes in Indiana. Followed protocols provided in the aquatic plant management plan that were established by the Indiana Department of Natural Resources Lake and River Enhancement Program. Found Indiana State Endangered Northeastern bladderwort (*Utricularia resupinata*).

### Bat Surveys

**Dutch Creek Estates Lot 5&6, Fox Development Corporation, Johnsburg, Illinois** - A habitat survey was conducted in order to determine how favorable habitat was for Indiana bats (*Myotis sodalis*). The survey took into account surrounding land use, canopy cover, understory development, and also located potential roost trees.

**Winn Property (1,000 Oaks), KLM Builders, Spring Grove, Illinois** - A habitat survey was conducted in order to determine how favorable habitat was for Indiana bats (*Myotis sodalis*). The survey took into account surrounding land use, canopy cover, understory development, and also located potential roost trees.

**Dalitsch Property, Lake Forest Land Development, Inc., Lake Forest, Illinois** - Biological and habitat surveys for the federally endangered Indiana bat (*Myotis sodalis*) were conducted. Biological surveys consisted of conducting mist netting surveys to capture and identify bat species present in the project area. Habitat surveys were conducted in order to determine how favorable habitat was for Indiana bats. The survey took into account surrounding land use, canopy cover, understory development, and also located potential roost trees.

**Vermillion Rise Mega Park Wetland Mitigation Bank, Newport Chemical Depot Reuse Authority & Indiana Department of Natural Resources, Newport, Indiana** – Habitat Conservation Plan for Indiana and northern long-eared bats, which is creating and restoring bat habitat while taking into account the roosting and foraging preference of each species and balancing that with current and future surrounding land use.



**REQUEST FOR WAIVING BID PROCEDURE**

We request the City Council to waive the bid procedure and accept the quotation (requiring two-thirds City Council vote) submitted by:

Geneva Construction Company  
PO Box 998  
Aurora, IL 60507

For the purchase of: Supplemental Concrete Restoration Work

At a combined total cost not to exceed: \$60,000.00

Geneva Construction Company was the low bidder for the 2016 South Tyler Road Rehabilitation Program and has agreed to hold their pricing for this project.

Other Quotations Received: None

Date: 07/25/16

Requested by: \_\_\_\_\_

Department Director: \_\_\_\_\_

Purchasing Manager: \_\_\_\_\_

Committee Chairman: \_\_\_\_\_

**THIS REQUEST FORM MUST BE SIGNED BY ALL PARTIES PRIOR TO REQUESTING COMMITTEE APPROVAL FOR WAIVING OF THE BID PROCEDURE. REQUESTS FORWARDED DIRECTLY TO THE CITY COUNCIL (AND BYPASSING COMMITTEE) MUST BE SIGNED BY ALL PARTIES PRIOR TO REQUESTING CITY COUNCIL APPROVAL. SUCH REQUESTS ARE TO BE OF AN EMERGENCY NATURE WHERE TIME IS OF THE ESSENCE.**



South Tyler Road Rehabilitation  
Bid Opening - April 8, 2016

Item No.	Items	Unit	Geneva Construction Company	
			Unit Price	
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	\$	100.00
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	\$	23.00
20400800	FURNISHED EXCAVATION	CU YD	\$	40.00
20800150	TRENCH BACKFILL	CU YD	\$	50.00
21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	\$	1.00
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	\$	4.40
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	\$	2.25
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	\$	2.25
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	\$	2.25
25200110	SODDING, SALT TOLERANT	SQ YD	\$	6.00
25200200	SUPPLEMENTAL WATERING	UNIT	\$	1.00
28000510	INLET FILTERS	EACH	\$	100.00
30300001	AGGREGATE SUBGRADE IMPROVEMENT	CU YD	\$	29.00
30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"	SQ YD	\$	11.00
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	\$	0.01
40600625	LEVELING BINDER (MACHINE METHOD), N50	TON	\$	60.00
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	\$	5.00
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	\$	53.00
40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	\$	60.00
42300200	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6 INCH	SQ YD	\$	55.00
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	\$	5.75
42400800	DETECTABLE WARNINGS	SQ FT	\$	18.00
44000100	PAVEMENT REMOVAL	SQ YD	\$	5.00
44000159	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"	SQ YD	\$	3.00
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	\$	6.65
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	\$	4.30
44000600	SIDEWALK REMOVAL	SQ FT	\$	1.10
44201717	CLASS D PATCHES, TYPE II, 6 INCH	SQ YD	\$	40.00
44201721	CLASS D PATCHES, TYPE III, 6 INCH	SQ YD	\$	40.00
44300100	AREA REFLECTIVE CRACK CONTROL TREATMENT	SQ YD	\$	1.26
550A0340	STORM SEWERS, CLASS A, TYPE 2 12"	FOOT	\$	50.00
60108104	PIPE UNDERDRAINS, TYPE 1, 4"	FOOT	\$	30.00
60207915	CATCH BASINS, TYPE C, TYPE 11V FRAME AND GRATE	EACH	\$	3,200.00
60236825	INLETS, TYPE A, TYPE 11V FRAME AND GRATE	EACH	\$	2,200.00
60251520	CATCH BASINS TO BE ADJUSTED WITH NEW TYPE 11V FRAME AND GRATE	EACH	\$	715.00
60256700	MANHOLES TO BE ADJUSTED WITH NEW TYPE 11V FRAME AND GRATE	EACH	\$	715.00
60261320	INLETS TO BE ADJUSTED WITH NEW TYPE 11V FRAME AND GRATE	EACH	\$	715.00
60500050	REMOVING CATCH BASINS	EACH	\$	150.00
60500060	REMOVING INLETS	EACH	\$	100.00
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	\$	32.00
67100100	MOBILIZATION	LSUM	\$	20,000.00
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	\$	800.00
78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	\$	1.75
78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	\$	6.25
78300100	PAVEMENT MARKING REMOVAL	SQ FT	\$	0.75
X0327611	REMOVE AND REINSTALL BRICK PAVER	SQ FT	\$	10.00
X6061610	COMBINATION CONCRETE CURB AND GUTTER, TYPE B (MODIFIED)	FOOT	\$	23.00
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	LSUM	\$	20,000.00
Z0013798	CONSTRUCTION LAYOUT	LSUM	\$	2,500.00
Z0017400	DRAINAGE & UTILITY STRUCTURES TO BE ADJUSTED	EACH	\$	420.00
	84.12 COMB. CONCRETE CURB & GUTTER (SPECIAL)	FOOT	\$	13.40
	86.12 COMB. CONCRETE CURB & GUTTER (SPECIAL)	FOOT	\$	22.00
	HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 3 INCH	SQ YD	\$	19.00



ST. CHARLES  
SINCE 1834

## AGENDA ITEM EXECUTIVE SUMMARY

Title:	Recommendation to Approve Street and Parking Lot Closures and Amplification for the 2016 Scarecrow Festival
Presenter:	Chief Keegan

*Please check appropriate box:*

Government Operations	<input checked="" type="checkbox"/>	Government Services 07.25.16
Planning & Development	<input type="checkbox"/>	City Council
Public Hearing	<input type="checkbox"/>	

Estimated Cost:	Police: \$13,062.50 Fire & EMA: \$2,152.00 PW: \$13,486.60 <b>Total: \$28,691.10</b>	Budgeted:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	
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If NO, please explain how item will be funded:

Event coordinator is responsible for 100% reimbursement of all City services utilized during the Scarecrow Festival.

**Executive Summary:**

This special event application was submitted on May 17, 2016. The special event committee met on June 30<sup>th</sup> to discuss the event with members of the St. Charles Convention & Visitors Bureau and Ravenswood Events.

The 2016 Scarecrow Festival will be held on October 7-9, 2016. The event continues to be sponsored by the St. Charles Convention and Visitors Bureau, with the coordination being handled through Ravenswood Event Services. Both have made application through the special events process and met with the City's special events committee.

Attached are the requested day/dates for parking lot and street closures. In addition, the Park District is requesting temporary "no parking by police order" signage to be installed from Thursday thru Sunday along the following routes:

- Second Avenue between Park Avenue and North Avenue;
- Second Avenue between North Avenue and Iroquois Avenue;
- North Avenue between Second Avenue and Fifth Avenue.

Event coordinators are also requesting permission to use directional signage on the public parkway and use of sound amplification during the event. The Police Department requests authorization to modify the planned use area where it is operationally necessary.

**Attachments:** *(please list)*

\* Property Layout Maps for Scarecrow Festival (2) \* Street Closure Request

**Recommendation / Suggested Action** *(briefly explain):*

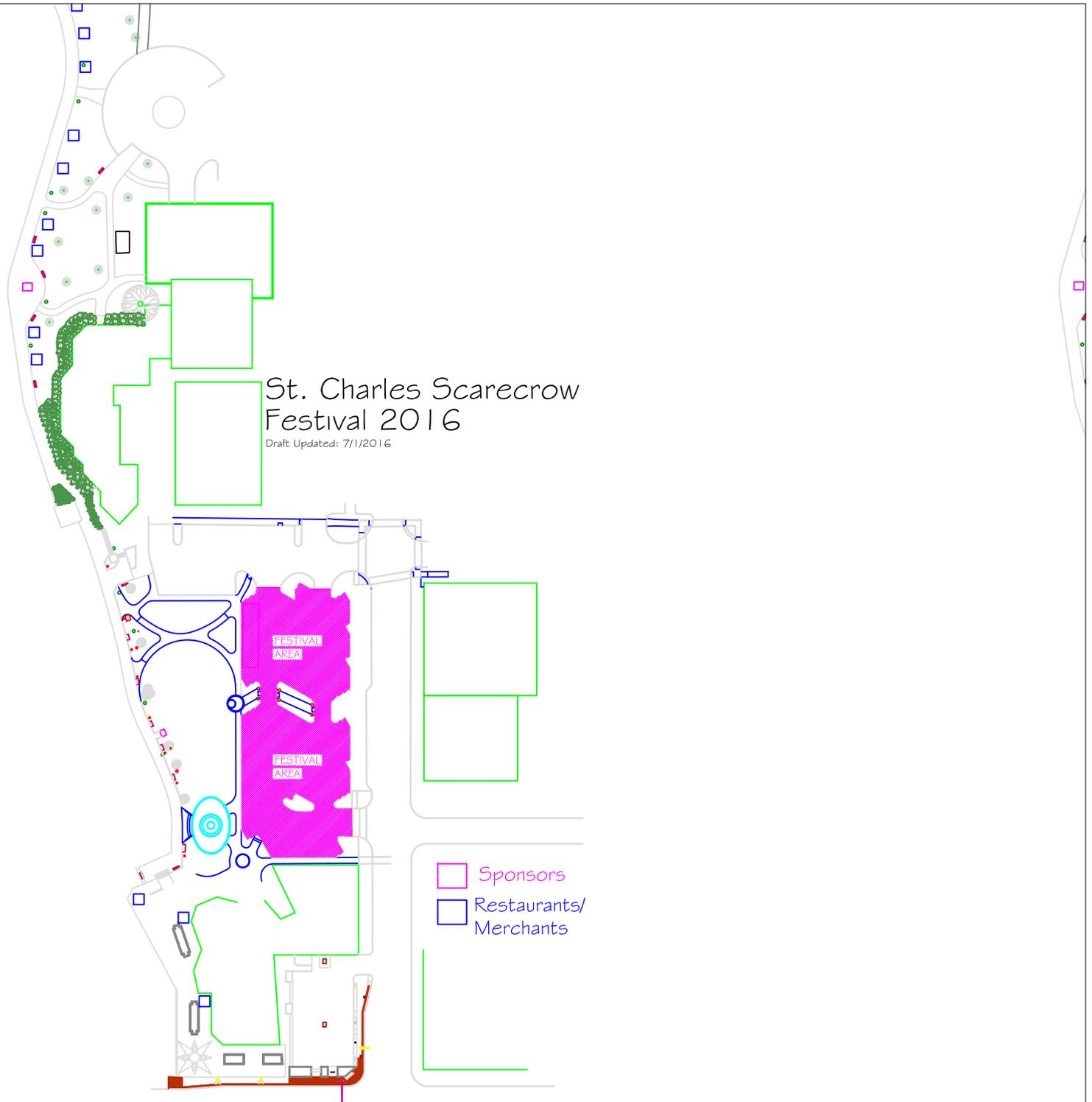
Recommendation to approve street and parking lot closures and amplification for the 2016 Scarecrow Festival.

*For office use only:*

*Agenda Item Number: 5.a*

# St. Charles Scarecrow Festival 2016

Draft Updated: 7/1/2016



# St. Charles Scarecrow Festival 2016

Draft Updated: 7/1/2016

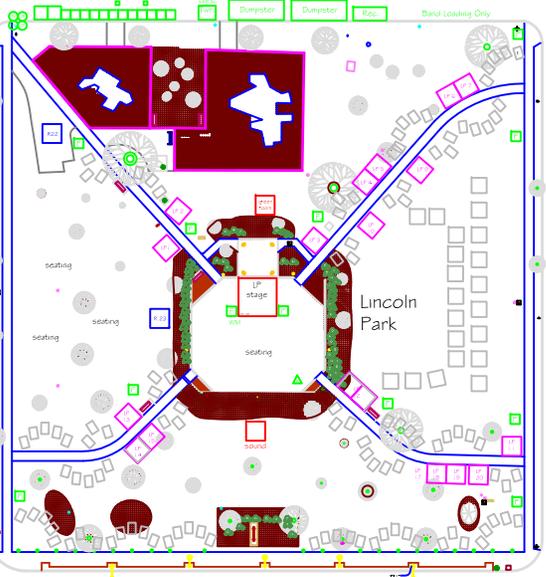
- Sponsors
- Restaurants/Merchants
- Toilets
- Misc Carnival
- Scarecrows

VFW Lot

Carnival

CEDAR ST

CEDAR ST



Lincoln Park

Filling Station Lot

W. MAIN ST (RT 64)

N. 5TH ST

N. 4TH ST

N. 3rd ST

**Street Closings, Parking Lot & Designated Handicapped Parking Requests  
St. Charles Scarecrow Fest  
October 7-9, 2016 (including set-up October 5 & 6, 2016)**

**Street Closing, Temporary One-Way, Handicapped Parking Requests:**

***East of Fox River***

1. Handicapped Parking: First Avenue on-street Parking west side designated Handicap Parking Only: Friday, Saturday, and Sunday from 6am to 6pm.
2. Parking: First Avenue on-street parking east side (two spaces) along Armand's & Warehouse Antiques designated Handicap Parking: Friday 6 am to Sunday 6pm. (Signs need to be posted on Thursday).
3. The two 30 minute parking spaces at 10 State Avenue in front of Door #1 designated as "POLICE RELATED Business Parking Only" from Fri at 6am through Sun at 6pm.
4. No Parking on 2<sup>nd</sup> Ave between State Ave and Cedar Ave (Trolley Route and stops)
5. No Parking on Cedar Ave between Riverside and 2<sup>nd</sup> Ave (Trolley Route and stops)
6. No Parking on State Ave between Riverside and 2<sup>nd</sup> Ave (Trolley Route and Stops)

**Parking Lot Closing Requests:**

***East of Fox River***

1. Municipal Lot adjacent to Municipal Building, Wednesday 6am to Sun at 11pm. (Dumpster to be removed Monday before 10am).
2. Municipal Lot – checkerboard lot at the corner of Main & Riverside – saturday only

**Street Closing, Temporary One-Way, Handicapped Parking Requests:**

***West of Fox River***

1. Closure: North Third St. between Main & State Streets from Thurs 5am to Sun 11pm (police, fire & delivery vehicles to be allowed access each night between 6pm-6am). East side will be maintained as a fire lane.
2. Closure: North Fourth St. between Main & Cedar Streets from Thurs 5am to Sun 11pm. East side will be maintained as a fire lane.
3. Closure: North Fifth St. between Main & Cedar Streets from Thurs 5am to Sun 11pm. West side will be maintained as a fire lane.
4. Closure: Cedar St. between 4<sup>th</sup> & 5<sup>th</sup> St Thu 5am to Sun at 11pm. (Soft closure thu, fri, sun. Hard closure on Saturday).
5. Handicapped Parking: North Fifth St between Cedar and State Streets east side only handicapped parking: Fri at 6am to Sun at 6pm. (Signs need to be posted on Thursday.)
6. Handicapped Parking: North Fourth Street between Cedar and State Streets west side only from Friday at 6am to Sunday at 6pm. (Signs need to be posted on Thursday).
7. Handicapped Parking: East side of 3<sup>rd</sup> St. between Cedar St. and Rt. 64 Fri 6am to Sun 10pm.
8. 6<sup>th</sup> Street at State Street... temporary NO parking on N 6<sup>th</sup> Street east side near State Street to allow radius turn for trolley.
9. Cedar Street at 3<sup>rd</sup> street, north side. Temporary NO parking in first three parking spots from corner to VFW lot entrance – for food storage trucks.

**Parking Lot Closing Requests:**

***West of Fox River***

1. River Plaza Parking lot "G" (west side of N. Second Street [Route 31] between Cedar and State Streets on Wed 6am to Sunday 10pm for Windy City Carnival.
2. Old VFW lot Wednesday at 6am to Monday at 12pm.
3. Old St. Charles Court lot on north Third St., west side, between west Main and Cedar Streets, Wednesday at 6am to Sun at 11pm.

**Additional Requests:**

1. All parking spaces on the south side of Cedar Street between Fourth and Fifth Streets to place dumpsters, toilets, and limited-time entertainment parking (with festival permit only). **Wednesday** 6am to Sunday 10pm.
2. Cedar Street at 3<sup>rd</sup> street, north side. Temporary NO parking in first three parking spots from corner to VFW lot entrance – for food storage trucks.
3. Municipal Lot (north west end, per map). Temporary NO parking in first few parking spots – to accommodate dumpster and petting zoo vehicle.
4. Permission to use grassy areas in new Municipal lot (in cooperation with public works)
5. Permission to use land along the Freedom Walk from Main Street bridge north to Pottawatomie Park for vendors.
6. Permission to use walkway/courtyard to the south and west of the Municipal Center for children's activities and select vendors.
7. Permission to place tents on Fourth Street between Main and Cedar Streets, west side.
8. Permission to place tents on Fifth Street between Main and Cedar Streets, east side – flush against the park.
9. Permission to place activities on Cedar street, between 4<sup>th</sup> and 5<sup>th</sup>. Activity will change daily, so street will be clear overnight.

**Scarecrow Festival 2016: October 7-9 (open to public dates)**

Lincoln Park & VFW tent set up (south side of park & gazebo) Wednesday and Thursday, October 5 & 6: 8am-10pm. As always, due consideration will be a priority for students of St. Patrick.

**Event Days**

Friday and Saturday October 7 and 8: 10am-6pm; (Lincoln Park to remain open until 9pm)  
Sunday, October 9: 10am – 5pm.

**Trolleys**

Two trolleys will run Friday, Saturday, and Sunday

**Shuttles (School buses)**

Will run Friday, Saturday and Sunday. West of the river from Charlestown Mall Shopping Center to First Street. East of the river from Haines and Thompson Middle Schools to St. Patrick's Church.