



City of Appleton

100 North Appleton Street
Appleton, WI 54911-4799
www.appleton.org

Meeting Agenda - Final Utilities Committee

Tuesday, January 11, 2022

5:00 PM

Council Chambers, 6th Floor

1. Call meeting to order
2. Roll call of membership
3. Approval of minutes from previous meeting
[21-1782](#) Approval of the December 7, 2021 Utilities Committee Meeting Minutes.

Attachments: [120721.pdf](#)

4. Public Hearings/Apearances

5. Action Items

- [21-1783](#) Approve 2022 Private Lead / Galvanized Service Replacement Program.

Attachments: [2022 Private Lead Galvanized Service Replacement Program.pdf](#)

- [21-1784](#) Award Contract Amendment 3 to Jacobs Engineering for the Water Treatment Facility Optimized Corrosion Control Treatment (OCCT) Studies in the amount of \$31,740 and a total revised contract of \$190,790.

Attachments: [OCCT Project 01-05-21.pdf](#)

6. Information Items

- [21-1785](#) Monthly Reports for November 2021:
- Water Distribution and Meter Team Monthly Report

Attachments: [Water Main Breaks November 2021.pdf](#)

- [21-1786](#) Appleton's Water Main Break History

Attachments: [Water Main Breaks History.pdf](#)

7. Adjournment

Notice is hereby given that a quorum of the Common Council may be present during this meeting, although no Council action will be taken.

Reasonable Accommodations for Persons with Disabilities will be made upon Request and if Feasible.

For questions on the agenda, contact Chris Shaw at 920-832-5945 or Paula Vandehey at 920-832-6474.



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Meeting Minutes - Final Utilities Committee

Tuesday, December 7, 2021

5:00 PM

Council Chambers, 6th Floor

1. Call meeting to order

Vice Chairperson Smith called the Utilities Committee to order at 5:00 p.m.

2. Roll call of membership

Aldersperson Martin arrived at 5:02 p.m.

Present: 4 - Smith, Doran, Martin and Thao

Excused: 1 - Meltzer

3. Approval of minutes from previous meeting

[21-1473](#)

Approval of the October 12, 2021 Utilities Committee Meeting Minutes.

Attachments: [October 12, 2021 Utilities Committee Meeting Minutes.pdf](#)

**Doran moved, seconded by Smith, that the Minutes be approved. Roll Call.
Motion carried by the following vote:**

Aye: 3 - Smith, Doran and Thao

Excused: 2 - Meltzer and Martin

4. Public Hearings/Appearances

5. Action Items

[21-1634](#)

Approve update to Municipal Code Chapter 20, Article II Water Utility, creating new Section 20-44 Lead and Galvanized Water Service Line Replacement.

Attachments: [0028 - Sec 20-44 - Lead Pipe Replacement.pdf](#)

Doran moved, seconded by Thao, that the Report Action Item be recommended for approval. Roll Call. Motion carried by the following vote:

Aye: 4 - Smith, Doran, Martin and Thao

Excused: 1 - Meltzer

[21-1660](#)

Award of 2022A Stormwater Consulting Services Contract for 2022 Stormwater Management Plan Reviews to Brown and Caldwell in an amount not to exceed \$47,500.

Attachments: [2022A Plan Review Award Util Memo BC.pdf](#)

Doran moved, seconded by Thao, that the Report Action Item be recommended for approval. Roll Call. Motion carried by the following vote:

Aye: 4 - Smith, Doran, Martin and Thao

Excused: 1 - Meltzer

[21-1661](#)

Award of 2022B Stormwater Consulting Services Contract for 2022 Stormwater Management Plan Reviews to raSmith in an amount not to exceed \$47,500.

Attachments: [2022B Plan Review Award Util Memo raSmith.pdf](#)

Doran moved, seconded by Thao, that the Report Action Item be recommended for approval. Roll Call. Motion carried by the following vote:

Aye: 4 - Smith, Doran, Martin and Thao

Excused: 1 - Meltzer

[21-1662](#)

Amend 2020D Stormwater Consulting Services Contract for the City-wide Stormwater Management Plan Update with Brown and Caldwell by an increase of \$14,430 for a total contract amount not to exceed \$214,411.

Attachments: [2020D Citywide SWMP Update BC Amendment Memo Util Cmte.pdf](#)

Doran moved, seconded by Thao, that the Report Action Item be recommended for approval. Roll Call. Motion carried by the following vote:

Aye: 4 - Smith, Doran, Martin and Thao

Excused: 1 - Meltzer

6. Information Items

[21-1663](#)

Sole Sourcing of three contracts for stormwater management services approved by Finance Department, per Procurement and Contract Management Policy.

Attachments: [2021 Stormwater Funds Finance request.pdf](#)

This item was presented.

[21-1705](#)

Sole Source Contractor services to H2O Underpressure associated with hydroblasting services at the AWWTP total \$32,340.

Attachments: [211203_Utilities Memo_HydroBlasting Charges.pdf](#)

This item was presented.

[21-1475](#)

Monthly Reports for July, August, and September 2021:

- Wastewater Treatment Plant Synopsis and Receiving Station Revenue Report
- Water Treatment Facility Synopsis
- Water Distribution and Meter Team Monthly Report - September

Attachments: [2021 Q3 Wastewater Synopsis.pdf](#)
[3rd Qrt 2021 Effluent Quality Summary.pdf](#)
[Receiving Station Revenue Report.pdf](#)
[2021 Q3 Water Synopsis.pdf](#)
[Water Main Breaks September 2021.pdf](#)

The reports were reviewed.

[21-1664](#)

Monthly Reports for October 2021:

- Water Distribution and Meter Team Monthly Report

Attachments: [Water Main Breaks October 2021.pdf](#)

The report was reviewed.

7. Adjournment

Doran moved, seconded by Thao, that the Utilities Committee be adjourned at 5:16 p.m.. Roll Call. Motion carried by the following vote:

Aye: 4 - Smith, Doran, Martin and Thao

Excused: 1 - Meltzer



"...meeting community needs...enhancing quality of life."

MEMO

TO: Utilities Committee
FROM: Paula Vandehey, Director of Public Works
DATE: January 5, 2022
SUBJECT: **2022 Private Lead/Galvanized Service Replacement Program.**

At the December 15, 2021 meeting of the Common Council, the Lead and Galvanized Water Service Line Replacement Ordinance was approved. This Ordinance requires property owners to replace their lead/galvanized service line within one year of notification by the City. The Common Council also allocated \$1 million of ARPA funds for replacing known public lead service lines. Based on the new Ordinance language and funding availability, the following program is recommended for 2022:

2022 Private Lead/Galvanized Service Replacement Program

Property owners will be notified by the city early in 2022 that they have a private lead/galvanized water service that needs to be replaced within one year of notification.

Property owner will be provided the option of:

- (1) Contracting with a licensed contractor to complete the replacement at the sole expense of the property owner within 365 days of notification by the city, or
- (2) Requesting to be included in the Water Utility System Construction Project. The Utility shall include an alternative to the contract requesting unit bid prices for the calculation of the cost for customer-side water service line replacement. These costs shall be covered by the funding allocated to the 2022 Private Lead/Galvanized Service Program, and not assessed back to the property owner. However, all restoration of the owner's property shall be the responsibility of the property owner (including, but not limited to topsoil, concrete, steps, asphalt, bushes, porches, and the like) and not part of the construction project.

In order to participate in the 2022 Program, property owner must notify the city no later than 30 days of written notification that they are requesting to be included in the Water Utility Construction Project and allow city staff access to home to review plumbing to water meter.



"...meeting community needs...enhancing quality of life."

Department of Utilities
Water Treatment Facility
2281 Manitowoc Road
Menasha, WI
920-832-5945 tel.
920-832-5949 fax

TO: Chairperson Vered Meltzer and Members of the Utilities Committee

FROM: Chris Shaw, Utilities Director

DATE: January 5, 2022

RE: *Award Contract Amendment 3 to Jacobs Engineering for the Water Treatment Facility Optimized Corrosion Control Treatment (OCCT) Studies in the amount of \$31,740 and a total revised contract of \$190,790*

BACKGROUND:

Corrosion in a water distribution system can lead to shortened asset life of infrastructure components and reduced water quality to customers taps. Nationally and at the state level lead levels have become a concern amongst the public. This is a result of corrosion where water systems release lead which is above regulatory limits. Currently, the Appleton Water Treatment Facility meets all State and Federal requirements for lead. However, the Wisconsin Department of Natural Resources is recommending improvements to the City's Corrosion Control Plan. The purpose of this Corrosion Control Treatment project is to determine the best course of action that will enhance water quality (reduce any existing lead) while being fiscally responsible to the utility's rate payers.

This project had two prior phases. The first phase consisted of the theoretical water chemistry needed to decrease the corrosiveness of Appleton water. The second phase completed a full scale experiment with lead service lines that were incorporated into a testing apparatus. The apparatus was computer controlled and evaluated a number of treatment alternatives. As an outcome of the theoretical and actual phases a report was submitted to the WDNR with recommendations for corrosion treatment. The recommendation allows for the elimination one treatment chemical and addition of two more.

To produce information regarding this change and also complete a preliminary engineering phase of the changes, I am recommending a contract amendment for Phase 3 be executed with Jacobs Engineering to produce the following:

SCOPE OF WORK:

- Determine modifications needed to use one of either two existing chemical systems
- Determine modifications needed to convert to phosphoric acid (e.g., safety, storage, ventilation, etc.)
- Determine modifications needed to the existing sodium hydroxide storage and feed system
- Prepare conceptual design criteria for the two new chemical systems including feed rates that will meet WDNR requirements
- Prepare a construction cost estimate (Class 5), including bidding, construction services, and construction costs
- Provide a technical report detailing the preliminary engineering findings

This engineering work was not included earlier due to the unknown recommendations of phase 2. An evaluation team comprised of myself, the technical services manager, the water plant manager, and the utilities deputy director completed a review of the Jacobs engineering proposal and found it to be of good value. Moreover, Jacobs has produced well on project deliverables during the first two phases of OCCT work.

RECOMMENDATION:

Award Phase 3 OCCT Contract Amendment 3 to Jacobs Engineering Engineering in the amount of \$31,740 and a total revised contract of \$190,790. If you have any questions regarding this project please contact Chris Shaw at ph: 920-832-2362

WATER MAIN BREAK/ JOINT LEAK REPORT - NOVEMBER 2021

YEARLY WATER MAIN BREAK COMPARISON

<u>NOV 20</u>	<u>NOV 21</u>	<u>YTD 20</u>	<u>YTD 21</u>
7	24	78	122

LOCATION	BREAK DATE	WORK ORDER	TYPE OF PIPE	SIZE	YEAR	BREAK	ESTIMATED DURATION	ESTIMATED WATER LOSS IN GALLONS	DOLLAR VALUE OF WATER REVENUE LOSS**
1817 N. Edgewood Ave.	11/1/2021	295604	CIP	6"	1961	4"x 1/4" Crack	210 Days	48,366,110	\$294,065.95
NOTES: Break was found when noise was heard during hydrant inspection. Water never surfaced, was running into a catch basin. Duration went back to the last date of hydrant inspection 4/5/21.									
948 E. Randall Ave.	11/2/2021	295649	CIP	6"	1949	4" Hole	4 Hours	502,175	\$3,053.22
NOTES: Break was found as water was bubbling up. The duration is based on the soil saturation.									
N. Superior St. & N. Kalata Pl.	11/2/2021	295653	CIP	12"	1950's	6" Hole	6 Hours	2,143,824	\$13,034.45
NOTES: Break was found as water was bubbling up. The duration is based on the soil saturation.									
1135 E. Northwood Dr.	11/5/2021	295760	DIP	8"	1977	2" Split	5 Days	85,504	\$519.86
NOTES: Break was found with the correlator. Duration is based on soil saturation and noise on hydrant after main break nearby on 11/1/21.									
407 S. Maplecrest Dr.	11/8/2021	295785	CIP	6"	1957	1/32" Crack	4 Hours	117,500	\$714.40
NOTES: Resident called in water bubbling out of the road. Duration is based on time of call and soil saturation.									

**Water Loss is calculated at the residential rate of \$6.08 per 1000 gallons.

LOCATION	BREAK DATE	WORK ORDER	TYPE OF PIPE	SIZE	YEAR	BREAK	ESTIMATED DURATION	ESTIMATED WATER LOSS IN GALLONS	DOLLAR VALUE OF WATER REVENUE LOSS**
1806 E. Randall Ave.	11/8/2021	295808	CIP	8"	1962	1/32" Crack	8 Hours	309,317	\$1,880.65
NOTES: Break was found as water was bubbling up. The duration is based on the soil saturation.									
716 N. Lawe St.	11/11/2021	295950	CIP	8"	1913	2" Hole	4 Hours	212,076	\$1,289.42
NOTES: Break was called in by APD. Duration is based on time of call till fixed.									
1527 S. Midpark Dr.	11/12/2021	295985	CIP	8"	1970	1/8"Crack	6 Hours	199,739	\$1,214.41
NOTES: Break was called in by resident. Duration is based on soil saturation and the amount of water bubbling.									
1232 E. Park Hills Dr.	11/15/2021	295994	DIP	8"	1966	1/8" Crack	4 Hours	121,557	\$739.07
NOTES: Break was called in as water was bubbling up. Duration is based on time of call till it was fixed.									
1301 W. Homestead Dr.	11/15/2021	295996	DIP	8"	1978	1 1/2" Hole	54 Days	29,538,824	\$179,596.05
NOTES: Break was found as noise was heard on the hydrant. Break was found when testing hydrants. This leak never surfaced, must have been entering the storm sewer. Duration is estimated from the last time the hydrant was test/ flushed in spring.									
1927 N. Elinor St.	11/15/2021	296031	CIP	6"	1960	2" Hole	3 Hours	121,557	\$739.07
NOTES: Break was called in as water was on the road. Duration is based on time of call and soil saturation.									
S. Madison St. & E. Fremont St.	11/19/2021	296177	CIP	6"	1929	3" Hole	4 Hours	364,672	\$2,217.21
NOTES: Break was called in by APD. Duration is based on the amount of mud and water on the road. Along with the time of call.									

**Water Loss is calculated at the residential rate of \$6.08 per 1000 gallons.

LOCATION	BREAK DATE	WORK ORDER	TYPE OF PIPE	SIZE	YEAR	BREAK	ESTIMATED DURATION	ESTIMATED WATER LOSS IN GALLONS	DOLLAR VALUE OF WATER REVENUE LOSS**
E. Witzke Blvd.	11/20/2021	296178	CIP	8"	1971	1/16" Crack	8 Hours	137,526	\$836.16
NOTES: Break was called in by Facilities. Duration is based on soil saturation, water present, and the time of the call.									
E. Lourdes Dr. & S. Schaefer St.	11/21/2021	296179	DIP	12"	1975	3" Hole	4 Hours	364,672	\$2,217.21
NOTES: Break was called in by APD. Duration is based on the amount of mud and water on the road. Along with the time of call.									
2102 E. Emmers Dr.	11/22/2021	296187	CIP	8"	1965	4" Hole	4 Hours	648,305	\$3,941.69
NOTES: Break was found as water was bubbling up. The duration is based on the soil saturation and time of being notified.									
1200 S. Mathias St.	11/22/2021	296249	CIP	12"	1963	1/16"	4 Hours	103,145	\$627.12
NOTES: Break was called in by APD. Duration is based on the amount of water on the road. Along with the time of call.									
621 N. Superior St.	11/23/2021	296260	CIP	6"	1930	6" Hole	4.5 Hours	1,604,014	\$9,752.41
NOTES: Break was reported to our 3rd shift by APD for water bubbling in the road. Duration is based on time of call, soil saturation, and amount of water under ground near storm inlet.									
525 N. Summit St.	11/23/2021	296261	CIP	6"	1928	13" Split & 2" Hole	4 Hours	802,833	\$4,881.22
NOTES: Break was reported as water was bubbling in the road for 2 blocks. Duration is based on time of being notified and soil saturation.									
E. Witzke Blvd.	12/24/2021	296178	CIP	8"	1971	1/64" Crack	72 Hours	314,323	\$1,911.08
NOTES: Break was found as water was on the road from previous patch. Duration is established since it was just fixed days prior.									

**Water Loss is calculated at the residential rate of \$6.08 per 1000 gallons.

LOCATION	BREAK DATE	WORK ORDER	TYPE OF PIPE	SIZE	YEAR	BREAK	ESTIMATED DURATION	ESTIMATED WATER LOSS IN GALLONS	DOLLAR VALUE OF WATER REVENUE LOSS**
1713 E. Melrose Ave.	11/25/2021	296402	CIP	6"	1953	1/16" Crack	4 Hours	38,138	\$231.88
NOTES: Break was found as water was bubbling in the road. Duration is based on soil saturation.									
3009 E. Canary St.	11/25/2021	296401	DIP	8"	1980	3" Hole	3 Hours	270,755	\$1,646.19
NOTES: Break was called in by APD. Duration is based on soil saturation and time of call.									
72 Ramlen Ct.	11/28/2021	296396	CIP	6"	1957	1/16"	4 Hours	42,762	\$259.99
NOTES: Break was called in as water was bubbling up. Duration is based on time of call till it was fixed and soil saturation.									
417 E. Longview Dr.	11/29/2021	296416	CIP	8"	1961	1/16"	5 Hours	75,973	\$461.92
NOTES: Break was called in by APD. Duration is based on amount of water on road and soil saturation.									
W. Lindbergh St. & N. Superior St.	11/29/2021	296422	CIP	8"	1957	1/8"	6 Hours	154,717	\$940.68
NOTES: Break was called in by APD. Duration is based n the amount of water and mud on the road.									

In addition to the dollar value of water revenue lost, there is an average cost of \$9,000 to repair each water main break (including final restoration) and an average cost of \$630 to produce the lost water for each main break.

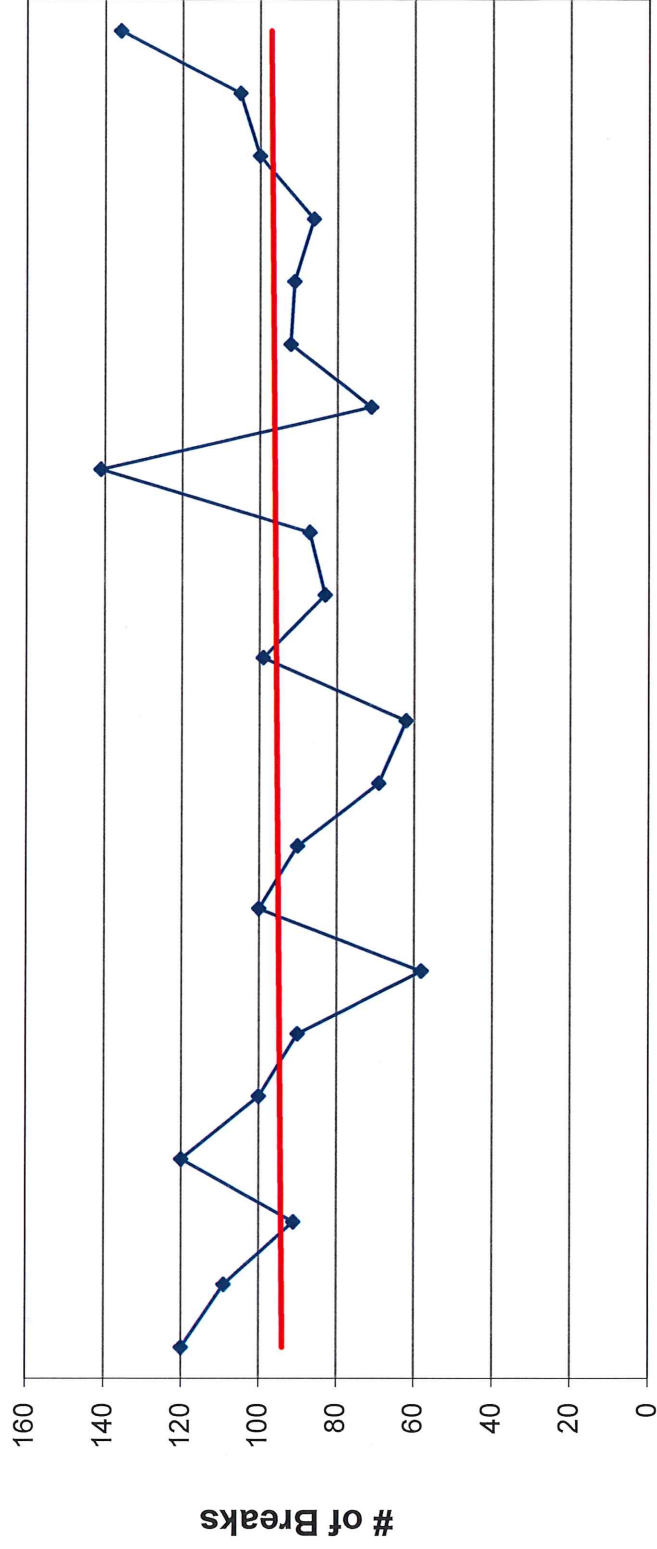
**Water Loss is calculated at the residential rate of \$6.08 per 1000 gallons.

<u>YEAR</u>	<u>BREAKS</u>
2000	120
2001	109
2002	91
2003	120
2004	100
2005	90
2006	58
2007	100
2008	90
2009	69
2010	62
2011	99
2012	83
2013	87
2014	141
2015	71
2016	92
2017	91
2018	86
2019	100
2020	105
2021	136

TOTAL = 2100

Average : 95.5

Appleton's Water Main Break History



Years 2000 - 2021