

**AGENDA
CITY OF ST. CHARLES, IL
GOVERNMENT SERVICES COMMITTEE MEETING
RITA PAYLEITNER, CHAIRMAN**

**MONDAY, JANUARY 28, 2019, 7:00 P.M
CITY COUNCIL CHAMBERS
2 E. MAIN STREET, ST. CHARLES, IL 60174**

1. CALL TO ORDER

2. ROLL CALL

3. ADMINISTRATIVE

- a. Electric Reliability Report – Information only.
- b. Natural Resources Commission Minutes – Information only.
- c. Phosphorus Removal and Digester Improvements Project Update – Information only.

4. OMNIBUS VOTE

Items with an asterisk (*) are considered to be routine matters and will be enacted by one motion. There will be no separate discussion on these items unless a council member/citizen so requests, in which event the item will be removed from the consent agenda and considered in normal sequence on the agenda.

5. POLICE DEPARTMENT

- *a. Recommendation to approve Street and Parking Lot Closures for the 2019 Sly Fox Half Marathon.

6. PUBLIC WORKS DEPARTMENT

- a. Consideration of Agreement for Deferred Electric Utility Project Costs for the Crystal Lofts Condominium Development.
- b. Recommendation to approve the 2018 Water Utility Master Plan.
- c. Recommendation to Approve Phosphorus Removal and Digester Improvements Project Change Order No. 6 to IHC.

- d. Recommendation to Update Title 8 “Health and Safety” Chapter 8.24 “Garbage and Refuse”, Section 8.24.030 “Collection Services” of the City of St. Charles City Code.
- e. Recommendation to approve Small Cell Wireless Facilities Design Standards.
- f. Recommendation to approve Wording Change to City Code “Small Cell Wireless Applications” Section 13.24.021 (B).
- g. Recommendation to award Purchase Order for Substation Transformer Load Tap Changer Maintenance to ABB, Inc.

7. EXECUTIVE SESSION

- Personnel – 5 ILCS 120/2(c)(1)
- Pending Litigation – 5 ILCS 120/2(c)(11)
- Probable or Imminent Litigation – 5 ILCS 120/2(c)(11)
- Property Acquisition – 5 ILCS 120/2(c)(5)
- Collective Bargaining – 5 ILCS 120/2(c)(2)
- Review of Executive Session Minutes – 5 ILCS 120/2(c)(21)

8. ADDITIONAL ITEMS FROM MAYOR, COUNCIL, STAFF OR CITIZENS

9. ADJOURNMENT

ADA Compliance

Any individual with a disability requesting a reasonable accommodation in order to participate in a public meeting should contact the ADA Coordinator, Jennifer McMahon, at least 48 hours in advance of the scheduled meeting. The ADA Coordinator can be reached in person at 2 East Main Street, St. Charles, IL, via telephone at 630 377 4446 or 800 526 0844 (TDD), or via e-mail at jmcmahon@stcharlesil.gov. Every effort will be made to allow for meeting participation. Notices of this meeting were posted consistent with the requirements of 5 ILCS 120/1 et seq. (Open Meetings Act).



AGENDA ITEM EXECUTIVE SUMMARY

Agenda Item number: 3.a

Title: Electric Reliability Report – Information Only

Presenter: Tom Bruhl

Meeting: Government Services Committee

Date: January 28, 2019

Proposed Cost: \$

Budgeted Amount: \$

Not Budgeted:

Executive Summary *(if not budgeted please explain):*

For Information Only.

Attachments *(please list):*

* November 2018 Outage Report

* November / December 2018 Streetlight Repair Report

* December 2018 Outage Report

Recommendation/Suggested Action *(briefly explain):*

For information only.

City of St. Charles
November 2018 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	11/6/2018	7:54 AM	0	CMD area bounded by the tracks to the north, Kautz to the east, southern City limits to the south, and Kirk Road to the west	513	Overhead capacitor bank cell failure	43	0	Equipment	Capacitor
2	11/25/2018	9:09 PM	0	Costco and Fire Station #3. Starting at Fairgrounds on Randall, north to Oak Street, to Woodward, to Regency Drive West, to the RR tracks, to Dean Street, to 17th Street to Main, to Randall.	611	Momentary caused by wind causing overhead phases to slap together behind Pep Boys at the corner of West Main and Randall	137	0	Weather	Wind
2	11/25/2018	9:09 PM	120	Pep Boys & TriCity Auto at Randall and Main	611	Phases slapping together blew fuse. Customer reported outage on 11/26 and we restored within 2 hours of notification.	2	240	Weather	Wind
3	11/25/2018	10:04 PM	0	Large sections of the SW quadrant + part of Reneaux Manor north of Main.	L56931	Momentary outage on ComEd line during blizzard	2896	0	ComEd	L56931
4	11/25/2018	11:51 PM	0	Area bounded by RR Tracks on the north, Fox River on the east, Main Street on the south, and 7th Street on the west.+ Main Street corridor from Cedar to Hunt Club. Persimmon south of Stonehedge.	315/316	Momentary caused by wind causing overhead phases to slap together near 1001 E. Main	1447	0	Weather	Wind
4	11/25/2018	11:51 PM	120	1001 E. Main	316	Phases slapping together blew fuse. Customer reported outage on 11/26 and we restored within 2 hours of notification.	1	120	Weather	Wind
5	11/26/2018	12:47 AM	0	Large sections of the NE and SE quadrants	L13155	Momentary outage on ComEd line during blizzard	708	0	ComEd	L13155
6	11/26/2018	1:27 AM	0	Large sections of the NE and SE quadrants	L13155	Momentary outage on ComEd line during blizzard	708	0	ComEd	L13155
7	11/26/2018	1:34 AM	0	Large sections of the NE and SE quadrants	L13155	Momentary outage on ComEd line during blizzard	708	0	ComEd	L13155
8	11/26/2018	1:57 AM	0	Large sections of the NE and SE quadrants	L13155	Momentary outage on ComEd line during blizzard. After four momentary outages, City switched these customers to L13156 via 12kV switching at Dukane Drive Sub	708	0	ComEd	L13155

City of St. Charles
November 2018 Outages

OUTAGE No.	DATE	TIME OFF	TIME ON (Min)	AREA AFFECTED	CIRCUIT No.	CAUSE/RESPONSE	NO. OF CUST.	OUTAGE MINUTES	MAJOR CATEGORY	SUB CATEGORY
9	11/26/2018	2:47 AM	0	Large sections of the NE and SE quadrants. L13156 was carrying L13155 customers due to momentaries on that line.	L13156	Momentary outage on ComEd line during blizzard	1265	0	ComEd	L13156
10	11/26/2018	2:55 AM	28	Large sections of the NE and SE quadrants. L13156 was carrying L13155 customers due to momentaries on that line.	L13156	Sustained outage on ComEd line during blizzard. Switched all customers to L13154.	1265	35,420	ComEd	L13156
11	11/26/2018	5:09 AM	45	Large sections of the NW quadrant + the residential area in the SW quadrant bounded by Main on the North, 10th Street on the East, Prairie Street on the South, and Randall Road on the West.	L57736	Three momentary outages on ComEd line during blizzard and then lock out to sustained outage. City performed switching to L56931.	2512	113,040	ComEd	L57736
						Total of Interrupted Minutes		148,820		
						Total SAIDI*			9.494	
						Total of ComEd Interrupted Minutes		148,460		
						Total SAIDI without ComEd			0.023	
						*System Average Interruption Duration Index (SAIDI)				

**City of St. Charles
December 2018 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	12/1/2018	10:13 AM	60	Bay 3, Sub 3, SE & SW quadrants, PD, City Hall, Q Center, N. Rt. 25, Illinois Ave., Indiana Ave., Walnut Ave.	L7962	No power. Loss of ComEd 7962. Static cone down on Sterns, locked out (2) 3Ø lines.	2327	139,620	ComEd	L7962
1	12/1/2018	10:13 AM	77	North High School, The Reserve, Red Gate.	L7962	No power. Loss of ComEd 7962.	393	30,261	ComEd	L7962
2	12/2/2018	10:29 AM	91	S. 5th St. & S. 6th St.	624	Spruce tree top broken off onto primary during storm. Blown 40k lateral fuse. Removed tree and re-fused 40k.	17	1,547	Tree	Small Branch
3	12/18/2018	12:46 AM	77	LDC-2, Sub 3, Bay 3, Rt. 31, Prairie St., 1st St., Walnut Ave., Illinois, Indiana, Q-Center, City Hall, PD.	L7962	Loss of ComEd 7962. 7962 was on 57739, which locked out. City responded, Edison divorced lines, re-energized 7962 from source.	2720	209,440	ComEd	L7962
								0		
								0		
								0		
						Total of Interrupted Minutes		380,868		
						Total SAIDI*			24.298	
						Total of ComEd Interrupted Minutes		379,321		
						Total SAIDI without ComEd			0.099	
						*System Average Interruption Duration Index (SAIDI)				

Streetlight Repair Report

Expectation: Streetlights will be repaired within 10 days of notification.

Fiscal Year	Number of Lights Repaired	Average Days to Repair
2018	801	5.3

2019

Month Light Was Repaired	Number of Lights Repaired	Average Days to Repair
May	66	4.4
June	27	3.0
July	38	3.3
August	47	6.2
September	46	3.0
October	167	7.9
November	58	7.3
December	64	8.0
January		
February		
March		
April		



AGENDA ITEM EXECUTIVE SUMMARY

Agenda Item number: 3.b

Title: Natural Resources Commission Minutes – Information only

Presenter: AJ Reineking

Meeting: Government Services Committee

Date: January 28, 2019

Proposed Cost: \$

Budgeted Amount: \$

Not Budgeted:

Executive Summary *(if not budgeted please explain):*

A duty of the Natural Resources Commission is to advise and consult with the Government Services Committee. The November 8, 2018 and December 13, 2018 Natural Resources Commission meeting minutes are attached.

Attachments *(please list):*

* Natural Resources Commission Minutes – November 2018 and December 2018 meeting minutes.

Recommendation/Suggested Action *(briefly explain):*

For information only.

**MINUTES
CITY OF ST. CHARLES
NATURAL RESOURCES COMMISSION MEETING
RALPH GRATHOFF, CHAIRMAN
NOVEMBER 8, 2018**

Members Present: Chairman Ralph Grathoff, Isabella Bernat, Jon Duerr, Heather Goudreau, Lee Haggas, Ray Hauser, Pam Otto

Members Absent: Valerie Blaine, Kathy Brens, Suzi Myers, Loren Nagy, Caroline Wilfong

Others Present: AJ Reineking

Visitors Present: Chloe Fanning, William Koehl

1. Call to Order & Pledge of Allegiance

The meeting was convened by Chair. Grathoff at 7:01 p.m.

2. Introduction of Visitors, Comments and Concerns

Chloe Fanning introduced herself to all present. Ms. Fanning is a senior at St. Charles East High School. She expressed her interest in joining the Natural Resources Commission [NRC] as a student member as her time permits. Ms. Fanning previously submitted a written request to join the NRC along with her academic and volunteer information. This information was provided to the Commission in October.

Motion to nominate Ms. Fanning as a student member of the NRC. Motion by Comm. Otto, second by Comm. Hauser to nominate Ms. Fanning. Voice vote: unanimous; nays – none. Motion carried at 7:03 p.m. Chair. Grathoff welcomed Ms. Fanning to the Commission.

William Koehl of the Central Kane County League of Women Voters [LWV] reintroduced himself to all present [he also attended the October 11, 2018 NRC meeting]. Mr. Koehl discussed an October 2018 report issued by the International Panel on Climate Change [IPCC]; he would like all the environmental-related commissions in the Fox Valley to be aware of the content of the IPCC report. Mr. Koehl will forward copies of the report to City staff for e-mail distribution to the NRC.

3. Minutes Review and Approval

Motion to approve and place into the public record the minutes of the October 11, 2018 Natural Resources Commission meeting. Motion by Comm. Hauser, second by Comm. Duerr to approve the minutes. Voice vote: unanimous; nays – none. Motion carried at 7:07 p.m.

4. Old Business

A. Urban Forestry Management Plan Updates

Mr. Reineking discussed the summary of updates to the Urban Forestry Management Plan [UFMP]. A copy of the summary is attached to and made a part of these minutes. Mr. Reineking noted the most substantive updates are to the lists of Unacceptable and Acceptable Species which will require an ordinance amendment [City Code, Title 12, Chapter 12.20, Section 30.D].

B. Storm Drain Markers Draft Proposal

Chair. Grathoff distributed a draft proposal regarding the NRC's storm drain marker initiative. The proposal included several marker designs, and Chair. Grathoff asked the Commissioners to select the design they preferred. The proposal is for an initial installation of

75 storm drain markers/medallions at a cost of \$432.09. The markers should last 20 – 30 years according to the manufacturer. This initiative will be promoted on social media, and the storm drain locations will be determined by City staff based on need and visibility. Mr. Reineking stated the storm drain locations will generally be between 7th Street and 7th Avenue in the downtown area. Comm. Otto noted the importance of educating residents that the storm drains lead directly to the river, without water treatment. Based on the Commissioners preference, the storm drain marker/medallion design selected was “No Dumping Drains To River” [as represented below]. The proposal will be presented to the City’s Government Services Committee at the next scheduled meeting in January 2019.



C. Retention Ponds Original Plans for Meijer Location

Mr. Reineking reported the plans on file with the City do not include separate landscaping specifications for the Meijer site. However, the plans note shade trees, ornamental trees, evergreen trees, natural areas, planters and permanent and temporary seed mixes at the site. The Commissioners reviewed the plans in connection with the location of the new Wahlburgers restaurant scheduled to be built. Comm. Otto explained the restaurant development at this site may be an opportunity for the NRC to be involved in having stigmite plants removed and the retention pond area cleaned up. Comm. Duerr agreed that the retention pond area could be improved, but was unsure of the NRC’s role in this issue as the area is on private property.

Mr. Reineking stated that he had mentioned the NRC’s discussions on this issue to the City’s Community & Economic Development Department. The Commissioners offered their assistance as a resource for the improvement of the retention pond, and asked if Mr. Reineking could facilitate a meeting for this purpose. Mr. Reineking will speak to the City’s Development Review team to determine if there may be an opportunity for a meeting with the NRC. Mr. Reineking will follow up with Comm. Otto next week.

D. Pumpkin Collection Recap

Comm. Goudreau reported the NRC’s first annual pumpkin collection and recycling event was a success. Approximately 180 cars dropped off multiple pumpkins, including a collection from the St. Charles Underground teen center. A total of 578 pumpkins and gourds were collected and diverted from the landfill, thereby reducing methane gas, which contributes to climate change. There was great volunteer participation including Chair. Grathoff, student Comm. Bernat and other students from St. Charles schools. Signage the City created for the event also helped to make the pumpkin collection a success. A more central location may be considered for next year’s event. An article recapping the pumpkin collection will also be included in the City’s newsletter *The Den*.

5. New Business

A. Arbor Day 2019 Student Participation

Comm. Otto summarized the different ways St. Charles students have participated in prior Arbor Day celebrations, but due to curriculum changes student participation may be reduced going forward. Comm. Otto asked student Comms. Bernat and Fanning for ideas and ways to

involve students of all grades in the City's Arbor Day event. Student Comm. Fanning offered to ask her science teacher to announce the event in class and explain how students may get involved; she also suggested the choir and jazz band could also be invited to participate in Arbor Day.

6. Committee Reports

A. Education Committee

None.

B. Langum Woods Clean-Up Committee

Comm. Otto explained that November through March are the best months for volunteers to participate in clean-up activities at Langum Woods. Removing non-native plants and undergrowth is important to allow sunlight to reach young Oak trees. Wildflower rescue work has also been done in Langum Woods. Comm. Otto will coordinate with City staff to determine what work needs to be done, and inform the Commissioners at the next NRC meeting.

7. Public Services Division Tree Activity Reports October 2018

Motion by Comm. Duerr to approve the Public Services Division Tree Activity Reports and place into the public record, second by Comm. Hauser. Voice vote: unanimous; nays – none. Motion carried at 7:55 p.m.

8. Additional Items

A. Commissioners

Comm. Hauser distributed summary information regarding monarch butterflies [previously discussed at the October 2018 NRC meeting]. This topic will be further discussed at the next NRC meeting in December.

Comm. Duerr thanked Mr. Koehl for attending the meeting. The NRC will review the IPCC information, which will be emailed to the Commissioners by City staff.

B. City Staff

Mr. Reineking informed the Commission Fall 2018 planting information will be provided with the November 2018 report at the December meeting.

C. Visitors

None.

9. Adjournment

Motion by Comm. Hauser to adjourn the meeting, second by Comm. Otto. Voice vote: unanimous; nays – none. Motion carried at 7:58 p.m.

**MINUTES
CITY OF ST. CHARLES
NATURAL RESOURCES COMMISSION MEETING
RALPH GRATHOFF, CHAIRMAN
DECEMBER 13, 2018**

Members Present: Chairman Ralph Grathoff, Isabella Bernat, Valerie Blaine, Kathy Brens, Heather Goudreau, Lee Haggas, Ray Hauser, Suzi Myers, Loren Nagy, Pam Otto

Members Absent: Chloe Fanning, Caroline Wilfong

Others Present: Chris Adesso, AJ Reineking

Visitors Present: Alek Crawford, Bennett Melone

1. Call to Order & Pledge of Allegiance

The meeting was convened by Chair. Grathoff at 7:01 p.m.

2. Introduction of Visitors, Comments and Concerns

Alek Crawford and Bennett Melone, St. Charles East High School students, introduced themselves to all present. The students were in attendance at the Natural Resources Commission [NRC] meeting as part of a school project entitled *Government for a Day*.

3. Minutes Review and Approval

Motion to approve and place into the public record the minutes of the November 8, 2018 Natural Resources Commission meeting. Motion by Comm. Brens, second by Comm. Myers to approve the minutes. Voice vote: unanimous; nays – none. Motion carried at 7:03 p.m.

4. Old Business

A. Storm Drain Markers

Comm. Goudreau shared a video regarding storm drain marker installation. The NRC discussed attending the next Government Services Committee [GSC] meeting in January to present the storm drain marker proposal. Comm. Goudreau will bring a sample storm drain medallion to the GSC meeting.

B. Urban Forestry Management Plan

Mr. Reineking noted the Urban Forestry Management Plan updates will be presented at the next GSC meeting. Specifically, the updates to the acceptable and unacceptable species lists in the Plan will be presented as they require an ordinance amendment.

C. Monarch Butterflies

Comm. Hauser requested the NRC's support for a monarch butterfly initiative. Information would be posted on the Commission's social media with the objectives of having the monarch recognized as a threatened species [not endangered], providing education on this topic and promoting monarch friendly plantings by residents.

Motion to promote monarch way-stations and habitats via the NRC's social media. Motion by Comm. Brens, second by Comm. Otto to approve the minutes. Voice vote: unanimous; nays – none. Motion carried at 7:15 p.m.

5. New Business

A. Parkway Tree Removal Request

Mr. Reineking conveyed a request to the NRC from a resident at 2905 Pleasant Plains Drive. The request is for the removal of two Bradbury Pear parkway trees; the parkway tree at 2905 Pleasant Plains Drive and the neighbors' Bradbury Pear parkway tree as well. The resident feels the trees are dirty, berries from the trees fall onto the sidewalk causing it to be slippery, and this location is near a bus stop for school children. Mr. Reineking noted the tree was aggressively pruned to alleviate some of these issues. Mr. Reineking cited the intent of the City's Urban Forestry Management Plan which states the City does not remove healthy trees. However, this tree species was recently placed on the Plan's unacceptable species list.

Comm. Brens questioned the cost to the City for tree removal and replacement. Comm. Myers questioned the neighbor's preference regarding the tree. Mr. Reineking explained the City would speak to the neighbor before taking action, if any. Comm. Blaine expressed concern that this may set a precedent if this issue were to come up again. Mr. Reineking explained the City usually attempts to dissuade residents from having healthy parkway trees removed. Mr. Adesso expressed concern that a precedent would be set for the removal of existing healthy trees if they are on the Plan's current unacceptable species list, although the trees were on the acceptable species list when they were planted.

Comm. Nagy explained Bradbury Pear trees were removed from a commercial bank building site due to the berries from the trees. Staff noted any wet tree leaves in the fall could also become slippery. Comm. Nagy questioned if there were any natural areas near these trees as the berries could be carried by birds and the species could become invasive; staff and Commissioners responded in the negative. Comm. Brens questioned if there were criteria in place to justify the removal of a healthy tree; Mr. Adesso responded in the negative. Comm. Brens proposed setting criteria in the future for exceptions to the Plan's removal policy regarding healthy trees. Mr. Adesso explained the City Arborist previously received the removal request from this resident and declined to remove the tree because it is in good condition.

The NRC requested that the City Arborist re-assess the tree and report on its current health after the recent snow storm. The NRC will discuss this issue again at the January 2019 meeting.

B. IPCC Reports

Chair. Grathoff briefly summarized the content of the climate change reports issued by the Intergovernmental Panel on Climate Change [IPCC]. The reports were previously provided to the NRC by guest William Koehl as a means to raise awareness and have the Commission consider climate change as a part of its overall activities. Comm. Blaine noted the importance of this issue and how the NRC might promote awareness such as reducing fossil fuel consumption, for example. Comm. Brens stated it would make a greater difference if there was public statement issued regarding this subject. Comm. Nagy added that climate change and environmental impact could be a part of the NRC's overall decision making practices. Additionally, the NRC could offer guidance to the City with regard to its activities such as purchasing, daily operations, etc., taking the City's environmental impact and carbon footprint into consideration.

Comm. Blaine explained solar gates were installed at all forest preserve entrances which resulted in a significant reduction in staff driving. Kane County Forest Preserve District staff no longer needs to drive to each forest preserve entrance to open and close gates every morning and evening as the solar gates open and close on their own. Mr. Reineking noted

City facilities are not as geographically widespread as the Forest Preserve District's, however, Public Works has prioritized anti-idling and has a policy in place. Comm. Goudreau added community involvement and awareness are important. Comm. Otto stated she had been in contact with Trish Burns, Naturalist and Manager of Peck Farm Park in Geneva, who is also an educational partner with the Kane County Forest Preserve District and the Geneva and St. Charles Park Districts. Ms. Burns has additional resources on climate change that the NRC could use for publicity as they are not as technical as the above-referenced IPCC reports. Comm. Myers noted Ms. Burns recently led a program on the science of climate change. The program was very well attended by the general public, with standing room only, which is indicative of the level of public interest and concern regarding this this topic. Comm. Otto noted unfortunately this topic tends to be viewed as political. Comm. Goudreau suggested the NRC could host a climate change event with a speaker.

The high school student guests stated the topic of climate change has been discussed in their biology and in U.S. history classes as a pressing matter. Comm. Blaine explained there is an online site where you can measure your own carbon footprint and how to reduce it, which may be of interest to students and teachers. Student Comm. Bernat noted there is a general awareness of this issue among students, and agreed raising awareness among City workers as to how to reduce their environmental impact would be beneficial.

Mr. Adesso summarized the NRC could consider requesting the City's GSC to issue a resolution in support of climate change awareness and environmental impact reduction, thereby making a public statement for the record.

On behalf of the NRC, Chair. Grahoff thanked Mr. Koehl on the record for providing the climate change information and entered the IPCC reports into the public record. The IPCC reports are attached to and made a part of these minutes.

6. Committee Reports

A. Education Committee

None.

B. Langum Woods Clean-Up Committee

Comm. Otto will coordinate with the NRC's Student Commissioners to get a group of student volunteers together between now and March 2019.

7. Public Services Division Tree Activity Reports November 2018

Motion by Comm. Nagy to approve the Public Services Division Tree Activity Reports and place into the public record, second by Comm. Myers. Voice vote: unanimous; nays – none. Motion carried at 7:55 p.m.

8. Additional Items

A. Commissioners

- Comm. Hauser commented on a honeybee vaccine currently under development.
- Comm. Haggas shared a book written by an arborist entitled *Sprout Lands: Tending the Endless Gift of Trees*.
- Comm. Goudreau received a message on the NRC's Facebook page from a resident requesting information regarding clean-up events, volunteer planting days, a composting workshop, and pumpkin and Christmas tree collections. The Commission may consider hosting some of these suggested events [that have not already been hosted by the NRC].

- Student Comm. Bernat reported there is teacher and student interest in participating in Arbor Day 2019.
- Comm. Otto thanked the Public Works Department staff for the snow and tree clean-up work after the late November snow storm.
- Comm. Brens suggested the NRC consider not meeting during the month of December in the future. Mr. Adesso suggested the NRC could consider this at some point in late 2019 and make a motion with regarding to meeting/not meeting in December.

B. City Staff

None.

C. Visitors

None.

9. Adjournment

Motion by Comm. Myers to adjourn the meeting, second by Comm. Nagy. Voice vote: unanimous; nays – none. Motion carried at 8:05 p.m.



AGENDA ITEM EXECUTIVE SUMMARY

Agenda Item number: 3.c

Title:

Phosphorus Removal and Digester Improvements Project
Update – Information only

Presenter:

Tim Wilson

Meeting: Government Services Committee

Date: January 28, 2019

Proposed Cost: n/a

Budgeted Amount: n/a

Not Budgeted:

Executive Summary *(if not budgeted please explain):*

Information only report on the Phosphorus Removal and Digester Improvements Project. The intent is to provide the Council Committee an update on the project status.

A member of the Public Works Staff 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):*

* Information only project report

Recommendation/Suggested Action *(briefly explain):*

None

Phosphorus Removal and Digester Improvements Project

January 2019

Construction Update Report

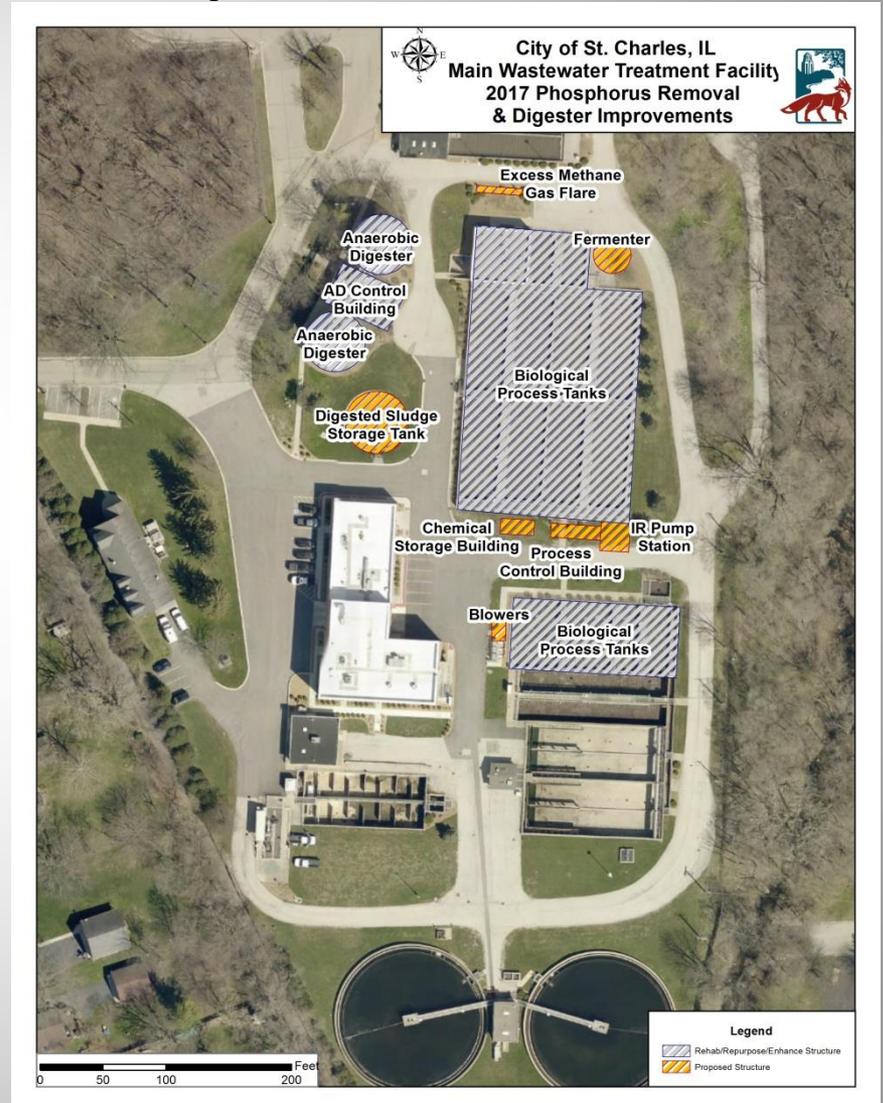
Construction Update

- Construction Contractor: IHC Construction Companies
- Project Schedule:
 - ~~Commence Construction : September 27, 2017~~
 - ~~Chemical Feed System Online : June 1, 2018~~
 - Substantial Completion : April 3, 2019
 - Final Completion : May 3, 2019
 - Pending Time Extension : **52 Days**
- Construction Contract : \$13,294,896.00
- Approved Contract Change Orders : \$ 7,954.43
- Pending Contract Change Order (#6) : \$ **107,564.70**
- Amount Billed to Date : \$10,826,150.00
- Est. Construction Percent Completed : 75 %

Construction Update

Current Construction Activity

- North Anaerobic Digester
- AD Control Building
- Digested Sludge Tank
- Fermenter
- IR Pump Station
- Chemical Storage Building
- Blowers
- Biological Aeration Tanks



Construction Update Topic #1

- North Digester Paint Coating and Steel Inspections
 - Concern:
 - The third party review of the North digester included the internal coating and steel inspections. The preliminary report was completed 10.10.2018. The report provided some recommendations on the coating replacement and steel repairs.
 - Impacts:
 - Review third party recommendation determine scope that is included in the contract and new scope work to be completed by contractor
 - Contractor will provide estimates for any changes in scope
 - Overall project schedule will be reviewed
 - Solution:
 - Contractor finished sand blasting the inside of the tank so all parties can see the needed repairs
 - After Sand blasting to determine what is included in the contract vs new scope
 - Contractor to provide time and material cost and schedule impacts
 - Council Action:
 - City Staff recommends the approval of Change order # 6 in the amount of \$107,564.70 and a 52 day contract extension.

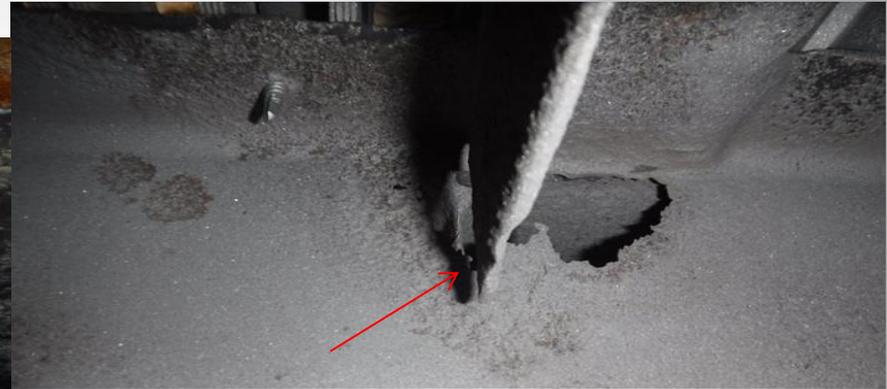
Construction Update Topic #1

- Photos of some preliminary concerns

Coating Delamination and Failure



I-Beam holes in effluent box



Piping Holes



Construction Update Topic #1

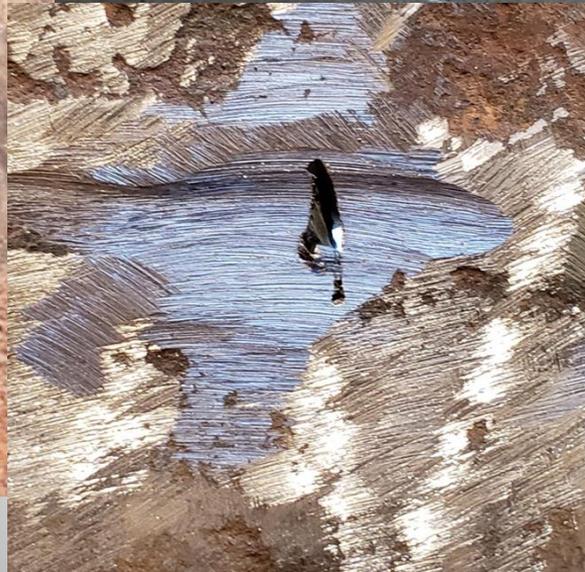
- Photos of some preliminary concerns

Deep Steel Pitting and Heavy Rust Build-up



Construction Update Topic #1

- Examples of steel pitting after paint removal
- Weld repairs are located at 60 different locations inside of the egg, with greater than 200 pit welds required



Construction Update Topic #1

- Example on how the weld repairs will be made to the north digester.



North Anaerobic Digester

Removal of the roof on the digester; Scaffolding being assembled in tank



North Anaerobic Digester

- Inside the tank after sand blasting



Digesters

- North Cradle Piping



Upper Aeration Tanks



Upper Aeration Tanks

- Setting Last Bridge



Upper Aeration Tanks

New Blower Start-ups



Upper Aeration Tanks

Installing the last baffle walls and piping



Sludge Storage Tank



Sludge Storage Tank

- Welding in the plate on floating cover



Digester Sludge Storage Tank

- Final coating and assembly



IR Pump Station

- Ball Check Valves installed



Site Page

- Phosphorus Removal & Digester Improvements Project Page-
 - <https://www.stcharlesil.gov/projects/2017-phosphorus-removal-and-digester-improvements>



AGENDA ITEM EXECUTIVE SUMMARY

Agenda Item number: *5.a

Title:

Recommendation to Approve Street and Parking Lot Closures for the 2019 Sly Fox Half Marathon

Presenter:

Chief Keegan

Meeting: Government Services Committee

Date: January 28, 2019

Proposed Cost: \$2,843.10 (PW)
 \$2,720.51 (PD)
Total:\$5,563.61

Budgeted Amount: \$

Not Budgeted:

Executive Summary *(if not budgeted please explain):*

The Sly Fox Half Marathon is requesting to host their fifth annual half marathon on April 20, 2019. Their application was submitted for consideration by the Special Events Committee on December 27, 2018.

Both street closures are requested to be closed beginning at 5:00 a.m. on April 20, 2019. The VFW parking lot and 3rd St. between State and Cedar will reopen at noon, which allows access to the private parking of the Himalayan restaurant and full access to the west side of Cedar. “No Parking by Police Order” signs will be posted 24 hours prior to the event.

The N. 3rd St. closure will allow for the staging of the race participants, which are expected to number around between 700 - 1,000 participants. 3rd St. from Cedar St. to State St. will remain closed until 11:00 a.m.

The parking restriction on Dean St. is being requested due to concerns of the runners sharing the road with vehicular traffic. This will provide enough space on the roadway for the runners to travel along the side and shoulder area while allowing for the normal flow of traffic.

Upon approval, Sly Fox organizers will notify all of the residents and businesses on Dean St., State St., and the Foundry Business Park of the event and parking restrictions. Additionally, the Police Department will have a lighted message board on Dean St. to advise all residents of the pending parking restrictions. This message board will be put in place on April 16.

Attachments *(please list):*

* Race line-up map

Recommendation/Suggested Action *(briefly explain):*

Recommendation to approve street and parking lot closures for the 2019 Sly Fox Half Marathon.



20 x
40 tent

Taste of Himalayas

Romano Mercato Italiano Inc.

N 3rd St

N 3rd St

N 3rd St

N 3rd St

Google

**AGENDA ITEM EXECUTIVE SUMMARY**

Agenda Item number: 6.a

Title:

Consideration of Agreement for Deferred Electric Utility Project Costs for the Crystal Lofts Condominium Development

Presenter:

Tom Bruhl

Meeting: Government Services Committee

Date: January 28, 2019

Proposed Cost: \$135,000

Budgeted Amount: \$0

Not Budgeted: **Executive Summary** *(if not budgeted please explain):*

The Developer (Crystal Lofts, LLC) of the Crystal Lofts Condominium project on Indiana Avenue has requested deferral of Electric Utility project costs related to the relocation of the existing overhead lines to underground, and also deferral of project costs related to providing service to the building.

The standard City process for developments includes payment of the estimated electric fees as part of the building permit at the beginning of the project. Public Works and Community Development have worked collaboratively with Crystal Lofts, LLC.

The proposed agreement was developed by the City Attorney and the terms have been agreed to by Crystal Lofts, LLC. The agreement includes timelines for repayment and collateral should Crystal Lofts, LLC. default on the agreement.

Attachments *(please list):*

* Developer Agreement

Recommendation/Suggested Action *(briefly explain):*

Consideration of Agreement for Deferred Electric Utility Project Costs for the Crystal Lofts Condominium Development.

REIMBURSEMENT AGREEMENT

Return to: John M. McGuirk, Esq.
1001 E. Main Street, Suite G
St. Charles, Illinois 60174

REIMBURSEMENT AGREEMENT
Electrical Improvements

THIS AGREEMENT (hereinafter referred to as the "Agreement") is made and entered into this _____ day of February, 2019, by and between the CITY OF ST. CHARLES, an Illinois Municipal Corporation (hereinafter referred to as the "CITY"), and CRYSTAL LOFTS, LLC, an Illinois Limited Liability Company (hereinafter referred to as "OWNER").

WITNESSETH:

WHEREAS, the OWNER is the owner of record of the real estate described in Exhibit "A" attached hereto and made a part hereof as though fully set forth (hereinafter referred to as the "SUBJECT REALTY"), the same being situated in St. Charles, Illinois; and,

WHEREAS, the SUBJECT REALTY is located within the city limits of the CITY OF ST. CHARLES; and,

WHEREAS, the OWNER has obtained approval from the CITY to construct condominium units on the SUBJECT REALTY. The condominium units total fourteen (14) and it is anticipated that they will be built in two phases. Phase I shall consist of nine (9) units and Phase II shall consist of five (5) units; and,

WHEREAS, the plans and specifications for the electrical improvements to be constructed by the OWNER will be submitted to the CITY for approval. Said electrical improvements will be constructed in accordance with the St. Charles Municipal Code; and,

WHEREAS, the CITY requires developers of property within the corporate limits to pay for electrical improvements in advance of the issuance of Building Permits; and,

WHEREAS, the OWNER has requested the City to defer payment for the electrical improvements until the construction has commenced and certain condominium units have been completed; and,

WHEREAS, the CITY is willing to defer payment for the electrical improvements provided the reimbursement plan is detailed in this written Agreement and that the OWNER provide sufficient security for construction of the electrical improvements;

NOW, THEREFORE, in consideration of the foregoing premises and of the covenants and conditions hereinafter contained, the adequacy and sufficiency of which the parties hereto hereby acknowledge, the parties hereto agree as follows:

1. Deferral of Payment for Electrical Improvements. The CITY agrees and acknowledges that the OWNER shall not be required to make payment for the electrical improvements at the time of the issuance of the Building Permit as long as payments are made in accordance with the schedule of payments set forth herein and provided that the OWNER provides a letter of credit securing an amount sufficient to secure all future payments.

2. Payments. OWNER agrees to make payments in the amount of Fifteen Thousand Dollars (\$15,000.00) prior to the issuance of the Certificate of Occupancy for each of the first eight (8) units in Phase I. OWNER shall make final payment of all outstanding indebtedness to the City prior to the issuance of the Certificate of Occupancy for Unit 9 in Phase I or within two (2) years of the date of the commencement of the electrical work, whichever is first to occur.

3. Interest. Interest at the rate of six (6%) percent per annum shall accrue on any unpaid amount remaining after the CITY commences work with respect to the electrical improvements. Said interest shall accrue until the amount outstanding has been paid in full.

4. Letter of Credit. To secure OWNER's obligation to reimburse the City for the electrical improvements described herein, OWNER hereby agrees to execute a Letter of Credit Agreement in substantially the form attached hereto as Exhibit "B."

5. Default. OWNER shall be in default in the event of any of the following: (a) OWNER fails to make any payment or other sum or amount payable hereunder and such failure shall continue for five (5) days after written Notice by the CITY; (b) OWNER fails to perform any other obligation to be performed by OWNER hereunder and such failure shall continue for five (5) days then OWNER shall be considered in default; (c) if OWNER abandons or vacates the SUBJECT REALTY.

6. Attorney's Fees. If either party hereby brings an action at law or in equity to enforce, interpret or for breach of this Agreement, then the prevailing party in such action shall be entitled to recover all court costs, witness fees, and reasonable attorney's fees in addition to all other appropriate relief.

7. Miscellaneous Provisions.

A. AMENDMENT. This Agreement may be amended by mutual consent of the parties hereto or their successors or assigns, from time to time by written instrument without the consent of any other person or corporation owning the parcels of property deemed benefited hereunder.

B. SEPARABILITY. Should any provision of this Agreement or the application of such provisions to any person or circumstance, be held invalid by a court of competent jurisdiction, the remaining provisions of this Agreement and/or the application of such provisions to persons or circumstances, other than those specific provisions or applications held invalid, shall not be affected.

C. BINDING EFFECT. Except as otherwise herein provided, this Agreement shall inure to the benefit of and be binding upon the successors and assigns of the OWNER and any successor municipal corporation of the CITY.

D. ENFORCEMENT. Any party to this Agreement or their respective successors or assigns, may either in law or in equity by suit, action mandamus, or other proceeding, enforce and compel performance of this Agreement against any other party hereto and their respective successors and assigns.

E. **HOLD HARMLESS AND INDEMNIFICATION.** In the event a claim is made against the CITY, its officers, agents and employees or any of them or if the CITY is made a part-defendant in any proceeding arising out of or in connection with this Agreement the OWNER hereby releases and agrees to defend and hold the CITY and such officers, agents, and employees harmless from all claims, liabilities, losses, taxes, judgments, costs, fees, including expenses and reasonable attorneys fees, in connection therewith. Any such indemnified person may obtain separate counsel at his own expense; provided however, if the canons of legal ethics require such indemnified person to be separately defended where there is no consent to a conflict of interest, then OWNER shall bear such expense. The CITY and such officers, agents and employees shall reasonably cooperate in the defense of such proceedings.

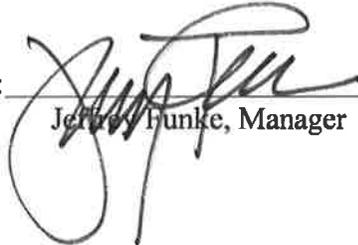
IN WITNESS WHEREOF, the parties hereto have affixed their signatures on the day and date first written above.

CITY OF ST. CHARLES, an Illinois
Municipal Corporation

By: _____
Raymond P. Rogina,
MAYOR

ATTEST:

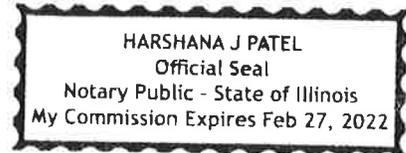
CRYSTAL LOFTS, LLC, an Illinois Limited
Liability Company

By:  _____
Jeffrey Funke, Manager

STATE OF ILLINOIS)
COUNTY OF Kane)

I, the undersigned, a Notary Public in and for said County, in the State aforesaid, DO HEREBY CERTIFY that Jeffrey Funke, Manager of CRYSTAL LOFTS, LLC, personally known to me to be the same person whose name is subscribed to the foregoing instrument, appeared before me in person and severally acknowledge that he signed, sealed and delivered this instrument as his own free and voluntary act as the free and voluntary act of CRYSTAL LOFTS, LLC, for the uses and purpose herein set forth.

H. J. Patel
Notary Public



STATE OF ILLINOIS)
COUNTY OF KANE)

I, the undersigned, a Notary Public in and for said County, in the State aforesaid, DO HEREBY CERTIFY that Raymond P. Rogina, personally known to me to be the Mayor of the CITY OF ST. CHARLES, a municipal corporation, and Charles Amenta, personally known to me to be the City Clerk of the City of St. Charles, and personally known to me to be the same persons whose names are subscribed to the foregoing instrument, appeared before me in person and severally acknowledged that as such Mayor and City Clerk of said municipal corporation, and caused the corporate seal of said corporation to be affixed thereto, pursuant to the authority given by the City Council of the City of St. Charles as their free and voluntary act, and as the free and voluntary act and deed of said corporation, for the uses and purposes therein set forth.

Notary Public

This Instrument prepared by and Return Recorded Document to:
John M. McGuirk, Esq.
1001 E. Main Street, Suite G
St. Charles, Illinois 60174

EXHIBIT "A"
Legal Description of Subject Realty

(To be attached after recording of Final Plat of Condominium)

BEING A PART OF THE SOUTHWEST QUARTER OF SECTION 26, TOWNSHIP 40 NORTH, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN KANE COUNTY, ILLINOIS.

EXHIBIT "B"

LETTER OF CREDIT TEMPLATE

**Performance Letter of Credit Template
(FINANCIAL INSTITUTION LETTERHEAD)**

IRREVOCABLE LETTER OF CREDIT NO. _____

DATE: _____, 20__

BENEFICIARY: City of St. Charles ("City")
ATTN: Development Engineering Division
Manager 2 East Main Street
St. Charles, IL 60174

FOR THE ACCOUNT OF: Crystal Lots, LLC

AMOUNT OF CREDIT: \$512,694.00
EXPIRY DATE: _____

Ladies and Gentlemen:

We hereby open our Irrevocable Standby Letter of Credit in your favor available by your draft on us at sight, signed by the Director of Public Works, City of St. Charles, bearing the clause "Drawn under (Name of Bank) Letter of Credit No. _____ effective (Date) accompanied by the following documents:

1. This original Letter of Credit and all amendment(s) thereto (if any).
2. A statement in duplicate signed by the Director of Public Works, City of St. Charles, reading as follows: "Crystal Lofts LLC has failed to comply with any one or more of the following as such relates to the Crystal Lofts Condominiums.
 - a. The Land Improvement Agreement entered into by and between the City of St. Charles and (Name of Developer/Owner) on or about, 20 ;
 - b. Any other applicable Agreement entered into by and between the City of St. Charles and (Name of Developer/Owner) or applicable completion date for the Land Improvements (as defined in the St. Charles Municipal Code) set forth in the St. Charles Municipal Code.

The funds claimed under this Letter of Credit are for the payment of the cost of construction of improvements according to the engineering plans prepared by (Name of Engineer inn Firm) and dated (Date of Plans), together with any amendments thereto approved by the City

and/or reimbursement to the City of expenses or other costs as set forth in the Land Improvement Agreement."

Demands may be presented either in person or via mail or overnight courier; provided, however that payment under such draw will only be effected after receipt of original documents by (Name of Bank). Original documents are to be sent to: _____ (Address of Bank).

No consent by (Name of Developer/Owner) shall be required in order for the City to make demand hereunder.

_____ (Name of Bank) agrees that this Irrevocable Letter of Credit shall not be reduced or discharged except upon receipt of a certificate from the Director of Public Works for the City of St. Charles, or his designee, certifying that this Irrevocable Letter of Credit may be reduced and the amount by which it may be reduced. The outstanding balance of this Irrevocable Letter of Credit shall be the face amount of this Irrevocable Letter of Credit less any amount which is discharged upon certification of the Director of Public Works, or his designee, provided, however, the outstanding balance of this Irrevocable Letter of Credit shall not be reduced to less than 115% of the Development Engineering Division Manager's estimate of the cost of completion of all remaining Land Improvements until the St. Charles City Council has accepted all of the aforementioned Land Improvements and the Director of Public Works, or his designee, has certified that the City Council has released this Irrevocable Letter of Credit.

It is a condition of this Letter of Credit that it shall be automatically extended, without amendment, for additional periods of one year from the present and each future expiration date, unless we notify you in writing via Certified Mail, Return Receipt Requested, at least ninety (90) days prior to any given expiry date that we have elected not to renew this Letter of Credit for such additional period of time. Upon receipt of such notice, you may draw hereunder by means of the following:

1. Sight draft in accordance with the terms of this Letter of Credit;
2. This original Letter of Credit, and all amendment(s) thereto (if any);
3. A statement, signed by the Director of Public Works, City of St. Charles, reading as follows:
"(Name of Bank) has elected not to renew Letter of Credit No. _____ beyond its present expiration date and (Name of Developer/Owner) has failed to supply us with an acceptable replacement Letter of Credit and/or other acceptable substitute collateral."

We hereby agree with you that all drafts drawn under and in compliance with the terms of this credit shall be duly honored on presentation. In the event that we do not make payouts in accordance with this Letter of Credit and the City of St. Charles is required to file a lawsuit to compel compliance with this agreement and shall prevail, we will be obligated to pay to the City of St. Charles its expenses and costs of litigation including attorneys' fees.

The undersigned institution hereby represents and warrants to the City that it has the full power, right and authority to deliver this Irrevocable Letter of Credit, that the same is within all lending limits of such institution, is in full conformity with all state and federal law, and that the same is binding in accordance with its terms on the undersigned institution. All acts, requirements and other preconditions for the issuance of this Irrevocable Letter of Credit have been completed.

This Letter of Credit is subject to the Uniform Customs and Practice for Documentary

Credits (2007 Revision), International Chamber of Commerce Publication No. 600 ("UCP 600") and to the Uniform Commercial Code -Letters of Credit, 810 ILCS 5/5-101 et seq., as amended, as in effect in the State of Illinois (UCC). In the event of conflict between UCP 600 and the UCC, UCP 600 shall govern.

(FINANCIAL INSTITUTION)

BY: _____

ATTEST: _____



AGENDA ITEM EXECUTIVE SUMMARY

Agenda Item number: 6.b

Title:

Recommendation to Approve the 2018 Water Utility Master Plan

Presenter:

Chris Adesso

Meeting: Government Services Committee

Date: January 28, 2019

Proposed Cost: n/a

Budgeted Amount: n/a

Not Budgeted:

Executive Summary *(if not budgeted please explain):*

The Environmental Services Division of the Public Works Department is responsible for operating the City’s Water Utility and providing safe, reliable and economical potable water to more than 19,000 customers. As a matter of prudent management of the utility, the Environmental Services Division in partnership with its consulting engineer Trotter & Associates has prepared a strategic 10 year master plan to guide the utility into the next decade.

At the August 2018 Government Services Committee meeting an overview of the entire Master Plan was presented to the Committee and a more detailed presentation of the “Water Supply Component” of the Master Plan was presented at the October Government Services Committee meeting. These presentations were intended to provide the committee members with manageable amounts of information and allow for questions and comments from the Committee as the plan was finalized; while outlining the roadmap for the strategic planning of the Water Utility for the next ten years.

Staff is seeking approval of the Master Plan to solidify it as a strategic planning document that can be used for programming capital projects, planning for future needs and to help insure both short-term and long-term goals of the utility are met. Approval of the Master Plan from the Committee does not constitute approval of any individual capital project or monetary expenditure, nor does it alleviate the requirement of City Council approval of future expenditures to execute any planned projects.

The Master Plan has been finalized and is available for consumption in its entirety on the City’s Website. For the convenience of the committee members an executive summary of the Master Plan has been provided in the packet for this agenda item. The topic of Utility Scale Water Softening has been ongoing over the last few months during the presentations of the Master Plan. As future plans are developed to meet the City’s water supply and treatment needs, water softening will likely be considered for each of those treatment alternatives. Utility scale softening should it be the desire of the City to provide, would be accomplished through the construction and up fit of treatment facilities over the course of the life of the Master Plan.

Attachments *(please list):*

- * 2018 Water Utility Master Plan Executive Summary

Recommendation/Suggested Action *(briefly explain):*

Recommendation to approve the 2018 Water Utility Master Plan

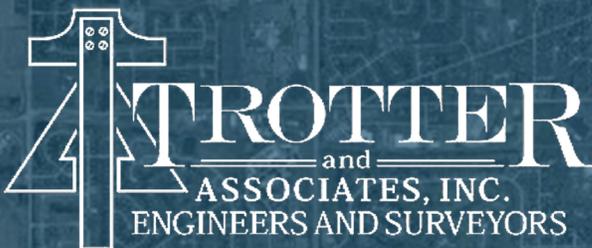


City of St. Charles

2018 Water Utility Master Plan

Continuity • Collaboration • Commitment

December, 2018



St. Charles, IL • Fox Lake, IL • Lake Geneva, WI
630.587.0470 • www.trotter-inc.com



EXECUTIVE SUMMARY



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EXECUTIVE SUMMARY

GENERAL BACKGROUND

The City of St. Charles was incorporated in 1874 and is located in Kane County, Illinois. St. Charles straddles the Fox River between South Elgin and Geneva. The City developed its first potable water supply in 1907. Since then, the City has been dedicated to providing a continuous supply of safe, reliable, and economical potable water to its more than 19,000 accounts. The clients who receive water from the City of St. Charles constitute residential, commercial, industrial, and institutional users. In total, these clients consume approximately 3.34 million gallons of water per day. The existing water facilities maintained by the City include seven wells, four treatment facilities, three elevated towers, several ground storage reservoirs, and approximately 240 miles of water main.

The City of St. Charles has an estimated population of 33,408 based on the 2010 Census and interpolated growth projections. The City Council has recently approved several new developments throughout the City limits that will increase the overall demand on the system. As a result, the City has been actively pursuing a strategic plan to address water quality and quantity through a 20-year planning horizon. In order to better sequence and develop capital projects, it is in the City's best interest to maintain an updated Water System Master Plan. The plan was developed as a collaborative effort with input from Public Works, Engineering, Finance, and Community Development Departments. The Water System Master Plan provides a roadmap for the water distribution system, supply, treatment, and storage improvements required to meet the City's short and long-term goals.

MASTER PLANNING

A Water Master Plan Facility Plan is a management and planning document used to identify, evaluate, and plan required water distribution and other infrastructure improvements. It provides an assessment of the distribution, storage, and supply abilities to meet both current and future regulatory requirements and provides critical information for improvements to correct current or projected deficiencies.

Master plans are typically updated every five to ten years, or when significant changes in growth or regulatory requirements have occurred or are expected. The City of St. Charles most recent Water Master Plan was prepared in 2007 and is now more than ten years old. Since the 2007 update, the City has implemented a number of the recommendations including the installation of new and replaced water main, construction of the Red Gate water tower, and the construction of the Well #3/4 Treatment Facility among others. However, in an effort to be proactive the City is seeking to update the Master Plan to develop a single document which includes a Capital Improvements Plan to assist in budgeting for necessary improvements and to provide a guide for future improvements.

The ultimate goal of this plan is to establish the community's current and future water production and infrastructure needs and develop an implementation plan to meet those needs. This plan will provide the blueprint for future improvements, expansion phasing, and capital improvement projects.





COMMUNITY NEEDS

The City of St. Charles has grown from a community of 17,492 in 1980 to 27,910 people in 2000 to an estimated 33,403 people in 2018, as determined with an annual growth projection of 1.0% from the 2016 American Community Survey. Historically, the City has had adequate capacity to serve its planning area under all circumstances. During extremely high water usages, the City has been required to supplement well supply from the ground storage reservoirs, however at no point was the system in jeopardy of not meeting demands.

Water usage has generally decreased over the past decade as a result of higher efficiency water fixtures, watering restrictions, and a public effort to reduce unnecessary water consumption. While the City should not depend on a decrease in demand, this trend is seen in most communities and represents a national shift rather than a local anomaly. It is unlikely that demand will return to levels seen in the early 2000's unless significant droughts or growth are experienced.

Section 2 of this Plan identifies population growth projections for five-year, 2030, and 2040 planning horizons. In order to estimate the future water demand that the City must be able to provide, four growth categories were developed and analyzed. These include:

- 2018 'Current' – This represents the existing average and maximum day demands on the system
- 2023 'Planned' – This includes developments which are in construction, planning, or RFP stages
- 2030 'Programmed' – Includes areas identified in the Land Use Plan as potential developments
- 2040 'Future' – Represents the estimated population at the end of this study's planning horizon

Table 2-1: Future Water Demands

	Current 2018	Planned 2023	Programmed 2030	Future 2040
Current P.E.	53,200	53,200	53,200	53,200
Growth P.E.	-	12,900	20,093	26,570
Total P.E.	53,200	66,100	73,594	80,000
Average Day Demand "ADD" (MGD)	4.00	5.00	5.50	6.00
Maximum Day Demand "MDD" (MGD)	9.74	12.10	13.50	14.60
Water Production Capacity Req'd (MGD)	10.00	12.10	14.00	15.00

As will be discussed in Section 2, the City has capacity to provide the average daily demand throughout the four planning horizons. However, the maximum day demand exceeds what is currently available due to the reduced capacity of the aging wells. Analysis of the existing wells and alternatives for additional water supply sources are reviewed in Section 5 and Section 6 of this report, respectively.



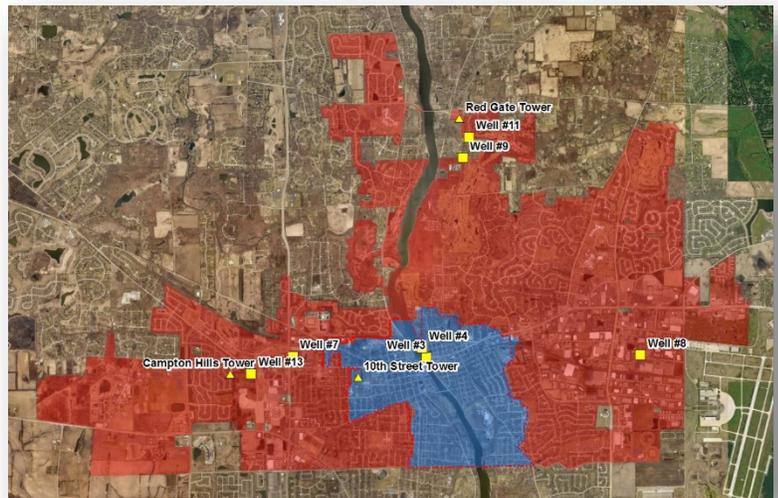


WATER DISTRIBUTION SYSTEM EVALUATION

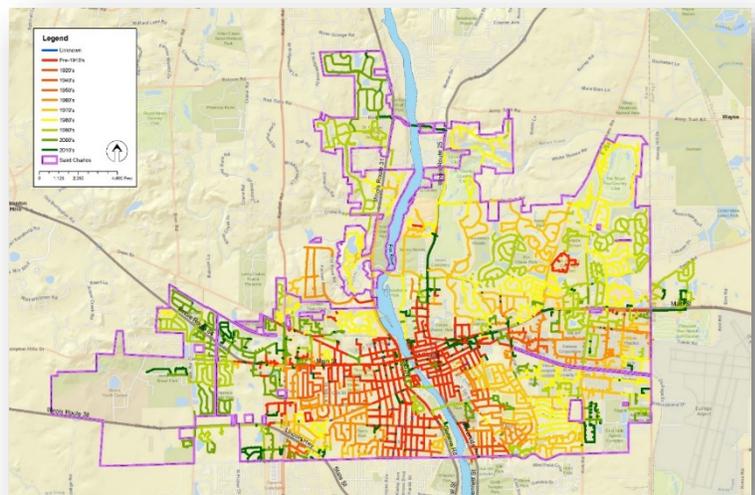
The City Water Department has adopted proactive water main maintenance, flushing, and rehabilitation programs to sustain the level of service provided to the community. The water main rehabilitation program is often coordinated with the City's Capital Improvement's Program for street rehabilitation and reconstruction to minimize costs. The City's water system has a large service area that is divided into two zones to maintain adequate water pressures across varying topographic regions, the Inner Service Area (shown in blue) and Outer Service Area (shown in red).

The City's water distribution system includes roughly 240 miles of water main, 2,900 fire hydrants, and 2,700 valves. For planning purposes the value of water main and other system components can be estimated to project a total system asset value. As calculated in Section 3, the existing City of St. Charles water distribution system value is estimated at approximately \$190 million including system valves and hydrants, prior to depreciation. The total replacement cost for the water system, estimated at approximately \$300 million, was calculated by adding 50% the unit asset value to account for surface restoration, contingencies, project management, design and administration. Based on straight-line depreciation and a seventy-five-year service life for this infrastructure, an average of \$4.50 Million would need to be budgeted annually in order to replace all of the existing distribution system by the year 2093. This budgetary amount would need to be increased by the Construction Cost Index (CCI) each year, which has averaged 2.92% over the decade.

This annual reinvestment should be prioritized based on a number of criteria including main diameter, age, break frequency, soil conditions, and the presence of lead services, among others. These criteria are discussed in Section 3 of this report, with recommended alternatives for rehabilitation of the distribution system in Section 4.



City of St. Charles - Water Main Age





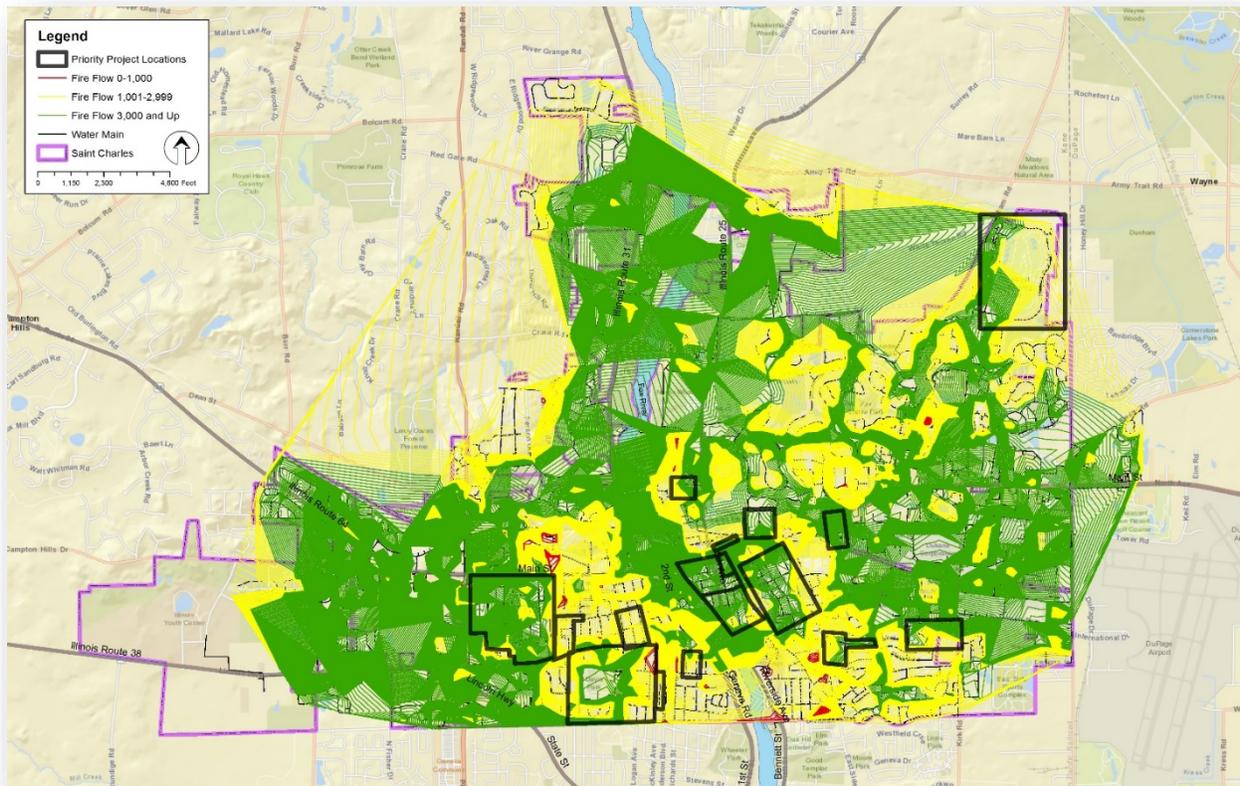
DISTRIBUTION SYSTEM ALTERNATIVES

Through work sessions with City staff, a number of capital improvement projects were identified to rehabilitate and upgrade the distribution system. As will be discussed in Section 3, the water system has been constructed throughout the last century. As a result of the age of the system, many of the components are at or beyond their anticipated service life and will require rehabilitation or replacement.

Through review of water main age, size, material, break history, and available fire flows detailed in Section 3, 17 priority rehabilitation areas within the distribution system were identified. These areas may exhibit low available fire flow (AFF), a high frequency of main breaks, or a combination of issues. Each of these areas are discussed in further detail in the following pages, with prioritization of the improvements reviewed at the end of this section. The projects are numbered by orientation and do not represent prioritization. Full line item cost estimates for each project can be found in Appendix A.

- | | |
|-------------------------------------------------------------------------|---------------------------------------------|
| A. Davis Elementary School | I. Route 25 and North Avenue |
| B. Munhall Elementary School | J. Route 64 and 9 th Avenue |
| C. Route 64 East | K. Monroe west of 7 th Ave |
| D. Lincoln Elementary School | L. South Second west of 7 th Ave |
| E. 11 th and 12 th Street north of Prairie Street | M. Route 64 & Tyler Road |
| F. Prairie Street – 5 th to 8 th | N. South Avenue |
| G. 3 rd / 4 th Street Alley | O. Fairview Neighborhood |
| H. Horne & Ash Street | P. Fox Ridge Elementary School |
| | Q. Royal Fox Subdivision |

Available Fire Flows - Projects Completed





WATER SUPPLY, TREATMENT & STORAGE FACILITIES

The City of St. Charles water supply and storage system consists of seven wells, three water treatment facilities, a 300,000-gallon spheroid water tower, a 1,500,000-gallon spheroid water tower, a 1,000,000-gallon Hydropillar® water tower, and several ground storage reservoirs with booster stations. As with most municipal water supplies, the existing infrastructure has been constructed over several decades and the components within the system vary in age. The City of St. Charles follows a rigorous maintenance program for the wells, towers and distribution system to ensure reliability of the infrastructure.

The City currently has an active booster station and ground storage reservoir capacity of 2.9 million gallons. These ground storage reservoirs are used in conjunction with the existing elevated water towers to meet the Maximum Hourly Demand and Fire Flow Demands placed on the system.

The City’s Wells and Water Towers have been strategically placed throughout the City’s service area, and source water is supplied by two distinct aquifers. Well #7, 9, 11 and 13 are supplied by a shallow sand and gravel aquifer commonly known as the St. Charles Aquifer. Wells #3, 4, and 8 are supplied by a deep aquifer known as the Galesville Aquifer. Presently, the City’s wells operate at 52.9% of the capacity that they were designed to produce. This lowered production is especially prevalent at Wells 7 and 11, with Well 7 not being used to pump any water and Well 9 operating at approximately 50% of design capacity.

Well and Reservoir Design Capacities

	System Served	Design Capacity (GPM)	Design Capacity (MGD)	Firm Capacity (GPM)	Firm Capacity (MGD)	Reservoir Capacity (gallons)
3	Inner	1,000	1.44	1,000	1.44	250,000
4	Inner	1,000	1.44	-	-	250,000
Total	Inner	2,000	2.88	1,000	1.44	500,000
7	Outer	1,750	2.52	1,750	2.52	175,000
8	Outer	1,200	1.73	1,200	1.73	2,000,000
9	Outer	2,150	3.10	-	-	0
11	Outer	1,900	2.74	1,900	2.74	236,500
13	Outer	1,500	2.16	1,500	2.16	0
Total	Outer	8,500	12.25	6,350	9.15	2,411,500

Production is set at current levels at each well for a specific reason – chlorination capacities, elevated iron levels, pump curve limitations, and physical age of the well pumps themselves. It should be noted that these “current” rates are designed to *produce the highest quality of water possible* by maximizing use of wells that produce the highest quality water. While Well #7 specifically has been removed from routine service, it could be brought back online during peak periods if necessary. These current rates and required future capacities are discussed in further detail in Section 6.





WATER SUPPLY, TREATMENT & STORAGE ALTERNATIVES

While the City’s well sources have a design capacity in excess of 15 MGD and a firm capacity of 12 MGD, this has been reduced due to the age of the wells and treatment facilities. Specifically, Well #7 is run as infrequently as possible due to the age of the filtration facility and high iron concentrations in the source water. To meet maximum day demands the City can utilize this well, however it is in need of significant upgrades or replacement. Alternatives for rehabilitation or replacement of this treatment facility are reviewed in Section 6, but it is recommended that the City plan and budget for interconnection of Well #7 and Well #13, with common iron-removal treatment occurring at the Oak Street Facility.

As detailed in Section 2 – Community Needs, the City of St. Charles anticipates significant growth over the next five years. For planning purposes, this growth is anticipated to result in increased maximum day water usage on a linear basis. As a result, the current maximum day demand of 9.74 MGD may increase to 12.1 MGD in 2023 by the end of the 5-year planning horizon. Therefore, the City should continue reviewing alternatives for additional water supply and treatment, and must maintain all current facilities. This includes the short-term rehabilitation/interconnection of Well #7 as a priority project.

The table below lists each of the alternative supply sources, their associated capital cost, the treatment facility capital cost, and total project cost. Due to the significantly higher cost associated with either connection to DuPage Water Commission or conversion to surface water supply (Fox River), these alternatives have been omitted from further consideration.

Table 6-4: Summary of Supply Alternative Costs

Alternative	Supply Capital Cost	Treatment Capital Cost	Total Alternative Capital Cost
Alternative 3 - Well 10	\$3,640,000	\$7,470,000	\$11,110,000
Alternative 4 - Well 12	\$3,620,000	\$7,470,000	\$11,090,000
Alternative 5 - Well 14	\$3,950,000	\$7,470,000	\$11,420,000
Alternative 6 - Galesville Well @ 7/13	\$3,110,000	-	\$3,110,000
Alternative 7 - Galesville @ 9/11	\$3,190,000	-	\$3,190,000

Due to the relatively short-term requirement for additional supply, the City may elect to move forward with further investigation of groundwater alternatives. This would include investigating potential shallow well sites through boring of test holes and ultimately production evaluation with test wells. Once a potential site has been identified, it is recommended that two test holes be drilled to locate an adequate formation. Once located, a test well and several observation wells should be drilled to conduct a capacity evaluation. The test holes and test wells are anticipated to cost approximately \$200,000 in total and should be budgeted over the next two years.

If deep wells are going to be considered, alternative means of radium removal should be investigated as an alternative to blending. One option for radium removal would be pelletizing treatment, further discussed in Section 7. A pilot with this technology is estimated to cost approximately \$50,000 for a six month sidestream scale program. Similarly, it is recommended that this be budgeted for the short-term.





WATER SOFTENING

As discussed in Section 5, the majority of the City’s existing water treatment facilities remain in good condition and should only require routine rehabilitation and maintenance over the planning period. In addition to maintaining excellent water quality, the City has identified implementing city-wide (utility-scale) water softening as a concept to be evaluated.

Hardness in water is the presence of dissolved magnesium and calcium ions. These ions combine most commonly with carbonate ions in water to create mineral deposits. Although water hardness is not regulated by the EPA in its Primary or Secondary Drinking Water Regulations, it constitutes a common challenge in providing quality drinking water. Hardness presents aesthetic concerns to consumers such as mineral deposits in piping, diminished soap effectiveness, and decreased lifespans of appliances.

Calcium and magnesium ions enter drinking water primarily through the dissolution of minerals in subterranean aquifers. As the City of St. Charles sources all of its drinking water from shallow and deep wells, high concentrations of hardness are to be expected. Tests have displayed that each of the seven wells currently used by the city provide water that is classified as either “Hard” or “Very Hard”.

Table 6-2: Existing Water Supply Hardness

Water Source	mg/L as CaCO ₃
Well 3	250
Well 4	240
Well 7	530
Well 8	260
Well 9	450
Well 11	530
Well 13	430
Hardness	mg/L as CaCO ₃
Soft	0 to 75
Moderately Hard	75 to 150
Hard	150 to 300
Very Hard	300 and above

Water softening in St. Charles is currently achieved primarily through household water softening systems. These systems are paid for and operated by residents and require regular replacement of a softener salt media. Implementation of city-wide softening would reduce reliance on these devices, and the shift away from household softening could garner public support for the project. At present, the high hardness entering homes can scale pipes before reaching household softeners or the softeners may not be maintained well enough to work efficiently. As such, the City receives a number of complaints from consumers regarding the hardness of their water.



The City currently operates ion-exchange processes at the combined Well #3/4 facility, as well as the Ohio Avenue/Well #8 facility. This process is utilized to remove radium present in the deep well water, but as by-product also removes hardness. As a result, water quality varies across the distribution system with some residents receiving softer water, and others harder water.

Viable alternatives for municipal water softening have developed rapidly over recent years, resulting in several potential technologies with different removal efficiencies and characteristics. Four potential alternatives that could be employed by the City of St. Charles are ion-exchange, lime softening, membrane softening, and pelletizing. Each of these technologies provide distinct benefits and draw backs, which will be reviewed in detail within Section 7. Alternatives and combinations of alternatives for each have been compiled as well.

The City has reviewed a number of alternative technologies to provide Utility-scale water softening. There are significant challenges associated with each technology, specifically relating to ion-exchange treatment. During previous planning efforts ion-exchange was identified as the preferable water softening technology, however in light of recent developments on chloride limitations in wastewater effluent this option will likely no longer be a viable standalone alternative.

The table below illustrates the capital cost associated with implementing water softening at each regional facility, as well as the total utility-scale capital cost. If the City elects to continue the water softening discussion, staff may elect to pilot test any of the alternatives to determine the efficiency utilizing City water sources. Further evaluations would also be warranted to investigate the feasibility of siting a regional Well #9/11 softening facility along Route 25 at the previously described location, as well as the viability of constructing a regional Well #7/13 softening facility adjacent to the existing Oak Street Filtration Facility.

Utility Scale Softening Summary (20% Contingency)			
Softening Process	Well #7/13 Capital Cost	Well #9/11 Capital Cost	Total Capital Cost
Ion Exchange	\$10,012,230	\$11,910,039	\$21,922,269
Nanofiltration	\$29,727,210	\$34,754,501	\$64,481,711
Lime Softening	\$33,249,600	\$42,403,079	\$75,652,679
Pellet Softening	\$16,040,450	\$30,362,830	\$46,403,280
Pellet/IEX Softening	\$20,429,057	\$33,726,663	\$54,155,720



RECOMMENDATIONS AND SUMMARY

The City is responsible for providing safe and reliable water service for the communities both within the corporate boundary and in the neighboring areas. The preceding sections have described the Planning Area, the current and future capacity needs, the existing supply, storage, treatment, and distribution system infrastructure, and future improvements that should be budgeted within the duration of this Master Plan.

A significant amount of the water system equipment and distribution system has reached or has exceeded its respective service life. Diligent maintenance and operation have provided the City with exceptional equipment longevity; however, several major systems will require replacement within the next 10 years. Recommendations have been separated into two groups: annual equipment replacement and Capital Improvement Projects. Incorporating a number of items requiring replacement into a single capital project provides cost efficiencies in the form of scales of economy and consolidating contractor's costs.

The implementation schedule for capital improvements is driven by the urgency of rehabilitation and the benefit of upgrades to the system. The prioritization of large-scale capital improvements is discussed in Section 6 and smaller scale rehabilitations follow the replacement timeframe based on service life and installation year of equipment. The projects identified throughout Sections 4 and 6 are outlined in the table below. The annual expenditure included is approximately \$3.0-\$4.0M which can be increased or decreased according to the City's available funding.

City of St. Charles - Water Master Plan 5 Year Capital Improvements Plan

Project Description		Fiscal Year Cash Flow (\$ in Millions, 2018)					Project Total
		2020	2021	2022	2023	2024	
S	AMI Meter Implementation	1.40	1.30	1.30			4.00
S	10th Street Tower Re-Coating & Repairs	0.50					0.50
S	Well #11 Chlorine Upgrades	0.50					0.50
S	Well #7/13 Interconnection - Phased	5.32					5.32
R	Well #8 & Ohio Avenue Rehabilitation	1.68					1.68
R	Well #9 Rehabilitation		0.75				0.75
R	Well #13 Rehabilitation			0.18			0.18
R	Well #3/4 Rehabilitation			0.89			0.89
S	Galesville Well at Oak Street				3.20		3.20
S	Galesville Well at Well #11					3.20	3.20
R	Well #11 Rehabilitation					0.60	0.60
							0.00
Fiscal Year Total:		9.40	2.05	2.37	3.20	3.80	20.82

S Water Supply/Storage
 R Rehabilitation





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**AGENDA ITEM EXECUTIVE SUMMARY**

Agenda Item number: 6.c

Title:

Recommendation to Approve Phosphorus Removal and Digester Improvements Project Change Order No. 6 to IHC

Presenter:

Tim Wilson

Meeting: Government Services Committee

Date: January 28, 2019

Proposed Cost: \$107,564.70

Budgeted Amount: \$370,538.47
(Loan Contingency)Not Budgeted: **Executive Summary** (if not budgeted please explain):

As part of the construction contract the general contractor (IHC) has drained, cleaned and completed a structural review of the north digester tank, its internal coating and other apparatus with a third party engineer. The inspection and structural report, found the steel in the north digester was in poor condition and in need of several repairs. The internal coating of this tank was found to be in very good condition but due to the number of steel repairs needed inside the tank the majority of the paint coating needs to be removed. City staff, IHC, our consulting engineer and third party engineer reviewed the internal conditions and determined a complete internal coating replacement was warranted.

City staff, IHC and the consulting engineer continue to review the additional costs to the north digester and it was determined the contractor could effectively save cost on the digester insulation removal and replacement on the north digester. Collaboratively the contractor agreed to lower the insulation cost.

Staff recommends the following changes in the work scope to the North Digester:

- Weld repairs of detreated areas inside of the egg and stuffing box - \$53,043.24
- Recoating the inside of the egg - \$73,940.50
- Digester exterior insulation credit – (\$22,320)

Other changes in scope:

- Additional grounding and bollards at Ferric Chloride Tanks - \$3,435.63
- Leak Detection on Ferric Chloride Tanks - \$5,113.22
- Air Line removal at the bridges - \$309.69
- Scum Box and site improvement at scum box - (\$5,957.58)

Overall, the recommended balance of changes will increase the contract by \$107,564.70.

In addition to the increase in cost to the contract and changes in the scope of work on the north digester, the contractor has requested a time extension of 52 days. Staff and our consulting engineer have reviewed the project schedule and determined the time extension request is warranted.

This is an EPA funded loan project; any change in the scope of work or time requires City approval.

Attachments (please list):

* Change Order No. 6

Recommendation/Suggested Action (briefly explain):

Recommendation to Award Change Order No. 6 to IHC in the amount of \$107,564.70 and a 52 day contract time extension.

**City of St. Charles - 2017 Phosphorus Removal and Digester Improvements
Summary of Change Order #6**

CMR No.	Description	Amount	Days
35	Additional Coating within N. ESAD	\$ 73,940.50	28
41	Scum Box and Site Improvements by Headworks	\$ (5,957.58)	0
44	Bollards and Grounding by FeCl Tanks	\$ 3,435.63	0
45	North Effluent Box Repairs (\$25,734.00 from ESAD Repair Allowance)	\$ 32,879.33	24
47	Leak Detection on FeCl Tanks	\$ 5,113.22	0
48	Air main conflict with bridges in 1301 and 1302 (\$2,938.01 from conflicts allowance)	\$ 309.69	0
49	Change insulation removal/replacement amount	\$ (22,320.00)	0
51	North ESAD Weld Repairs	\$ 20,163.91	0
	TOTAL FOR CHANGE ORDER #6	\$ 107,564.70	52

Original Contract Price	\$ 13,294,896.00
Previous Change Orders	\$ 18,056.68
Current Contract Price adjust by Previous Change Orders	\$ 13,312,952.68
Contract Price due to this Change Order will be adjusted by	\$ 107,564.70
Contract Price including this Change Order	\$ 13,420,517.38
Total % Difference in Contract Price	0.945%

	Substantial Completion	Final Completion
Original Completion Dates	February 6, 2019	March 8, 2019
Previous Contract Time Adjustment	56	56
Current Completion Dates adjusted by Previous Change Orders	April 3, 2019	May 3, 2019
Contract Time due to this Change Order to be Adjusted by	52	52
Completion Dates including this Change Order	May 25, 2019	June 24, 2019



AGENDA ITEM EXECUTIVE SUMMARY

Agenda Item number: 6.d

Title:	Recommendation to Update Title 8 “Health and Safety” Chapter 8.24 “Garbage and Refuse” Section 8.24.040 “Collection Services” of the City of St. Charles City Code
Presenter:	Tim Wilson

Meeting: Government Services Committee Date: January 28, 2019

Proposed Cost: N/A Budgeted Amount: \$ Not Budgeted:

Executive Summary *(if not budgeted please explain):*

The City Council approved a new Refuse and Recycling Contract with Lakeshore Recycling Systems on June 4, 2018. Per a request from Alderman Payleitner and Alderman Lewis, please find this suggestion from a citizen concerned about the practical timeline of the current code for container set out and collection.

Public Works recommends the attached revisions be made to Title 8 “Health and Safety” Chapter 8.24 “Garbage and Refuse”, Section 8.24.030 “Collection Services” of the City of St. Charles City Code.

Attachments *(please list):*

* Recommended Ordinance Revisions

Recommendation/Suggested Action *(briefly explain):*

Recommendation to approve updates to Title 8 “Health and Safety” of the City Ordinance.

Environmental Services Recommended Ordinance Revisions to Title 8 “Health and Safety” for January 2019

8.24 – GARBAGE AND REFUSE

8.24.030 – Collection services

1. Location for pickup

1. Dwellings of 6 or less units:

1. All single-family dwellings and multi-family dwellings comprised of six (6) or less units (not in a complex of more than six units) shall be picked up at the curbside, unless otherwise requested by building owner and authorized by the Director of Public Works or designee. If available, Yard Waste shall be placed on the parkway, adjacent to and on the address side of the property from where the yard waste is gathered. If a parkway is not available adjacent to a property or on the address side of a property, the Director of Public Works or designee shall identify an area for collection. (Ord. 2014-M-15 § 1; Ord. 2009-M-44 § 1.)

~~2. All containers shall be placed in a manner readily accessible for collection immediately behind the curb (i.e., on the parkway) at the street or at the alley lot line, no earlier than 7:00 p.m. on the day preceding the day on which collection is scheduled. Empty containers shall be removed from the curb no later than 7:00 p.m. on the day of collection.~~

Garbage And Refuse Containers: All garbage and refuse to be collected shall be placed, by each owner or tenant of a household, in a covered container immediately behind the curb (i.e., on the parkway) at the street or at the alley lot line, as the requirement may be, no earlier than the day preceding the day on which collection is scheduled and no later than six o'clock (6:00) A.M. on the day of collection. The containers shall be so placed in a manner that is readily accessible for the collection on the day or days which are scheduled for the area in which said dwelling or household is located. Empty containers shall be removed as soon as possible, but in no event later than eight o'clock (8:00) P.M. on the day of collection.

2. Dwellings of more than six (6) units:

All multi-family dwellings comprised of more than six (6) units shall be provided a common garbage refuse container, and a recyclable materials container (dumpster, toter or recycling bin as designated by the Director of Public Works or his designee). (Ord. 2009-M-44 § 2.)

~~2.3. Routes and schedules:~~

~~The routes and schedules for collection of refuse and recyclable materials shall be depicted in Exhibit B, dated July 1, 2013.~~



AGENDA ITEM EXECUTIVE SUMMARY

Agenda Item number: 6.e

Title:

Recommendation to Approve Small Wireless Facilities Design Standards

Presenter:

Tom Bruhl

Meeting: Government Services Committee

Date: January 28, 2019

Proposed Cost: \$0

Budgeted Amount: \$0

Not Budgeted:

Executive Summary *(if not budgeted please explain):*

The City and an attorney from KTJ Law presented a new ordinance section to cover Small Cell applications within City ROW in July of 2018. The approved ordinance has been added to the City Code Book as section 13.24. Associated with the ordinance, Staff have developed design standards that are compliant with State Act 100-585.

The design standards cover:

- Installation on an existing wood utility pole
- Installation on an existing highway streetlight pole
- Installation on an existing decorative streetlight pole
- Installation of new structures in the ROW
- Installation of ground mounted ancillary equipment

The design standards help insure the installations are safe and that attachments to existing poles are structurally sound.

To the extent possible, the design standards also require installations to consider aesthetics.

The City reserves the right to revise these design standards in the future.

Attachments *(please list):*

- * General Guidelines and Small Wireless Facility Design, Stealth, and Concealment Standards
- * Small Wireless Facility ROW Permit Application

Recommendation/Suggested Action *(briefly explain):*

Recommendation to approve Small Cell Design Standards

CITY OF ST. CHARLES

General Guidelines and Small Wireless Facility Design, Stealth, and Concealment Standards

The following general guidelines and design, stealth and concealment standards apply to the placement of small wireless facilities within the City. Small Wireless Facilities are generally regulated by Chapter 13 of the City Code 13.24 – Small Wireless Facilities, and all terms used herein are as defined in that Chapter.

General Standards. Every small wireless facility collocation shall comply with the following standards.

A. Small wireless facilities:

1. Antennas shall be mounted no less than twelve (12) feet above ground level.
2. Antennas shall, to the extent technically feasible, be designed and installed to appear hidden within the utility pole or to appear like an original part of the utility pole or wireless support structure.
3. Each antenna not hidden within a utility pole shall be located entirely within a shroud enclosure not more than six (6) cubic feet in volume that is capable of accepting paint to match the approved color of the small wireless facility.
4. Top-mounted antennas and their enclosures shall not extend the diameter of the utility pole or wireless support structure at the level of the antenna attachment, except as otherwise approved by the Director of Public Works or his or her designee.
5. Side-mounted small wireless facility antennas within a shroud enclosure and side-mounted small wireless facility equipment enclosures shall be, if possible, flush mounted to the utility pole or wireless support structure at the level of the attachment. Metal flaps or “wings” shall extend from the enclosure to the utility pole or wireless support structure to conceal any gap between the between the small wireless facility and the utility pole or wireless support structure. The design of the flaps shall be integrated with the design of the small wireless facility.
6. Small wireless facilities located on street light poles or traffic control structures shall not block light emanating from the street light fixture

or otherwise interfere with the purpose of the street light fixture or traffic control structure.

7. Small wireless facilities shall be attached to the utility pole or wireless support structure using rigid steel clamping mounts or stainless steel banding to the exterior of any metal pole. All mounts and banding shall be of the same color as the utility pole or wireless support structure, except as otherwise approved by the Director of Public Works or his or her Designee. Care should be taken to integrate the mounting elements into the small wireless facility design. Through-bolting or use of lag bolts on City-owned utility poles is prohibited, except as approved on wood distribution poles.
8. For attachments to existing utility poles, wires serving the small wireless facility shall be concealed within the hollow interior of the utility pole, or if concealment is not technically feasible, flush mounted to an existing utility pole in an enclosed wire chase which is painted or otherwise colored to match the existing pole on which the facilities are collocated. For new utility poles or wireless support structures, wires serving the small wireless facility shall be concealed within the hollow interior of the utility pole or wireless support structure, within a separate chamber of the pole isolating the electric light feed wires from the small cell wires, except in the case of a wood distribution pole, in which case the wires should be protected in molding or conduit that is attached to the wood pole.
9. All small wireless facilities shall be installed in accordance with all applicable City codes. No wiring or cabling shall interfere with any existing wiring or cabling installed by the City, a utility, or a wireless services provider.
10. No guy or other support wires will be used in connection with a small wireless facility unless the small wireless facility is to be attached to an existing utility pole or wireless support structure that incorporates guy wires prior to the date the applicant has applied for a permit.
11. The small wireless facility, including the antenna, and all related equipment when attached to an existing or new utility pole or wireless support structure, must be designed to withstand a wind force and ice loads in accordance with the applicable standards established in Chapter 25 of the National Electric Safety Code for utility poles, Rule 250-B and 250-C standards governing wind, ice, and loading

forces on utility poles, in the American National Standards Institute (ANSI) in TIA/EIA Section 222-G established by the Telecommunications Industry Association (TIA) and the Electronics Industry Association (EIA) for steel wireless support structures and the applicable industry standard for other existing structures. For any small wireless facility attached to a City-owned utility pole or, in the discretion of the City, to a non City-owned utility pole or wireless support structure, the operator of the small wireless facility must provide the City with a structural evaluation of each specific location containing a recommendation that the proposed installation passes the standards described above. The evaluation must be prepared by a professional structural engineer licensed in the State of Illinois.

12. The City will not authorize any attachments of small wireless facilities to a City-owned utility pole that negatively impacts the structural integrity of the pole. The City may condition approval of the collocation on replacement or modification of the City-owned utility pole if necessary to meet City standards.
13. Small wireless facilities shall be located in a manner that meets the Americans with Disabilities Act of 1990 and does not obstruct, impede or hinder the usual pedestrian or vehicular path of travel.
14. The wireless provider shall coordinate, establish, maintain and pay for all power from the City of St. Charles, and any communication connections with private utilities.
15. A four (4) inch by six (6) inch plate or label with the wireless provider's name, location identifying information, and emergency telephone number shall be permanently fixed to the small wireless facility equipment enclosure or shroud.
16. The location, and type, of the electric meter fitting shall be subject to the direction of the City of St. Charles Municipal Electric Utility.

B. Replacement of Existing "Highway" Street Light Poles or Traffic Signal Poles

For the purposes of this section, "Highway" shall be defined as a pole greater than 20 feet in height, and shall be differentiated from "Decorative" which is covered in Subsection C. A highway pole may be wood, aluminum, or fiberglass. A highway pole may also be a traffic signal pole. The following standards apply when replacing an existing highway street light pole or traffic signal pole with a combination small wireless facility and street

light/traffic signal pole. Such replacements should only be located where an existing street light pole can be removed and replaced, or at a new location where it has been identified that a street light is necessary. All such replacements shall meet the following standards:

1. All replacement highway street light poles or traffic signal poles shall be a similar design, material, and color as the replaced existing street light pole and other poles within the immediate area, unless approved by the Director of Public Works or his or her Designee. Determination as to whether a proposed pole is similar is solely determined by the Director of Public Works or his or her Designee.
2. All replacement street light poles and traffic signal poles and pole foundations shall conform to the City's standards and specifications for street light design and construction. If applicable, the structural design must also include the break-away bolts and assurance that the added wind load will not cause failures of break-away bolts. See Exhibit Drawings for typical design standards.
3. Replacement street light poles shall be an equal distance from other street light poles based upon the average distance between existing street light poles within the designated area.
4. Street light poles shall be designed and engineered to support a luminaire and mast arm of length equal to that of the existing pole to be replaced or of a length approved by the Director of Public Works or his Designee based upon the location of the replacement street light pole.
5. All luminaires and mast arms shall match the arc and style of the original luminaire and mast arm, unless otherwise approved by the Director of Public Works or his or her Designee.
6. The replacement luminaire and mast arm shall be at the same height above the ground as the existing luminaire and mast arm.
7. All replacement street light poles shall have light emitting diode (LED) light fixtures consistent with City standards, or as otherwise approved by the Director of Public Works or his or her Designee.
8. Replacement street light poles shall have a five (5) year manufacturer's replacement warranty.

9. Replacement street light poles shall meet American Association of State Highway and Transportation Officials structural guidelines for roadway applications and the American National Standards Institute requirements for vibrations.
10. Street light pole height shall be measured from the ground to the top of the street light pole.
11. All replacement street light pole heights shall be consistent with those of existing street lights.
12. The small wireless facility components shall be sized appropriately to the scale of the street light pole.
13. For wood street light poles, ancillary equipment should generally be pole mounted. For aluminum or fiberglass poles, ancillary equipment will generally be ground mounted and must comply with spacing and concealment requirements in Subsection E. Each street light pole component shall be architecturally compatible to create a cohesive aesthetic.
14. For all aluminum and fiberglass streetlight poles, no external wiring shall be allowed. Conduit will need to be placed into the footer, typically requiring the footer to be replaced. Wiring from the base to the antenna shall be within a separate chamber within the interior of the pole to avoid conflicts between the antenna wiring and the City electric wiring to the light.
15. Street light poles shall continue to be owned by the City.

C. "Decorative" Pole Replacements

For the purposes of this section, "Decorative" shall be defined as a metallic or fiberglass pole less than 20 feet in height, and shall be differentiated from "Highway" which are covered in Subsection B above. The following standards apply when replacing an existing decorative street light pole with a combination small wireless facility and street light pole. Such replacements should only be located where an existing street light pole can be removed and replaced, or at a new location where it has been identified that a street light is necessary. All such replacements shall meet the following standards:

1. All replacement decorative street light poles shall be a similar design, material, and color as the replaced existing street light pole and other poles within the immediate area. Determination as to whether a

proposed pole is similar is solely determined by the Director of Public Works or his or her Designee.

2. All replacement street light poles and pole foundations shall conform to the City's standards and specifications for street light design and construction. If applicable, the structural design must also include the break-away bolts and assurance that the added wind load will not cause failures of break-away bolts. See Exhibit Drawings for typical design standards.
3. Replacement street light poles shall be an equal distance from other street light poles based upon the average distance between existing street light poles within the designated area.
4. Street light poles shall be designed and engineered to support a luminaire and mast arm of length equal to that of the existing pole to be replaced or of a length approved by the Director of Public Works or his or her Designee based upon the location of the replacement street light pole.
5. All luminaires and mast arms, if applicable, shall match the arc and style of the original luminaire and mast arm, unless otherwise approved by the Director of Public Works or his or her Designee.
6. The replacement luminaire and mast arm, if applicable, shall be at the same height above the ground as the existing luminaire and mast arm.
7. All replacement decorative street light poles shall have light emitting diode (LED) light fixtures of the same light output as the removed fixture and nearby light fixtures, or as otherwise approved by the Director of Public Works or his or her Designee.
8. Replacement street light poles shall have a five (5) year manufacturer's replacement warranty.
9. Replacement street light poles shall meet American Association of State Highway and Transportation Officials structural guidelines for roadway applications and the American National Standards Institute requirements for vibrations.
10. Street light pole height shall be measured from the ground to the top of the street light pole.

11. All replacement street light pole heights shall be consistent with those of existing street lights.
12. The small wireless facility components shall be sized appropriately to the scale of the street light pole.
13. Each street light pole component shall be architecturally compatible to create a cohesive aesthetic. Where possible, ancillary equipment shall be incorporated into the pole. Where not possible, ground mounted ancillary equipment must comply with stealth and concealment requirements below.
14. For all aluminum and fiberglass streetlight poles, no external wiring shall be allowed. Conduit will need to be placed into the footer, typically requiring the footer to be replaced. Wiring from the base to the antenna shall be within a separate chamber within the interior of the pole to avoid conflicts between the antenna wiring and the City electric wiring to the light.
15. Street light poles shall continue to be owned by the City.

D. Installation of new wireless support structures, where allowed.

1. A new wireless support structure shall be designed to minimize the visual and aesthetic impact of the new vertical element and associated small wireless facilities upon the surrounding area and shall blend in with the surrounding streetscape with minimal visual impact. The City may require a new wireless support structure to be constructed of a specific material that will enhance the stealth and concealment of the structure.
2. New wireless support structures shall match the design, type, material and color of existing utility poles, including street light poles, within the immediate area, except as otherwise approved by the Director of Public Works or his or her Designee. See Exhibit Drawings for typical design standards.
3. Within residentially zoned areas, new wireless support structure installations shall generally be located where the shared property line between two residential parcels intersects the right-of-way whenever possible, unless an unsafe condition, cluttered appearance, or other violation of these standards will result.

4. New wireless support structures shall be equal distance from other utility poles based upon the average distance between existing utility poles within the designated area. If a new wireless support structure cannot be located the average distance from other utility poles, a new wireless support structure may be approved in an alternative location that will, in the sole opinion of the Director of Public Works or his or her designee, most effectively minimize public impact, optimize safety, and incorporate aesthetic concerns.
5. The centerline of a new wireless support structure shall be in alignment with existing utility poles where present, or with street or parkway trees along the same side of the right-of-way, unless otherwise directed by the Director of Public Works or his or her Designee.
6. New wireless support structures and any ground mounted ancillary equipment shall be located a minimum of twelve (12) feet from driveway aprons, unless otherwise directed by the Director of Public Works or his or her Designee.
7. New wireless support structures shall be sited outside the critical root zone of existing trees having a six (6) inch diameter at breast height located in the immediate vicinity.
8. The outside diameter of any new wireless support structure shall not exceed the diameter of existing utility poles located within 300 feet of the location of the new wireless support structure, unless approved by the Director of Public Works or his or her Designee.
9. New wireless support structures shall not exceed the heights as authorized by Chapter 13.24 of the City Code.
10. New wireless support structures shall be round in shape with a smooth pole shaft, unless approved by the Director of Public Works or his or her Designee.
11. New wireless support structures incorporating pole-mounted small wireless facilities shall be tapered in diameter from the base to the top, with a maximum diameter of twelve (12) inches at the base and a maximum diameter of eight (8) inches at the top, unless approved by the Director of Public Works or his or her Designee.

12. New wireless support structures incorporating small wireless facilities in an equipment enclosure within a base, or separate wiring chambers, may utilize poles tapered in diameter or poles having a consistent outside diameter, as approved by the Director of Public Works or his or her Designee.
13. All new wireless support structures must be supported with a reinforced concrete foundation designed, stamped, sealed and signed by a professional engineer licensed and registered in the State of Illinois, and subject to the Director of Public Works or his or her Designee approval. Optionally, screw in foundations are acceptable with stamped and sealed drawings from a professional engineer licensed and registered in the State of Illinois, and subject to Director of Public Works or his or her Designee approval.
14. All anchor bolts must be concealed from public view, with an appropriate pole boot or cover powder-coated to match the wireless support structure color.
15. All wiring shall be internal to the new support structure, with the exception of a new wood pole.
16. If multiple requests are received to install two (2) or more wireless support structures in approximately the same location, in a manner that would violate these requirements or other City requirements, the City shall resolve such conflict through whatever reasonable and nondiscriminatory manner it deems appropriate.
17. The applicable provisions of this section, and the Stealth and Concealment Requirements in Section E below, apply to new ancillary equipment associated with Small Wireless Facilities; for example, ground mounted equipment supporting an antenna on an adjacent pole.

E. Stealth and Concealment Requirements.

Wireless providers shall comply with the design and construction standards that are generally applicable to utility installations in the public right-of-way, as set forth in Chapter 13.22 of the City Code, as well as these standards, any other written design standards for decorative utility poles, or reasonable stealth, concealment, and aesthetic requirements that are otherwise identified by the City in an ordinance, written policy adopted by the City Council, in the City's comprehensive plan, or in another written design plan

that applies to other occupiers of the rights-of-way, including on a historic landmark or in a historic district. In addition:

1. The use of stealth technology in the location and construction of small wireless facilities is required whenever and wherever possible. Stealth technology means using the least visually and physically intrusive design and equipment that is not technologically or commercially impracticable under the facts and circumstances, to employ methods that blend into surroundings and not be visible; and to minimize adverse aesthetic and visual impacts on the right-of-way, property, building and/or other facilities adjacent to, surrounding and in generally the same area as the requested location of such small wireless facilities.
2. Small wireless facilities, including but not limited to antennas, equipment enclosures, mounting brackets and hardware, mounting posts, cables, and shrouds, shall be of a color that is identical to the utility pole or of a neutral color compatible with the color of the utility pole and any surrounding elements so as to camouflage or conceal their appearance, create consistency among right-of-way infrastructure, and to make such small wireless facilities as unobtrusive as possible. The Director of Public Works or his or her Designee may approve compatible color schemes for antennas and small wireless facilities.
3. Mechanical and ancillary equipment and devices shall be concealed underground, mounted within a concealment box designed as a decorative pole base or within unobtrusive equipment enclosures or other devices mounted directly to the pole a minimum of eight (8) feet above ground level and screened by means of City-approved banners or other approved concealment methods. Ground mounted equipment shall comply with the applicable provisions in previous sections and shall additionally be subject to non-discriminatory aesthetic standards on a case by case basis for the purpose of minimizing the visual impact of said ground mounted equipment. The City reserves the right to define the location and spacing of ground mounted equipment. All wiring shall be internal to the structure except if the small wireless facility is being installed on an existing wood utility pole.
4. Small wireless facilities must be located and oriented in such a way as to minimize view blockage.

5. The wireless provider shall use the smallest suitable wireless facilities then in industry use, regardless of location, for the particular application.
6. Additional landscaping and fencing shall be required to help mitigate the effects of the installation of any ground-mounted equipment. The wireless provider shall be responsible for the maintenance of any fencing or landscaping for the duration of the presence of the equipment. The wireless provider, as directed by the City, shall be responsible for the removal of fencing or landscaping at such time in the future where it is deemed no longer necessary by the City, for example, if the ground mounted equipment were to be removed. Where ground mounted equipment is proposed, a landscape drawing submittal is required as part of the ROW permit.
7. Small wireless facilities shall not be artificially lighted or marked, except as required by law.
8. Small wireless facilities, other than top-mounted antennas, shall be mounted on the side of the utility pole or wireless support structure opposite the direction of vehicular traffic along the same side of the right-of-way.
9. Alternative measures for concealment may be proposed by the wireless provider and approved by the Director of Public Works or his or her Designee, if the Director of Public Works or his or her Designee determines that the optional measures will be at least as effective in concealing the small wireless facilities as the measures required above.

F. Historic Districts and Landmarks.

For areas designated as historic districts, or on buildings or structures designated as historic landmarks pursuant to chapter 17.32 (Historic Preservation) of City Code, in addition to the stealth, concealment and design requirements referenced above, the following additional restrictions/conditions apply to the installation of small wireless facilities:

1. Small wireless facilities and wireless support structures shall be comprised of materials that are consistent with the surrounding elements so as to blend architecturally with any buildings or structures designated as historic landmarks or located within a designated historic district, and shall

be designed to blend with the surrounding historical landmarks and/or district in design and color.

2. No ground-mounted equipment enclosures shall be permitted within a designated historic district except as approved by the City as stealth installations.

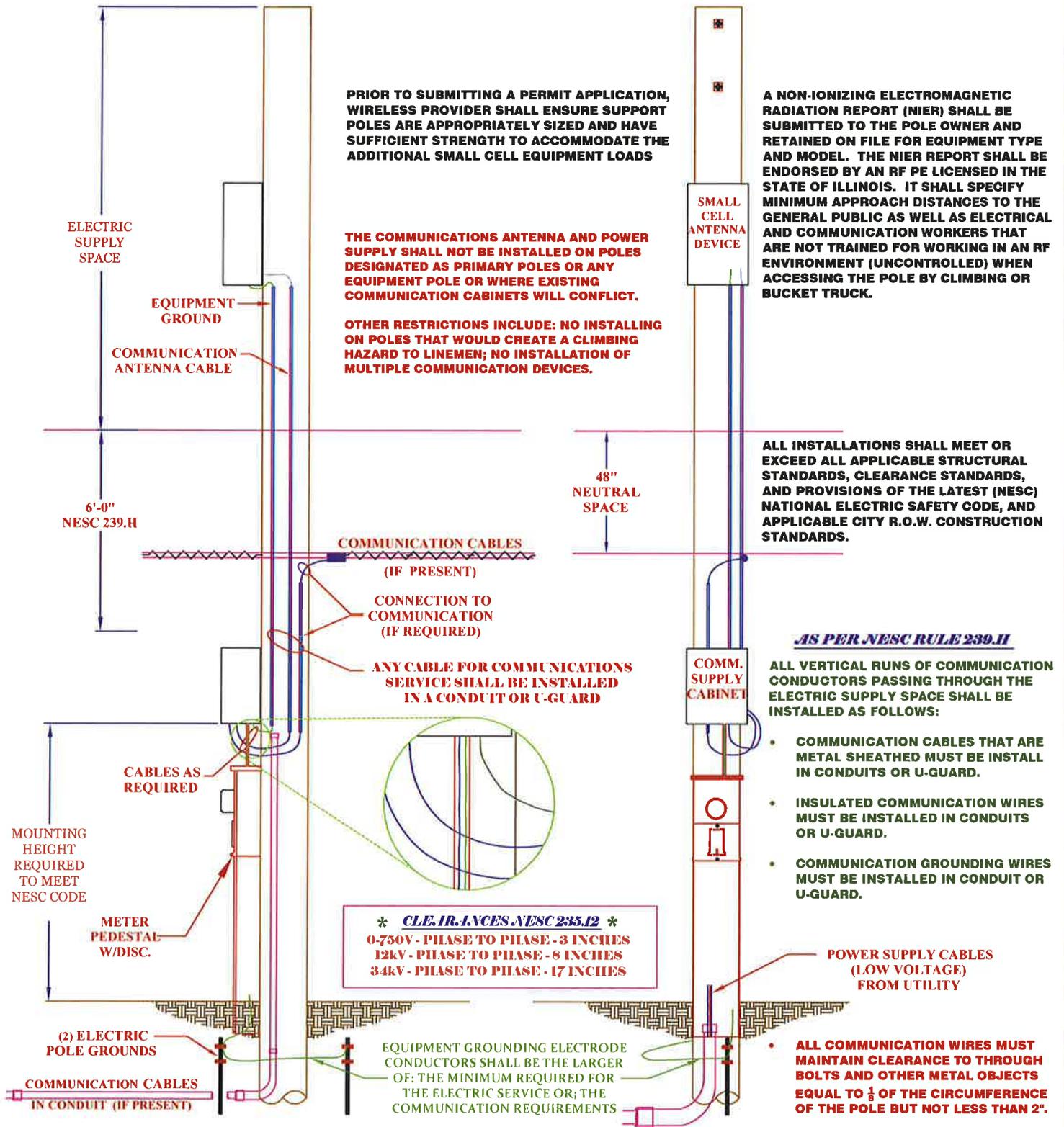
3. Small wireless facilities shall be mounted on “highway” poles within designated historic districts, if available, as opposed to on City-owned “decorative” street lights.

4. Small wireless facilities shall not be mounted upon City-owned decorative street lights except in cases where the equipment enclosure is concealed within the base of the decorative street light, and the antenna and its related shroud is incorporated in a seamless enclosure on the top of the decorative street light, pursuant to applicable City design standards and as approved by the Director of Public Works or his or her Designee.

G. Historic District or Landmark Limitations:

1. Any stealth, concealment and design standards in a historic district or on a historic landmark, including restrictions on a specific category of utility poles, may not have the effect of prohibiting any provider's technology. Such stealth, concealment and design measures shall not be considered a part of the small wireless facility for purposes of the size restrictions of a small wireless facility.

2. This subsection shall not be construed to limit the City's enforcement of historic preservation in conformance with the requirements adopted pursuant to the Illinois State Agency Historic Resources Preservation Act or the National Historic Preservation Act of 1966, 54 U.S.C. Section 300101 et seq., and the regulations adopted to implement those laws.



PRIOR TO SUBMITTING A PERMIT APPLICATION, WIRELESS PROVIDER SHALL ENSURE SUPPORT POLES ARE APPROPRIATELY SIZED AND HAVE SUFFICIENT STRENGTH TO ACCOMMODATE THE ADDITIONAL SMALL CELL EQUIPMENT LOADS

THE COMMUNICATIONS ANTENNA AND POWER SUPPLY SHALL NOT BE INSTALLED ON POLES DESIGNATED AS PRIMARY POLES OR ANY EQUIPMENT POLE OR WHERE EXISTING COMMUNICATION CABINETS WILL CONFLICT.

OTHER RESTRICTIONS INCLUDE: NO INSTALLING ON POLES THAT WOULD CREATE A CLIMBING HAZARD TO LINEMEN; NO INSTALLATION OF MULTIPLE COMMUNICATION DEVICES.

A NON-IONIZING ELECTROMAGNETIC RADIATION REPORT (NIER) SHALL BE SUBMITTED TO THE POLE OWNER AND RETAINED ON FILE FOR EQUIPMENT TYPE AND MODEL. THE NIER REPORT SHALL BE ENDORSED BY AN RF PE LICENSED IN THE STATE OF ILLINOIS. IT SHALL SPECIFY MINIMUM APPROACH DISTANCES TO THE GENERAL PUBLIC AS WELL AS ELECTRICAL AND COMMUNICATION WORKERS THAT ARE NOT TRAINED FOR WORKING IN AN RF ENVIRONMENT (UNCONTROLLED) WHEN ACCESSING THE POLE BY CLIMBING OR BUCKET TRUCK.

ALL INSTALLATIONS SHALL MEET OR EXCEED ALL APPLICABLE STRUCTURAL STANDARDS, CLEARANCE STANDARDS, AND PROVISIONS OF THE LATEST (NESC) NATIONAL ELECTRIC SAFETY CODE, AND APPLICABLE CITY R.O.W. CONSTRUCTION STANDARDS.

AS PER NESC RULE 239.II

ALL VERTICAL RUNS OF COMMUNICATION CONDUCTORS PASSING THROUGH THE ELECTRIC SUPPLY SPACE SHALL BE INSTALLED AS FOLLOWS:

- COMMUNICATION CABLES THAT ARE METAL SHEATHED MUST BE INSTALLED IN CONDUITS OR U-GUARD.
- INSULATED COMMUNICATION WIRES MUST BE INSTALLED IN CONDUITS OR U-GUARD.
- COMMUNICATION GROUNDING WIRES MUST BE INSTALLED IN CONDUIT OR U-GUARD.

*** CLEARANCES NESC 235.I2 ***
0-750V - PHASE TO PHASE - 3 INCHES
12kV - PHASE TO PHASE - 8 INCHES
34kV - PHASE TO PHASE - 17 INCHES

POWER SUPPLY CABLES (LOW VOLTAGE) FROM UTILITY

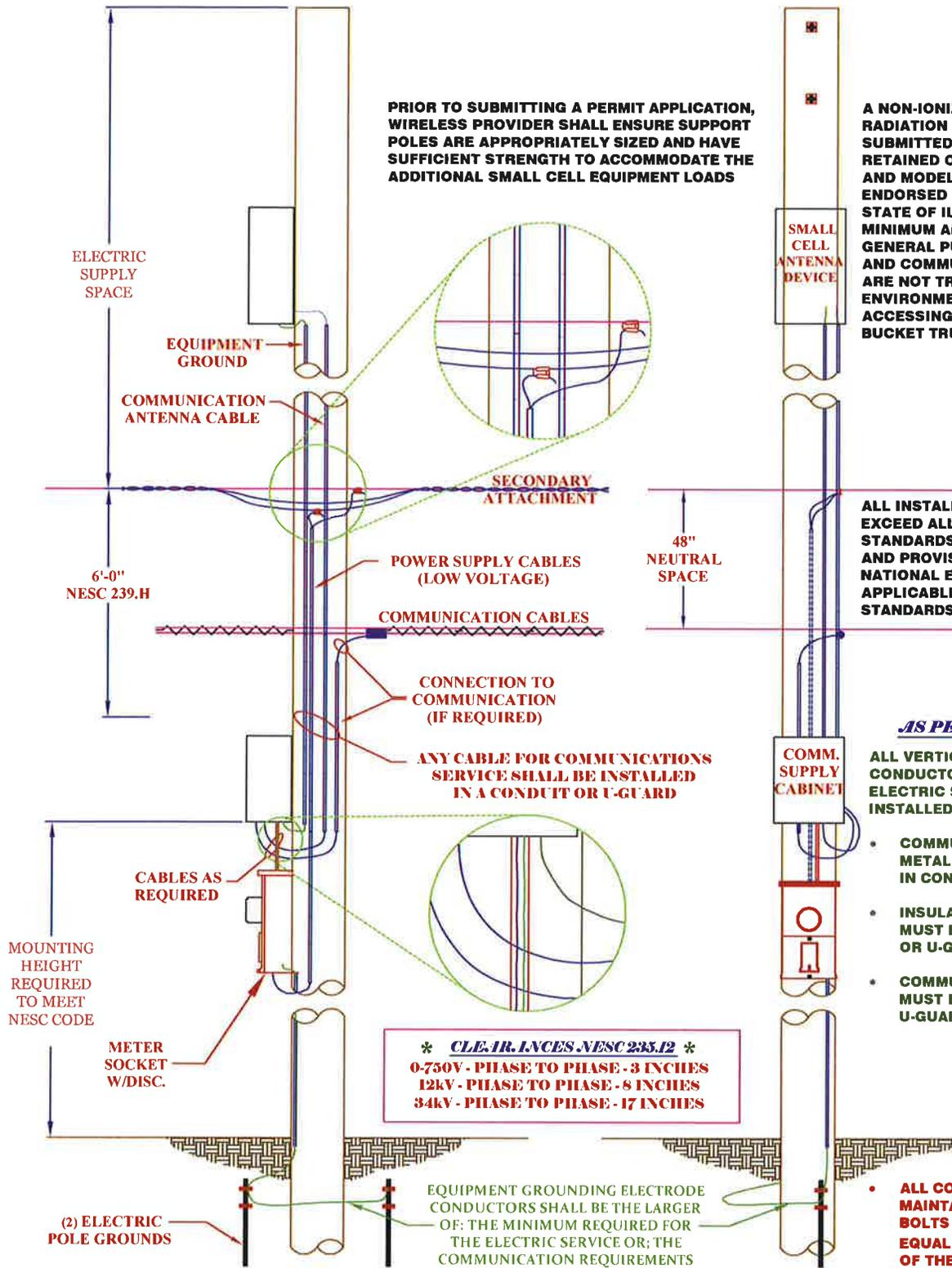
- **ALL COMMUNICATION WIRES MUST MAINTAIN CLEARANCE TO THROUGH BOLTS AND OTHER METAL OBJECTS EQUAL TO 1/8 OF THE CIRCUMFERENCE OF THE POLE BUT NOT LESS THAN 2".**

THIS STANDARD IS USED TO INSTALL A NON-ELECTRIC UTILITY COMMUNICATION ANTENNA & SECONDARY SERVICE CONNECTION TO A POWER SUPPLY CABINET. ALL APPLICABLE STANDARDS SHALL APPLY AND IN CASE OF ANY CONFLICT, THE MOST STRINGENT REQUIREMENTS SHALL PREVAIL. ALL NECESSARY PERMITS SHALL BE OBTAINED BY THE WIRELESS CARRIER OWNER AND PROVIDED TO THE CITY. THE WIRELESS CARRIER OWNER IS RESPONSIBLE FOR THE SOLE COST & EXPENSE FOR THE INSTALLATION OF THIS EQUIPMENT IN ITS ENTIRETY.

ST. CHARLES PUBLIC WORKS DEPARTMENT
ELECTRIC STANDARDS

SMALL CELL ATTACHMENT OPERATED BY OTHERS

DATE: 11 - 7 - 18
SMALL CELL UNDG SERVICE



PRIOR TO SUBMITTING A PERMIT APPLICATION, WIRELESS PROVIDER SHALL ENSURE SUPPORT POLES ARE APPROPRIATELY SIZED AND HAVE SUFFICIENT STRENGTH TO ACCOMMODATE THE ADDITIONAL SMALL CELL EQUIPMENT LOADS

A NON-IONIZING ELECTROMAGNETIC RADIATION REPORT (NIER) SHALL BE SUBMITTED TO THE POLE OWNER AND RETAINED ON FILE FOR EQUIPMENT TYPE AND MODEL. THE NIER REPORT SHALL BE ENDORSED BY AN RF PE LICENSED IN THE STATE OF ILLINOIS. IT SHALL SPECIFY MINIMUM APPROACH DISTANCES TO THE GENERAL PUBLIC AS WELL AS ELECTRICAL AND COMMUNICATION WORKERS THAT ARE NOT TRAINED FOR WORKING IN AN RF ENVIRONMENT (UNCONTROLLED) WHEN ACCESSING THE POLE BY CLIMBING OR BUCKET TRUCK.

ALL INSTALLATIONS SHALL MEET OR EXCEED ALL APPLICABLE STRUCTURAL STANDARDS, CLEARANCE STANDARDS, AND PROVISIONS OF THE LATEST (NESC) NATIONAL ELECTRIC SAFETY CODE, AND APPLICABLE CITY R.O.W. CONSTRUCTION STANDARDS.

AS PER NESC RULE 239.11

ALL VERTICAL RUNS OF COMMUNICATION CONDUCTORS PASSING THROUGH THE ELECTRIC SUPPLY SPACE SHALL BE INSTALLED AS FOLLOWS:

- COMMUNICATION CABLES THAT ARE METAL SHEATHED MUST BE INSTALLED IN CONDUITS OR U-GUARD.
- INSULATED COMMUNICATION WIRES MUST BE INSTALLED IN CONDUITS OR U-GUARD.
- COMMUNICATION GROUNDING WIRES MUST BE INSTALLED IN CONDUIT OR U-GUARD.

*** CLEARANCES NESC 235.12 ***
0-750V - PHASE TO PHASE - 3 INCHES
12kV - PHASE TO PHASE - 8 INCHES
34kV - PHASE TO PHASE - 17 INCHES

- ALL COMMUNICATION WIRES MUST MAINTAIN CLEARANCE TO THROUGH BOLTS AND OTHER METAL OBJECTS EQUAL TO 1/8 OF THE CIRCUMFERENCE OF THE POLE BUT NOT LESS THAN 2".

THIS STANDARD IS USED TO INSTALL A NON-ELECTRIC UTILITY COMMUNICATION ANTENNA & SECONDARY SERVICE CONNECTION TO A POWER SUPPLY CABINET. ALL APPLICABLE STANDARDS SHALL APPLY AND IN CASE OF ANY CONFLICT, THE MOST STRINGENT REQUIREMENTS SHALL PREVAIL. ALL NECESSARY PERMITS SHALL BE OBTAINED BY THE WIRELESS CARRIER OWNER AND PROVIDED TO THE CITY. THE WIRELESS CARRIER OWNER IS RESPONSIBLE FOR THE SOLE COST & EXPENSE FOR THE INSTALLATION OF THIS EQUIPMENT IN ITS ENTIRETY.

<p>ST. CHARLES PUBLIC WORKS DEPARTMENT ELECTRIC STANDARDS</p>	<p>SMALL CELL ATTACHMENT OPERATED BY OTHERS</p>	<p>DATE: 11 - 7 - 18 SMALL CELL OVHD SERVICE</p>
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City of St. Charles

Small Wireless Facility ROW Permit



Public Works – Electric Services Division
2 East Main Street
St. Charles IL 60174
630.377.4407 (Office)
<http://www.stcharlesil.gov>

*Please direct any and all questions to the City of St. Charles Electric Services Division:
Monday through Friday (8 AM to 4:30 PM) at 630.377.4407*

A Small Cell ROW Permit is required for any antenna installation falling under City Ordinance 13.24 and State Act 100-585.

Application and Drawings Procedures:

- ▶ The Permit and Application Process is found in 13.24.005 with complete list of required submittals.
- ▶ Additionally, the consult the “General Guidelines and Small Wireless Facility Design, Stealth and Concealment Standards” document.
- ▶ Two-2 copies required drawings or electronic submittal of drawings.
- ▶ An original copy of a Certificate of Liability Insurance per 13.24.018 with special provisions listing the City of St. Charles as additional insured.

- ▶ There are five possible Scenarios:
 - 1 – ComEd owned pole, City of St. Charles ROW
 - 2 – City owned wood utility pole
 - 3 – City owned “highway” type streetlight pole
 - 4 – City owned “decorative” type streetlight pole
 - 5 – City owned pole (wood or streetlight) – non- City of St. Charles ROW

Application – Permit Fees: (All payments are to be made in either a check or cash)

- ▶ A filing fee is to be paid at time of submission of application and plans for Scenarios 1, 2, 3 and 4 above. Payment is to be submitted either in check or cash – no electronic payments accepted. Fee per 13.24.005:
 - Request to collocate small cell wireless facility that includes the installation of a new pole - \$1,000.00
 - Request to collocate small cell wireless facility on an existing utility pole or wireless support structure - \$650.00
 - Request to collocate multiple small wireless facilities on existing utility poles or wireless support structures addressed in a single application - \$350.00 per small wireless facility.

- The City of St. Charles does not collect ROW permit fees for KDOT or IDOT ROW installations (Scenario #5). No submittal to the City is required for installation on a ComEd Pole in KDOT or IDOT ROW.

Additional Requirements for Scenario 1 – ComEd Pole/St. Charles ROW:

See Applicable section of “General Guidelines and Small Wireless Facility Design, Stealth and Concealment Standards” document. Additionally, please note:

- ▶ Requires written documentation of ComEd approval.
- ▶ Ground mounted ancillary equipment requires landscaping plan.

Additional Requirements for Scenario 2 – St. Charles Wood Utility Pole:

See Applicable section of “General Guidelines and Small Wireless Facility Design, Stealth and Concealment Standards” document. Additionally, please note:

- ▶ Requires Master Service Agreement between the City and the Provider.
- ▶ Ground mounted ancillary equipment requires landscaping plan.

Additional Requirements for Scenario 3 – St. Charles “Highway” Type Streetlight Pole:

See Applicable section of “General Guidelines and Small Wireless Facility Design, Stealth and Concealment Standards” document. Additionally, please note:

- ▶ Requires Master Service Agreement between the City and the Provider.
- ▶ Pole designs and antenna and associated equipment configurations may vary.
- ▶ Ground mounted ancillary equipment requires landscaping plan.

Additional Requirements for Scenario 4 – St. Charles “Decorative” Type Streetlight Pole:

See Applicable section of “General Guidelines and Small Wireless Facility Design, Stealth and Concealment Standards” document. Additionally, please note:

- ▶ Requires Master Service Agreement between the City and the Provider.
- ▶ Pole designs and antenna and associated equipment configurations may vary.
- ▶ Ground mounted ancillary equipment requires landscaping plan.

Additional Requirements for Scenario 5 – St. Charles Pole/KDOT or IDOT ROW:

See Applicable section of “General Guidelines and Small Wireless Facility Design, Stealth and Concealment Standards” document. Additionally, please note:

- ▶ Requires Master Service Agreement between the City and the Provider.

General Design and Inspection Requirements for work in the City ROW:

- ▶ Please refer to the City of St. Charles Engineering Design and Inspection Policy Manual and Details for construction and design requirements. It can be found at the following web-address:

<http://www.stcharlesil.gov/departments/PublicWorks/CityEngineeringOffice/policy-manual.html>

Additional Design Requirements:

- ▶ Asphalt and Concrete Pavement Repairs: All pavement repairs must be made in accordance with the Pavement Patch Detail located in the Engineering Design and Inspection Policy Manual.
- ▶ Temporary Pavement Patch (cold patch is not permitted): Flowable fill placement, if used, should not exceed more than 3-inches below the bottom of the existing pavement. After the flowable fill sets it must be capped with CA-06 stone and existing pavement section must be matched. The remaining void shall be filled with a temporary concrete patch. A layer of visquene shall be placed in-between the flowable fill and concrete patch to permit removal without disturbance to the flowable fill. The concrete shall be removed and replaced with bituminous material prior to the next May 1st.
- ▶ Curb cuts may be completed by removing the “barrier” portion of the existing curb. Approval of this method will be subject to inspection by the Development Engineering Office and completed at the owner’s risk. Excessive spauling after saw cutting might require removal of the existing curb per the City’s discretion at the applicant’s expense.
- ▶ Any temporary road closures shall be completed with proper traffic control as mandated by Illinois Department of Transportation (IDOT).
- ▶ The contractor shall coordinate all closures with the City of St. Charles Police Department (630-377-4435) and Tri-Com (630-377-9011).

General Comments:

- ⇒ Inspections of the pole, wireless support structure, electric installation, and electric service installation will be through the Electric Division. Schedule inspections 24 hours in advance by calling 630.377.4407.
- ⇒ Underground fiber installations to the site may require a separate ROW permit through the Building and Code Enforcement Division Office. All inspections of pavement or curb repairs are to be scheduled with the Building and Code Enforcement Division Office (630.377.4406) a minimum of 24-hours in advance before bituminous, concrete or non-standard pavement is placed within the right of way. Scheduling these inspections is encouraged at the time your permit is issued.
- ⇒ All construction must be in accordance with the “Manual on Uniform Traffic Control Devices” (current edition).
- ⇒ All documents MUST be submitted to the City of St. Charles Electric Services Division, approved, and a permit issued prior to any work beginning.

- ⇒ All construction must be in accordance with the St. Charles Municipal Code, the City of St. Charles Engineering Design and Inspection Policy Manual (current edition), the Illinois Department of Transportation “Standards Specifications for Road and Bridge Construction” (current editions) and all final “Supplemental Specifications” published as of the date of this permit.
- ⇒ Applicant is responsible for contacting JULIE for utility locations (800.892.0123). You will be given a Dig Number; it is very important to retain this number for any references on these locations. Color code for the JULIE marking are as follows:

▪ Electric Utilities	Red
▪ Comcast (Cable)	Orange
▪ Northern Illinois Gas (NICOR)	Yellow
▪ Sewer Utilities	Green
▪ Telephone Utilities	Orange
▪ Water Utilities	Blue

PLEASE NOTE: Underground traffic signal utilities are NOT located when contacting J.U.L.I.E. When working near traffic signals or suspected underground traffic signal utilities, please contact the City for the current contractor’s contact information.



CITY OF ST CHARLES
Application for Small Wireless Facility Right-Of-Way Permit

Department: Public Works – Electric Services Division Phone: (630) 377-4407

Application Date: _____ **Permit #** _____

PLEASE PRINT ALL INFORMATION

I, _____, do hereby apply for a permit for the following described work

located at _____ Estimated Cost: _____

Description of proposed work: _____

I hereby apply for a permit to install Small Wireless Facilities

Check List for Submittal of Application:

- Application Form – Completely Filled Out.
- Two-2 copies of the details of the proposed work or electronic submittal of required drawings.
- An original copy of a Certificate of Liability Insurance with special provisions listing the City of St. Charles as additional insured.
- Submittal fee payments is to be by cash or check payable to the City of St. Charles

General Contractor: _____

Contractor: _____

Name: _____

Name: _____

Address: _____

Address: _____

City/State/Zip Code: _____

City/State/Zip Code: _____

Telephone NO. _____

Telephone NO. _____

Email: _____

Email: _____

**Application Small Wireless Facility Right-Of-Way Permit
Page 2**

I, the undersigned, certify that if a permit is issued to me, I will comply with all applicable ordinances of the City of St. Charles and shall perform all work, or cause all work to be performed according to the provisions of said ordinances; the Illinois Department of Transportation “Standard Specifications” for Road and Bridge Construction” (current editions), and all final “Supplemental Specifications” published as of the date of this permit. I, or my agent, shall personally supervise the work and shall do, or cause to have done, said work according to plans, specifications and other written information supplied as a part of this application. I am familiar with the applicable ordinances and the provision thereof and in signing this application do willingly become responsible for all work accomplished under the permit by all contractors, tradesmen and workmen, and shall call for inspections as required at a minimum of 24-hours before they become due.

PRINT NAME: _____ **SIGNATURE** _____

REPORT OF THE BUILDING OFFICIAL

Remarks: _____

Accepted: _____ **Rejected:** _____ **Date:** _____

Signed: _____

01.2018

For Office Use
Received _____
Fee Paid \$ _____
Receipt # _____
Check # _____



SMALL WIRELESS FACILITIES PERMIT APPLICATION

APPLICANT INFORMATION

Applicant Name:

Date of Application:

Applicant is a: Wireless Provider Representative Other (please specify):

WIRELESS PROVIDER INFORMATION

Wireless Provider Name:

Wireless Provider Address:

City:

State:

ZIP Code:

Phone:

Email:

CONTACT PERSON FOR THIS PROJECT

Contact Person Name:

Contact Person Address:

City:

State:

ZIP Code:

Phone:

Email:

PROPOSED SITE LOCATION

Property Address:

Closest Intersection (Distance and Direction from):

Right of Way

Private Property

Zoning District:

PIN (if not right-of-way):

EXISTING UTILITY POLE/WIRELESS SUPPORT STRUCTURE INFORMATION

Does the Project Involve a New Pole? Yes No

Pole/Structure ID Number:

Height of Pole/Wireless
Support Structure (feet):

Pole Color:

Pole Type:

Existing Attachment(s) on Utility Pole/Wireless Support Structure? (e.g., banners, light fixtures)

Yes No

If yes, please specify:

Owner of Pole/Wireless Support Structure:

Name of Pole/Wireless Support Structure Representative:

Address:

City:

State:

ZIP Code:

Office Phone:

Cell Phone:

E-mail:

NOTE: If the proposed Small Wireless Facility is to be attached to an existing pole owned by an entity other than the City, the Applicant/Wireless Provider must, with the application, provide legally competent evidence of the consent of the Owner of the Pole to the proposed collocation. Permission

Received: Yes No



Electric Service Application – Small Wireless Facility

(Each individual service will require a complete and separate application)

Name: _____	Phone: _____
Original Signature: _____	Fax: _____
Contact Name: _____	Phone: _____
Application Date: _____	Requested Service Date: _____

Service Voltage Requested	Small Wireless Facility
____ Single Phase 120/240	
____ Single Phase 120/208	
____ Three Phase	
____ 120/208	
____ 277/480	
____ Other	
Service Panel:	
Present Rating (amps) _____	Proposed Rating (amps) _____ Proposed Connected KW: _____
Present Peak KW (Demand) _____	Estimated Peak KW (Demand) _____

SERVICE ADDRESS
(A complete and accurate service address is required before service may be installed)
Street Address: _____

CUSTOMER BILLING INFORMATION
(This information will be used for utility billing purposes)
Name: _____
Street Address: _____
City/State/Zip _____ Phone: _____
Authorized representative or agent: _____
Title: _____ Phone: _____

ELECTRIC DIVISION OFFICE USE

Application Accepted By: _____

Date Application Received: _____

Date Payment Received: _____

Method of Payment: _____

Building Permit No.: _____

ELECTRIC DEPARTMENT CHARGES

Charges Calculated by: _____

Date: _____

<u>ITEM</u>	<u>ACCOUNT #</u>	<u>CHARGES (\$)</u>	<u>AMOUNT PAID</u>
Project Cost:	200999 45405	_____	_____
SECC (Metering):	200999 48503	_____	_____
Engineering:	200999 45206	_____	_____
Temp Connection:	200999 45407	_____	_____
	_____	_____	_____
	_____	_____	_____
Subtotal		_____	_____
Total Amount of Charges:		_____	_____

Electric Project No.: _____

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AGENDA ITEM EXECUTIVE SUMMARY

Agenda Item number: 6.f

Title:

Recommendation to Approve Wording Change to City Code “Small Cell Wireless Applications” Section 13.24.021 (B)

Presenter:

Tom Bruhl

Meeting: Government Services Committee

Date: January 28, 2019

Proposed Cost: \$0

Budgeted Amount: \$0

Not Budgeted:

Executive Summary *(if not budgeted please explain):*

The City and an attorney from KTJ Law presented a new ordinance section to cover Small Cell applications within City ROW in July of 2018. The approved ordinance has been added to the City Code Book. Subsequently, while reviewing a request, our attorney realized that a word in the Exemptions to Applicability section was incorrect.

B. Property owned or controlled by a unit of local government that is not located within rights-of-way (local governments are, however, required to authorize the collocation of small wireless facilities on utility poles owned or controlled by the local government ~~or~~ and not located within rights-of-way to the same extent the local government permits access to utility poles for other commercial projects or uses);

This does not materially change the intent.

Attachments *(please list):*

* Ordinance

Recommendation/Suggested Action *(briefly explain):*

Recommendation to approve Wording Change to City Code Section 13.24.021 (B).

ORDINANCE NO. _____

AN ORDINANCE AMENDING SECTION 13.24.021 OF THE CITY OF ST. CHARLES PUBLIC UTILITIES ORDINANCE RELATIVE TO SMALL WIRELESS FACILITIES

WHEREAS, the City of St. Charles (“City”) is a municipal corporation duly organized and existing under the laws of the State of Illinois; and

WHEREAS, Public Act 100-585, known as the Small Wireless Facilities Deployment Act, approved by the Governor on April 12, 2018, with an effective date of June 1, 2018, acts to impose certain requirements on municipalities, including the City, regarding the permitting, construction, deployment, regulation, operation, maintenance, repair and removal of certain defined small wireless facilities both within public rights-of-way and in other locations within the jurisdiction of the City; and

WHEREAS, the Mayor and City Council of the City recently approved amendments to the City’s Municipal Code relative to the permitting, regulation and deployment of small wireless facilities in conformance with Public Act 100-585; and

WHEREAS, the Mayor and City Council of the City now desire to clarify language in subsection 13.24.021(B) of the Municipal Code in order to correspond more directly with Public Act 100-585.

BE IT ORDAINED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF ST. CHARLES, DUPAGE AND KANE COUNTIES, ILLINOIS:

SECTION 1: The recitals above shall be and are incorporated in this Section 1 as if fully restated herein.

SECTION 2: Title 13 (Public Utilities) of the Municipal Code of the City of St. Charles is amended by revising subsection 13.24.021(B) to read in its entirety as follows:

SECTION 13.24.021 (B) – Exemptions to Applicability: Title 13 (Public Utilities), Chapter 13.24 (Small Wireless Facilities), Section 13.24.021 (Exemptions to Applicability) of the St. Charles Zoning Ordinance is amended by revising subsection 13.24.021.B to read in its entirety as follows:

B. Property owned or controlled by a unit of local government that is not located within rights-of-way (local governments are, however, required to authorize the collocation of small wireless facilities on utility poles owned or controlled by the local government ~~or~~ **and not** located within rights-of-way to the same extent the local government permits access to utility poles for other commercial projects or uses);

SECTION 3: All ordinances or parts of ordinances in conflict with this Ordinance are hereby expressly repealed.

SECTION 4: Except as to the Code amendments set forth above in this Ordinance, all Chapters and Sections of the City Code, as amended, shall remain in full force and effect.

SECTION 5: Each section, paragraph, clause and provision of this Ordinance is separable, and if any provision is held unconstitutional or invalid for any reason, such decision shall not affect the remainder of this Ordinance, nor any part thereof, other than that part affected by such decision.

SECTION 6: This Ordinance shall be in full force and effect after its passage, approval and publication in the manner required by law.

ADOPTED this _____ day of _____, 2019, pursuant to a roll call vote as follows:

AYES: _____

NAYS: _____

ABSENT: _____

APPROVED by me this _____ day of _____, 2019, and attested to by the City Clerk this same day.

MAYOR

ATTEST:

CITY CLERK

STATE OF ILLINOIS)
COUNTY OF DUPAGE) SS
COUNTY OF KANE)

CLERK'S CERTIFICATE

I, Charles Amenta, Clerk of the City of St. Charles, in the Counties of DuPage and Kane and State of Illinois, do hereby certify that the attached and foregoing is a true and correct copy of that certain Ordinance now on file in my Office, entitled:

ORDINANCE NO. _____

AN ORDINANCE AMENDING SECTION 13.24.021 OF THE CITY OF ST. CHARLES PUBLIC UTILITIES ORDINANCE RELATIVE TO SMALL WIRELESS FACILITIES

which Ordinance was passed by the City Council of the City of St. Charles at a Regular City Council Meeting on the ___ day of _____, 2019, at which meeting a quorum was present, and approved by the Mayor of the City of St. Charles on the ___ day of _____, 2019.

I further certify that the vote on the question of the passage of said Ordinance by the City Council of the City of St. Charles was taken by Ayes and Nays and recorded in the minutes of the City Council of the City of St. Charles, and that the result of said vote was as follows, to-wit:

AYES: _____

NAYS: _____

ABSENT: _____

I do further certify that the original Ordinance, of which the foregoing is a true copy, is entrusted to my care for safekeeping, and that I am the lawful keeper of the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of the City of St. Charles, this ___ day of _____, 2019.

City Clerk

[SEAL]



AGENDA ITEM EXECUTIVE SUMMARY

Agenda Item number: 6.g

Title:

Recommendation to Award Purchase Order for Substation Transformer Load Tap Changer Maintenance to ABB, Inc.

Presenter:

Tom Bruhl

Meeting: Government Services Committee

Date: January 28, 2019

Proposed Cost: \$ 39,380

Budgeted Amount: \$ 45,000

Not Budgeted:

Executive Summary *(if not budgeted please explain):*

A critical component of our substation transformers are known as Load Tap Changers (LTC's). LTC's allow the City to maintain consistent voltage on the grid as ComEd's line voltage goes up or down. LTC's have moving parts and operate many times per day. Electric engineering uses a multi-faceted priority matrix to focus our maintenance activities. Based on age and number of operations, four transformers were targeted for LTC maintenance this budget year. Purchasing went out for bids and received four quality proposals. ABB, Inc. was the low evaluated bidder, are well qualified to perform the work, and can complete the work within our preferred schedule. This was a planned and budgeted substation maintenance expense.

Attachments *(please list):*

* Bid Tabulation

Recommendation/Suggested Action *(briefly explain):*

Recommendation to award Purchase Order for Substation Transformer Load Tap Changer Maintenance to ABB, Inc. in an amount of \$39,380.



BID RESULTS

On Line Load Tap Changer Inspection and Maintenance #1017

Bid Opening Date: December 21, 2018

A formal Invitation to Bid was published in the newspaper on Dec. 1, 2018. A direct notice was sent to an additional 8 firms. There were 4 responses. Three additional responses were received after the due date and were thus not accepted.

Statistics: The range between the lowest and highest offers was \$68,147; or 198% of the low bid. A key observation of offers is (1) the failure to include the cost of the spare parts package; or (2) specify the contents of the spare parts package. All offers were compared to similar past solicitations and results are consistent with past awards.

Bidder	ABB, INC	RESA SERVICE	ENERGIS HOLDINGS	HIGH VOLTAGE				
Responsive Bid?								
2 originals	YES	only 1	YES	YES				
electronic file	YES	no	YES	NO				
Signatures	YES	YES	YES	YES				
Certification of Compliance	YES	YES	YES	YES				
Conflicts of interest	No	blank	No	No				
References	YES	YES	YES	YES				
Certificate of Insurance	YES	YES	YES	YES				
W9	YES	YES	YES	YES				
EXCEPTIONS?	YES ABB T&C (negotiable)	none	YES	YES HVM T&C				
Responsible Bidder?								
Qualified								
Cost Analysis:	Cost to inspect and service LTC	Cost of replacement parts kit	Cost to inspect and service LTC	Cost of replacement parts kit				
LTC 2T2 630 N. 12th St.	\$7,795		\$ 15,243.75	NOT PROVIDED	\$ 6,980.00	NOT PROVIDED	\$ 25,553.00	yes but no \$
LTC 5T2 2561 DuKane Dr.	\$8,895		\$ 13,948.75	NOT PROVIDED	\$ 8,524.00	NOT PROVIDED	\$ 25,553.00	yes but no \$
LTC 7T3 1000Dunham Rd.	\$8,895		\$ 13,948.75	NOT PROVIDED	\$ 8,524.00	NOT PROVIDED	\$ 25,553.00	yes but no \$
LTC 8T1 650 Peck Rd.	\$8,795	yes = \$1908.98 included for gaskets	\$ 13,948.75	NOT PROVIDED	\$ 8,524.00	NOT PROVIDED	\$ 25,553.00	yes but no \$
Repair 2T2 counter	included		included		\$ 300.00		\$ 315.00	
Contingency for Repairs	\$5,000		\$5,000		\$5,000		\$5,000	
Gaskets	\$0		\$2,000		\$2,000		\$2,000	
TOTAL	\$39,380		\$64,090		\$39,852		\$109,527	
All fees included?	YES		YES		no	\$2,000 in gaskets	no	TBD
Payment via St Charles Credit card?	no		no		no		no	
Discount?	n/a		n/a		n/a		n/a	

Intent to Award: ABB, INC

The City wishes to thank all bidders for participating in this solicitation. The City recognizes and appreciates the time and effort your firm put into preparing and submitting your proposal. The City invites you to bid on future solicitations which are posted on the City's website at <https://www.stcharlesil.gov>.

The city of St. Charles is looking for ways to reduce costs and create better returns for our investments. Please advise the City if you have any suggestions that can provide: cost savings; quality improvements; improved resource utilization; versatility; standardization; modification in delivery; inventory or consignment practices; value analysis; or other.