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AGENDA

Meeting of the **Niagara Falls Public Water Authority**

March 11, 2020 at 5:00 p.m.

Michael C. O’Laughlin Municipal Water Plant
5815 Buffalo Avenue, Niagara Falls, NY 14304

1. Call to Order

Roll Call: Sanquin Starks _____ Daniel Weiss _____ Jason Murgia _____

2. Public Speakers (All speakers must register with Chairman prior to Roll Call and are limited to 3 minutes per person – total time for all speakers may not exceed one hour)

3. Items for Action from Secretary

A. Yearly Reorganization Meeting

a. Nomination of NFPWA Board Officers:

- i. Chair;
- ii. Vice Chair;
- iii. Treasurer (does not need to be Authority member)
- iv. Secretary (does not need to be Authority member)

b. Annual Board Evaluation Form

c. Authority Financial Disclosure Form

B. Approval of Minutes June 13, 2019

C. RESOLUTION 2020-01 – Report on Operations and Accomplishments and Performance Measurement Report

D. RESOLUTION 2020-02 – Regarding the Incorporation of Resolution 2019-02 Into the Superseding Terms of Resolution 2020-03

a. Copy of Resolution 2019-02

E. RESOLUTION 2020-03 – Authorizing the Issuance of \$27,000,000 in Revenue Bonds

a. Water Board Resolution 2020-01-014, Requesting Issuance

i. Correspondence Explaining Bond and Financing Resolution

b. Wastewater Treatment Plant Capital Project Update

c. Wastewater Treatment Plant Estimated Construction Schedule

F. RESOLUTION 2020-04 – Authorizing the Issuance of \$5,495,000 in Revenue Bonds

a. Water Board Resolution 2020-01-015, Requesting Issuance

b. Copy of Draft Five Year Capital Improvement Plan

c. Engineering Report for Water Main Project

4. Additional Items for Action

5. Unfinished Business

6. New Business & Additional Items

7. Adjournment of Meeting

Confidential Evaluation of Board Performance

Criteria	Agree	Somewhat Agree	Somewhat Disagree	Disagree
Board members have a shared understanding of the mission and purpose of the Water Auth.				
The policies, practices and decisions of the Board are always consistent with this mission.				
Board members comprehend their role and fiduciary responsibilities and hold themselves and each other to these principles.				
The Board has adopted policies, by-laws, and practices for the effective governance, management and operations of the Water Auth. and reviews these annually.				
The Board sets clear and measurable performance goals for the Water Auth. that contribute to accomplishing its mission.				
The decisions made by Board members are arrived at through independent judgment and deliberation, free of political influence, pressure or self-interest.				
Individual Board members communicate effectively with executive staff so as to be well informed on the status of all important issues.				
Board members are knowledgeable about the Water Authority programs, financial statements, reporting requirements, and other transactions.				
The Board meets to review and approve all documents and reports prior to public release and is confident that the information being presented is accurate and complete.				
The Board knows the statutory obligations of the Water Auth. and if the Water Auth. is in compliance with state law.				
Board and committee meetings facilitate open, deliberate and thorough discussion, and the active participation of members.				
Board members have sufficient opportunity to research, discuss, question and prepare before decisions are made and votes taken.				
Individual Board members feel empowered to delay votes, defer agenda items, or table actions if they feel additional information or discussion is required.				
The Board has identified the areas of most risk to the Water Auth. and works with management to implement risk mitigation strategies before problems occur.				
Board members demonstrate leadership and vision and work respectfully with each other.				

Date Completed: _____

Niagara Falls Public Water Authority - Annual Financial Disclosure Form

Adapted from:

NIAGARA COUNTY ANNUAL FINANCIAL DISCLOSURE FORM – 2017 Name and Address

First Name Niagara Falls Public Water Authority	Middle Name	Last Name Authority Board Member
Department/Agency or Committee 5815 Buffalo Avenue, Niagara Falls, NY 14304		Title 716-283-9770
Department Address		Phone
Residence Address		Phone

1. Spouse and Dependent Children

Provide the name of your spouse (if married) and names of any dependent children:

Spouse	Child/Age
Child/Age	Child/Age

2. **Financial Interest: Note:** For questions 3 to 6, do not report the exact dollar amounts. Instead, report Categories of Amounts using the following:

Category A: Under \$5,000	Category D: \$25,000-50,000
Category B: \$5,001-10,000	Category E: \$50,001-100,000
Category C: \$10,001-25,000	Category F: Over \$100,000

- a. **Business Positions.** List any office, trusteeship, directorship, partnership or other position in any business, propriety or not-for-profit organization held by you and your spouse and dependent children, if any, and indicate whether these businesses are involved with the NFPWA

Name of Family Member	Position	Organization	Nature of Involvement

b. Outside Employment. Describe any outside occupation, employment, trade, business or profession providing more than \$1,000.00 for a year for you or your spouse and dependent children, if any, and indicate whether any such activities are regulated by any state or local agency.

Name of Family Member	Position	Name, Address Description of Organization	State or Local Agency	Category of Amount

c. Future Employment. Describe any contact, promise or other agreement between you and anyone else with respect to your employment after leaving your NFPWA office or position.

d. Past Employment. Identify the source and nature of any income in excess of \$1,000 per year from any prior employer including deferred income, contributions to pension or retirement fund, profit plan, severance pay or payments under a buy-out agreement.

Name & Address of Income Source	Description of Income (i.e., pension, deferred)	Category of Amount

e. Investments. Itemize and describe all investments in excess of \$5,000 or 5% of the value in any business, corporation, partnership or other assets including stocks, bonds, loans, pledged collateral or other investments for you, your spouse and dependent children, if any.

Name of Family Member	Name & Address of Real Estate	Description of Investment	Category of Amount

- f. **Trusts.** Identify each interest in a trust or estate or similar beneficial interest in any assets in excess of \$2,000 except form IRS eligible retirement plans or interest in an estate or trust of a relative for you and your spouse and dependent children.

Name of Family Member	Trustee/Executor	Description of Trust/Estate	Category of Amount

- g. **Other Income.** Identify the source and nature of any other income in excess of \$1,000 per year from any other source not described above,, including teaching income, lecture fees, consultant for contractual income or other income of any nature for you, your spouse and dependent children.

Name of Family Member	Name/Address of Source	Nature of Income	Category of Amount

3. **Gifts and Honorariums**

List source of all gifts aggregating in excess of \$250 received during the last year by you, your spouse or dependent children, excluding gifts from relatives. The term "gifts" includes gifts of cash, property, personal items, payments to third parties on your behalf, forgiveness of debt, honorariums and any other payments that are not reportable as income.

Name of Family Member	Name/Address of Donor	Category of Amount

4. **Third Party Reimbursements.**

Identify and describe the source of any third party reimbursement for travel related expenditures in excess of \$250 for any matter that relates to your official duties. The term "reimbursement" includes any travel related expenses provided by anyone other than the County for speaking engagements, conferences or fact finding events that relate to your official duties.

Source	Description	Category of Amount

5. Debts.

Describe all debts of you, your spouse and dependent children in excess of \$5,000.

Name of Family Member	Name/Address Creditor	Category of Amount
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6. Interest in Contracts.

Describe any interest of you, your spouse or dependent children in any contract involve the NFPWA or Niagara Falls Water Board.

Name of Family Member	Contract Description
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8. Political Parties.

List any position you held within the last five (5) years as an officer of any political party, political committee or political organization. The term "political organization" includes any independent or any organization that is affiliated with, or a subsidiary of a political party.

Signed

Date

RETURN TO: NIAGARA COUNTY BOARD OF ETHICS
 c/o Human Resources Office
 111 Main Street, Suite G2
 Lockport, New York 14094

MINUTES

Meeting of the **Niagara Falls Public Water Authority**

June 13, 2019 at 5:00 p.m.
Michael C. O’Laughlin Municipal Water Plant
5815 Buffalo Avenue, Niagara Falls, NY 14304

1. Call to Order

Chairman Murgia called the meeting to order at 5:00 p.m.

Roll Call: Sanquin Starks Absent Daniel Weiss Present Jason Murgia Present

2. Public Speakers (All speakers must register with Chairman prior to Roll Call and are limited to 3 minutes per person – total time for all speakers may not exceed one hour)

There were no public speakers.

3. Items for Action from Secretary

Authority Secretary Sean Costello explained that ethics forms should be filed with Niagara County. Confidential Board Evaluation forms should be returned to him.

A. Yearly Reorganization Meeting

a. Nomination of NFPWA Board Officers:

- i. Chair;
- ii. Vice Chair;
- iii. Treasurer (does not need to be Authority member)
- iv. Secretary (does not need to be Authority member)

Motion by Mr. Weiss to nominate Mr. Murgia as Chairperson, seconded by Mr. Murgia.

Starks – Absent. Murgia – Yes. Weiss – Yes.

Motion carried 2-0.

Motion by Mr. Murgia to nominate Mr. Weiss as Vice-Chair, seconded by Mr. Weiss.

Starks – Absent. Murgia – Yes. Weiss – Yes.

Motion carried 2-0.

Motion by Mr. Murgia to nominate Mr. Weiss as Treasurer, seconded by Mr. Weiss.

Starks – Absent. Murgia – Yes. Weiss – Yes.

Motion carried 2-0.

Motion by Mr. Murgia to nominate Mr. Costello as Secretary, seconded by Mr. Weiss.

Starks – Absent. Murgia – Yes. Weiss – Yes.

Motion carried 2-0.

B. Approval of Minutes from June 14, 2018 Meeting

Motion by Mr. Weiss and seconded by Mr. Murgia to approve.

Starks – Absent. Murgia – Yes. Weiss – Yes.

Motion carried 2-0.

C. RESOLUTION 2019-01 – Omnibus Resolution: Annual Adoption of Governance and Operational Policies and Statements

a. Packet of Supporting Documents

- i. Authority By-Laws
- ii. Code of Ethics
- iii. Annual Evaluation Form
- iv. Financial Disclosure Form
- v. Draft Mission Statement and Measurement Form
- vi. Public Authorities Law Sections 2824, 2824-a, and 2825
- vii. 2018 Audit and Investment Report
- viii. 2017 Audit
- ix. 2016 Audit
- x. 2015 Audit
- xi. 2014 Audit
- xii. 2013 Audit
- xiii. 2012 Audit

Mr. Murgia noted he met the day before the meeting regarding the items described in the Omnibus Resolution, which is an effort by Mr. Costello to bring the Authority into compliance with certain laws and rules.

Motion by Mr. Weiss and seconded by Mr. Murgia to approve.

Starks – Absent. Murgia – Yes. Weiss – Yes.

Motion carried 2-0.

- D. RESOLUTION 2019-02 – Authorizing the Issuance of the Authority’s Revenue Bonds and Notes and the Approval and Execution of Related Documents
- a. Packet of Supporting Documents
 - i. Governor’s Office Press Release
 - ii. Consent Order Listing Projects for \$27 million
 - iii. Letter from DASNY Regarding Grant Award
 - iv. NFWB Resolution 2019-05-010, Adopting Five Year Capital Plan
 - v. Capital Improvement Plan 2019-2023
 - vi. NFWB Resolution 2019-05-011, Requesting Authority Issue \$13.5 Million Bonds
 - vii. Page from Rate Consultant’s December 2018 Presentation

Chairman Murgia noted that these funds, in the amount of \$13,500,000, are for the Water Board’s share of \$27,000,000 in capital improvements at the wastewater treatment plant that are required by the Water Board’s consent order. The other half will be grant funded.

He questioned the timeframe for the projects. Mr. Costello noted that it would be four years after construction starts before the sedimentation basin improvements are complete.

Motion by Mr. Weiss and seconded by Mr. Murgia to approve.

Starks – Absent. Murgia – Yes. Weiss – Yes.

Motion carried 2-0.

4. Additional Items for Action

None.

5. Unfinished Business

None.

6. New Business & Additional Items

None.

7. Adjournment of Meeting

Motion by Mr. Weiss and seconded by Mr. Murgia to adjourn at 5:14 p.m.

Starks – Absent. Murgia – Yes. Weiss – Yes.

Motion carried 2-0.

DRAFT

**REPORT ON OPERATIONS AND ACCOMPLISHMENTS
AND PERFORMANCE MEASUREMENT REPORT**

WHEREAS, the Niagara Falls Public Water Authority (“Authority”) has conducted a review of its 2019 performance and now intends by resolution to complete its Annual Report on Operations and Accomplishments and Performance Measurement Report;

NOW THEREFORE BE IT

1. **RESOLVED**, that upon consideration of its 2019 activities, the Authority adopts the following as its Annual Report on Operations and Accomplishments:

2019: In 2019, the Water Authority conducted an annual business meeting. It acted favorably on a request by the Niagara Falls Water Board to authorize the issuance of \$13,500,000 in bonds to fund capital improvements to the Water Board’s wastewater treatment plant. These bonds will cover the Water Board’s share of work totaling \$27,000,000, half of which is funded by a grant from the State of New York.

2. **RESOLVED**, that the following constitutes the Authority’s 2019 Performance Measurement Report, based on the Performance Measurements previously adopted by the Authority:

- a. **Meeting annually, and within one month of any request by the Niagara Falls Water Board for a meeting of the Authority.**

2019 Result: Goal achieved.

- b. **Timely financing or refinancing of water, wastewater, and stormwater system acquisition or improvements upon the request of the Water Board.**

2019 Result: The Authority acted promptly in connection with a request by the Water Board to authorize the issuance of \$13,500,000 in bonds. Goal achieved.

c. Timely payment of all debt service and related amounts on obligations of the Authority.

2019 Result: Goal achieved.

On March 11, 2020, the question of the adoption of the foregoing Resolution was duly put to a vote on roll call, which resulted as follows:

	Yes	No	Abstain	Absent
Daniel Weiss	[]	[]	[]	[]
Sanquin Starks	[]	[]	[]	[]
Jason Murgia	[]	[]	[]	[]

Signed By:

Vote Witnessed By:

Jason Murgia, Chairperson

Sean W. Costello, Secretary to the Board

NIAGARA FALLS PUBLIC WATER AUTHORITY RESOLUTION # 2020-02

**REGARDING THE INCORPORATION OF RESOLUTION 2019-02
INTO THE SUPERSEDING TERMS OF RESOLUTION 2020-03**

WHEREAS, the Niagara Falls Public Water Authority (“Authority”) by way of Resolution 2019-02 duly authorized the issuance of revenue bonds in the amount of \$13,500,000 to fund the Niagara Falls Water Board’s share of certain capital improvements with a total cost of \$27,000,000 to be performed at the Water Board’s wastewater treatment plant, with the balance of the project costs to be grant funded; and

WHEREAS, the Water Board subsequently has secured a commitment from the Environmental Facilities Corporation (“EFC”) to provide a short-term loan for the full amount of the project costs so that the Water Board does not have to wait for project completion in order to receive the grant-funded share of the project costs; and

WHEREAS, in order to obtain this financing, it is necessary for the Authority to authorize the issuance of bonds for the full \$27,000,000 cost of the project, which the Authority proposes to do by way of Resolution 2020-03; and

WHEREAS, in order to keep clear and accurate records of its activities and proceedings, the Authority desires to pass a resolution to make clear that the bonds authorized by Resolution 2020-03 are inclusive of and not in addition to the bonds authorized by Resolution 2019-02;

NOW THEREFORE BE IT

RESOLVED, that the Niagara Falls Public Water Authority hereby declares that the bond issuance approved by Resolution 2019-02 shall be incorporated and subsumed into the bond issuance that is the subject of Resolution 2020-03, with total bonds authorized by the two resolutions limited to \$27,000,000.

On March 11, 2020, the question of the adoption of the foregoing Resolution was duly put to a vote on roll call, which resulted as follows:

	Yes	No	Abstain	Absent
Daniel Weiss	[]	[]	[]	[]
Sanquin Starks	[]	[]	[]	[]
Jason Murgia	[]	[]	[]	[]

Signed By:

Vote Witnessed By:

Jason Murgia, Chairperson

Sean W. Costello, Secretary to the Board

NIAGARA FALLS PUBLIC WATER AUTHORITY RESOLUTION 2019-02

RESOLUTION AUTHORIZING THE ISSUANCE OF THE AUTHORITY'S WATER AND SEWER SYSTEM REVENUE BONDS AND THE APPROVAL AND EXECUTION OF RELATED DOCUMENTS

WHEREAS, Title 10-B of the Public Authorities Law of the State of New York, as amended (the "Act") created the Niagara Falls Public Water Authority (the "Authority") with the authority and power to issue its revenue bonds for the purpose of among other things, planning, developing, acquiring, constructing and financing the cost of any facility (as defined in the Act), including the acquisition of facilities of the City of Niagara Falls ("the City") (the "System") by the Niagara Falls Water Board (the "Board") or for any other corporate purpose, including the establishment of reserves to secure the bonds, the payment of principal of, premium, if any, and interest on the bonds and the payment of incidental expenses in connection therewith; and

WHEREAS, the City has sold, transferred and otherwise conveyed the City's title and interest in the System to the Board; and

WHEREAS, the Board has approved various capital improvements to be undertaken to the System and has requested that the Authority finance same; and

WHEREAS, in connection therewith, it is now desired to authorize the issuance of not exceeding \$13,500,000 of bonds, including any notes issued in anticipation thereof (the "Bonds") plus any amounts necessary to fund reserves and to pay costs of issuance, and to approve and authorize the execution of related documents; NOW, THEREFORE,

BE IT RESOLVED by the Niagara Falls Public Water Authority as follows:

Section 1

The Authority hereby finds and determines:

- (a) By virtue of the Act, the Authority has been vested with all powers necessary and convenient to carry out and effectuate the purposes and provisions of the Act and to exercise all powers granted to it under the Act.
- (b) It is desirable and in the public interest for the Authority to issue and sell the Bonds pursuant to a certain General Revenue Bond Resolution dated as of May 1, 2003 (the "General Resolution"), adopted by the Authority, and pursuant to a Supplemental Resolution(s) (the "Supplemental Resolution") by and between the Authority and Manufacturers and Traders Trust Company, as trustee (the "Trustee") (the Supplemental Resolution, collectively with the General Resolution, the "Resolution") and to use the proceeds of said Bonds to pay for improvements to the System, any required reserves and costs of issuance.

Section 2.

In consequence of the foregoing, the Authority hereby determines to: (i) issue and sell the Bonds pursuant to the Supplemental Resolution and the General Resolution; (ii) use the proceeds of the Bonds as previously described and as provided in the Supplemental Resolution, (iii) enter into each agreement hereafter identified in this resolution; and (iv) execute such other documents and take such other action as may be necessary to effectuate the purposes of this resolution.

Section 3.

The Authority is hereby authorized to issue, execute, sell and deliver the Bonds in the aggregate principal amount, maturing in such years at such amounts, in serial or term form, at the rate of interest and upon such terms as shall be approved by the Chairman or the vice-Chairman and in substantially the form heretofore approved in this resolution, provided that:

- (a) The Bonds are hereby authorized to be issued, executed and delivered and shall be issued, executed and delivered at such time as the Chairman or the Vice-Chairman of the Authority shall determine.
- (b) The Bonds shall be issued solely for the purposes previously described.
- (c) The Bonds and the interest thereon are not and shall never be a debt of the State of New York or any political subdivision thereof other than the Authority, including without limitation the City of Niagara Falls, and neither the State of New York nor any political subdivision thereof other than the Authority, including without limitation the City of Niagara Falls, shall be liable thereon.

Section 4.

The Authority is hereby authorized to enter into a Project Finance Agreement (the "Finance Agreement") with the New York State Environmental Facilities Corporation ("EFC") and such other agreements and documents relating to the Bonds as required by EFC.

Section 5.

The Bonds shall not be issued, executed or delivered until the prior approval of the State Comptroller shall have been obtained as required by the Act.

Section 6.

- (a) The Chairman or the vice-Chairman of the Authority are hereby authorized, on behalf of the Authority, to execute and deliver the Supplemental Resolution, the Bonds, and the Finance Agreement, all as described above (collectively, the "Financing Documents"), and the Secretary of the Authority is hereby authorized to affix the seal of the Authority to the Supplemental Resolution and the Bonds and to attest the same. The execution thereof by the Chairman or the Vice-Chairman shall constitute conclusive evidence of such approval.
- (b) The Chairman or the vice-Chairman of the Authority are further hereby authorized, on behalf of the Authority, to designate any additional Authorized Representatives of the Authority (as used or defined in and pursuant to the Resolution) to execute, on behalf of the Authority, any Financing Documents.

Section 7.

The members, officers, employees and agents of the Authority are hereby authorized and directed for and in the name and on behalf of the Authority to do all acts and things required or provided for by the provisions of the Financing Documents, and to execute and deliver all such additional certificates, instruments and documents, pay all such fees, charges and expenses and to do all such further acts and things as may be necessary or, in the opinion of the member, officer, employee or agent acting, desirable and proper to effect the purposes of this resolution and to

cause compliance by the Authority with all of the terms, covenants and provisions of the Financing Documents.

Section 8.

This resolution shall take effect immediately and the Bonds are hereby ordered to be issued in accordance with this resolution.

At a regular meeting of the Niagara Falls Public Water Authority, held at the Authority's office, 5815 Buffalo Avenue, Niagara Falls, New York 14302, at 5:00 o'clock P.M., on the 13th day of June, 2019, the following members of the Authority were:

PRESENT: Jason Murgia, Chairman
Daniel Weiss, Vice-Chairman and Treasurer

ABSENT: Sanquin Starks

ALSO PRESENT: Sean W. Costello, Authority Secretary
Patrick Fama, Niagara Falls Water Board
Executive Director
Kendra Walker, Niagara Falls Water Board
Director of Financial Services
Brian Majcrowicz, Niagara Falls Water Board
Deputy Director of Financial Services
Erika Schroeder, Niagara Falls Water Board
Confidential Secretary
Gretchen Leffler, Member, Niagara Falls
Water Board and Chair of Water Board Finance
Committee

After the meeting had been duly called to order, the Chairman announced that among the purposes of the meeting was to consider and take action on certain matters pertaining to the issuance and sale of the Authority's proposed Water and Sewer System Revenue Bonds.

The following resolution was duly moved, seconded, discussed and adopted with the *following members voting in open session:*

AYE

NAY

Jason Murgia

None

Daniel Weiss

STATE OF NEW YORK)
 ss.
COUNTY OF NIAGARA)

I, the undersigned Secretary of the Niagara Falls Public Water Authority, DO HEREBY CERTIFY:

That I have compared the annexed extract of the minutes of the meeting of the Niagara Falls Public Water Authority, including the resolution contained therein, held on June 13, 2019, with the original thereof on file in my office, and that the same is a true and correct transcript therefrom and of the whole of said original so far as the same relates to the subject matters therein referred to.

I FURTHER CERTIFY that all members of said Authority had due notice of said meeting.

I FURTHER CERTIFY that, pursuant to Section 103 of the Public Officers Law (Open Meetings Law), said meeting was open to the general public.

I FURTHER CERTIFY that, PRIOR to the time of said meeting, I duly caused a public notice of the time and place of said meeting to be given to the following newspapers and/or other news media as follows:

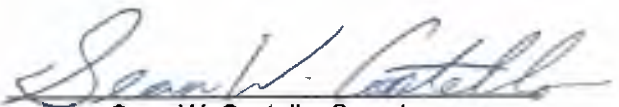
<u>Newspaper and/or other news media</u>	<u>Date given</u>
Niagara Gazette	June 10, 2019
Niagara Falls Reporter	June 10, 2019
WIVB/News 4	June 10, 2019
Posted to Exterior Door of Authority's office, 5815 Buffalo Avenue, Niagara Falls, New York 14302	

I FURTHER CERTIFY that PRIOR to the time of said meeting, I duly caused public notice of the time and place of said meeting to be conspicuously posted in the following designated public location on the following dates:

<u>Designated Location of Posted Notice</u>	<u>Date of posting</u>
None	

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Authority on June 26, 2019.

(CORPORATE SEAL)


Sean W. Costello, Secretary

NIAGARA FALLS PUBLIC WATER AUTHORITY RESOLUTION 2020-03

RESOLUTION AUTHORIZING THE ISSUANCE OF THE AUTHORITY'S WATER AND SEWER SYSTEM REVENUE BONDS AND THE APPROVAL AND EXECUTION OF RELATED DOCUMENTS

WHEREAS, Title 10-B of the Public Authorities Law of the State of New York, as amended (the "Act") created the Niagara Falls Public Water Authority (the "Authority") with the authority and power to issue its revenue bonds for the purpose of among other things, planning, developing, acquiring, constructing and financing the cost of any facility (as defined in the Act), including the acquisition of facilities of the City of Niagara Falls ("the City") (the "System") by the Niagara Falls Water Board (the "Board") or for any other corporate purpose, including the establishment of reserves to secure the bonds, the payment of principal of, premium, if any, and interest on the bonds and the payment of incidental expenses in connection therewith; and

WHEREAS, the City has sold, transferred and otherwise conveyed the City's title and interest in the System to the Board; and

WHEREAS, the Board has approved various capital improvements to be undertaken to the System and has requested that the Authority finance same; and

WHEREAS, in connection therewith, it is now desired to authorize the issuance of not exceeding \$27,000,000 of bonds, including any notes issued in anticipation thereof (the "Bonds") plus any amounts necessary to fund reserves and to pay costs of issuance, and to approve and authorize the execution of related documents; NOW, THEREFORE,

BE IT RESOLVED by the Niagara Falls Public Water Authority as follows:

Section 1.

The Authority hereby finds and determines:

- (a) By virtue of the Act, the Authority has been vested with all powers necessary and convenient to carry out and effectuate the purposes and provisions of the Act and to exercise all powers granted to it under the Act.
- (b) It is desirable and in the public interest for the Authority to issue and sell the Bonds pursuant to a certain General Revenue Bond Resolution dated as of May 1, 2003 (the "General Resolution"), adopted by the Authority, and pursuant to a Supplemental Resolution(s) (the "Supplemental Resolution") by and between the Authority and Manufacturers and Traders Trust Company, as trustee (the "Trustee") (the Supplemental Resolution, collectively with the General Resolution, the "Resolution") and to use the proceeds of said Bonds to pay for improvements to the System, any required reserves and costs of issuance.

Section 2.

In consequence of the foregoing, the Authority hereby determines to: (i) issue and sell the Bonds pursuant to the Supplemental Resolution and the General Resolution; (ii) use the proceeds of the Bonds as previously described and as provided in the Supplemental Resolution, (iii) enter into each agreement hereafter identified in this resolution; and (iv) execute such other documents and take such other action as may be necessary to effectuate the purposes of this resolution.

Section 3.

The Authority is hereby authorized to issue, execute, sell and deliver the Bonds in the aggregate principal amount, maturing in such years at such amounts, in serial or term form, at the rate of interest and upon such terms as shall be approved by the Chairman or the vice-Chairman and in substantially the form heretofore approved in this resolution, provided that:

- (a) The Bonds are hereby authorized to be issued, executed and delivered and shall be issued, executed and delivered at such time as the Chairman or the Vice-Chairman of the Authority shall determine.
- (b) The Bonds shall be issued solely for the purposes previously described.
- (c) The Bonds and the interest thereon are not and shall never be a debt of the State of New York or any political subdivision thereof other than the Authority, including without limitation the City of Niagara Falls, and neither the State of New York nor any political subdivision thereof other than the Authority, including without limitation the City of Niagara Falls, shall be liable thereon.

Section 4.

The Authority is hereby authorized to enter into a Project Finance Agreement (the "Finance Agreement") with the New York State Environmental Facilities Corporation ("EFC") and such other agreements and documents relating to the Bonds as required by EFC.

Section 5.

The Bonds shall not be issued, executed or delivered until the prior approval of the State Comptroller shall have been obtained as required by the Act.

Section 6.

- (a) The Chairman or the vice-Chairman of the Authority are hereby authorized, on behalf of the Authority, to execute and deliver the Supplemental Resolution, the Bonds, and the Finance Agreement, all as described above (collectively, the "Financing Documents"), and the Secretary of the Authority is hereby authorized to affix the seal of the Authority to the Supplemental Resolution and the Bonds and to attest the same. The execution thereof by the Chairman or the Vice-Chairman shall constitute conclusive evidence of such approval.
- (b) The Chairman or the vice-Chairman of the Authority are further hereby authorized, on behalf of the Authority, to designate any additional Authorized Representatives of the Authority (as used or defined in and pursuant to the Resolution) to execute, on behalf of the Authority, any Financing Documents.

Section 7.

The members, officers, employees and agents of the Authority are hereby authorized and directed for and in the name and on behalf of the Authority to do all acts and things required or provided for by the provisions of the Financing Documents, and to execute and deliver all such additional certificates, instruments and documents, pay all such fees, charges and expenses and to do all such further acts and things as may be necessary or, in the opinion of the member, officer, employee or agent acting, desirable and proper to effect the purposes of this resolution and to

cause compliance by the Authority with all of the terms, covenants and provisions of the Financing Documents.

Section 8.

This resolution shall take effect immediately and the Bonds are hereby ordered to be issued in accordance with this resolution.

*motion was passed 4-0-1
1/27/2020
Erich Schubert*

NIAGARA FALLS WATER BOARD RESOLUTION # 2020-01-014

**REQUESTING THE ISSUANCE BY THE NIAGARA FALLS PUBLIC WATER
AUTHORITY OF BONDS TO FINANCE CAPITAL IMPROVEMENTS AT
WASTEWATER TREATMENT PLANT**

WHEREAS, the Title 10-C of the Public Authorities Law of the State of New York, as amended (“the Act”) created the Niagara Falls Water Board (“Water Board”) with the authority and power to undertake the planning, developing, acquiring, and construction of any facility (as defined in the Act); and

WHEREAS, to fund improvements to the wastewater treatment plant, the Water Board previously requested, and the Niagara Falls Public Water Authority (the “Authority”) authorized, a bond issuance in the amount of \$13,500,000 for improvements to the wastewater treatment plant, which was intended to cover the Water Board’s share of \$27,000,000 of improvements, with the other \$13,500,000 to be funded with grant monies; and

WHEREAS, the \$13,500,000 portion of the wastewater treatment plant improvements cost that is to be funded with grant monies may not be payable to the Water Board until the projects are complete, which would mean the Water Board would have to cover the full \$27,000,000 in project costs for a period of time; and

WHEREAS, the Water Board has learned that the Environmental Facilities Corporation will provide a short term loan for the full \$27,000,000 which will prevent the Water Board from needing to carry the half of the project costs that will be funded by grant monies until the work is completed, and then will provide hardship financing for the Water Board’s \$13,500,000 share of the project costs; and

WHEREAS, in order to obtain the short-term loan of \$27,000,000 and hardship financing for the Water Board’s \$13,500,000 share of the project costs, the Authority will need to authorize the issuance of bonds totaling \$27,000,000; and

WHEREAS, this means the Authority’s authorization of an additional \$13,500,000 in bonds is needed;

* CONTINUED ON NEXT PAGE *

NOW THEREFORE BE IT

RESOLVED, that the Water Board hereby requests that the Authority authorize the issuance of bonds to finance an additional \$13,500,000 of improvements to the System to be performed at the wastewater treatment plant, bringing the total bonds authorized for this work to \$27,000,000, and also to finance any reserve required and costs of issuance associated therewith; and

IT IS FURTHER RESOLVED, that this resolution takes effect immediately and the Authority hereby is requested to take action upon this request within 30 days.

On January 27, 2020, the question of the adoption of the foregoing Resolution was duly put to a vote on roll call, which resulted as follows:

	Yes	No	Abstain	Absent
Board Member Aversa	[]	[]	[X]	[]
Board Member Forster <i>1st</i>	[X]	[]	[]	[]
Board Member Larkin	[X]	[]	[]	[]
Board Member Leffler <i>2nd</i>	[X]	[]	[]	[]
Acting Chairperson Kimble	[X]	[]	[]	[]

Signed By:


Renae Kimble, Acting Chairperson

Vote Witnessed By:


Sean W. Costello, Secretary to Board

Sean Costello

From: Seth Krull <SKrull@CPLteam.com>
Sent: Wednesday, January 22, 2020 3:45 PM
To: Sean Costello
Cc: Pat Fama; Kendra Walker
Subject: Sewer and Water Bond Resolutions
Attachments: NFWB Resolution 2019-05-011 Requesting Authority Issue Bonds - 13.5 million.pdf; Signed NFPWA Bond Resolution - June 2019.pdf; CWSRF_2020_FINAL IUP_complete 61.pdf

Hi Sean,

As discussed, EFC will require bond resolutions for entire project amounts in order for them to issue short term loans at full amount. Resolutions are needed for the two below projects. EFC is willing to discuss on conference call if needed. Let me know if you can move forward on these items. Call with any questions.

CWSRF #C9-6603-12-00 sewer plant phase 1 improvements

Last year a bond resolution was processed for \$13.5 million half of sewer project (see attached items). Per EFC below, a bond resolution is needed to cover the remaining half. As EFC has noted that they are able to provide short term loan of \$27 million, additional bond resolution is needed to obtain this full amount. This project qualifies for hardship financing with EFC which means they would loan money at 0%. EFC informed me that a letter confirming this will be sent in near future, they could not give exact date. I've attached page from the State Intended Use Plan that shows this project on State award list. Under note column, an H is listed which means project is eligible for hardship financing.

- 1) For \$27 million project, \$13.5 million awarded in DASNY grant and \$13.5 to be in EFC long term loans.
- 2) Water board already passed bond resolution for long term amount of \$13.5 million.
- 3) Bond resolution needed for remaining \$13.5 million in order to get full short term loan amount of \$27 million.

DWSRF 18588 watermain project (awarded in fall 2018)

- 1) For \$5.495 million project, \$3 million awarded in grants and \$2.495 to be in EFC long term loans.
- 2) I initially thought NFWB would self-finance long term loan portion. Now that NFWB wants long term loan, we should also obtain full short term loan from EFC.
- 3) In order to receive short term loan for full project amount, bond resolution needed for full amount of project at \$5,495,000
- 4) Resolution needed by EFC for this project by end of April so they can process agreement.



Seth Krull, P.E.

Direct: 716.880.1256

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From: Sellman, Derek (EFC) <Derek.Sellman@efc.ny.gov>
Sent: Monday, January 13, 2020 3:02 PM
To: Adams, Nicholas (EFC) <Nichlaus.Adams@efc.ny.gov>
Cc: Seth Krull <SKrull@CPLteam.com>; Sean Costello <scostello@NFWB.org>
Subject: RE: Niagara Falls PWA C9-6603-12-00

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Hi Everyone,

For CWSRF #C9-6603-12-00 EFC will need a bond resolution for the full amount being borrowed (\$27MM). I have no opinion on the form this takes (that will be up to the authority's bond counsel). The Authority could amend the current resolution or adopt an additional resolution for the delta. Perhaps we could arrange a call with the authority's bond counsel to discuss what is needed. Moreover, there are additional items required that I will need to review prior to or contemporaneous with the closing. I believe EFC will need the below items:

1. Copy of OSC approval - per Section 5 of bond resolution (at closing).
2. Copy of Supplemental Resolution referenced in bond resolution (at closing).
3. Various General Resolution conditions precedent need to be met: see generally Section 3.2 of the General Revenue Bond Resolution dated May 1, 2003.

Please let me know if you would like to discuss.

Regards,

Derek D. Sellman

Deputy Counsel

NYS Environmental Facilities Corporation

625 Broadway, Albany, New York 12207-2997

518.402.6924 (p) | 518.402.6927 (f) | Derek.Sellman@efc.ny.gov

www.efc.ny.gov

From: Adams, Nicholas (EFC) <Nichlaus.Adams@efc.ny.gov>
Sent: Monday, January 13, 2020 2:06 PM
To: Sellman, Derek (EFC) <Derek.Sellman@efc.ny.gov>
Cc: Seth Krull <SKrull@CPLteam.com>; Sean Costello <scostello@NFWB.org>
Subject: FW: Niagara Falls PWA C9-6603-12-00

Derek – can you please answer the Authority's questions below regarding resolutions for their C9-6603-12-00 financing?

Thank you.

Nick

From: Seth Krull <SKrull@CPLteam.com>
Sent: Thursday, January 9, 2020 12:13 PM
To: Adams, Nicholas (EFC) <Nichlaus.Adams@efc.ny.gov>; Hale, Michael (EFC) <Michael.Hale@efc.ny.gov>
Cc: Sean Costello <scostello@NFWB.org>
Subject: RE: Niagara Falls PWA 18588

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Mike, Nick,

My prior email may have been a bit confusing as I was discussing two projects. Although my question was mainly for the CWSRF project, it applies to the DRSWF project. For bond resolutions that are to be prepared by applicant, does bonding

amount only need to be for the long term value or also include short term amount? I think it only would be for long term amount. The Water Board will soon be getting bond resolution for the DWSRF project. Would like to do this once for whatever is needed and not keep going back to bond counsel.

Also, what is needed for water board to access the CWSRF short term loan? Design work is underway and reimbursement of these costs in near future would be helpful.

DWSRF 18588 watermain project

- 1) For \$5.495 million project, \$3 million awarded in grants and \$2.495 to be in EFC long term loans.
- 2) Water Board seeking short term loan to cover entire project and also long term loan to cover costs beyond grant.
- 3) Water Board needs to pass bond resolution for loan amount. Just for long term amount or also short term amount?

CWSRF #C9-6603-12-00 sewer plant phase 1 improvements

- 1) For \$27 million project, \$13.5 million awarded in DASNY grant and \$13.5 to be in EFC long term loans.
- 2) Water board already passed bond resolution for long term amount of \$13.5 million.
- 3) Water board seeking short term loan for \$27 million to cover entire project. Is bond resolution needed for short term amount?



Seth Krull, P.E.

Direct: 716.880.1256

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From: Adams, Nichlaus (EFC) <Nichlaus.Adams@efc.ny.gov>
Sent: Tuesday, December 24, 2019 1:59 PM
To: Hale, Michael (EFC) <Michael.Hale@efc.ny.gov>
Cc: Seth Krull <SKrull@CPLteam.com>; Sean Costello <scostello@NFWB.org>
Subject: Niagara Falls PWA 18588

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Mike – can you please let the Authority know what is needed in order to proceed to our loan committee regarding a plan of finance / bond resolution for the 18588?

Thank you

Nick

From: Seth Krull <SKrull@CPLteam.com>
Sent: Friday, December 20, 2019 3:55 PM
To: Adams, Nichlaus (EFC) <Nichlaus.Adams@efc.ny.gov>
Cc: Sean Costello <scostello@NFWB.org>
Subject: RE: EFC's Missing Items Letter - CWSRF #C9-6603-12-00

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Nick, I was speaking with Sean Costello today about the water board getting bond resolution for water project DWSRF #18588. The Board will get a bond resolution for water project. However, we were curious if we also need an additional bond resolution for this CWSRF project. Water Board previously submitted the attached bond resolution for \$13.5 million long term financing. Would another bond resolution be needed for \$27 million short term financing?

Thank you,



Seth Krull, P.E.

Direct: 716.880.1256

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From: Seth Krull

Sent: Thursday, December 19, 2019 3:44 PM

To: Adams, Nicholas (EFC) <Nichlaus.Adams@efc.ny.gov>

Cc: LaPan, Kristopher (EFC) <Kristopher.LaPan@efc.ny.gov>; Lisa.McCullough@efc.ny.gov; Pat Fama <Pfama@NFWB.org>; Kendra Walker <kwalker@NFWB.org>; Sean Costello <scostello@NFWB.org>; Theodore Donner <TDonner@CPLteam.com>

Subject: RE: EFC's Missing Items Letter - CWSRF #C9-6603-12-00

Hi Nick,

Per your request, below is download link to a zip file that contains pdf's of executed agreements and fee proposals for the 10 contracts that are part of the Phase 1 Sewer Plant Improvements. Nothing is included for Contract 8 (blower repairs) as it was done in house by maintenance crews. Financing is being sought for these contracts. The agreements reference fee schedules that were submitted by each consultant prior to preparation of agreements. That is why you will see separate documents in zip file. Proposals were received first, then awarded by Water Board with executed agreements following later.

Please let us know if you need anything else to process the \$27 million short term and \$13.5 million long term loan.
Thank you,

<https://drive.google.com/open?id=1YozRrbMEPVuk5OgFUvkl5-2OPZDkHKVS>



Seth Krull, P.E.

Direct: 716.880.1256

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From: Adams, Nicholas (EFC) <Nichlaus.Adams@efc.ny.gov>

Sent: Wednesday, December 18, 2019 1:42 PM

To: Seth Krull <SKrull@CPLteam.com>

Subject: RE: EFC's Missing Items Letter - CWSRF #C9-6603-12-00

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Afternoon Seth,

Have you been able to get a fee per sub-task breakdown for all the engineering agreements on the Authority's C9-6603-12-00 financing?

I don't need it for AECOM's project #6 – they provided that in their agreement.

Also, I don't have an engineering agreement for project #8 – wasn't sure if there is one or not. If there is, please send me the executed agreement.

Thanks

Nick



Niagara Falls Water Board (NFWB) Project Status Summaries

Last Updated: 2/19/2020

Project	Scope of Work	Budget	Scope/Vendor	NFWB Authorized Contract	Recent Work Update	% Complete	% Billed	% Paid (updated quarterly)
1	Sedimentation Basin Upgrades	\$10,390,000	Design/AECOM	\$409,000	Conducted Preliminary Design Review Meeting with AECOM.	30%	2%	2%
			Const./TBD			0%		
			CA/CI/TBD			0%		
			Running Total	\$409,000				
2	GPS (Funded in Phase I)	\$3,800,000	Design-I/GHD	\$198,230	Conducted 60% Design Review Meeting with GHD.	60%	51%	36%
			Const.-I/TBD			0%		
			CA/CI-I/GHD	\$180,000		0%		
			Running Total	\$378,230				
	Outfall (Funded in Phase II)	\$1,700,000	Design-II/GHD	\$33,735		20%	0%	
			Const.-II/TBD			0%		
			CA/CI-II/GHD	\$37,000		0%		
			Running Total	\$70,735				
3	Screens and Grit Transportation Equipment Improvements	\$1,920,000	Design/Arcadis	\$167,000	Developing 50% Documents for Review.	40%	40%	12%
			Const./TBD			0%		
			CA/CI/TBD			0%		
			Running Total	\$167,000				
4	Granular Activated Carbon and Filter Support Gravel Replacement	\$2,000,000	Design/AECOM	\$66,608	Conducted Construction Kickoff Meeting.	100%	0%	0%
			Const./Carb. Act.	\$1,798,840		0%	0%	
			CA/CI/AECOM	\$134,000		0%	0%	
			Running Total	\$1,999,448				
5	Electrical System Improvements	\$2,610,000	Design/E.I. Team	\$177,000	Developing Construction Documents.	90%	82%	10%
			Const./TBD	TBD		0%		
			CA/CI/TBD	TBD		0%		
			Const./Ferguson	\$252,000		10%		
			Running Total	\$429,000				

6	Effluent Disinfection	\$3,650,000	Design/AECOM	\$116,000	AECOM coordinating with contractors in preparation for construction.	90%	13%	0%
			Const./M&B	\$1,366,000		5%	0%	
			Const./Ferguson	\$108,000		5%	0%	
			Const./Ferguson	TBD		0%		
			CA/In-House	N/A				
			CI/AECOM	\$74,000		0%	0%	
			Running Total	\$1,664,000				
7	Replacement of Critical Heating and Ventilation Equipment	\$1,160,000	Design/E.I. Team	\$112,000	Developing Construction Documents.	90%	86%	86%
			Const./TBD	TBD		0%		
			CA/CI/TBD	TBD		0%		
			Running Total	\$112,000				
8	Replacement of Blower Equipment	\$300,000	Design/In-House	N/A	Construction closeout.	100%	N/A	N/A
			Const./Various	\$100,000		100%	100%	
			CA/CI/In-House	N/A		100%	N/A	N/A
			Running Total	\$100,000				
9	Replacement of Process Piping	\$640,000	Design/Ramboll	\$79,978	Conducted Preliminary Design Report Review Meeting with OBG(Ramboll).	40%	37%	17%
			Const./TBD	TBD		0%		
			CA/CI/TBD	TBD		0%		
			Running Total	\$79,978				
10	SCADA Improvements	\$100,000	Design/Kaman	\$352,000	Kaman updating existing screens and coordinating with Capital Project Engineers.	40%	23%	10%
			Const./TBD	TBD		0%		
			CA/CI/In-House	N/A		0%	N/A	N/A
			Running Total	\$352,000				

11	Gorge Elevator Upgrades	\$500,000	Design/In-House	N/A	Currently in construction.	100%	N/A	N/A
			Const./Hohl Ind.	\$448,000		25%	9%	
			CA/CI/In-House	N/A		25%	N/A	N/A
			Running Total	\$448,000				
99	FEMA	\$1,550,000	See Below	See Below	See Below			
	Total	\$30,320,000						

Other Projects (Not Included in the Capital Improvement Upgrades)

Project	Scope of Work	Budget	Scope/Vendor	NFWB Authorized Contract	Recent Work Update	% Complete	% Billed	% Paid
99	FEMA	\$5,720,000	Design/GHD	\$208,000	Developing Bid Documents for Construction	100%	100%	100%
			Const./TBD			1%		
			CA/CI/GHD	\$326,000		1%		
			Running Total	\$534,000				

ESTIMATED CONSTRUCTION INSPECTION SCHEDULE

NFWB CAPITAL IMPROVEMENT PROJECTS

Updated: (2-20-20)

[illegible]

NIAGARA FALLS PUBLIC WATER AUTHORITY RESOLUTION 2020-04

RESOLUTION AUTHORIZING THE ISSUANCE OF THE AUTHORITY'S WATER AND SEWER SYSTEM REVENUE BONDS AND THE APPROVAL AND EXECUTION OF RELATED DOCUMENTS

WHEREAS, Title 10-B of the Public Authorities Law of the State of New York, as amended (the "Act") created the Niagara Falls Public Water Authority (the "Authority") with the authority and power to issue its revenue bonds for the purpose of among other things, planning, developing, acquiring, constructing and financing the cost of any facility (as defined in the Act), including the acquisition of facilities of the City of Niagara Falls ("the City") (the "System") by the Niagara Falls Water Board (the "Board") or for any other corporate purpose, including the establishment of reserves to secure the bonds, the payment of principal of, premium, if any, and interest on the bonds and the payment of incidental expenses in connection therewith; and

WHEREAS, the City has sold, transferred and otherwise conveyed the City's title and interest in the System to the Board; and

WHEREAS, the Board has approved various capital improvements to be undertaken to the System and has requested that the Authority finance same; and

WHEREAS, in connection therewith, it is now desired to authorize the issuance of not exceeding \$5,495,000 of bonds, including any notes issued in anticipation thereof (the "Bonds") plus any amounts necessary to fund reserves and to pay costs of issuance, and to approve and authorize the execution of related documents; NOW, THEREFORE,

BE IT RESOLVED by the Niagara Falls Public Water Authority as follows:

Section 1.

The Authority hereby finds and determines:

- (a) By virtue of the Act, the Authority has been vested with all powers necessary and convenient to carry out and effectuate the purposes and provisions of the Act and to exercise all powers granted to it under the Act.
- (b) It is desirable and in the public interest for the Authority to issue and sell the Bonds pursuant to a certain General Revenue Bond Resolution dated as of May 1, 2003 (the "General Resolution"), adopted by the Authority, and pursuant to a Supplemental Resolution(s) (the "Supplemental Resolution") by and between the Authority and Manufacturers and Traders Trust Company, as trustee (the "Trustee") (the Supplemental Resolution, collectively with the General Resolution, the "Resolution") and to use the proceeds of said Bonds to pay for improvements to the System, any required reserves and costs of issuance.

Section 2.

In consequence of the foregoing, the Authority hereby determines to: (i) issue and sell the Bonds pursuant to the Supplemental Resolution and the General Resolution; (ii) use the proceeds of the Bonds as previously described and as provided in the Supplemental Resolution, (iii) enter into each agreement hereafter identified in this resolution; and (iv) execute such other documents and take such other action as may be necessary to effectuate the purposes of this resolution.

Section 3.

The Authority is hereby authorized to issue, execute, sell and deliver the Bonds in the aggregate principal amount, maturing in such years at such amounts, in serial or term form, at the rate of interest and upon such terms as shall be approved by the Chairman or the vice-Chairman and in substantially the form heretofore approved in this resolution, provided that:

- (a) The Bonds are hereby authorized to be issued, executed and delivered and shall be issued, executed and delivered at such time as the Chairman or the Vice-Chairman of the Authority shall determine.
- (b) The Bonds shall be issued solely for the purposes previously described.
- (c) The Bonds and the interest thereon are not and shall never be a debt of the State of New York or any political subdivision thereof other than the Authority, including without limitation the City of Niagara Falls, and neither the State of New York nor any political subdivision thereof other than the Authority, including without limitation the City of Niagara Falls, shall be liable thereon.

Section 4.

The Authority is hereby authorized to enter into a Project Finance Agreement (the "Finance Agreement") with the New York State Environmental Facilities Corporation ("EFC") and such other agreements and documents relating to the Bonds as required by EFC.

Section 5.

The Bonds shall not be issued, executed or delivered until the prior approval of the State Comptroller shall have been obtained as required by the Act.

Section 6.

- (a) The Chairman or the vice-Chairman of the Authority are hereby authorized, on behalf of the Authority, to execute and deliver the Supplemental Resolution, the Bonds, and the Finance Agreement, all as described above (collectively, the "Financing Documents"), and the Secretary of the Authority is hereby authorized to affix the seal of the Authority to the Supplemental Resolution and the Bonds and to attest the same. The execution thereof by the Chairman or the Vice-Chairman shall constitute conclusive evidence of such approval.
- (b) The Chairman or the vice-Chairman of the Authority are further hereby authorized, on behalf of the Authority, to designate any additional Authorized Representatives of the Authority (as used or defined in and pursuant to the Resolution) to execute, on behalf of the Authority, any Financing Documents.

Section 7.

The members, officers, employees and agents of the Authority are hereby authorized and directed for and in the name and on behalf of the Authority to do all acts and things required or provided for by the provisions of the Financing Documents, and to execute and deliver all such additional certificates, instruments and documents, pay all such fees, charges and expenses and to do all such further acts and things as may be necessary or, in the opinion of the member, officer, employee or agent acting, desirable and proper to effect the purposes of this resolution and to

cause compliance by the Authority with all of the terms, covenants and provisions of the Financing Documents.

Section 8.

This resolution shall take effect immediately and the Bonds are hereby ordered to be issued in accordance with this resolution.

*motion was passed 4-0-1
1/27/2020
Erika Schreiner*

NIAGARA FALLS WATER BOARD RESOLUTION # 2020-01-015

**REQUESTING THE ISSUANCE BY THE NIAGARA FALLS PUBLIC WATER
AUTHORITY OF BONDS TO FINANCE WATERMAIN PROJECT**

WHEREAS, the Title 10-C of the Public Authorities Law of the State of New York, as amended (“the Act”) created the Niagara Falls Water Board (“Water Board”) with the authority and power to undertake the planning, developing, acquiring, and construction of any facility (as defined in the Act), with the Niagara Falls Public Water Authority (the “Authority”) empowered to issue debt in order to fund improvements to the System; and

WHEREAS, to fund improvements to watermain located in the System, the Water Board has secured a grant through the Drinking Water State Revolving Fund in the amount of \$3,000,000, with the Water Board to pay the balance of the \$5,495,000 project’s costs; and

WHEREAS, the grant-funded share of the project may not be payable to the Water Board until the project is complete, which would mean the Water Board would have to cover the full \$5,495,000 in project costs for a period of time; and

WHEREAS, the Water Board has learned that the Environmental Facilities Corporation will provide a short term loan for the full \$5,495,000 which will prevent the Water Board from needing to carry the project costs that will be funded by grant monies until the work is completed, and then will provide a long-term loan for the Water Board’s \$2,495,000 share of the project costs; and

WHEREAS, in order to obtain the short-term loan of \$5,495,000 and a long-term loan through EFC of the Water Board’s \$2,495,000 share of the project costs, the Authority will need to authorize the issuance of bonds totaling that amount;

* CONTINUED ON NEXT PAGE *

NOW THEREFORE BE IT


RESOLVED, that the Water Board hereby requests that the Authority authorize the issuance of bonds to finance \$5,495,000 of improvements to watermains that are part the System, and also to finance any reserve required and costs of issuance associated therewith; and

IT IS FURTHER RESOLVED, that this resolution takes effect immediately and the Authority hereby is requested to take action upon this request within 30 days.

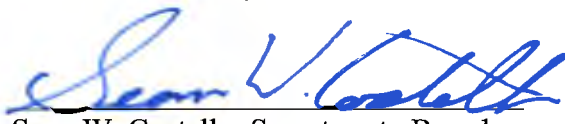
On January 27, 2020, the question of the adoption of the foregoing Resolution was duly put to a vote on roll call, which resulted as follows:

	Yes	No	Abstain	Absent
Board Member Aversa	[]	[]	[X]	[]
Board Member Forster <i>1st</i>	[X]	[]	[]	[]
Board Member Larkin	[X]	[]	[]	[]
Board Member Leffler <i>2nd</i>	[X]	[]	[]	[]
Acting Chairperson Kimble	[X]	[]	[]	[]

Signed By:


Renae Kimble, Acting Chairperson

Vote Witnessed By:


Sean W. Costello, Secretary to Board



ITEM	NO.	PROJECT NAME	PROJECT DESCRIPTION	PROJECT JUSTIFICATION	STATUS	RATING	FUNDING	FORECASTED EXPENDITURES					
								2020	2021	2022	2023	2024	Deferred
COMBINED PROJECTS (WATER AND WASTEWATER) - C													
C	1	IT Plan Implementation	Develop & implement IT solution	Efficiencies and cost savings	Ongoing - yearly	MEDIUM	Annual Coverage Transfer	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000
C	2	Meter Replacement & Upgrades	Replace inaccurate & old meters	To insure meter accuracy and automated reading	Ongoing - yearly	MEDIUM	Annual Coverage Transfer	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000
C	3	Fleet Replacement	Replenish fleet	Replace aging and unsafe vehicle stock	Ongoing - yearly	MEDIUM	Annual Coverage Transfer	\$80,000	\$80,000	\$80,000	\$80,000	\$80,000	\$80,000
C	4	Water/sewer GIS/GPS Mapping	Document system assets	Better asset management with CMMS	Ongoing - yearly	MEDIUM	Annual Coverage Transfer	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
C	5	Combined Projects - Miscellaneous	Projects not forecasted or based on an emergency	Necessary for continued operation	As needed	HIGH	Annual Coverage Transfer	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
FORECASTED EXPENDITURES - SUBTOTALS PER YEAR								\$285,000	\$285,000	\$285,000	\$285,000	\$285,000	\$285,000
WASTEWATER TREATMENT PLANT INFRASTRUCTURE PROJECTS - WWTP													
WWTP	1	WWTP Rehab Phase 4A - Sed. Basins & Scum	Project no.1 of the NYSDEC Order on Consent	NYSDEC Order on Consent R9-20170906-129, Schedule A, Item 18 Work	Engineering ongoing	HIGH	SAM Grant #15688 Phase I Project Cost Estimate	\$1,300,000 \$2,600,000	\$1,300,000 \$2,600,000	\$1,300,000 \$2,600,000	\$1,300,000 \$2,600,000		\$0
WWTP	2	WWTP Rehab Phase 4B - GPS Rehabilitation	Project no.2 of the NYSDEC Order on Consent (also includes Relocate Outfall 003 from the Falls Street Tunnel to the GPS, item no.WWTP-11)	NYSDEC Order on Consent R9-20170906-129, Schedule A, Item 18 Work	Engineering ongoing	HIGH	SAM Grant #15688 Phase I Project Cost Estimate	\$950,000 \$1,900,000	\$950,000 \$1,900,000				\$0
WWTP	3	WWTP Rehab Phase 4C - Polymer & Dewatering Controls	Project no.3 of the NYSDEC Order on Consent	NYSDEC Order on Consent R9-20170906-129, Schedule A, Item 18 Work	Engineering ongoing	HIGH	SAM Grant #15688 Phase I Project Cost Estimate	\$950,000 \$1,900,000	\$950,000				\$0
WWTP	4	WWTP Rehab Phase 4D - Carbon & Support Gravel	Project no.4 of the NYSDEC Order on Consent	NYSDEC Order on Consent R9-20170906-129, Schedule A, Item 18 Work	Construction in early 2020	HIGH	SAM Grant #15688 Phase I Project Cost Estimate	\$1,000,000 \$2,000,000					\$0
WWTP	5	WWTP Rehab Phase 4E - Electrical Improvements	Project no.5 of the NYSDEC Order on Consent	NYSDEC Order on Consent R9-20170906-129, Schedule A, Item 18 Work	Engineering ongoing	HIGH	SAM Grant #15688 Phase I Project Cost Estimate	\$650,000 \$1,300,000	\$650,000				\$0
WWTP	6	WWTP Rehab Phase 4F - Chemical Improvements	Project no.6 of the NYSDEC Order on Consent	NYSDEC Order on Consent R9-20170906-129, Schedule A, Item 18 Work	Engineering ongoing	HIGH	SAM Grant #15688 Phase I Project Cost Estimate	\$850,000 \$1,700,000					\$0
WWTP	7	WWTP Rehab Phase 4G - HVAC Improvements	Project no.7 of the NYSDEC Order on Consent	NYSDEC Order on Consent R9-20170906-129, Schedule A, Item 18 Work	Engineering ongoing	HIGH	SAM Grant #15688 Phase I Project Cost Estimate	\$275,000 \$550,000	\$275,000				\$0
WWTP	8	WWTP Rehab Phase 4H - Backwash Blower & Piping	Project no.8 of the NYSDEC Order on Consent	NYSDEC Order on Consent R9-20170906-129, Schedule A, Item 18 Work	Completed	HIGH	SAM Grant #15688 Phase I Project Cost Estimate						\$0
WWTP	9	WWTP Rehab Phase 4I - Piping Improvements	Project no.9 of the NYSDEC Order on Consent (also includes any additional WWTP piping work identified and necessary for plant operation)	NYSDEC Order on Consent R9-20170906-129, Schedule A, Item 18 Work	Engineering ongoing	HIGH	SAM Grant #15688 Phase I Project Cost Estimate	\$320,000 \$640,000					\$0
WWTP	10	WWTP Rehab Phase 4J - SCADA Improvements	Project no.10 of the NYSDEC Order on Consent	NYSDEC Order on Consent R9-20170906-129, Schedule A, Item 18 Work	Engineering ongoing	HIGH	SAM Grant #15688 Phase I Project Cost Estimate	\$50,000 \$100,000	\$50,000 \$100,000	\$50,000 \$100,000	\$50,000 \$100,000		\$0
WWTP	11.1	WWTP Phase II Grant - WWTP Flood Hazard Mitigation Grant Project (work included with CIP Item WWTP-11 below)	Harden utility infrastructure against extreme weather	Project identified that meets requirements of WWTP Phase II Grant	Engineering complete, bidding phase	HIGH	Sam Grant #17021 Project Cost Estimate	\$1,432,096 \$5,717,970					\$0
WWTP	11.2	WWTP Phase II Grant - Relocate Outfall 003 from the Falls Street Tunnel to the Gorge Pump Station (work included in CIP Item no. WWTP-2 Project No.2 Gorge Pump Station Rehabilitation above)	Redirecting of CSO Outfall 003 flows to GPS Outfall 006	NYSDEC Order on Consent R9-20170906-129, Schedule A, Item 18 Work, meets WWTP Phase II Grant Requirements	Engineering ongoing	HIGH	Sam Grant #19209 Project Cost Estimate	\$425,000 \$850,000	\$425,000				\$0
WWTP	11.3	WWTP Phase II Grant - Upgrades to the Sewer Line from Sedimentation Basin No.5	Necessary Upgrades to the Sewer Line from Sedimentation Basin No.5	Project identified that meets requirements of WWTP Phase II Grant	RFP for Engineering Services - 180	HIGH	Sam Grant #19246 Project Cost Estimate	\$112,500 \$225,000					\$0
WWTP	11.4	WWTP Phase II Grant - Replacement of Sludge and Hypochlorite Pipelines	Necessary Replacement of Sludge and Hypochlorite Pipelines	Project identified that meets requirements of WWTP Phase II Grant	RFP for Engineering Services - 180	HIGH	Sam Grant #20545 Project Cost Estimate	\$487,500 \$975,000					\$0
WWTP	12	WWTP Roof Repairs	Replace & repair large sections of the WWTP roofs	Necessary for facility protection and longevity	On hold	LOW	#20545 Matching Funds						\$1,800,000
WWTP	13	WWTP Chemical Tanks	Removal of old chemical tanks that are not used	Better utilize space for sludge storage	Construction completed	HIGH	COMPLETED						\$100,000
WWTP	14	WWTP Structural/Masonry Repairs	Repair aging and failing structural components	Restore structural integrity	On hold	LOW	ON HOLD						\$554,000
WWTP	15	WWTP Flood Hazard Mitigation Grant Project - Phase II	Harden utility infrastructure against extreme weather	Prevent rainfall-related impacts and damage	Engineering complete, bidding phase	HIGH	FEMA Grant #4204-0003 Phase II Project Cost Estimate	\$2,853,778 \$5,717,970					\$0
WWTP	16	WWTP Standby Generator	Replace and upgrade WWTP power generator	Improve reliability	On hold	MEDIUM	ON HOLD						\$150,000
WWTP	17	WWTP Infrastructure Projects - Miscellaneous	Repairs / replacements not associated with Phased Projects	Necessary for continued operation	As needed	HIGH	Annual Coverage Transfer	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
PROJECT GRANT FUNDING LEGEND								SAM Grant #15688 Phase I	\$6,345,000	\$3,225,000	\$1,350,000	\$1,350,000	\$0
WWTP PHASE I GRANT PROJECTS - SAM Grant #15688 (total grant amount = \$13,500,000)								#15688 Matching Funds	\$6,345,000	\$3,225,000	\$1,350,000	\$1,350,000	\$0
WWTP PHASE II GRANT PROJECTS - SAM Grant #15689 (total grant amount = \$6,500,000)								Sam Grant #17021	\$1,432,096	\$0	\$0	\$0	\$0
FEMA GRANT PROJECT #4204-0003 Phase II (total grant amount = \$2,853,778)								#17021 Matching Funds	\$1,432,096	\$0	\$0	\$0	\$0
								Sam Grant #19209	\$425,000	\$425,000	\$0	\$0	\$0
								#19209 Matching Funds	\$425,000	\$425,000	\$0	\$0	\$0
								SAM Grant #19246	\$112,500	\$0	\$0	\$0	\$0
								#19246 Matching Funds	\$112,500	\$0	\$0	\$0	\$0
								Sam Grant #20545	\$487,500	\$0	\$0	\$0	\$0
								#20545 Matching Funds	\$487,500	\$0	\$0	\$0	\$0
								FEMA Grant #4204-0003 Phase II	\$2,853,778	\$0	\$0	\$0	\$0
								Annual Coverage Transfer	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
FORECASTED EXPENDITURES - SUBTOTALS PER YEAR								\$20,557,970	\$7,400,000	\$2,800,000	\$2,800,000	\$100,000	\$2,704,000
SEWER INFRASTRUCTURE PROJECTS - S													
S	1	GPS Elevator	Replace and upgrade GPS elevator	Improve reliability	Construction ongoing	HIGH	Annual Coverage Transfer	\$447,500					\$0
S	2	Sanitary Lift Station Electrical Upgrades	Provide standby power generation and SCADA to lift stations	Improve reliability	Completed	HIGH	COMPLETED						\$0
S	3	LaSalle Area Sewer Improvements (SSO)	Sewer repairs to mitigate SSO's	DEC mandated regulatory requirement	Engineering draft report completed	HIGH	EPG grant #93794 Project Cost Estimate	\$100,000 \$126,800	\$0 \$175,000	\$0 \$200,000	\$0 \$200,000	\$0 \$200,000	\$200,000
							Matching Grant Funds	\$26,800	\$175,000	\$200,000	\$200,000	\$200,000	
S	4	Combined Sewer Overflow Long Term Control Plan (CSO LTCP) Implementation	Implement sewer improvements to mitigate CSO's	DEC mandated regulatory requirement	On hold	LOW	ON HOLD						\$0
S	5	CSO Outfall Structural Repairs	Repairs to CSO outfalls on lower river	Restore structural integrity	On hold	LOW	ON HOLD						\$4,000,000
S	6	Tunnel Inspection	Inspect large diameter conveyance systems	Plan repairs prior to failures	On hold	LOW	ON HOLD						\$350,000
S	7	Falls Street Tunnel Regulator Repairs	Electrical and air leak repairs to the FST regulators	Necessary for proper operation of sewer system during wet weather	Completed	HIGH	COMPLETED						\$0
S	8	Sewer/GPS Infrastructure Projects - Miscellaneous	Sewer/GPS projects not forecasted or arise based on an emergency situation	Necessary for continued operation	As needed	HIGH	Annual Coverage Transfer	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
PROJECT GRANT FUNDING LEGEND								Grants	\$100,000	\$0	\$0	\$0	\$0
Wastewater Infrastructure Engineering Planning Grant Project No.93794 (total grant amount = \$100,000)								Matching Grant Funds	\$26,800	\$175,000	\$200,000	\$200,000	\$200,000
								Annual Coverage Transfer	\$547,500	\$100,000	\$100,000	\$100,000	\$100,000
FORECASTED EXPENDITURES - SUBTOTALS PER YEAR								\$674,300	\$275,000	\$300,000	\$300,000	\$300,000	\$4,650,000



ITEM	NO.	PROJECT NAME	PROJECT DESCRIPTION	PROJECT JUSTIFICATION	STATUS	RATING	FUNDING	FORECASTED EXPENDITURES					
								2020	2021	2022	2023	2024	Deferred
WATER TREATMENT PLANT INFRASTRUCTURE PROJECTS - WTP													
WTP	1	WTP Pump Replacements	Replacement of old WTP pumps necessary to process drinking water	Maintain treatment plant integrity	Ongoing	HIGH	Annual Coverage Transfer	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$100,000
WTP	2	Automation & Security Upgrades at WTP	Automate WTP operations and perform necessary VA identified upgrades	Maintain facility security	On hold	MEDIUM	ON HOLD						\$500,000
WTP	3	WTP Vent Line Replacement	Replace corroding process vent piping	Maintain treatment plant integrity	On hold	LOW	ON HOLD						\$100,000
WTP	4	WTP Laboratory Instrumentation	New instruments for sample analysis	Regulation-driven water testing	On hold	MEDIUM	ON HOLD						\$100,000
WTP	5	WTP Caulking	Repair aging and failing structural components	Restore structural integrity	Ongoing	HIGH	COMPLETED						\$125,000
WTP	6	WTP Building Improvements	WTP renovations necessary for operation	Necessary for continued operation	On hold	MEDIUM	ON HOLD						\$150,000
WTP	7	Water Treatment Plant Infrastructure Projects - Miscellaneous	WTP projects not forecasted or arise based on an emergency situation	Necessary for continued operation	As needed	HIGH	Annual Coverage Transfer	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
FORECASTED EXPENDITURES - SUBTOTALS PER YEAR								\$130,000	\$130,000	\$130,000	\$130,000	\$130,000	\$1,175,000
WATER INFRASTRUCTURE PROJECTS - W													
W	1	Hydrant Replacement	Hydrant Replacement - old and inoperable hydrants	Fire protection reliability	Potential 2020 grant application	HIGH	2020 EFC Grant Application	\$0	\$0	\$0	\$0	\$0	\$80,000
							Project Cost Estimate	\$215,635	\$150,000	\$150,000	\$150,000	\$150,000	
W	2	Beech Avenue Tank Watermains (14" PE Sliplining) - 20th St. (Beech Ave. to Centre Ave.), Centre Ave. (20th St. to Hyde Park Blvd.), 21st St. (Centre Ave. to Ontario Ave.)	Water Main Replacement - Sliplining of water mains near Beech Avenue Water Tank	Distribution system operation & reliability	Potential 2020 grant application	HIGH	Future EFC Matching Funds	\$215,635	\$150,000	\$150,000	\$150,000	\$150,000	\$6,000,000
							2020 EFC Grant Application			\$0			
W	3	Large Valve Replacement	Valve Replacement - water valves >12"	System reliability	Potential 2020 grant application	HIGH	Project Cost Estimate			\$1,500,000			\$50,000
							Future EFC Matching Funds			\$1,500,000			
W	4	Buffalo Avenue Water Valves	Valve Replacement - water valves that are damaged	Road reconstruction opportunity	Engineering ongoing	HIGH	2020 EFC Grant Application	\$0	\$0	\$0	\$0	\$0	\$1,250,000
							Project Cost Estimate	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	
W	5	Leak Detection / Distribution Modeling	Water Distribution Study - Identify and control system losses	Resolve water quality & pressure issues; better asset management	Engineering mostly complete	MEDIUM	Future EFC Matching Funds	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$200,000
							Annual Coverage Transfer						
W	6	Abandon 20" Victory Pipe WM	Water Main Abandon - unnecessary and failing watermain	Victory pipe, potential for breaks	Eliminated - covered by items W2 & W10	ELIMINATED	ELIMINATED						\$0
W	7	Loop "D" Street Main - Falls Street to Gill Creek	Install new automatic blow-off	Water quality	On going in house by NFWB	HIGH	Annual Coverage Transfer	\$7,000					\$0
W	8	Loop Niagara Avenue Main to Parkway Drive	Install new automatic blow-off	Water quality	On going in house by NFWB	HIGH	Annual Coverage Transfer	\$7,000					\$0
W	9	10th Street and Michigan Avenue Mains - Lockport Street to Ontario Avenue (8") and 10th Street to 11th Street (8")	Water Main Replacement - replace main and install new services	Replacement of watermain due to frequent breaks	Engineering ongoing, 2020 construction	HIGH	2018 NYS EFC WIIA Grant	\$450,000					\$0
							Project Cost Estimate	\$750,000					
W	10	18th Street Main - Ontario Avenue to Whitney Avenue (14" PE Sliplining)	Water Main Replacement - replace main and install new services	Replacement of watermain due to frequent breaks	Engineering ongoing, 2020 construction	HIGH	2018 EFC Grant Matching Funds	\$300,000					\$0
							2018 NYS EFC WIIA Grant	\$660,000					
W	11	77th Street Main - Frontier Avenue to Niagara Falls Boulevard (8")	Water Main Replacement - replace main and install new services	Replacement of watermain due to frequent breaks	2021 construction	HIGH	Project Cost Estimate	\$1,100,000					\$0
							2018 EFC Grant Matching Funds	\$440,000					
W	12	80th Street - Niagara Falls Blvd. to Rick Manning Drive	Water Main Replacement - replace main and install new services	Replacement of watermain due to frequent breaks	Potential future grant application	HIGH	2018 NYS EFC WIIA Grant		\$660,000				\$0
							Project Cost Estimate		\$1,100,000				
W	13	81st Street Main - Frontier Avenue to Niagara Falls Boulevard	Water Main Replacement - replace main and install new services	Replacement of watermain due to frequent breaks	On hold	LOW	2018 EFC Grant Matching Funds		\$440,000				\$850,000
							Future EFC grant application					\$0	
W	14	Bollier Avenue Main - 82nd Street to Military Road	Water Main Replacement - replace main and install new services	Replacement of watermain due to frequent breaks	2020 construction	HIGH	Project Cost Estimate						\$0
							Future EFC Matching Funds					\$300,000	
W	15	College Terrace - Madison to College Avenue	Water Main Replacement - replace main and install new services	Replacement of watermain due to frequent breaks	Potential future grant application	HIGH	2017 NYS EFC WIIA Grant	\$240,000					\$0
							Project Cost Estimate	\$534,810					
W	16	LaSalle Avenue Main - Hyde Park Blvd to 11th Street	Water Main Replacement - replace main and install new services	Replacement of watermain due to frequent breaks	On hold	LOW	2017 EFC Grant Matching Funds	\$294,810					\$1,600,000
							Future EFC grant application					\$0	
W	17	Laughlin Drive Main - 82nd Street to Bollier Ave	Water Main Replacement - replace main and install new services	Replacement of watermain due to frequent breaks	Potential 2020 grant application	MEDIUM	Project Cost Estimate						\$0
							Future EFC Matching Funds					\$630,000	
W	18	McKoon Avenue Main - DeVeaux Avenue to James Avenue	Water Main Replacement - replace main and install new services	Replacement of watermain due to frequent breaks	Potential future grant application	MEDIUM	Future EFC grant application						\$0
							Project Cost Estimate					\$880,000	
W	19	Military Road Main - Jacob Place to Bollier Avenue	Water Main Replacement - replace main and install new services	Replacement of watermain due to frequent breaks	Engineering ongoing, 2020 construction	MEDIUM	Future EFC Matching Funds						\$0
							2018 NYS EFC WIIA Grant	\$120,000					
W	20	Military Road Main - Jacob Place to Cayuga Drive	Water Main Replacement - replace main and install new services	Replacement of watermain due to frequent breaks	On hold	LOW	Project Cost Estimate	\$200,000					\$210,000
							2018 EFC Grant Matching Funds	\$80,000					
W	21	Ontario Avenue Main - 13th Street to Main Street	Water Main Replacement - replace main and install new services	Replacement of watermain due to frequent breaks	Potential future grant application	MEDIUM	Future EFC grant application						\$0
							Project Cost Estimate					\$770,000	
W	22	Pierce Avenue Main - 11th Street to 18th Street	Water Main Replacement - replace main and install new services	Replacement of watermain due to frequent breaks	On hold	LOW	Future EFC Matching Funds						\$570,000
							ON HOLD						
W	23	Pierce Avenue Main - 18th Street to Hyde Park Blvd.	Water Main Replacement - replace main and install new services	Replacement of watermain due to frequent breaks	On hold	LOW	ON HOLD						\$750,000
							ON HOLD						
W	24	Rivershore Drive Main - S.86th Street to 91st Street	Water Main Replacement - replace main and install new services	Replacement of watermain due to frequent breaks	On hold	LOW	ON HOLD						\$280,000
							ON HOLD						
W	25	Van Rensselaer Ave - 900 Block	Water Main Replacement - replace main and install new services	Replacement of watermain due to frequent breaks	Potential 2020 grant application	HIGH	2020 EFC Grant Application				\$0		\$0
							Project Cost Estimate				\$150,000		
W	26	Welch Avenue Main - 19th Street to 24th Street (16")	Water Main Replacement - replace main and install new services	Replacement of watermain due to frequent breaks	On hold	LOW	Future EFC Matching Funds				\$150,000		\$600,000
							ON HOLD						
W	27	Whitney Avenue Main - 11th Street to Hyde Park Blvd.	Water Main Replacement - replace main and install new services	Replacement of watermain due to frequent breaks	2021 construction	HIGH	2018 NYS EFC WIIA Grant		\$1,110,000				\$0
							Project Cost Estimate		\$1,850,000				
W	28	Willow Avenue Main - 11th Street to 17th Street (8")	Water Main Replacement - replace main and install new services	Replacement of watermain due to frequent breaks	On hold	LOW	2018 EFC Grant Matching Funds		\$740,000				\$460,000
							ON HOLD						
W	29	Witkop Avenue and 85th Street Loop (all 8")	Water Main Replacement - replace main and install new services	Replacement of watermain due to frequent breaks	Potential 2020 grant application	MEDIUM	2020 EFC Grant Application				\$0		\$0
							Project Cost Estimate				\$720,000		
W	30	Water Infrastructure Projects - Miscellaneous	Water Projects - not forecasted or arise based on an emergency situation	Necessary for continued operation	As needed	HIGH	Future EFC Matching Funds				\$720,000		\$100,000
							Annual Coverage Transfer	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000	
2017 NYS EFC WIIA Grant								\$240,000	\$0	\$0	\$0	\$0	
2017 EFC Grant Matching Funds								\$294,810	\$0	\$0	\$0	\$0	
2018 NYS EFC WIIA Grant								\$1,230,000	\$1,770,000	\$0	\$0	\$0	
2018 EFC Grant Matching Funds								\$820,000	\$1,180,000	\$0	\$0	\$0	
2020 NYS EFC WIIA Grant								\$0	\$0	\$0	\$0	\$0	
2020 EFC Grant Matching Funds								\$465,635	\$465,635	\$1,980,000	\$1,980,000	\$465,635	
Future EFC grant application								\$0	\$0	\$0	\$0	\$0	
Future EFC Matching Funds								\$0	\$0	\$0	\$0	\$2,105,000	
FORECASTED EXPENDITURES - SUBTOTALS PER YEAR								\$134,000	\$120,000	\$120,000	\$120,000	\$120,000	\$13,000,000
FORECASTED EXPENDITURES -TOTALS PER YEAR								\$3,184,445	\$3,470,000	\$2,020,000	\$2,020,000	\$2,625,000	\$21,814,000

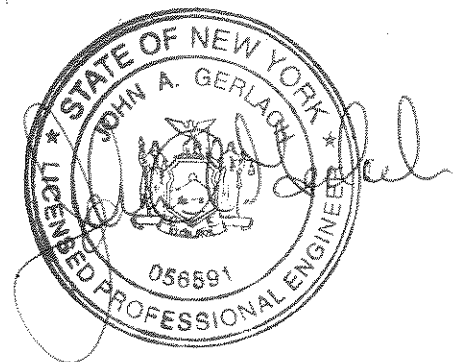


NIAGARA FALLS WATER BOARD

**2018 CAPITAL IMPROVEMENT PROJECTS
ENGINEERING REPORT
AND
ESTIMATES**



**City of Niagara Falls
Engineering Department**



**John A. Gerlach MS, P.E.
City Engineer
June 2018**

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LIST OF APPENDICES

APPENDIX A	ANNOTATED WATER DISTRIBUTION SYSTEM MAP
APPENDIX B	ENGINEER'S ESTIMATES – SCOPING PHASE

I. General

The Niagara Falls Water Board (NFWB), is a public benefit corporation created in 2002 by a special act of the New York State Legislature and is NOT a facet or function of the municipal government of the City of Niagara Falls, NY. It does, however, presently own and operate the potable water and wastewater treatment systems and the storm water conveyance facilities within the corporate boundary of the City of Niagara Falls, New York and has done so since September 25th, 2003. The Niagara Falls Public Water Authority oversees the bonding and financing of the board's assets and has an annual operating budget approaching \$30 Million (USD)

The projects herein listed represent planned capital improvement projects within the Water Board's Water Distribution System that have been identified as having the potential for the greatest positive impact on daily operations and system reliability. This is anticipated to be achieved via the elimination of aging/failing piping and its replacement with hydraulically sound and structurally stable materials. Ancillary benefits to be achieved include: decreased overtime/emergency repair crew costs, elimination of ancillary pavement, margin and related right-of-way restoration costs and the reduction in loss of service/private property damage claims.

As always, it is the Niagara Falls Water Board's intent through these projects to provide a safe and reliable potable water, fire protection, and to provide continuous year round water service to the residents of the City of Niagara Falls, New York.

II. Project Planning Areas

A. Location(s)

There are five (5) separate water distribution projects, located throughout the City of Niagara Falls, New York, that make up the planned capital improvement projects herein considered for review:

- (i) 77th Street - Frontier Avenue to Niagara Falls Boulevard
- (ii) 18th Street - Whitney Avenue to Ontario Avenue
- (iii) Whitney Avenue - 11th Street to Hyde Park Boulevard
- (iv) 10th Street/Michigan Avenue - Lockport Street to Ontario Avenue
- (v) Military Road - Jacob Place to Bollier Avenue

Please note that Appendix "A" consists of an annotated City-Wide Site Map locating each project area above.

B. Joint Venture

As is always the case with the Niagara Falls Water Board, except for its water storage tanks, the entirety of its water distribution system lies exclusively within the City of Niagara Falls' right-of-way. For that reason, as well as to insure the most efficient use of resources within both entities for the residents they jointly serve, the Niagara Falls Water Board enters into all of its distribution projects with the municipality of Niagara Falls as eager and willing partners. Accommodations with respect to traffic control and detouring, emergency service response, refuse disposal/recycling during construction are all a product of the unique relationship the NFWB and the City of Niagara Falls shares. This accommodation traditionally extends to the provision of complete design, and contract administration services being provided at no cost to the Water Board for all such distribution system improvements since the Board's inception.

C. Environmental Resources Present

The neighborhoods wherein each of the distribution system improvements are located are primarily classified "residential", with the majority of served properties consisting of owner-occupied homes. For well in excess of a century, none of the proposed project areas have contained any other commercial, industrial or non-traditional use but residential. There are no known sources of chemical, petroleum-based or radioactive contaminants within the project areas as they are presently defined and no known wetland or historic preservation issues are expected.

D. Growth Areas and Population Trends

According to the United States Census, the City of Niagara Falls, NY had a population of 50,175 in 2010 and US Census estimates presently place the population at 48,500 as recently as 2017. This number reflects a population decrease of approximately 3.34%. This percentage reflects a slight slowing of the shrinkage rate the City has been experiencing for decades.

III. Existing Facilities

A. Location Map

The project areas are all located within the corporate boundary of the City of Niagara Falls, Niagara County, New York, as shown in Appendix A. In each location, the piping in question is located within/beneath an existing residential thoroughfare/travelled roadway.

B. Existing Water Supply

Each of the proposed water distribution improvement project areas (except for 18th Street) currently are served by nominal six (6" dia.) inch diameter cast iron water mains and ¾" nom. lead water services to each residence. The mains in question were installed in the 1920's and 1930's utilizing poured "lead and oakum" jointing with bedding/backfill consisting of native excavated materials as was consistent with the contemporary installation procedures of the day. Additionally, due to adverse soil conditions found in certain parts of town depths of bury have been noted to be less than ideal for some of the deepest cold spells we can encounter each winter. For each of the projects proposed, the following shortcomings have been identified:

1. Reliability: Each location has suffered repeated and complete failure, interrupting water service to several dozens of homes in their immediate vicinity. Isolation measures needed to control (and eventually cease) water flow additionally affect hundreds more area residents and businesses.
2. High Cost to Rate Payers: Emergency responses needed to accommodate the failures described above force labor costs to spike dramatically. Additionally, as each break occurs, the restoration costs needed to replace washed out roadways, sewer laterals, natural gas systems and underground electric/phone appurtenances increase as well. On multiple occasions, these costs have been repeated due to repeat breaks involving the same issues requiring replacement.
3. Fire Protection: Each water main failure represents an interruption in fire protection for both the immediate failure area and those affected by the isolation procedures.

C. Districts

In the City of Niagara Falls, NY in general, and the proposed project location herein specified, the Niagara Falls Water Board is solely responsible for providing potable water service for both domestic and firefighting needs.

D. Water Demands

The existing traditional demands for the City of Niagara Falls in general are as follows:

Average Day	<u>14.6M</u> g.p.d.
Maximum Day	<u>29.2M</u> g.p.d.
Peak Hourly Rate	<u>60.0M</u> g.p.d.

IV. Need for Project

A. System Operations & Maintenance Functions

As noted under "Existing Facilities, Existing Water Supply" above, the residents in each of the affected areas suffers from a deficient system brought on by a localized system age in most cases approaching a hundred years, fluctuation in flow and pressure, tuberculation, and even extreme weather phenomena. Each failure negatively impacts not only quality of life issues through service interruptions, but is very costly in terms of repeated water break damage restoration, increasing with each repeat occurrence.

1. The failure scenario for the 18th Street (20" dia.) water main is slightly different, owing to the facts that it has few (if any) service connections and serves primarily as a minor transmission main and not a residential water provider. It has been determined that piping of this vintage, installed during World War II (1941-46) was of a poorer quality than was traditionally obtained, so that superior metals could be provided directly to the war effort; domestic piping of this nature was deemed "good enough" to serve the industrial parts of the City with needed process water. This piping, colloquially termed "Victory Pipe" did indeed serve its intended purpose admirably, but, by definition, has long outlived its intended usefulness.

B. Fire Protection

Simply stated, interruptions in flow due to the water breaks themselves and the efforts associated in achieving an isolation of the water mains in question, hinder firefighting operations. In some instances, as in the immediate areas of the broken mains themselves, water for fire suppression may not be available for miles, necessitating trucking and ultimately, unwarranted exposure to risk.

V. Alternatives Considered

A. Description

1. Existing System – "Null Alternative"

Estimated Capital Cost: \$0

This alternative proposes to "do nothing". The water system would continue to be operated as is, with each location of poor performance continuing to worsen while exposure to risk increases.

2. Alternative 1 – Water Main Replacement(s)

Estimated Capital Costs:

- (i) 77th Street - \$ 1.00M
- (ii) 18th Street - \$ 950K
- (iii) Whitney Avenue - \$ 1.90M
- (iv) 10th Street/Michigan Avenue - \$ 675K
- (v) Military Road - \$ 180K

NOTE: The estimated costs for each proposed location listed above are detailed in Appendix B

This alternative proposes to replace the existing portions of the distribution system within the identified areas with new nom. eight (8" dia.) inch diameter ductile iron water mains, 1" dia. copper residential services, new valving and all ancillary required appurtenances. This will ultimately serve to dramatically increase pressure and flow reliability with the added benefit of reduced water age.

- a. Again 18th Street's water main replacement process differs from the rest as did its initial reason for failing. The traditional replacement process for mains of this type involves a polyethylene (PE) pipe liner inserted within the existing cast iron main. This allows the operator to take advantage of this piping's acceptable soil bearing capacities while eliminating its brittle porousness and leakage traits with a seamless polyethylene liner.

B. Design Criteria

The proposed water distribution system improvements system will be designed in accordance with the following reference standards:

- Any/all applicable AWWA Standard Requirements governing the Installation of Ductile Iron Water Mains
- The Recommended Standards for Water Works (Ten-State Standards)
- NYS Department of Health/Niagara County Health Department
- NYS Department of Transportation – restoration requirements
- City of Niagara Falls Standards for Construction within the Right-of-Way
- Any/all applicable State and Local codes, laws and ordinances

C. Map

The proposed water distribution system improvements are shown schematically on the annotated NFWB Distribution System Map included in Appendix A.

D. Environmental Impacts

There are no anticipated negative environmental impacts associated with the project. However, an SEQR based environmental review will be performed for the project. All construction will be done in existing municipal Right-of-Ways (or legal easements, if necessary) and proper construction mitigation and restoration efforts will be implemented as dictated by the above-referenced construction standards

E. Advantages/Disadvantages

Although there are significant costs associated with Alternative 1, it is the only viable alternative that addresses any known or foreseeable deficiencies of the existing water system deficiencies more effectively than the "Null Alternative". The advantages of Alternative 1 are as follows:

1. It will replace the deteriorated water system with a system composed of superior materials utilizing modern installation procedures.
2. It will restore reliability to both the domestic water users as well as the firefighting capabilities required for risk mitigation.

VI. Recommended Alternative

The recommended alternative is **Alternative 1: Water Main Replacement(s)**

A. Project Design

1. Water Treatment & Supply

The potable water treatment and supply will be from the Niagara Falls Water Board.

2. Storage

Additional storage is not required as part of these proposed project(s).

3. Pumping Stations

A pump station is not required as part of these proposed project(s).

4. Distribution Layout

The entire distribution network is shown in Appendix A of this report. The Niagara Falls Water Board is, and will continue to be responsible for system operation and maintenance.

5. Water Services

The portion of the water service from the right-of-way to the main line will be installed by the Niagara Falls Water Board for these referenced capital improvement project(s). All service line ownership and maintenance responsibilities will continue to be as dictated by existing local ordinances. Water Service piping size and materials will be as identified elsewhere in this report.

6. Hydraulic Analysis

The hydraulic analysis of the system includes the evaluation of available pressures and flows for the proposed water main extensions. Upon completing static and flow tests in the vicinities of the proposed projects, the following preliminary assessment is:

It is anticipated, based on existing residential usage that no significant increase of consumption will be experienced. Average daily usage for the entire NFWB system will remain as listed earlier in this report as the areas slated for replacements each represents usage well below 1% of daily facility production.

Additionally, based on existing pressure and flow rates and the anticipated improvements to be obtained with new piping and valving it was determined the proposed system will provide pressures between 65 psi and 75 psi though traditional, diurnal and isolated event-driven (i.e. fire flows) peak flow ranges typically experienced.

B. Proposed Project Costs

Engineer's estimates for the Scoping/Preliminary Design portion of these proposed distribution system improvements are listed in Appendix B of this report.

They are based upon traditional bid item costs experienced by the City and the Water Board, adjusted statistically over the course of several decades, in addition to standard construction "Time & Material" Heavy/Highway Construction estimating techniques. Other significant factors considered in the estimate process is the NFWB's minimum requirements of a bonded and insured labor force paid at current NYSDOL Prevailing Wage Rates.

[NOTE: These estimates are reflective of budgeted capital improvement project as a portion of a standard five year plan and as such, offer no calculations for borrowing or bonding costs]

VII. Miscellaneous Information

A. Service Line Information

1. A new water service line (Type "K" Copper, 1" nom. dia.) will be installed to all buildings, from the proposed new water main to the existing curb valve within the right-of-way, for connection to the public water system by a municipally licensed master plumber in adherence to all current local laws and ordinances.

2. Service Types/Quantities

- | | | |
|-------|--|---|
| (i) | 77 th Street | 92 residential |
| (ii) | 18 th Street | 0 |
| (iii) | Whitney Avenue | 250 residential |
| (iv) | 10 th Street/Michigan Avenue | 33 residential, 2 commercial (2" dia.) |
| (v) | Military Road | 6 residential |

B. Fire Appurtenance Information

1. Standardization and modernization with installation of new ductile iron fire hydrants
2. Valving and thrust restraint optimized via modern specifications.
3. Installation of self-draining appurtenances avoiding extra winter maintenance attention
4. Revised/updated spacing to current specifications
 - a. Revised placement also allows new hydrants to avoid modern traffic issues

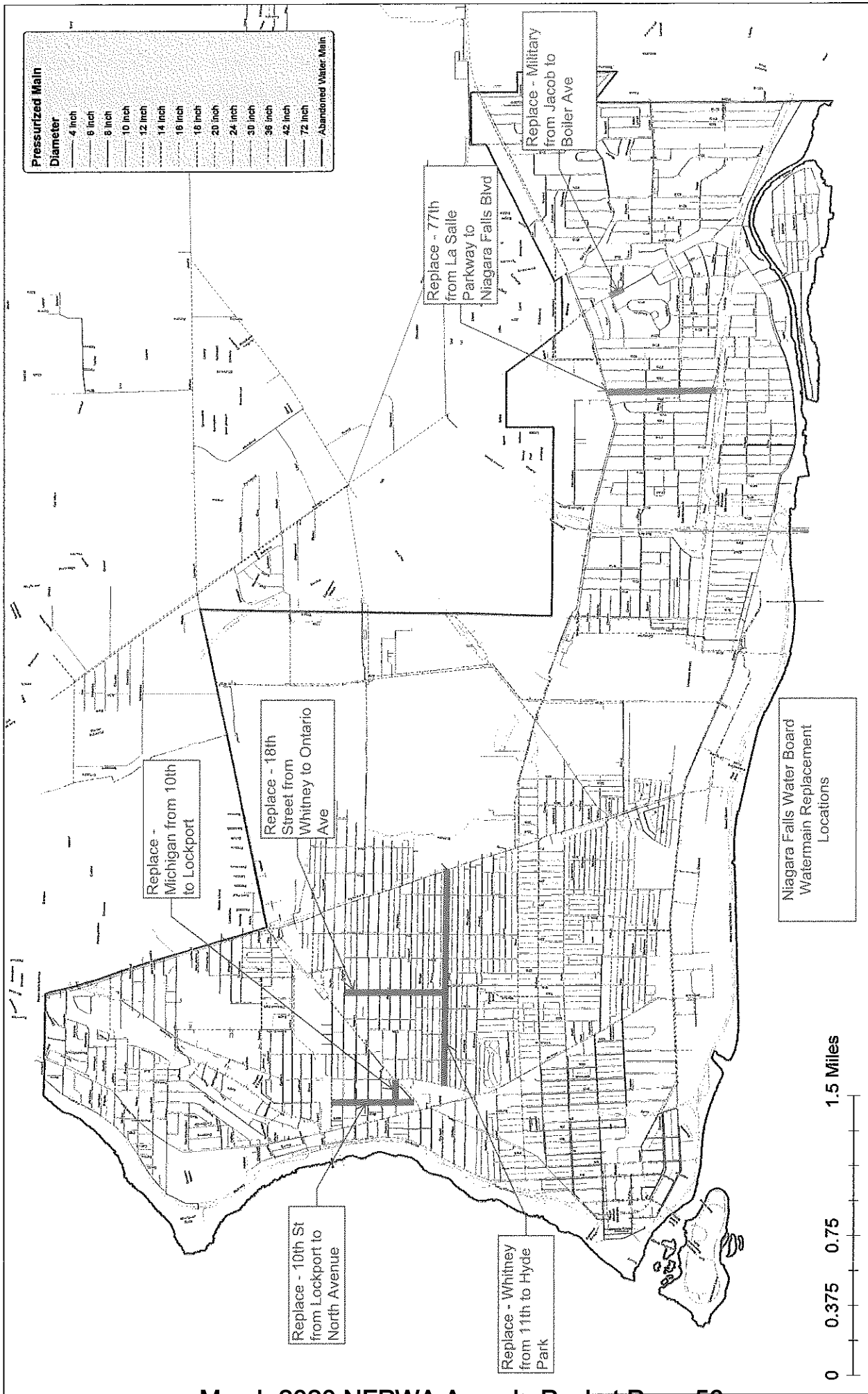
VIII. Conclusions

The Niagara Falls Water Board and its partner, the City of Niagara Falls, NY, is committed to providing safe and reliable potable water supply and fire protection to its residents. These specific capital improvements project will be instrumental in preserving that goal. It is recommended that the Niagara Falls Water Authority, through the actions of its Board and the commissioning/submission of this report, seek funding for completion of the aforementioned projects.

Appendix A

NIAGARA FALLS WATER BOARD

Water Distribution System Map and Proposed Project Locations



Water Mains & Streets

DISCLAIMER:
FOR INFORMATION ONLY
ACCURACY OF THIS PLAN
SHALL BE CHECKED IN FIELD
NIAGARA FALLS WATER BOARD

Appendix B

NIAGARA FALLS WATER BOARD

2018 CAPITAL IMPROVEMENT PROJECTS PRELIMINARY ENGINEER ESTIMATES

MADE BY: R. Buzzelli
 CHECKED BY: _____

DATE: JUNE 2018
 DATE: _____

Watermain Installation Quantities/Estimates

Location: 77th Street
Stephenson Avenue to Niagara Falls Boulevard

R.O.W. Width: 60 ft. Paved Width: 30 ft. Trench Width: 2.7 ft.
 Margin(s): 15 ft. ☐ /E.) side 15 ft. ☐ /W.) side
 Project Start Station: 0+50 Project End Station: 35+00
 Center Line Distance (ft.): 3,450 Total Project Length (ft.): 3,450

Quantities and Cost Estimates

<u>3450</u>	lin. ft.	Project Survey & Stakeout		20,000.00
<u>0</u>	lin. ft.	Sawcutting	\$3.00	0.00
	lin. ft.	Misc. Sawcutting	\$2.00	0.00
<u>92</u>	each	Tap & Corp. Stop (1" dia.)	\$1,000.00	92,000.00
<u>2600</u>	lin. ft.	Copper Tubing, type K (1" dia.)	\$12.00	31,200.00
<u>92</u>	each	Curb Stop & WSV Box (1" dia.)	\$1,000.00	92,000.00
	each	Gate Valve w/Box (6" dia.)	\$2,000.00	0.00
<u>13</u>	each	Gate Valve w/Box (8" dia.)	\$3,000.00	39,000.00
	each	Gate Valve w/Box (10" dia.)	\$5,000.00	0.00
	each	Gate Valve w/Box (12" dia.)	\$2,500.00	0.00
	each	Butterfly Valve (16" dia.)	\$4,000.00	0.00
	each	Butterfly Valve (24" dia.)	\$8,000.00	0.00
<u>9</u>	each	New Hydrant Assembly	\$7,500.00	67,500.00
<u>7</u>	each	Ex. Hydrant Assembly Removal	\$1,000.00	7,000.00
<u>50</u>	lin. ft.	Ductile Iron Pipe (6" dia.)	\$65.00	3,250.00
<u>3450</u>	lin. ft.	Ductile Iron Pipe (8" dia.)	\$80.00	276,000.00
	lin. ft.	Ductile Iron Pipe (10" dia.)	\$100.00	0.00
	lin. ft.	Ductile Iron Pipe (12" dia.)	\$175.00	0.00
	lin. ft.	Ductile Iron Pipe (16" dia.)	\$200.00	0.00
<u>1</u>	each	Exploratory Excavation	\$500.00	500.00
<u>1</u>	L.S.	Abandon Existing Watermain	-	12,500.00
	each	New Water V.B.(s) (w/Cover)		0.00
<u>5000</u>	sq. ft.	Topsoil and Seed	\$2.00	10,000.00
	lin. ft.	Pavement Restoration (attached)	n.a.	250,000.00
	as nec.			
	as nec.			
<u>N.A.</u>	L.S.	Maint./Protect. of Traffic - Water	\$15.00	51,750.00
<u>N.A.</u>	L.S.	Mobilization - Water	4% of total	38,108.00

TOTAL: \$ 990,808.00 ... say \$1,000,000.00 for WATER Estimate

NOTE: Paving Costs Associated with Trench Restoration
 (see attached)

MADE BY: R. Buzzelli
 CHECKED BY: _____

 DATE: JUNE 2018
 DATE: _____

New Watermain Restoration Quantities/Estimates

 Location: 77th Street
Stephenson Avenue to Niagara Falls Boulevard

 R.O.W. Width: 60 ft. Paved Width: 30 ft. Trench Width: 2.7 ft.

 Margin(s): 15 ft. (N./E.) side 15 ft. (S./W.) side

 Project Start Station: 0+50 Project End Station: 35+00

 Center Line Distance (ft.): 3,450 Total Project Length (ft.): 3,450

Quantities and Cost Estimates

<u>10000</u>	lin. ft.	Project Survey & Stakeout	\$5.00	n.a.
<u>300</u>	lin. ft.	Sawcutting	\$3.00	30,000.00
	lin. ft.	Misc. Sawcutting	\$2.00	600.00
	sq. yds.	Cold Milling/Pvmt. Removal	\$5.00	0.00
<u>2800</u>	sq. yds.	Subbase - 12" thk.	\$18.00	50,400.00
<u>2800</u>	sq. yds.	Base	\$16.00	44,800.00
<u>2800</u>	sq. yds.	Binder	\$12.00	33,600.00
<u>2800</u>	sq. yds.	Top	\$8.00	22,400.00
	sq. yds.	Truing & Leveling	\$6.00	0.00
	gal.	Tack Coat	\$3.00	0.00
	sq. yds.	Conditioning Exist. Pavement	\$2.00	0.00
	sq. yds.	Subbase Reinforcement	\$2.50	0.00
	sq. yds.	Woven Geotextile Fabric	\$2.50	0.00
	sq. yds.	Non-Woven Geotextile Fabric	\$2.50	0.00
	lin. ft.	Waterproofing Membrane	\$1.00	0.00
	lin. ft.	New Granite Curbing	\$30.00	0.00
	lin. ft.	Reset Granite Curbing	\$20.00	0.00
	lin. ft.	New Concrete Curbing	\$20.00	0.00
<u>500</u>	sq. ft.	4" thk. Concrete	\$8.00	4,000.00
<u>1200</u>	sq. ft.	6" thk. Concrete	\$10.00	12,000.00
	each	Pre-Cast Catch Basin	\$2,500.00	0.00
	lin. ft.	Ex. C.B. & Lateral Cleaning	\$5.00	0.00
	each	Altering C.B., MH, V.B.	\$200.00	0.00
	each	Sewer MH Frame(s) (w/Cover)	\$300.00	0.00
	each	New Water V.B.(s) (w/Cover)	\$250.00	0.00
	sq. ft.	Topsoil and Seed	\$5.00	0.00
	each	Traffic Sensor Loop(s)	\$800.00	0.00
	lin. ft.	Pavement Striping	\$1.50	0.00
<u>N.A.</u>	L.S.	Maint./Protect. of Traffic	\$5.00	17,250.00
	as nec.			
	as nec.			
	sq. ft.	Paver Installation	\$15.00	0.00
<u>N.A.</u>	L.S.	Mobilization	4% of total	8,602.00

 TOTAL: \$ 246,017.20 ... say \$250,000.00

MADE BY: R. Buzzelli
 CHECKED BY: _____

DATE: 12 February 2003
 DATE: _____

Watermain Installation Quantities/Estimates

Location: 18th Street - PE Sliplining
Ontario Avenue to Whitney Avenue

R.O.W. Width: 66 ft. (typ.) Paved Width: 38 Trench Width: n.a.
 Margin(s): n.a. ☐ /E.) side n.a. ☐ /W.) side
 Project Start Station: 0+00 Project End Station: 35+00
 Center Line Distance (ft.): 3,500 Total Project Length (ft.): 3,500

Quantities and Cost Estimates

<u>1</u>	L.S.	Project Survey & Stakeout	-	12,000.00
<u>n.a.</u>	lin. ft.	Sawcutting	\$3.00	0.00
<u>n.a.</u>	lin. ft.	Misc. Sawcutting	\$2.00	0.00
<u>0</u>	each	Tap & Corp. Stop (1" dia.)	\$500.00	0.00
<u>3500</u>	lin. ft.	Cleaning	\$20.00	70,000.00
<u>7000</u>	lin. ft.	Video	\$7.50	52,500.00
	each	Gate Valve w/Box (6" dia.)	\$2,000.00	0.00
<u>2</u>	each	Gate Valve w/Box (8" dia.)	\$3,000.00	6,000.00
	each	Gate Valve w/Box (10" dia.)	\$5,000.00	0.00
	each	Gate Valve w/Box (12" dia.)	\$2,500.00	0.00
<u>4</u>	each	Butterfly Valve (14" dia.)	\$5,500.00	22,000.00
	each	Butterfly Valve (16" dia.)	\$8,000.00	0.00
<u>2</u>	each	New Hydrant Assembly	\$10,000.00	20,000.00
	each	Ex. Hydrant Assembly Removal	\$1,000.00	0.00
	lin. ft.	Ductile Iron Pipe (6" dia.)	\$65.00	0.00
<u>20</u>	lin. ft.	Ductile Iron Pipe (8" dia.)	\$80.00	1,600.00
	lin. ft.	Ductile Iron Pipe (10" dia.)	\$100.00	0.00
<u>20</u>	lin. ft.	Ductile Iron Pipe (14" dia.)	\$175.00	3,500.00
<u>20</u>	lin. ft.	Ductile Iron Pipe (16" dia.)	\$200.00	4,000.00
<u>2</u>	each	Exploratory Excavation(s)	\$250.00	500.00
<u>3500</u>	lin. ft.	Polyethelene (PE) Pipe (14" dia.)	\$140.00	490,000.00
<u>1</u>	L.S.	Abandon Existing Watermain*	\$15,000.00	15,000.00
<u>4</u>	each	New Water V.B.(s) (w/Cover)	\$500.00	2,000.00
<u>250</u>	sq. yds.	Pavement Restoration	\$80.00	20,000.00
<u>4</u>	each	Watermain Interconnections (PE to Ex. C.I.P)	\$20,000.00	80,000.00
<u>N.A.</u>	L.S.	Maint./Protect. of Traffic - Water	\$7.50	26,250.00
<u>N.A.</u>	L.S.	Mobilization - Water		33,014.00

TOTAL: \$ 944,200.40 say \$950,000.00 for WATER Estimate

Pavement Restoration Included

10% Contingency included in WAT EST

MADE BY: R. Buzzelli
 CHECKED BY: _____

DATE: JUNE 2018
 DATE: _____

Watermain Installation Quantities/Estimates

Location: Whitney Avenue
11th Street to Hyde Park Boulevard

R.O.W. Width: 60 ft. Paved Width: 30 ft. Trench Width: 2.7 ft.
 Margin(s): 15 ft. (N ☐) side 15 ft. (S ☐) side
 Project Start Station: 0+00 Project End Station: 60+50
 Center Line Distance (ft.): 6,050 Total Project Length (ft.): 6,050

Quantities and Cost Estimates

<u>6050</u>	lin. ft.	Project Survey & Stakeout		30,000.00
<u>0</u>	lin. ft.	Sawcutting	\$3.00	0.00
	lin. ft.	Misc. Sawcutting	\$2.00	0.00
<u>250</u>	each	Tap & Corp. Stop (1" dia.)	\$1,000.00	250,000.00
<u>6500</u>	lin. ft.	Copper Tubing, type K (1" dia.)	\$12.00	78,000.00
<u>250</u>	each	Curb Stop & WSV Box (1" dia.)	\$1,000.00	250,000.00
	each	Gate Valve w/Box (6" dia.)	\$2,000.00	0.00
<u>30</u>	each	Gate Valve w/Box (8" dia.)	\$3,000.00	90,000.00
	each	Gate Valve w/Box (10" dia.)	\$5,000.00	0.00
	each	Gate Valve w/Box (12" dia.)	\$2,500.00	0.00
	each	Butterfly Valve (16" dia.)	\$4,000.00	0.00
	each	Butterfly Valve (24" dia.)	\$8,000.00	0.00
<u>15</u>	each	New Hydrant Assembly	\$7,500.00	112,500.00
<u>12</u>	each	Ex. Hydrant Assembly Removal	\$1,000.00	12,000.00
<u>80</u>	lin. ft.	Ductile Iron Pipe (6" dia.)	\$65.00	5,200.00
<u>6050</u>	lin. ft.	Ductile Iron Pipe (8" dia.)	\$80.00	484,000.00
	lin. ft.	Ductile Iron Pipe (10" dia.)	\$100.00	0.00
	lin. ft.	Ductile Iron Pipe (12" dia.)	\$175.00	0.00
	lin. ft.	Ductile Iron Pipe (16" dia.)	\$200.00	0.00
<u>1</u>	each	Exploratory Excavation	\$500.00	500.00
<u>1</u>	L.S.	Abandon Existing Watermain	-	30,000.00
	each	New Water V.B.(s) (w/Cover)		0.00
<u>30000</u>	sq. ft.	Topsoil and Seed	\$2.00	60,000.00
	lin. ft.	Pavement Restoration (attached)	n.a.	330,000.00
	as nec.			
	as nec.			
<u>N.A.</u>	L.S.	Maint./Protect. of Traffic - Water	\$15.00	90,750.00
<u>N.A.</u>	L.S.	Mobilization - Water	4% of total	72,918.00

TOTAL: \$ 1,895,868.00 ... say \$1,900,000.00 for WATER Estimate

NOTE: Paving Costs Associated with Trench Restoration
 (see attached)

MADE BY: R. Buzzelli
 CHECKED BY: _____

 DATE: JUNE 2018
 DATE: _____

New Watermain Restoration Quantities/Estimates

 Location: Whitney Avenue
11th Street to Hyde park Boulevard

 R.O.W. Width: 60 ft. Paved Width: 30 ft. Trench Width: 2.7 ft.

 Margin(s): 15 ft. (N./E.) side 15 ft. (S./W.) side

 Project Start Station: 0+00 Project End Station: 60+50

 Center Line Distance (ft.): 6,050 Total Project Length (ft.): 6,050

Quantities and Cost Estimates

<u>56000</u>	lin. ft.	Project Survey & Stakeout	\$5.00	n.a.
<u>1000</u>	lin. ft.	Sawcutting	\$3.00	168,000.00
	lin. ft.	Misc. Sawcutting	\$2.00	2,000.00
<u>1350</u>	sq. yds.	Cold Milling/Pvmt. Removal	\$5.00	0.00
<u>1350</u>	sq. yds.	Subbase - 12" thk.	\$18.00	24,300.00
<u>1350</u>	sq. yds.	Base	\$16.00	21,600.00
<u>1350</u>	sq. yds.	Binder	\$12.00	16,200.00
	sq. yds.	Top	\$8.00	10,800.00
	sq. yds.	Truing & Leveling	\$6.00	0.00
	gal.	Tack Coat	\$3.00	0.00
	sq. yds.	Conditioning Exist. Pavement	\$2.00	0.00
	sq. yds.	Subbase Reinforcement	\$2.50	0.00
	sq. yds.	Woven Geotextile Fabric	\$2.50	0.00
	sq. yds.	Non-Woven Geotextile Fabric	\$2.50	0.00
	lin. ft.	Waterproofing Membrane	\$1.00	0.00
	lin. ft.	New Granite Curbing	\$30.00	0.00
	lin. ft.	Reset Granite Curbing	\$20.00	0.00
	lin. ft.	New Concrete Curbing	\$20.00	0.00
<u>500</u>	sq. ft.	4" thk. Concrete	\$8.00	4,000.00
<u>0</u>	sq. ft.	6" thk. Concrete	\$10.00	0.00
	each	Pre-Cast Catch Basin	\$2,500.00	0.00
	lin. ft.	Ex. C.B. & Lateral Cleaning	\$5.00	0.00
	each	Altering C.B., MH, V.B.	\$200.00	0.00
	each	Sewer MH Frame(s) (w/Cover)	\$300.00	0.00
	each	New Water V.B.(s) (w/Cover)	\$250.00	0.00
<u>2100</u>	sq. ft.	Topsoil and Seed	\$5.00	10,500.00
	each	Traffic Sensor Loop(s)	\$800.00	0.00
<u>N.A.</u>	lin. ft.	Pavement Striping	\$1.50	0.00
	L.S.	Maint./Protect. of Traffic	\$5.00	30,250.00
	as nec.			
	as nec.			
	sq. ft.			
<u>N.A.</u>	L.S.	Paver Installation	\$15.00	0.00
		Mobilization	4% of total	11,506.00

TOTAL: \$ 329,071.60 ... say \$330,000.00

MADE BY: R. Buzzelli
 CHECKED BY: _____

DATE: JUNE 2018
 DATE: _____

Watermain Installation Quantities/Estimates

Location: 10th Street / Michigan Avenue
Lockport Street to Ontario Avenue / 10th to 11th Streets

R.O.W. Width: 60 ft. Paved Width: 30 ft. Trench Width: 2.7 ft.
 Margin(s): 15 ft. ☐ /E.) side 15 ft. ☐ /W.) side
 Project Start Station: 0+20 Project End Station: 25+00
 Center Line Distance (ft.): 2,480 Total Project Length (ft.): 2,480

Quantities and Cost Estimates

<u>2480</u>	lin. ft.	Project Survey & Stakeout		<u>20,000.00</u>
_____	lin. ft.	Sawcutting	\$3.00	<u>0.00</u>
_____	lin. ft.	Misc. Sawcutting	\$2.00	<u>0.00</u>
<u>33</u>	each	Tap & Corp. Stop (1" dia.)	\$1,000.00	<u>33,000.00</u>
<u>925</u>	lin. ft.	Copper Tubing, type K (1" dia.)	\$12.00	<u>11,100.00</u>
<u>33</u>	each	Curb Stop & WSV Box (1" dia.)	\$1,000.00	<u>33,000.00</u>
_____	each	Gate Valve w/Box (6" dia.)	\$2,000.00	<u>0.00</u>
<u>18</u>	each	Gate Valve w/Box (8" dia.)	\$3,000.00	<u>54,000.00</u>
_____	each	Gate Valve w/Box (10" dia.)	\$5,000.00	<u>0.00</u>
_____	each	Gate Valve w/Box (12" dia.)	\$2,500.00	<u>0.00</u>
_____	each	Butterfly Valve (16" dia.)	\$4,000.00	<u>0.00</u>
_____	each	Butterfly Valve (24" dia.)	\$8,000.00	<u>0.00</u>
<u>7</u>	each	New Hydrant Assembly	\$7,500.00	<u>52,500.00</u>
<u>4</u>	each	Ex. Hydrant Assembly Removal	\$1,000.00	<u>4,000.00</u>
<u>40</u>	lin. ft.	Ductile Iron Pipe (6" dia.)	\$65.00	<u>2,600.00</u>
<u>2480</u>	lin. ft.	Ductile Iron Pipe (8" dia.)	\$80.00	<u>198,400.00</u>
_____	lin. ft.	Ductile Iron Pipe (10" dia.)	\$100.00	<u>0.00</u>
_____	lin. ft.	Ductile Iron Pipe (12" dia.)	\$175.00	<u>0.00</u>
_____	lin. ft.	Ductile Iron Pipe (16" dia.)	\$200.00	<u>0.00</u>
<u>1</u>	each	Exploratory Excavation	\$500.00	<u>500.00</u>
<u>1</u>	L.S.	Abandon Existing Watermain	-	<u>12,500.00</u>
_____	each	New Water V.B.(s) (w/Cover)		<u>0.00</u>
<u>4000</u>	sq. ft.	Topsoil and Seed	\$2.00	<u>8,000.00</u>
_____	lin. ft.	Pavement Restoration (attached)	n.a.	<u>155,000.00</u>
<u>2</u>	each	2" Water Service (complete)	\$4,000.00	<u>8,000.00</u>
_____	as nec.	_____	_____	_____
<u>N.A.</u>	L.S.	Maint./Protect. of Traffic - Water	\$15.00	<u>37,200.00</u>
<u>N.A.</u>	L.S.	Mobilization - Water	4% of total	<u>25,192.00</u>

TOTAL: \$ 654,992.00 ... say \$675,000.00 for WATER Estimate

NOTE: Paving Costs Associated with Trench Restoration
 (see attached)

10% CONTINGENCY added to WAT EST

MADE BY: R. Buzzelli
 CHECKED BY: _____

 DATE: JUNE 2018
 DATE: _____

New Watermain Restoration Quantities/Estimates

 Location: 10th Street / Michigan Avenue
Lockport Street to Ontario Avenue / 10th to 11th Streets

 R.O.W. Width: 60 ft. Paved Width: 30 ft. Trench Width: 2.7 ft.

 Margin(s): 15 ft. (N./E.) side 15 ft. (S./W.) side

 Project Start Station: 0+20 Project End Station: 25+00

 Center Line Distance (ft.): 2,480 Total Project Length (ft.): 2,480

Quantities and Cost Estimates

<u>6300</u>	lin. ft.	Project Survey & Stakeout	\$5.00	n.a.
<u>580</u>	lin. ft.	Sawcutting	\$3.00	18,900.00
	lin. ft.	Misc. Sawcutting	\$2.00	1,160.00
<u>1800</u>	sq. yds.	Cold Milling/Pvmt. Removal	\$5.00	0.00
<u>1800</u>	sq. yds.	Subbase - 12" thk.	\$18.00	32,400.00
<u>1800</u>	sq. yds.	Base	\$16.00	28,800.00
<u>1800</u>	sq. yds.	Binder	\$12.00	21,600.00
	sq. yds.	Top	\$8.00	14,400.00
	sq. yds.	Truing & Leveling	\$6.00	0.00
	gal.	Tack Coat	\$3.00	0.00
	sq. yds.	Conditioning Exist. Pavement	\$2.00	0.00
	sq. yds.	Subbase Reinforcement	\$2.50	0.00
	sq. yds.	Woven Geotextile Fabric	\$2.50	0.00
	sq. yds.	Non-Woven Geotextile Fabric	\$2.50	0.00
	lin. ft.	Waterproofing Membrane	\$1.00	0.00
	lin. ft.	New Granite Curbing	\$30.00	0.00
	lin. ft.	Reset Granite Curbing	\$20.00	0.00
	lin. ft.	New Concrete Curbing	\$20.00	0.00
<u>500</u>	sq. ft.	4" thk. Concrete	\$8.00	4,000.00
<u>0</u>	sq. ft.	6" thk. Concrete	\$10.00	0.00
	each	Pre-Cast Catch Basin	\$2,500.00	0.00
	lin. ft.	Ex. C.B. & Lateral Cleaning	\$5.00	0.00
	each	Altering C.B., MH, V.B.	\$200.00	0.00
	each	Sewer MH Frame(s) (w/Cover)	\$300.00	0.00
	each	New Water V.B.(s) (w/Cover)	\$250.00	0.00
<u>0</u>	sq. ft.	Topsoil and Seed	\$5.00	0.00
	each	Traffic Sensor Loop(s)	\$800.00	0.00
<u>N.A.</u>	lin. ft.	Pavement Striping	\$1.50	0.00
	L.S.	Maint./Protect. of Traffic	\$5.00	12,000.00
	as nec.			
	as nec.			
	sq. ft.	Paver Installation	\$15.00	0.00
<u>N.A.</u>	L.S.	Mobilization	4% of total	5,330.40

TOTAL: \$ 152,449.44 ... say \$155,000.00

MADE BY: R. Buzzelli
 CHECKED BY: _____

 DATE: JUNE 2018
 DATE: _____

Watermain Installation Quantities/Estimates

 Location: Military Road
Jacob Place to Bollier Avenue

 R.O.W. Width: 60 ft. Paved Width: var. Trench Width: 2.7 ft.
 Margin(s): var. ☐ /E.) side var. ☐ /W.) side
 Project Start Station: 0+00 Project End Station: 04+10
 Center Line Distance (ft.): 410 Total Project Length (ft.): 410

Quantities and Cost Estimates

<u>410</u>	lin. ft.	Project Survey & Stakeout	\$25.00	10,250.00
_____	lin. ft.	Sawcutting	\$3.00	0.00
_____	lin. ft.	Misc. Sawcutting	\$2.00	0.00
<u>6</u>	each	Tap & Corp. Stop (1" dia.)	\$1,000.00	6,000.00
<u>250</u>	lin. ft.	Copper Tubing, type K (1" dia.)	\$15.00	3,750.00
<u>6</u>	each	Curb Stop & WSV Box (1" dia.)	\$1,000.00	6,000.00
_____	each	Gate Valve w/Box (6" dia.)	\$1,500.00	0.00
<u>3</u>	each	Gate Valve w/Box (8" dia.)	\$2,000.00	6,000.00
_____	each	Gate Valve w/Box (10" dia.)	\$4,000.00	0.00
_____	each	Gate Valve w/Box (12" dia.)	\$5,000.00	0.00
_____	each	Butterfly Valve (16" dia.)	\$7,500.00	0.00
_____	each	Butterfly Valve (24" dia.)	\$12,000.00	0.00
<u>1</u>	each	New Hydrant Assembly	\$7,500.00	7,500.00
<u>0</u>	each	Ex. Hydrant Assembly Removal	\$750.00	0.00
<u>20</u>	lin. ft.	Ductile Iron Pipe (6" dia.)	\$65.00	1,300.00
<u>400</u>	lin. ft.	Ductile Iron Pipe (8" dia.)	\$80.00	32,000.00
_____	lin. ft.	Ductile Iron Pipe (10" dia.)	\$100.00	0.00
_____	lin. ft.	Ductile Iron Pipe (12" dia.)	\$175.00	0.00
<u>0</u>	lin. ft.	Ductile Iron Pipe (16" dia.)	\$200.00	0.00
_____	each	Exploratory Excavation(s)	\$500.00	0.00
<u>N.A.</u>	L.S.	Abandon Existing Watermain	\$10,000.00	10,000.00
_____	each	New Water V.B.(s) (w/Cover)	\$5.00	0.00
<u>1000</u>	sq. ft.	Topsoil and Seed	\$2.00	2,000.00
_____	lin. ft.	Pavement Restoration (attached)	n.a.	55,000.00
_____	as nec.	_____	_____	0.00
<u>N.A.</u>	L.S.	Maint./Protect. of Traffic - Water	\$15,000.00	15,000.00
<u>N.A.</u>	L.S.	Mobilization - Water	4% of total	6,192.00

 TOTAL: \$ **177,091.20** ... say \$180,000.00 for WATER Estimate

 NOTE: Paving Costs Associated with Trench Restoration
 (see attached)

10% CONTINGENCY added to WATER EST

MADE BY: R. Buzzelli
 CHECKED BY: _____

 DATE: JUNE 2018
 DATE: _____

New Watermain Restoration Quantities/Estimates

 Location: Military Road
Jacob Place to Bollier Avenue

 R.O.W. Width: 60 ft. Paved Width: var. Trench Width: 5 ft.
 Margin(s): var. ☐ /E.) side var. ☐ /W.) side
 Project Start Station: 0+00 Project End Station: 04+10
 Center Line Distance (ft.): 410 Total Project Length (ft.): 410

Quantities and Cost Estimates

<u>1300</u>	lin. ft.	Project Survey & Stakeout	\$5.00	n.a.
<u>200</u>	lin. ft.	Sawcutting	\$3.00	3,900.00
	lin. ft.	Misc. Sawcutting	\$2.00	400.00
<u>350</u>	sq. yds.	Cold Milling/Pvmt. Removal	\$5.00	0.00
<u>350</u>	sq. yds.	Subbase - 12" thk.	\$30.00	10,500.00
<u>350</u>	sq. yds.	Base	\$25.00	8,750.00
<u>350</u>	sq. yds.	Binder	\$20.00	7,000.00
	sq. yds.	Top	\$12.00	4,200.00
<u>0</u>	sq. yds.	Truing & Leveling	\$12.00	0.00
	gal.	Tack Coat	\$6.00	0.00
	sq. yds.	Conditioning Exist. Pavement	\$2.00	0.00
	sq. yds.	Subbase Reinforcement	\$2.50	0.00
	sq. yds.	Woven Geotextile Fabric	\$2.50	0.00
	sq. yds.	Non-Woven Geotextile Fabric	\$2.50	0.00
	lin. ft.	Waterproofing Membrane	\$1.00	0.00
	lin. ft.	New Granite Curbing	\$30.00	0.00
	lin. ft.	Reset Granite Curbing	\$20.00	0.00
	lin. ft.	New Concrete Curbing	\$20.00	0.00
<u>50</u>	sq. ft.	4" thk. Concrete	\$5.00	250.00
<u>200</u>	sq. ft.	6" thk. Concrete	\$6.00	1,200.00
	each	Pre-Cast Catch Basin	\$2,500.00	0.00
	lin. ft.	Ex. C.B. & Lateral Cleaning	\$5.00	0.00
	each	Altering C.B., MH, V.B.	\$200.00	0.00
	each	Sewer MH Frame(s) (w/Cover)	\$300.00	0.00
	each	New Water V.B.(s) (w/Cover)	\$250.00	0.00
	sq. ft.	Topsoil and Sod	\$5.00	0.00
	each	Traffic Sensor Loop(s)	\$800.00	0.00
<u>N.A.</u>	lin. ft.	Pavement Striping	\$1.50	0.00
	L.S.	Maint./Protect. of Traffic	\$10.00	10,000.00
	as nec.			
	as nec.			
	sq. ft.			
<u>N.A.</u>	L.S.	Paver Installation	\$15.00	0.00
		Mobilization	4% of total	1,848.00

 TOTAL: \$ 52,852.80 say \$55,000.00