ERIE COUNTY WATER AUTHORITY

INTEROFFICE MEMORANDUM

February 14, 2022

To: Terrence D. McCracken, Secretary to the Authority

From: Michael J. Quinn, PE, Sr. Distribution Engineer

Subject: WSA-015 Water System Improvements City of Lackawanna and Town of Hamburg
Easement Amendment
National Grid
ECWA Project No. 202000058

The Erie County Water Authority (ECWA) is undertaking a watermain replacement project in the City of Lackawanna and the Town of Hamburg (WSA-015). A portion of the new main in the City of Lackawanna will be constructed on property owned by the National Grid. The new main will be constructed parallel to an existing section of main located along this corridor that is covered by an easement between the ECWA and National Grid (attached). Following construction, the existing main will be abandoned. In order to construct the improvements as well as to operate and maintain the main following completion of the project, National Grid has proposed an amendment to the existing easement (Amendment).

Over the past few months, the ECWA Law and Engineering Departments with the assistance of Harris Beach have negotiated the terms of this Amendment and collectively are recommending that the Board review and approve attached Amendment and authorize the Chairman to execute same. There is no cost associated with this amendment.

Attached find three copies of the Amendment for execution by the Chairman. Thank you and please feel free to contact Steve Denzler or me if you have any questions.

MJQ:jmf
Attachments
cc: L.Kowalski
S.Denzler
CONT-WSA-015-2020-X-10

ERIE COUNTY WATER AUTHORITY
AUTHORIZATION FORM
For Approval/Execution of Documents
(check which apply)

Contract: WSA-015 **Project No.:** 202000058
Project Description: Water System Improvements, City of Lackawanna & Town of Hamburg

Item Description:

- [X] Agreement
- [ ] Professional Service Contract
- [X] Amendment
- [ ] Change Order
- [ ] BCD
- [ ] NYSDOT Agreement
- [ ] Contract Documents
- [ ] Addendum
- [ ] Recommendation for Award of Contract
- [ ] Recommendation to Reject Bids
- [ ] Request for Proposals
- [X] Other National Grid Easement

Action Requested:

- [X] Board Authorization to Execute
- [X] Legal Approval
- [ ] Board Authorization to Award
- [X] Execution by the Chairman
- [ ] Board Authorization to Advertise for Bids
- [ ] Execution by the Secretary to the Authority
- [ ] Board Authorization to Solicit Request for Proposals
- [ ] Other

Approvals Needed:

APPROVED AS TO CONTENT:

- [X] Sr Distribution Engineer — Date: 2/15/2022
- [X] Chief Operating Officer — Date: 2/15/2022
- [X] Executive Engineer — Date: 02/15/2022
- [ ] Director of Administration — Date:
- [X] Risk Manager — Date: 2/15/2022
- [ ] Chief Financial Officer — Date:
- [X] Legal — Date: 2/15/2022

APPROVED FOR BOARD RESOLUTION:

- [X] Secretary to the Authority — Date: 2/15/22

Remarks: National Grid Easement Amendment.

Resolution Date: _____ **Item No:** _____

CENTRAL FILE

RG-1885

x 58-L-54

A G R E E M E N T

NIAGARA MOHAWK POWER CORPORATION

AND

ERIE COUNTY WATER AUTHORITY

JUNE 3, 1983

AR #283-1742

A. R. #283-1742

CENTRAL FILE R.G.# 1885
58-L-54

THIS INDENTURE, made the 3rd day of June, 1983, by and between NIAGARA MOHAWK POWER CORPORATION, a public service corporation organized and existing under the laws of the State of New York, with an office at 535 Washington Street, in the City of Buffalo, County of Erie and State of New York 14203 (hereinafter called "Grantor"), and

ERIE COUNTY WATER AUTHORITY, a public benefit corporation having its principal office and place of business at 350 Ellicott Square Building, City of Buffalo, County of Erie and State of New York (hereinafter called "Grantee"),

W I T N E S S E T H:

Subject to and upon the terms and conditions hereinafter set forth and in consideration of the payment of the sum of Fifty Dollars ($50.00) by the Grantee to the Grantor, payment of which is hereby acknowledged, the Grantor does hereby grant and release to the Grantee, its successors and assigns, without covenant or warranty of any kind, express or implied, a center line easement to install, construct, maintain, operate, repair, relocate and remove at its own cost, expense and risk the following facility:

GRANTEE'S FACILITIES

One 12" Water Line
One Receiving Pit and Connection

LOCATION OF GRANTEE'S FACILITIES

City of Lackawanna, County of Erie and State of New York, the center line of said water pipeline, receiving pit and connection to be located as shown upon Grantor's drawings hereinafter set forth: C-2552-W, Sheet 14, dated February 11, 1970, hereinafter referred to as the "premises".

INVENTORIED
3/23/84

TOGETHER WITH a right of ingress and egress over Grantor's adjacent lands as may be reasonably necessary in order to exercise the rights granted hereunder.

This easement is given upon the following conditions and covenants each and all of which Grantee shall keep and perform:

GRANT SUBORDINATE TO PRIOR RIGHTS

1. This easement is given and accepted subject to any and all outstanding leases, tenancies, easements, licenses or other tenures and/or claims of title affecting the premises or any portion or portions thereof; and subject also to any and all encumbrances, liens, conditions, restrictions and/or reservations subject to or under which Grantor holds the same.

2. All rights granted hereunder shall be subject and subordinate to rights as follows:

(a) The paramount right of Grantor now and hereafter to occupy and use all or any portion or portions of the premises in its electric operations;

(b) The right of Grantor from time to time hereafter to grant to others or to authorize the occupancy or use by others of any portion or portions of the premises for any purpose or purposes whatsoever, provided, however, that any such future grant or authorization shall not interfere with the rights conferred by this grant and/or property of Grantee installed at the time of such grant or authorization; and

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(c) If the transmission right of way to be occupied was the subject of Public Service Commission hearings under Article VII of the Public Service Law, the easement rights hereby granted are subject to the provisions, terms and conditions of the Certificate of Environmental Compatibility and Public Need issued by the New York State Public Service Commission on , in Case No. , as the same is amended and supplemented from time to time and modified by the Environmental Management and Construction Plan filed with said Commission in connection therewith.

Not Applicable
N.M.P. Corp.
By

INSURANCE REQUIREMENT

3. Grantee shall provide to Grantor, prior to exercise of rights hereby granted, and keep in force during the term of this agreement unless waived in writing by Grantor, a general public liability insurance policy which shall include contractual coverage. Such policy(s) shall be written by a company and contain language and policy limits to be approved by Grantor. The type of policy, nature of special endorsements, if any, and amount of coverage shall be as follows:

The Grantee must provide policies indicating limits of at least $300,000 per occurrence for bodily injury and

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$50,000 per occurrence for property damage or a combined single limit of $300,000 per occurrence. Said policy(s) must name the Grantor as an additional insured. A certificate of insurance evidencing such coverage shall be provided to the Grantor prior to the commencement of any work permitted under this agreement.

PRIOR NOTICE OF CONSTRUCTION

4. Grantee shall give Grantor at least seven (7) days written notice before commencing any field work hereunder whether in the initial construction or subsequently. Such notice shall be addressed to Grantor's Area Operations Manager at 93 Dewey Avenue, Buffalo, New York 14241.

RIGHT OF INSPECTION

5. Grantor, at its election, may have an inspector present at the time or times such work is being executed, and such inspector shall have the right and authority to require the modification or cessation of any or all work hereunder when, in his judgment, such work is contrary to the provisions of this grant, or is or may become a source of danger to the facilities of Grantor. If billed by Grantor, Grantee shall pay to

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Grantor the reasonable cost and expense of such inspection, based on prevailing wage rates of Grantor's inspection personnel. The presence or absence of Grantor's inspector shall not constitute a waiver of any provision of this agreement.

SPECIAL CONDITIONS

5a. The installation and/or construction of Grantee's facilities upon the affected premises, entry onto Grantor's lands, protection of Grantor's facilities, payment of consideration and other relevant matters shall be subject to the conditions of those special provisions set forth upon Appendix B attached hereto.

CONDUCTOR AND STRUCTURE CLEARANCE

6. The installation, construction, maintenance, operation, repair, relocation and removal of Grantee's facilities shall be accomplished without the aid of cranes, backhoes, bulldozers or mechanical equipment having extensions whose highest point reaches (or which is potentially capable of reaching) within fifteen (15) feet of the lowest electric conductor on the premises. There shall be a minimum horizontal clearance to the nearest structure of twenty-five (25) feet. All construction equipment working under or near electric

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conductors shall be grounded in the fashion described in Grantor's specifications hereto attached labeled Appendix A.

RESTORATION OF PREMISES

7. All earth or soil disturbed by the installation, construction, maintenance, operation, repair, relocation and/or removal of Grantee's facilities shall be properly replaced and the surface thereof restored to its former condition (including reseeding) by Grantee at its sole cost and expense.

COMPACTION OF EXCAVATION

8. Grantee shall provide not less than thirty (30) inches of cover over any underground facilities installed by Grantee pursuant hereto; such cover shall be compacted so as to be capable of withstanding AASHO-H20 highway loading.

PRESERVATION OF DRAINAGE

9. Grantee shall install, maintain and provide adequate drainage facilities and/or structures so that there will not be a collecting or pooling of run-off waters or surface waters upon the premises resulting from the installation, construction, maintenance and operation of Grantee's facilities.

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PHOTOGRAPHS

10. Photographs of the condition of the premises shall be taken by Grantee both prior to and after the completion of all construction by Grantee, and prints of such photographs shall be made available to Grantor.

LOCATION MARKERS

11. Suitable two inch (2") permanent plastic markers extending a minimum of three feet (3') above ground shall be installed by Grantee at the points of entrance and exit of any pipelines, cables or other underground facilities installed by Grantee across the premises.

NON-INTERFERENCE WITH ELECTRIC FACILITIES

11a. Grantee shall construct and shall thereafter maintain, operate, repair, relocate and/or remove its facilities so as not to injure or damage the premises or injure, damage or interfere with Grantor's electric transmission or distribution lines or other facilities.

CATHODIC PROTECTION

12. In the event Grantor determines that injury, damage or interference to its electric facilities may occur as a result of loss of metal from Grantor's or Grantee's facilities due to corrosion or electrolysis caused or hastened by the presence of Grantee's facilities on the premises within a critical distance therefrom, Grantor may require the following protective measures to be taken by Grantee. Grantee shall cover said facilities

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and shall install and maintain cathodic protection devices (unless waived by Grantor in Appendix B herein) all subject to prior approval of Grantor. Grantee shall keep accurate records of each such cathodic protection device, furnish Grantor with a copy of such records, and shall from time to time take such other and further protective measures as Grantor may require.

REPLACEMENT OF SURVEY MARKERS

12a. Grantee shall notify Grantor of any survey monument, marker or stake that has become dislodged, lost or misplaced, during installation of Grantee's facilities. Grantor will resurvey the premises and replace any such survey monument. Resurvey expense shall be reimbursed by Grantee to Grantor.

USE OF EXPLOSIVES

13. In the event the future use of the premises by Grantor shall include blasting or the use of explosives, Grantee will be notified of such intention if Grantee requests Grantor not to proceed by such means, Grantor will refrain from doing so and Grantee shall reimburse Grantor for any increase in cost resulting in compliance with Grantee's request; otherwise, Grantor shall not be liable for any damage to the facilities of Grantee but Grantee shall bear whatever damage may result therefrom.

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REIMBURSEMENT FOR MODIFICATION OF ELECTRIC FACILITIES

14. Grantee shall promptly reimburse Grantor for any costs and expenses to which Grantor shall be put in changing, modifying or relocating its electric facilities in order to accommodate the construction, maintenance, operation, repair, relocation and/or removal of Grantee's facilities upon submission of proper bills therefor.

RELOCATION OF GRANTEE'S FACILITIES

15. Upon one hundred twenty (120) days' prior written notice from Grantor, Grantee shall at its sole cost and expense relocate all or any part or parts of the facilities installed under the terms of this easement as Grantor may at any time and from time to time require. In the event of relocation of all or a part of said facilities, Grantor shall designate a new location upon the premises for use by the Grantee. However, should Grantee not desire to relocate its facilities, Grantee may elect to leave said facilities in place upon delivering to Grantor its written agreement to reimburse Grantor for any increase in cost resulting from Grantor's need to alter its normal design in the construction or installation of the Grantor's own facilities or other improvements upon the premises.

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INDEMNIFICATION

16. Because the exercise of rights under this easement involves additional risk to the Grantor on account of its use of the premises in its electric operations, Grantee does hereby assume all risk of loss, damage or injury to persons or property occasioned by negligence or otherwise, and arising out of or in any way connected with the construction, maintenance, renewal, repair, operation, use, existence or removal of Grantee's facilities, and Grantee hereby expressly agrees to indemnify, defend and save harmless Grantor, its officers, contractors, agents and employees from and against all such loss, damage or injury, whether resulting or accruing to Grantor, its officers, contractors, agents or employees, or to any other person or persons, and from all claims arising out of such loss, damage or injury, and from all costs and expenses connected therewith, unless it is established that the same was occasioned by the sole negligence of Grantor.

REIMBURSEMENT OF TAXES

17. Grantee shall bear, pay and discharge all taxes, assessments and public charges, ordinary and extraordinary, levied, assessed or accruing upon the premises because of its facilities. Every such tax, assessment and public charge shall be paid, discharged or cancelled not more than thirty (30) days after the same shall become a lien, and if Grantee shall fail

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to pay, discharge or cancel any such tax, assessment or public charge within thirty (30) days after the same shall become a lien, Grantor may at its option pay and satisfy the same and any amount so paid, together with all penalties in connection therewith, together with interest from date of payment, shall be repaid to Grantor, upon thirty (30) days' demand.

COMPLIANCE WITH LAW

18. Grantee shall at its own cost comply with all applicable laws, ordinances, orders, rules and regulations of the United States, of the State of New York, of any departments, bureaus, authorities or commissions created under the laws of either government and of the several municipalities in which the premises are situated insofar as the same relate to the exercise of any privilege or the performance of any duty under this agreement and whether the same are obligatory upon the Grantee or upon the Grantor.

DEFAULT IN PERFORMANCE

19. In case Grantee shall fail or neglect to perform or comply with any term or provision of this agreement on its part to be performed, Grantor may give written notice to Grantee thereof, specifying the nature of such failure or neglect; and if such failure or

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neglect continues after the expiration of thirty (30) days after the giving of such notice or, if it is of such nature that it cannot be cured within thirty (30) days and Grantee has not commenced action satisfactory to Grantor to cure such failure or neglect within such period, this agreement shall become null and void and all rights of Grantee hereunder shall forever cease and determine and be in all respects forfeited. Thereafter, Grantor may require Grantee to remove said facilities from the premises, and if Grantee fails so to do within sixty (60) days after the mailing of such notice, Grantor may effect such removal, demand and collect the cost thereof from Grantee, without liability on account of or with respect to said facilities or the salvage value thereof. It is understood that failure of Grantor at any time or from time to time to declare a forfeiture hereunder shall not constitute a waiver of its right so to do for any future breach.

ENTIRE AGREEMENT

20. No provision of this grant shall be deemed to have been waived by the Grantor unless such waiver be in writing signed by the Grantor. This grant contains the entire agreement between the parties and any

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executory agreement hereafter made shall be ineffective to change, modify or discharge it in whole or in part unless such executory agreement is in writing and signed by the Grantor.

NON-ASSIGN-ABILITY

21. Grantee shall not assign this agreement or any rights in or under it, nor shall the same be deemed to be assigned by operation of law; but a merger or consolidation to which Grantee may be a party shall not be deemed such an assignment, and subject to this restriction, this agreement shall be binding upon and inure to the benefit of the successors and assigns of the respective parties.

REMOVAL OF GRANTEE'S FACILITIES

22. Upon termination, revocation, cancellation or surrender of this agreement in accordance with its terms, Grantee shall be liable for the cost and expense of removal of the facilities installed pursuant hereto. Grantor shall unilaterally determine if the facilities must be removed or must be abandoned in place. If Grantor shall require Grantee's facilities to be removed, such removal shall be accomplished at the expense of the Grantee, and field work shall be performed by personnel designated and authorized by Grantor. Grantor may elect to protect its system and facilities by authorizing removal work to be done only by its own employees.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed by their proper officers thereunto duly authorized and their respective corporate seals to be affixed hereunto all as of the day and year first above written.

APPROVED AS TO FORM

NIAGARA MOHAWK POWER CORPORATION

By _____
Vice President, Regional Operations

ERIE COUNTY WATER AUTHORITY

By _____
Title: Chairman

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STATE OF NEW YORK)
)ss:
COUNTY OF ERIE)

On this 3rd day of June, 1983, before me personally came George J. Pfeiffer to me known, who, being by me duly sworn, did depose and say that he resides at 1574 Lakeview Road, Village of Lakeview, New York, that he is the Chairman of the ERIE COUNTY WATER AUTHORITY, the corporation named in the foregoing indenture; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by a duly adopted resolution of the said Authority and that he signed his name thereto by like resolution.

Cheryl Rozniak
Notary Public

CHERYL ROZNIAK
Notary Public, State of New York
Qualified in Erie County
My Commission Expires March 30, 19[illegible]

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STATE OF NEW YORK)
COUNTY OF ERIE) SS:

On this 10th day of June, 1988, before me personally came ROBERT M. CLEARY, JR., to me known who being by me duly sworn, did depose and say that he resides in the Town of Amherst, County of Erie and State of New York, that he is Vice President, Regional Operations of NIAGARA MOHAWK POWER CORPORATION, the corporation described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation and that he signed his name thereto by like order.

Joan Frank
Notary Public

JOAN FRANK
NOTARY PUBLIC, STATE OF NEW YORK
QUALIFIED IN ERIE COUNTY
My Commission Expires March 30, 19[illegible]

STATE OF
COUNTY OF SS:

On this day of , 19 , before me personally came , to me known who being by me duly sworn, did depose and say that he resides at , that he is of the corporation described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation and that he signed his name thereto by like order.

Notary Public

STATE OF
COUNTY OF SS:

On this day of , 19 , before me personally came , to me known and known to me to be the same person who executed the foregoing instrument and he duly acknowledged to me that he executed the same.

Notary Public

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GROUNDING SPECIFICATIONS

Extreme caution shall be exercised while working in the vicinity of Niagara Mohawk Power Corporation's electric transmission towers, poles and/or underground facilities so as not to adversely affect in any manner whatsoever the structural stability of said towers and/or facilities. All equipment used in the work area which could approach nearer than twenty-five (25) feet to an energized electric power line or power facility, located overhead or underground, shall be grounded in order to protect persons and property. A good ground connection shall be securely attached to all equipment utilized at the work site and shall not be removed until the boom or any other substantial extension of all mobile equipment has been removed from the area of the work. All equipment used to make grounds shall be furnished at the sole cost and expense of the party performing the work, who shall also be responsible for determining the adequacy of all grounding arrangements utilized in the work area. However, the minimum steps that must be taken to effectively ground all equipment utilized in the work area are as follows:

1. All such equipment shall be provided with a permanent clamp for convenient and effective attachment to a grounding conductor.
2. The cable connecting the clamp to an adequate ground shall be equivalent to a No. 1 AWG or larger copper cable approximately 50 to 100 feet long, extra flexible with 600 volt covering for abrasive protection and with terminal parts that will insure a proper connection.
3. Station grounds, water hydrants, metallic pipe water systems, common neutral wire or steel tower earth footings provide grounds that are likely to be adequate in the order of preference listed.

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When such grounds are not available, anchor rods temporarily driven or auger-type grounds shall be used to secure a low resistance ground.

The above-mentioned recommendations are suggested by Niagara Mohawk Power Corporation as minimum requirements only; a Niagara Mohawk Power Corporation inspector will review compliance with these minimum requirements prior to commencement of construction activities on said premises.

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APPENDIX "B"

1. Grantee is hereby notified that other underground physical occupations of the subject premises may exist that do not appear upon the attached drawing and/or upon maps and property records maintained by Grantor. Accordingly, Grantee is cautioned to excavate carefully and comply with all New York State and local laws and regulations in respect thereto.

2. In the event that any part of this instrument is determined to be invalid, illegal or unenforceable, such determination shall not affect the validity, legality or enforceability of any other part of this instrument which may be enforced as if any unenforceable portion were not contained herein.

3. It is understood and agreed that Paragraph 2(c) set forth above is hereby deleted in its entirety from this agreement.

4. No spoilage material or equipment to be stored on Grantor's right of way.

5. If excavation is left open or unattended for more than 24 hours or overnight, adequate barriers must be installed by Grantee.

6. The right of way shall be reinspected one year after completion of the project. Any filling, regrading or reseeding required to restore the property to its original condition shall be the obligation of the Grantee.

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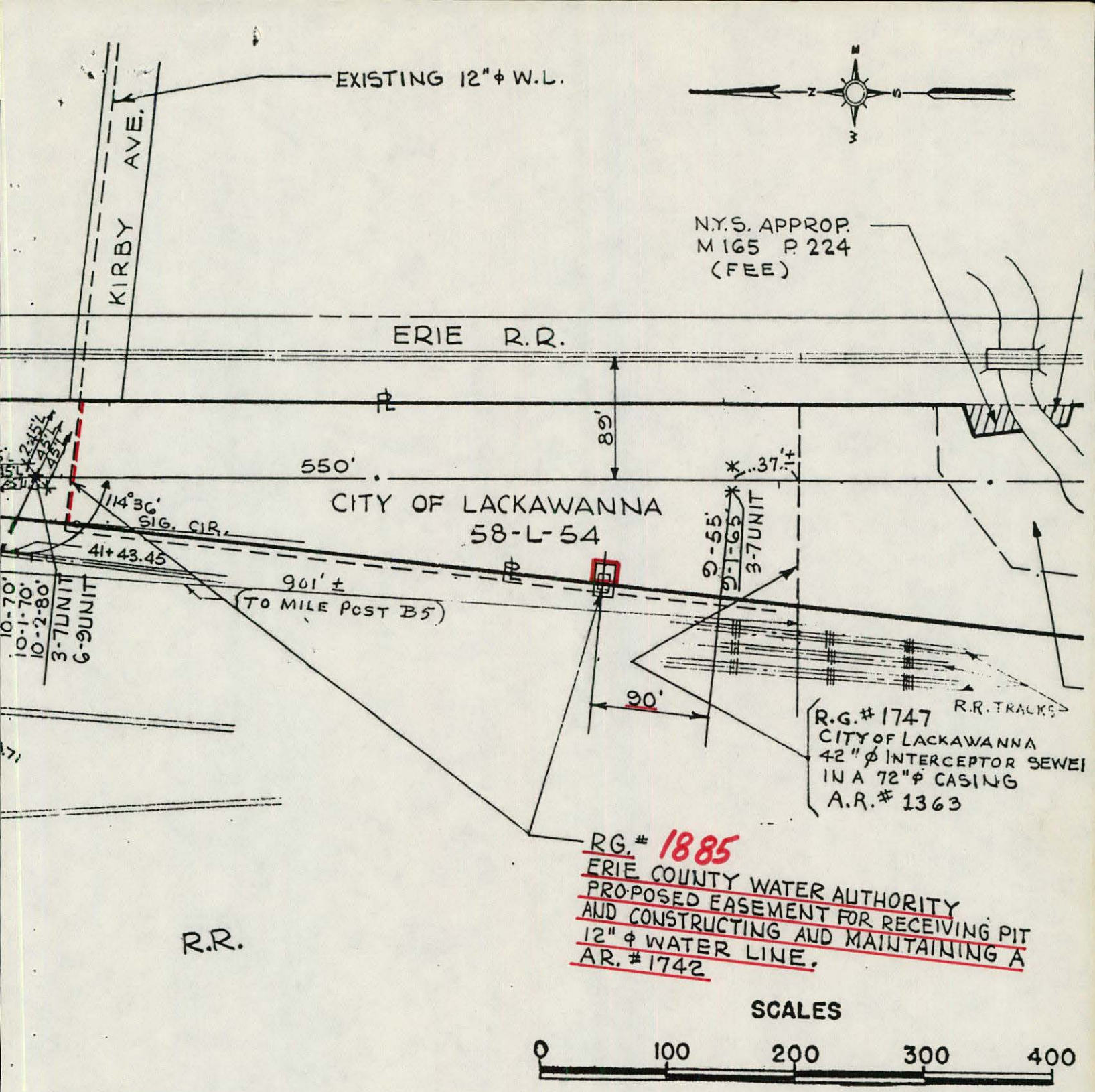

NIAGARA MOHAWK

NIAGARA MOHAWK POWER CORPORATION

115 KV RIDGE TAP #145

CITY OF LACKAWANNA ERIE CO.

DES.	DR. E.T.P.	TR.	CK. E.B.	DATE 2-11-70	SCALE 1" = 100'
APP.			APP.		INDEX G.1-G19.1-M5
APP.			APP.		NO. C- 21552-W

TD #53

SHEET #14

RG#1885 58-L-54

EXTRACT FROM THE MINUTES OF THE MEETING OF
THE ERIE COUNTY WATER AUTHORITY HELD ON
THURSDAY, JUNE 2, 1983

At a regular meeting of the Erie County Water Authority held in the office, 350 Ellicott Square Building, on the 2nd day of June, 1983, a quorum being present, the following resolution was adopted:

WHEREAS, the Authority deems it necessary to acquire an easement from the Niagara Mohawk Power Corporation in connection with the installation of waterlines at the Conrail crossing in the City of Lackawanna, New York; and

WHEREAS, under date of April 26, 1983, the Niagara Mohawk Power Corporation offered to sell an easement to the Authority for the sum of $50.00 and submitted two copies of the proposed easement; and

WHEREAS, Joseph F. Wandyez, Administrative Director, and Nussbaumer & Clarke, Inc., Consulting Engineers, recommend acceptance of said offer;

NOW, THEREFORE, BE IT RESOLVED:

That the Authority hereby accepts the offer of the Niagara Mohawk Power Corporation to sell an easement to the Authority for a permanent right-of-way through its property in connection with the installation of waterlines at the Conrail crossing in the City of Lackawanna, New York, for the sum of $50.00; and be it further

RESOLVED: That the Chairman, or in his absence the Vice Chairman, be and he hereby is authorized to execute said easement agreement on behalf of the Authority; and be it further

RESOLVED: That the Treasurer, or in his absence the Assistant Treasurer, be and he hereby is authorized and directed to issue a check payable to the Niagara Mohawk Power Corporation in the sum of $50.00 for said easement.

A motion was made by Mr. James Kane seconded by Mr. Victor Farley and carried to adopt the foregoing resolution.

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CERTIFICATION

I, DONALD F. KANE, the duly elected and qualified SECRETARY to the ERIE COUNTY WATER AUTHORITY, a corporation existing under the Laws of the State of New York, do hereby certify that I have compared the annexed resolution which is an extract from the minutes of the meeting of the Authority held on Thursday, June 2, 1983, a quorum being present, and that said resolution is a true and correct copy of the resolution so adopted and of the whole thereof.

IN WITNESS WHEREOF I have hereunto set my hand and the seal of said corporation this 3rd day of June, 1983.

Donald F. Kane
Secretary to the Authority

(S E A L)

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G. A. Meccay
N. E. Crowe
W. J. Dibble

Central File
File

COMPLETION REPORT - LAND AND LAND RIGHTS

June 14, 1983
A.R. #283-1742

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G. Meccay 6.22.83

Company: Niagara Mohawk Power Corporation
Station, Line, etc.:
Order Number: Drawing Number: C-2552-W, Sheet 14 attd
Tax District - Name and Number: City of Lackawanna - T.D. #58
Date Completed: June 3, 1983 Signature: O.D. Kay/ch

ADDITIONS

Acct. No.	Parcel No.	Acres or Feet	Fee or Easement	Year Purchased	Grantor	Law Document No.	County Record Date	County Record Liber	County Record Page	Cost (Property Records) Purchase Price	Cost (Property Records) Acquisition Cost	Cost (Property Records) Total
					CENTRAL FILE							

RETIREMENTS

Acct. No.	Parcel No.	~~Acres or Feet~~	~~Fee or Easement~~	Year Purchased	Grantee	Law Document No.	ERIE County Record Date	ERIE County Record Liber	ERIE County Record Page	Cost (Property Records) Unit	Cost (Property Records) Total	Selling Price
	58-L-54		Easement RG 1885		ERIE COUNTY WATER AUTHORITY					CONSIDERATION: $50.00		

Executed by Robert M. Cleary, Jr., V.P. Regional Operations, NMPC, and George J. Pfeiffer, Chairman, Erie County Water Authority.

NMPC granted to the above a centerline easement to install, construct, maintain, etc. one 12 inch water line and one receiving pit and connection in the City of Lackawanna, the center line of said water pipeline, receiving pit and connection are shown on NMPC Drawing #C-2552-W, Sheet 14, dated 2-11-70, hereinafter referred to as the "premises" together with a right of ingress and egress over Grantor's adjacent lands as may be reasonably necessary in order to exercise the rights granted hereunder.

Also attd as Extract from Minutes of Erie Cty. Water Authority Meeting - & Appendices "A" & "B"

ALL TERMS AND PROVISIONS TO PREVAIL AS ARE OUTLINED IN AGREEMENT DATED 6/3/83.

NMPC REF: RG #1885

AGREEMENT OF AMENDMENT

THIS INSTRUMENT, entered into this_____day of _____, 2022, hereby amends a certain Agreement dated June 3, 1983 between **NIAGARA MOHAWK POWER CORPORATION**, a New York Corporation, with a place of business at 144 Kensington Avenue, Buffalo, New York 14214, and the **ERIE COUNTY WATER AUTHORITY**, a New York public benefit corporation with a place of business at 295 Main Street, Room 350, Buffalo, NY 14203

.

The said Agreement dated June 3, 1983 is hereby amended as follows:

Grantee's Facilities and Location:

Replace the existing twelve-inch (12″) water main in a portion of Niagara Mohawk Power Corporation's Tax Parcel (S-B-L) No. 142.61-4-5, with a new adjacent water main with a similar alignment, as shown on the attached Erie County Water Authority Water Systems Improvements, Contract WSA-015, City of Lackawanna, Town of Hamburg, Erie County, New York, Drawing Revisions dated 04/12/2021, Sheets C-11 and C-12.

Insurance Requirement (Article 3):

Addition of Insurance **Appendix B** outlining minimum insurance requirements for all vendor's providing services to the Erie County Water Authority.

Special Conditions (Article 5a):

Electrically qualified personal experienced in transmission line work to be utilized at each worksite in proximity to Niagara Mohawk Power Corporation's (NMPC) overhead lines. If there are multiple sites and multiple pieces of equipment being operated, there shall be multiple spotters. The spotters name and experience are to be submitted to NMPC and approved by Transmission Line Services. As well as provide at least a 48-hour notice prior to construction. The heights of overhead lines are to be measured throughout the day, documented on the job brief and communicated to all workers.

All equipment that will enter or be used on the Right-of-Way will be documented with the max height, reach and swing radius.

Safeties/restraints to be used on all equipment as to not allow the unqualified minimum approach distance to be bridged.

Third party trucks/ drivers will not be permitted onto the Right-of-Way without a qualified escort.

Staging of equipment and material shall not interfere with NMPC's day to day operations

and maintenance of the Right-of-Way.

All equipment must be grounded per OSHA Contractor to use existing crossings under the lines. All equipment must be properly stowed and in the down position before moving to a new location.

Grantee is required to obtain and comply with any and all environmental permits required for work on NMPC's property and comply with all applicable environmental laws and regulations, deed restrictions, local ordinances, notification requirements, etc.

Grantee shall not shall not store, mix or load any petroleum products, pesticides, hazardous materials or chemicals labeled toxic on NMPC's property and no refueling of vehicles or equipment will be allowed on NMPC's property.

Grantee shall conduct all activities in a manner that will prevent a release of said materials to the environment. In the event of a release of oil/hazardous materials to the environment, the Requester shall be responsible for making all required notifications to regulatory agencies in the required time frame and to ensure that the release is properly responded to, including the cleanup and disposal of waste materials, in accordance with all regulatory requirements.

Grantee shall notify NMPC's Environmental Department of any oil spills that occur on NMPC's property by calling (716) 479-5339.

When work is completed the Grantee will stabilize and properly restore all disturbed areas on NMPC's property.

No excavation spoils, soil, construction debris or materials of any kind are to be removed from NMPC's property without prior notification and approval from NMPC's Western Division Environmental Engineer, Lisa Montesano (716) 479-5339.

Backfill on NMPC's property shall include only excavated, on-site derived materials or clean, virgin materials from a commercial source. If visual or olfactory evidence of petroleum or chemical contamination is noted, contact NMPC's Western Division Environmental Engineer, Lisa Montesano (716) 479-5339.

Removal of Grantee's Facilities (Article 22)

Whereas, upon the termination of this water line, or its useful life, as determined by Grantee in its sole discretion. NMPC shall retain the right to decide if the water line stays in place, cap and filled, or is removed. The Grantee shall be responsible for the work involved with capping/filling or removal of the line.

Additional Attachments:

Section 01270 – "Measurement and Payment"
Section 15121 – "Casing Pipe"
Exhibit "B" – "Conditions for Proposed Activities Within Electric Transmission Line Rights-of-Way"

All other terms and conditions of the original agreement dated June 3, 1983, as amended, shall remain in full force and effect.

IN WITNESS WHEREOF, the parties have executed this Amendment.

NIAGARA MOHAWK POWER CORPORATION

By_____

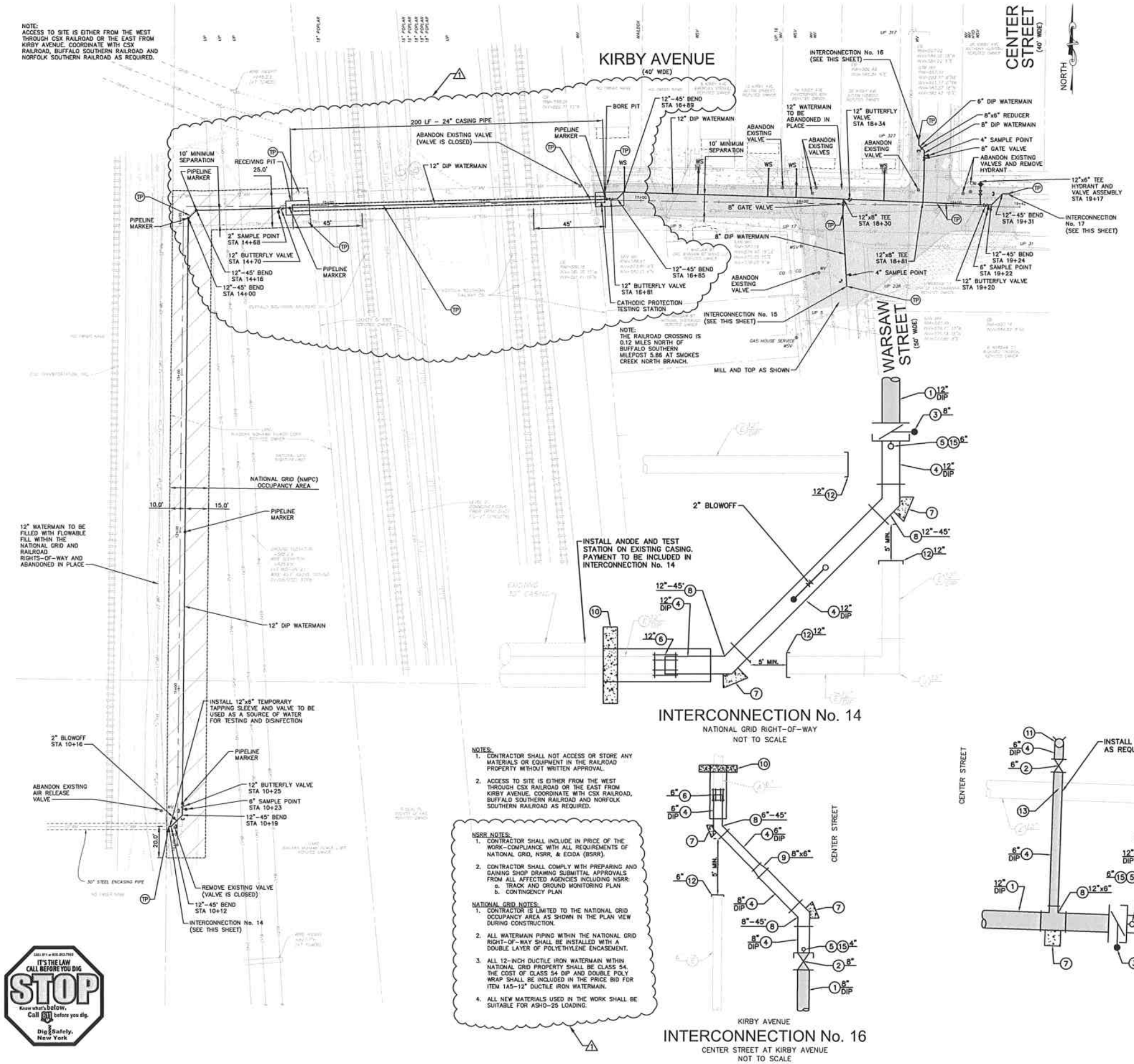
Title _____

ERIE COUNTY WATER AUTHORITY

By_____

Title _____

NOTE:
ACCESS TO SITE IS EITHER FROM THE WEST THROUGH CSX RAILROAD OR THE EAST FROM KIRBY AVENUE. COORDINATE WITH CSX RAILROAD, BUFFALO SOUTHERN RAILROAD AND NORFOLK SOUTHERN RAILROAD AS REQUIRED.



PROPOSED	
1	WATERMAIN
2	GATE VALVE
3	BUTTERFLY VALVE
4	SPOOL PIECE
5	BLOW-OFF
6	RESTRAINED HYMAX COUPLING FITTINGS
7	THRUST BLOCK
8	CROSS/TEE/BEND
9	REDUCER
10	CONCRETE ANCHOR COLLAR
11	HYDRANT ASSEMBLY
12	CUT AND CAP EXISTING WATERMAIN (RESTRAINED CAP OR PLUG)
13	DEFLECT NEW WATERMAIN UNDER EXISTING LINE USING NECESSARY FITTINGS
14	TEMPORARY CAP (RESTRAINED)
15	SAMPLE POINT
16	TAPPING SLEEVE AND VALVE

EXISTING			
A	WATERMAIN	F	WATERMAIN TO BE REMOVED
B	VALVE	G	HYDRANT ASSEMBLY
C	REHANDH	H	MANHOLE TO BE REMOVED
D	BLOWOFF TO BE REMOVED	I	CROSS/TEE/BEND
E	WATERMAIN TO BE ABANDONED IN PLACE	K	TEMPORARY CAP

ITEMS TO BE INCLUDED IN PRESSURE TEST

NOTE:
1. CONTRACTOR TO PRESSURE TEST WATERMAIN TO NO FURTHER THAN 20 LF FROM FINAL CONNECTION POINT.
2. ALL INTERCONNECTION PIPING SHALL BE RESTRAINED.

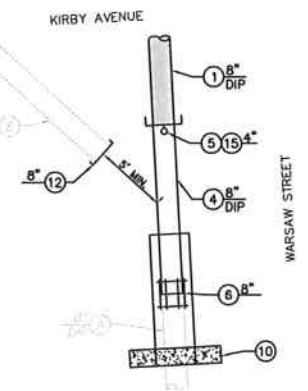
INTERCONNECTION No. 14
NATIONAL GRID RIGHT-OF-WAY
NOT TO SCALE

NOTES:
1. CONTRACTOR SHALL NOT ACCESS OR STORE ANY MATERIALS OR EQUIPMENT IN THE RAILROAD PROPERTY WITHOUT WRITTEN APPROVAL.
2. ACCESS TO SITE IS EITHER FROM THE WEST THROUGH CSX RAILROAD OR THE EAST FROM KIRBY AVENUE. COORDINATE WITH CSX RAILROAD, BUFFALO SOUTHERN RAILROAD AND NORFOLK SOUTHERN RAILROAD AS REQUIRED.

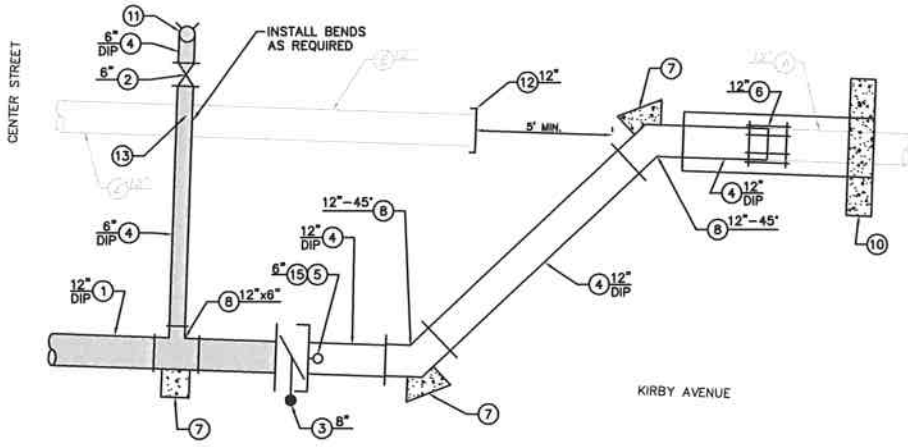
NSRR NOTES:
1. CONTRACTOR SHALL INCLUDE IN PRICE OF THE WORK-COMPLIANCE WITH ALL REQUIREMENTS OF NATIONAL GRID, NSRR, & ECIDA (BSRR).
2. CONTRACTOR SHALL COMPLY WITH PREPARING AND GAINING SHOP DRAWING SUBMITTAL APPROVALS FROM ALL AFFECTED AGENCIES INCLUDING NSRR:
   a. TRACK AND GROUND MONITORING PLAN
   b. CONTINGENCY PLAN

NATIONAL GRID NOTES:
1. CONTRACTOR IS LIMITED TO THE NATIONAL GRID OCCUPANCY AREA AS SHOWN IN THE PLAN VIEW DURING CONSTRUCTION.
2. ALL WATERMAIN PIPING WITHIN THE NATIONAL GRID RIGHT-OF-WAY SHALL BE INSTALLED WITH A DOUBLE LAYER OF POLYETHYLENE ENCASEMENT.
3. ALL 12-INCH DUCTILE IRON WATERMAIN WITHIN NATIONAL GRID PROPERTY SHALL BE CLASS 54, THE COST OF CLASS 54 DIP AND DOUBLE POLY WRAP SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 1A5-12" DUCTILE IRON WATERMAIN.
4. ALL NEW MATERIALS USED IN THE WORK SHALL BE SUITABLE FOR AASHO-25 LOADING.

INTERCONNECTION No. 16
CENTER STREET AT KIRBY AVENUE
NOT TO SCALE



INTERCONNECTION No. 15
WARSAW STREET AT KIRBY AVENUE
NOT TO SCALE



INTERCONNECTION No. 17
KIRBY AVENUE AT CENTER STREET
NOT TO SCALE

0 30 45 60 90 120
SCALE: 1"=30'
GRAPHIC SCALE IN FEET

IT'S THE LAW
CALL BEFORE YOU DIG
STOP
Know what's below.
Call 811 before you dig.
Dig Safely. New York

DRAWING REVISIONS

ITEM	DATE	DESCRIPTION
1	05/10/2021	NSRR AND NAT. GRID UPDATES

DESIGNED BY: RMR
DRAWN BY: A.JK
CHECKED BY: WES
DATE: AUGUST 2020

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WM. SCHUTT & ASSOCIATES P.C.

STATE OF NEW YORK
WILLIAM E. SCHUTT
LICENSED PROFESSIONAL ENGINEER

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WWW.WMSCHUTT.COM

ERIE COUNTY WATER AUTHORITY
WATER SYSTEM IMPROVEMENTS
CONTRACT WSA-015
CITY OF LACKAWANNA - TOWN OF HAMBURG - ERIE COUNTY - NEW YORK

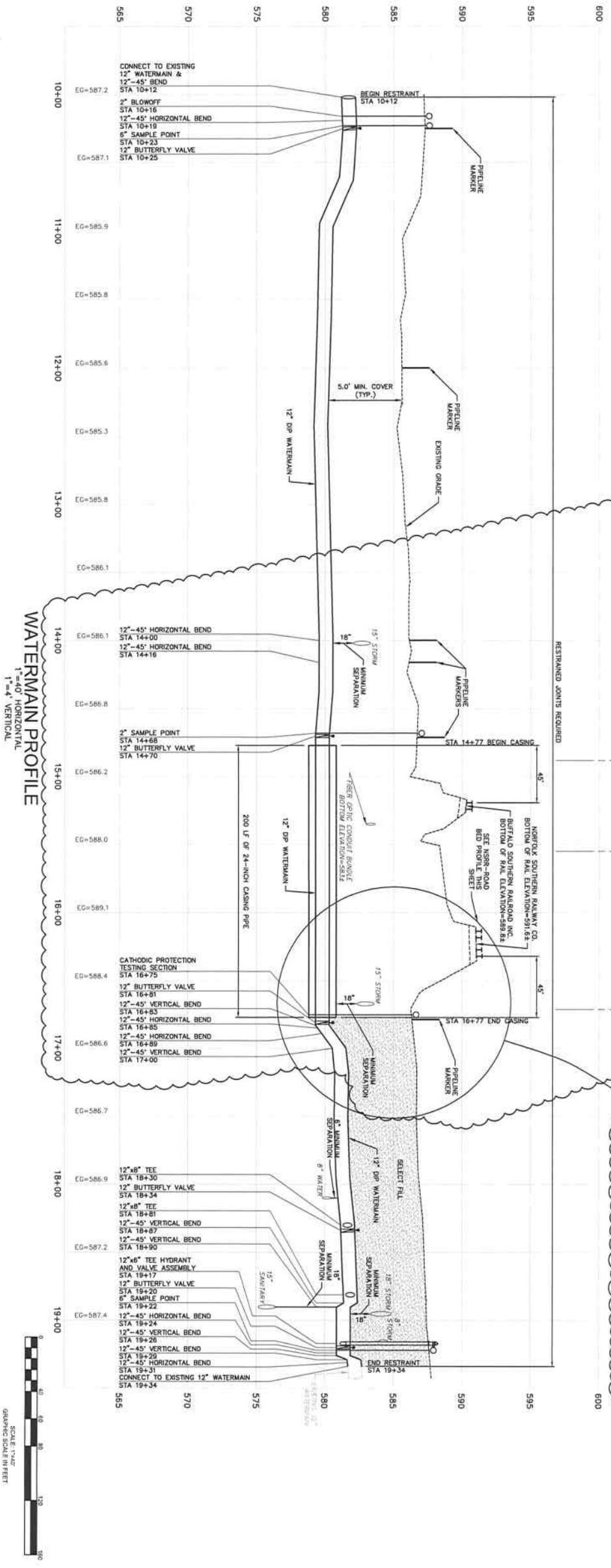
KIRBY AVENUE PLAN AND INTERCONNECTION DETAILS

THIS SHEET ISSUED APRIL 12, 2021

C11

DRAWING SCALE: 1" = 30'

WSA PROJECT NO. 20012



ERIE COUNTY WATER AUTHORITY
WATER SYSTEM IMPROVEMENTS
CONTRACT WSA-015
CITY OF LACKAWANNA - TOWN OF HAMBURG - ERIE COUNTY - NEW YORK

KIRBY AVENUE PROFILE

C12

THIS SHEET ISSUED APRIL 12, 2021
DRAWING SCALE: AS NOTED
WSA PROJECT NO. 20012

WM SCHUTT ASSOCIATES
37 CENTRAL AVE.
LANCASTER, NY 14086-2143
PH. 716-683-5961
FAX 716-683-0169
WWW.WMSCHUTT.COM

STATE OF NEW YORK · WILLIAM E. SCHUTT · 058840 · LICENSED PROFESSIONAL ENGINEER

DESIGNED BY:	RMR
DRAWN BY:	AJK
CHECKED BY:	WES
DATE:	AUGUST 2020

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DRAWING REVISIONS

ITEM	DATE	DESCRIPTION
1	05/10/2021	NSRR AND NAT GRID UPDATES

SECTION 01270

MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.01 DESCRIPTION

A. The items listed below beginning with Article 1.05, refer to and are the same pay items listed in the Bid Form. They constitute all of the pay items for the completion of the Work. No direct or separate payment will be made for providing miscellaneous temporary or accessory works, plant, services, ENGINEER'S and/or CONTRACTOR'S field offices, layout surveys, job signs, sanitary requirements, permits, testing, safety devices, shop drawings and samples, approval and record drawings, water supplies, power, maintaining traffic, removal of waste, watchmen, bonds, insurance, test pits and all other requirements of the General Conditions, Supplementary Conditions, and the General Requirements. Compensation for all such services, things and materials shall be included in the prices stipulated for the lump sum and unit price pay items listed herein.

B. The lump sum and unit bid prices will be deemed to include an amount considered by CONTRACTOR to be adequate to cover CONTRACTOR'S overhead and profit for each separately identified item.

C. The CONTRACTOR shall furnish all labor, materials, tools, equipment, services, and all appurtenances necessary to perform all work required, at the unit or lump sum prices for the items listed in the Bidder's Proposal. Each bid item shall include all costs to perform all work to complete each item. Work shall include, but is not necessarily limited to clearing and grubbing, earth excavation, rock excavation, disposal of excess excavated material, handling of all water, dewatering, earth backfill, select backfill, pipe bedding and encasement, concrete cradle, concrete encasement, concrete cover, concrete anchor collars, concrete blocking, piping, service tubing and accessories, saddles, curb stops, curb boxes, bends, reducers, tees, valves, mechanical thrust restraints valve boxes, hydrants, and all other fittings, traffic control, permits, test pits, replacement of sidewalks, driveways, and pavements, curbs, underdrains, drainage, curb receivers, ditches, rip rap, driveway culverts, headwalls, temporary resurfacing, all final restoration, connections to existing watermains, testing, disinfection, all abandonments, and maintaining water service to customers.

D. Each of the bid items shall also include the cost required in supporting and protecting existing utilities while working under, over, or alongside or near the utility. Also included, is the protection of overhead telephone, cable, electric power or other lines and the supporting of poles, if required.
   1. The utilities likely to be encountered include:
      a. Storm and sanitary sewers.

b. Gas, water, electric, telephone, fiber optic, and cable TV house service connections.
c. Overhead and underground telephone, fiber optic, cable TV and electric power lines.
d. Other watermains.

2. The cost of repairing any damage to the various utilities done during the installation of the work shall be included in the various bid items.

E. Where fixed minimum unit prices are called for under an item heading, the bidder shall include a price not less than the stated minimum. Bidder's Proposals received which include a unit price less than the stated minimum shall be adjusted to meet the minimum unit price.

1.02 ENGINEER'S ESTIMATE OF QUANTITIES

A. ENGINEER'S estimated quantities for unit price pay items, as listed in the Bid Form, are approximate only and are included solely for the purpose of comparison of Bids. OWNER does not expressly or by implication agree that the nature of the materials encountered or the actual quantities of material encountered or required will correspond therewith and reserves the right to increase or decrease any quantity or to eliminate any quantity as OWNER may deem necessary. Except as provided in Article 1.03, CONTRACTOR or OWNER will not be entitled to any adjustment in a unit bid price as a result of any change in an estimated quantity and agrees to accept the aforesaid unit bid prices as complete and total compensation for any additions caused by changes or alterations in the Work ordered by OWNER.

1.03 ADJUSTMENT OF UNIT PRICES FOR INCREASE OR DECREASE OF ESTIMATED QUANTITIES

A. For bid items paid for on a unit price basis, increases or decreases in the quantity of an item of Work will be determined by comparing the total payable quantity of Work with ENGINEER'S estimated quantity as shown in the Bid Form. Increase or decreases will only be considered if the Schedule of Values as required in Section 01290 has been prepared, submitted, and approved.

B. If the total payable quantity of any unit price item of Work, which has an as-bid computed total value of five percent or more of the sum of the as-bid computed total values of all items bid, varies from ENGINEER'S estimate of quantity therefore by more than 50 percent, the unit price of that item will be a subject of review by ENGINEER. If warranted, an equitable adjustment will be made by means of a Change Order to credit OWNER with any reduction in cost or to compensate CONTRACTOR for any increase in cost resulting from the change in quantity. This review of the adjustment will be made at a time ENGINEER deems reasonable and proper.

C. Payment for any unit price item of Work, which has an as-bid computed total value of less than five percent of the sum of the as-bid computed total values of all items bid, will be made at the unit price bid regardless of an increase or decrease in quantity.

1.04 RELATED PROVISIONS

A. Payments to CONTRACTOR: Refer to General Conditions and Agreement.

B. Changes in Contract Price: General Conditions.

C. Schedule of Values: Section 01290.

1.05 BID ITEMS

A. ITEM 1 - WATERMAIN

1. Work Included:

a. This item includes all labor, materials, equipment, sampling and testing, and incidentals required to furnish and install watermain and fittings of the size, class, depth and materials shown on the drawings and specified herein, except that specifically included under other items of the Contract. Earth excavation, and disposal of excess excavated material required for this project are included in this item.

b. This item includes pipe harnessing, gaskets, bolts and glands for pipe and fittings, pipe bedding, thrust blocks, temporary and permanent blocking, polyethylene encasement for ductile iron pipe and fittings, magnetic pipe marking tape, backfilling, compaction, sampling points, clearing and grubbing, topsoil stripping, tree trimming as required for equipment access to perform work adjacent to existing trees, tree removal and disposal, dewatering, shoring, sheeting, tree boring (including casing pipe, annular fill stone, skids and spacers), and all other materials and requirements not specifically defined in other bid items.

c. This item includes rock excavation unless a rock excavation item is included in the proposal.

d. This item includes all fittings, such as tees, elbows, reducer, bevels, and shorts.

e. This item does not include select backfill, which is included for payment under Item 6.

f. This item includes furnishing and installing temporary connection assemblies for testing and disinfection. Also included is the removal of the temporary connection assemblies upon completion.

g. This item includes furnishing and installing temporary blow-off assemblies. Also included is the removal of the temporary blow-ff assemblies after completion of testing and replacing the corporation stop with plug.

h. This item includes installation of watermain up to 8 feet deep where shown on the Drawings.

i. This item includes all excavation required and the furnishing and installing temporary pavement for all disturbed streets, driveways, and sidewalks to complete the watermain installation.

j. Permanent restoration of sidewalk, driveways, pavement, and landscaping is included for payment elsewhere.

k. This item includes all items and work necessary for the proper maintenance and protection of traffic as defined in Section 01550.

l. This item includes removal and replacement of driveway culverts with new material as required to complete the watermain installation.

m. This item includes all work necessary around existing traffic signal inductance loops including sawcutting around existing loops, modifying existing or installing new cable, and tieing into existing electronics to bring traffic loops back into operation.

n. This item includes the wrapping of all ductile iron pipes and fittings with approved polyethylene wrap, including covering and taping at all joints and along the pipes as defined on Contract Drawings. Pipes which are not wrapped properly are considered incomplete and payment shall be withheld.

o. This item includes the use of excavator operators who have completed the training and education programs provided by the One-Call Notification System or other authorized provider pursuant to New York State Senate Bill S.6756A. No excavator operators are permitted to perform any excavation without receiving the proper training and education program and supplying documentation of completed training to the ENGINEER.

p. This item includes the installation and removal of all temporary sampling points at diameters necessary for proper testing. This item also includes all work and materials necessary to daylight temporary sampling points out of the roadway, sidewalk or travelled area.

2. Measurement:

a. The quantity of watermain in place paid for under this item shall be the number of linear feet of each size installed within the limits shown, specified, or directed. The lengths shall be measured along the centerline of the pipe without deduction for line valves and or fittings.

3. Payment:

a. The unit prices bid per linear foot shall be full compensation for furnishing all labor, materials, equipment, and incidentals necessary to furnish, deliver, install, and place into service the watermain as shown, specified, or directed.

b. The subdivisions of this item are:

1A Ductile Iron Pipe (DIP)
- 1A2 6-inch
- 1A3 8-inch
- 1A4 10-inch
- 1A5 12-inch
- 1A6 16-inch
- 1A8 24-inch

B. ITEM 2 - VALVES

1. Work Included:
   a. This item includes all labor, material, equipment and incidentals required to furnish, install, flush, test, disinfect, and place into service the valves and appurtenances as shown, specified, or directed.
   b. Valves for hydrant assemblies are not included herein, but included for payment under Item 3, Fire Hydrants.
   c. This item includes all excavation required and the furnishing and installing of earth backfill and temporary pavement for all disturbed streets, driveways, and sidewalks to complete the valve or appurtenances installation.
   d. For permanent blow-offs, this item includes all materials and work necessary to install the components as shown on the Drawings.
   e. For air release valves with concrete chambers, this item includes all materials and work necessary to install the components as shown on the Drawings.
   f. Select backfill and permanent restoration is included for payment elsewhere except for permanent blow-off assemblies, where select backfill is included under this item.
2. Measurement:
   a. The quantity to be paid for under this item shall be the actual number of valves of various types and sizes installed as shown, specified, or directed.
3. Payment:
   a. The unit prices bid for this item shall be full compensation for furnishing all labor, materials, equipment, and incidentals to furnish, install, and place into service the valves of various types and sizes installed as shown, specified, or directed.
   b. The subdivisions of this item are:

2A Gate Valve
- 2A2 8-inch
- 2A3 10-inch

2B Butterfly Valve
- 2B1 12-inch

2C Tapping Sleeve & Valve
- 2C8 12-inch x 8-inch
- 2C11 16-inch x 12-inch
- 2C12 24-inch x 8-inch

2E Permanent Blow-Off Assembly
- 2E1 Permanent Blow-Off

C. ITEM 3 - FIRE HYDRANTS

1. Work Included:
   a. The new fire hydrant item includes all labor, materials, equipment, and incidentals required to furnish and place into service new fire hydrants and appurtenances as shown, specified, or directed.
   b. The relocate/reconnect existing fire hydrant item includes all labor, materials equipment, and incidentals required to relocate and reconnect existing fire hydrants and appurtenances to the new watermain as shown, specified, or directed.
   c. The fire hydrant abandonment item includes all labor, materials, equipment, and incidentals to remove existing fire hydrants and hydrant valve boxes as shown, specified, or directed.
   d. This item shall include field painting of hydrants after installation, and the furnishing and installation of vertical extensions where required.
   e. Pipe and fittings at hydrant installations are not included in this item.
   f. This item includes all excavation required and furnishing and installing temporary pavement for all disturbed streets, driveways, and sidewalks etc., as required.
   g. Landscape restoration is included with this item. Concrete and asphalt restoration are included for payment elsewhere.
   h. This item includes all labor, materials, equipment, and incidentals to furnish and place into service new gate valves for fire hydrants as shown, specified, or directed.
   i. This item includes temporary support of nearby utility poles.
   j. This item includes the removal and return of all abandoned hydrants to the Erie County Water Authority as directed. This includes calling 24 hours in advance to schedule the delivery, careful handling to prevent damage to hydrants, proper trucking to the delivery site, and unloading of hydrants at the designated location at the Erie County Water Authority.
   k. This item includes concrete blocking, washed No. 1 stone for weep hole drainage, and earth backfill as required. Select backfill is not included in this item.
   l. This item includes the removal of hydrant markers from existing hydrants and reinstallation of these markers on new or relocated hydrants.

2. Measurement:
   a. The quantity to be paid for under this item shall be the actual number of fire hydrants installed, removed, or relocated and reconnected as shown, specified, or directed.
3. Payment:
   a. The unit price bid per this item shall be full compensation for all labor, materials, equipment, and incidentals required to furnish, install, disinfect, test, and place into service the fire hydrants including gate valves for fire hydrant shut-off; to remove, relocate, reconnect, test, and place into service existing fire hydrants; and to abandon existing fire hydrants (including capping and plugging) as shown, specified, or directed.
   b. The subdivisions of this item are:
      3A New Fire Hydrant Assembly
      3C Fire Hydrant Abandonment

D. ITEM 4 - TEST PIT EXCAVATION AND BACKFILL
1. Work Included:
   a. This work shall include all labor, materials, equipment and incidentals required to perform test pit excavations (and backfill same) at the locations shown, specified, or directed unless specially included for payment elsewhere.
   b. This item includes furnishing and installing temporary restoration for all disturbed streets, driveways, and sidewalks, including select backfill and temporary pavement to maintain pedestrian and vehicular traffic.
   c. Permanent restoration is included for payment elsewhere.
   d. The cost for a test pit for service replacements/installations are not included in this bid item since the costs for any test pits required at those locations shall be included in the service replacement/installation bid item.
   e. This item includes documenting utilities and dimensions of the test pit results on the 'ECWA Test Pit Inspection Form' and submitting this form to the ENGINEER and OWNER for review.
2. Measurement:
   a. Test pit excavations which shall be paid for under this item shall be the actual number of test pit excavations performed as shown, specified, or directed.
   b. The test pit shall be five (5) feet by five (5) feet by eight (8) feet deep.
3. Payment:
   a. The unit price bid for test pit excavation and backfill shall be full compensation for all labor, materials, equipment and incidentals necessary to perform test pit excavations and backfill as shown, specified or directed, and submit test pit findings on the 'ECWA Test Pit Inspection Form' to the ENGINEER and OWNER. The subdivisions of this item are:

4A Test Pit Excavation and Backfill

E. ITEM 5 - ROCK EXCAVATION

1. Work Included:
   a. This work shall consist of furnishing all labor, materials, equipment and incidentals to remove rock by such methods as drilling, jacking, hammering and mechanical excavation to the lines and grades as shown, specified and directed.
   b. This item includes disposal of rock removed from the trench, which is unsuitable for backfill.
   c. Rock that can be removed by normal excavation equipment shall not be measured for rock excavation.
2. Measurement:
   a. The quantity to be paid for under this item shall be the amount of rock in cubic yards removed from within the pay limits as shown, specified or directed.
   b. The rock shall be uncovered prior to removal in sections acceptable to the ENGINEER, so that it may be measured prior to removal.
3. Payment:
   a. The unit price bid per cubic yard shall be full compensation for furnishing all labor, materials, equipment and incidentals required to remove rock as shown, specified or directed.
   b. The subdivisions of this item are:
      5A Rock Excavation

F. ITEM 6 - SELECT BACKFILL

1. Work Included:
   a. This item includes all labor, material sampling and testing, plant equipment, and incidentals required to furnish and install the select backfill material as shown, specified, or directed.
   b. This item does not include pipe bedding and encasement, since the cost for pipe bedding and encasement shall be included under the watermain bid items.
   c. This item does not include select backfill at water service reconnections, extensions, replacement/installations, or blow-off assemblies, since the cost for select backfill at those locations shall be included under the water service reconnection, extensions, replacement/installations or blow-off assembly bid item.
   d. This item includes select fill for stone driveway restoration.
2. Measurement:
   a. The quantity to be paid for under this item shall be the number of cubic yards of select backfill placed as shown, specified, or directed to the limits shown on the trench detail.
   b. Measurement shall not be based upon loose or truck-ticket quantities.

3. Payment:
   a. The unit prices bid per cubic yard for this item shall be full compensation for all labor, material, plant, sampling and testing, equipment, compaction, and incidentals necessary to furnish and install the select backfill material within the pay limits shown on the drawing as shown, specified, or directed.
   b. The subdivisions of this item are:
      6A Select Backfill.

G. ITEM 7 - INTERCONNECTIONS
1. Work Included:
   a. This item includes all labor, materials, equipment, and incidentals required to furnish, install, disinfect and place into service the interconnections between the proposed system and the existing system as shown, specified, or directed.
   b. Pipe used at the interconnection shall be paid for under the watermain item for the appropriate pipe size and type.
   c. This item includes all cost related to furnish and install couplings, concrete blocking, removals, plugging, harnessing, dewatering, etc.
   d. Valves and tapping sleeves and valves, etc., shall be paid for under their respective bid items.
   e. This item also includes abandoning existing main line valves and valve boxes as shown, specified, or directed.
   f. Where valves, etc., are to be removed, they shall be removed and properly stored, protected, and delivered to the Erie County Water Authority, if required and the cost shall be included herein.
   g. This item includes all excavation required and the furnishing and installing temporary pavement for all disturbed streets, driveways, and sidewalks, as required.
   h. Earth backfill is included in this item. Select backfill and permanent restoration is not included in this item.
   i. This item includes all costs for working at night or on off-hours. Included herein is all lighting, traffic protection, etc.
   j. The interconnection items include all costs to comply with permits, regulatory agencies, etc., not included in other bid items.
2. Measurement:
   a. The quantity to be paid for under this item shall be for the completed interconnections as shown, specified, or directed.
3. Payment:
   a. The lump sum price bid for each interconnection shall be full compensation for furnishing all labor, material equipment, and incidentals required to furnish, install, test, disinfect and place into service the interconnection as shown, specified, or directed.
   b. The subdivisions of this item are as follows:

7A Interconnection No. 1 – 3304 Nash Road
7B Interconnection No. 2 – Nash Road at Van Peyma Road

7C Interconnection No. 3 – Nash Road at Emery Lane (West)
7D Interconnection No. 4 – Nash Road at Emery Lane (East)
7E Interconnection No. 5 – Ontario Avenue at Garfield Avenue
7F Interconnection No. 6 – Garfield Avenue at Ontario Avenue
7G Interconnection No. 7 – Ontario Avenue at Ellsworth Avenue
7H Interconnection No. 8 – Adams Street at Ellsworth Avenue
7I Interconnection No. 9 – Park Avenue at Adams Street (East)
7J Interconnection No. 10 – Park Avenue at Adams Street (West)
7K Interconnection No. 11 – Cleveland Avenue at Mitchell Place
7L Interconnection No. 12 – Cleveland Avenue at Electric Avenue (South)
7M Interconnection No. 13 – Cleveland Avenue at Electric Avenue (North)
7N Interconnection No. 14 – National Grid Right-of-Way
7O Interconnection No. 15 – Warsaw Street at Kirby Avenue
7P Interconnection No. 16 – Center Street at Kirby Avenue
7Q Interconnection No. 17 - Kirby Avenue at Center Street
7R Interconnection No. 18 – Myrtle Avenue at Milnor Avenue
7S Interconnection No. 19 – Milnor Avenue at Trella Place
7T Interconnection No. 20 – 40 North Drive
7U Interconnection No. 21 – 5 South Fisher Road
7V Interconnection No. 22 – Roland Avenue at Myrtle Avenue
7W Interconnection No. 23 – Myrtle Avenue at Roland Avenue
7X Interconnection No. 24 – Roland Avenue at Wood Street
7Y Interconnection No. 25 - Roland Avenue at Willow Street
7Z Interconnection No. 26 - Roland Avenue at Spring Street
7AA Interconnection No. 27 - Roland Avenue at Electric Avenue (South)
7BB Interconnection No. 28 – Roland Avenue at Electric Avenue (North)
7CC Interconnection No. 29 – Roland Avenue at Green Street
7DD Interconnection No. 30 – Roland Avenue at Johnson Street
7EE Interconnection No. 31 – Roland Avenue at Pierce Street

H. ITEM 8 - WATER SERVICE CONNECTIONS

1. Work Included:

a. This item includes all labor, material, and equipment required to furnish, install, test, disinfect and place into service water service replacements/installations.

b. The work shall include all field exploratory excavations to locate the existing service piping, excavation to and around the existing watermain, rock excavation (unless there is an item elsewhere), earth backfill, select backfill, tapping the main, furnishing and installing the service, corporation stops and saddles, furnishing and installing new type K copper service piping with flared fittings and connecting the new service to the existing service by furnishing and installing a new curb stop, box, and suitable adapter designed specially for the type of existing tubing.

c. This item includes the cost of abandoning, by removing and disposing, of the existing curb box, curb stop, and copper, as shown, specified or directed.

d. This item includes the cost of insulation of water service piping as shown on the drawings or where directed by the ENGINEER.

e. When working within a roadway or paved travelway, the service shall be installed by pushing or drilling the service line underneath the paved areas. When the push/drill method is used, all labor, material and equipment required to install the services, including pushing/drilling and receiving pits, shall be included in this item. No extra payment will be made if rock, boulders or other obstacles are encountered during the pushing/drilling operation or if multiple pushes/drills are necessary to install a proper service. Contractor shall protect existing sidewalk and curbing when pushing/drilling services.

f. This item includes all costs for locating all underground utilities via exploratory excavations (water, sewer, gas, storm drains, electric, etc.,) working under, over, alongside, near all existing utilities, crimping the abandoned end of the old service, locating the old corporation cock at the abandoned main and closing it, removing abandoned service pipe, and all other work required for a complete installation.

g. This item includes flushing the entire service as required and cleaning the existing meter and demonstrating that all system components properly operate.

h. This item includes all excavation required and the furnishing and installing bedding, select backfill, temporary pavement for all disturbed streets, driveways, and sidewalks, as required.

i. Landscape restoration is included with this item. Concrete and asphalt restoration are included for payment elsewhere.

j. This item includes all cost to connect to lead or galvanized services and shall not result in additional costs to OWNER.

2. Measurement:

a. The quantity to be paid for under this item shall be the actual number of water service replacements/installations installed as shown, specified or directed.

b. Each water service replacement/installation shall include 10-feet of copper tubing. Additional copper tubing beyond 10-feet shall be measured for payment at the unit price bid per linear foot for additional copper tubing.

3. Payment:

a. The unit price bid for this item shall be full compensation for furnishing all labor, materials, and equipment required to furnish, install, test, disinfect and place into service the water service replacements/installations.

b. The subdivisions of this item are:

8A Service Replacement/Installations

8A1 ¾ - 1-inch

8A2 1-½-inch and Larger

8B Additional Copper Tubing
8B1 ¾ - 1-inch
8B2 1-½ inch and Larger

I. ITEM 9 - CASING PIPE

1. Work Included:

a. This item includes all labor, material, equipment, and incidentals required to furnish and install casing pipes as shown, specified, or directed. This item also includes furnishing and installing select backfill for the receiving and boring pits, annular fill within the casing pipe, bulkheads, anodes for cathodic protection, boring pits, sheeting (permanent or temporary), dewatering, skids or spacers, protection of existing structures and utilities and all other work required for a complete installation.

b. This item includes making the necessary arrangements to obtain work permits and complying with its requirements of conducting traffic maintenance.

c. This item includes all labor, material, equipment, and incidentals to furnish and install anode testing stations at locations defined on Contract Drawings. Also included is all work necessary to demonstrate that the testing station is operational and properly functioning.

d. All Work at the Kirby Avenue Site in Lackawanna for installation of the 12-inch watermain and 24-inch casing pipe on properties owned by National Grid, Norfolk Southern Railroad, Erie County Industrial Development Agency (ECIDA), Buffalo Southern Railroad, and CSX Railroad, if necessary for temporary access, shall be performed pursuant to conditions and requirements of agreements and/or easements in effect at time of work commencement. In addition to including payment of the casing pipe, bore pit excavations and shoring, barricades and fencing, permits, dewatering, backfill, etc, as specified, Item 9C will also specifically include all costs to comply with all requirements and conditions associated with working within, crossings of, and/or within close proximity to facilities of the properties associated with these agencies and those agreements/easements in effect. Costs shall include, but not be limited to:

i. Permit fees, special use fees, coordination fees and costs associated with continuous and/or off hours work, training fees, etc.

ii. Insurance,

iii. Agency Inspection fees, electrical spotters - except those costs which are specifically included in ITEM 17 – ELECTRICALLY QUALIFIED PERSON, use of rail flagmen, etc.,

iv. Daylighting of Fiber Optic Conduits during Casing Pipe installation,

v. Mechanical equipment grounding, track supports, and other requirements as further identified in APPENDICES F and G and as required.

2. Measurement:
   a. The quantity to be paid for under this item shall be the linear foot of casing pipe installed as shown, specified, or directed.
3. Payment:
   a. The unit price bid per linear foot for this item shall be the full compensation for furnishing all labor, material, equipment, and incidentals required to furnish and install casing pipe.
   b. The subdivisions of this item are:
      9A 18-inch
      9B 20-inch
      9C 24-inch

J. ITEM 10 - ABANDONMENTS

1. Work Included:
   a. This item includes all labor, materials, equipment, and incidentals required to perform the Abandonments as shown, specified, or directed.
   b. This item is for the additional work, materials, coordinating, etc., required to perform the Abandonments. Pipe used at the abandonment shall be paid for under the appropriate watermain item for the same size pipe, if such an item is included in the proposal. If no such item is included, then the pipe costs shall be included in this bid item.
   c. Valves shall be paid for under their respective items.
   d. Removals, concrete blocking, plugging, harnessing, dewatering, disinfection, couplings, etc., shall be included in this bid item.
   e. This item includes abandoning existing main line valves and valve boxes, where required. Removal of valves, etc., which are to be delivered to the OWNER shall be performed with caution to avoid damage.
   f. The abandonment items include all costs to comply with permits, regulatory agencies, etc., not included in other bid items.
   g. This item includes the installation of earth backfill as required. Select backfill is not included in this item.
   h. This item includes all excavation required and the furnishing and installing temporary pavement for all disturbed streets, driveways, and sidewalks, as required.
   i. Permanent restoration is included for payment elsewhere.
   j. This item includes all costs for working at night or on off-hours. Included herein is all lighting, traffic protection, etc.
2. Measurement:
   a. The quantity to be paid for under this item shall be for the completed Abandonments as shown, specified, or directed.

3. Payment:

a. The lump sum price bid for each abandonment shall be full compensation for furnishing all labor, materials, equipment and incidentals required to perform the abandonments as shown, specified, or directed.

b. The subdivision of this item IS as follows:

10A Abandonment No. 1 – Lyth Road at Willett Road
10B Abandonment No. 2 – Nash Road at Camp Road
10C Abandonment No. 3 – Cleveland Avenue at South Park Avenue
10D Abandonment No. 4 – Roland Avenue at South Park Avenue

K. ITEM 11 - RESTORATION

1. Work Included:

a. This item includes all labor, materials, equipment, sampling, testing and incidentals necessary to restore asphalt, concrete, stone or gravel surfaces, landscaping, curbs/gutters, lawn areas, and other features disturbed, damaged or destroyed during the performance of the work.

b. For asphalt restoration, this item shall include the application of a bituminous tack coat at all sawcut areas and between asphalt pavement layers as shown, specified or directed.

c. This item shall include any sawcutting of asphalt or concrete as shown, specified, or requested.

d. This item shall include the proper consolidation of subgrade before installing pavement or sidewalk.

e. This item shall include the permanent and final repaving of all streets, driveways and similar surfaces, where pavement has been removed, disturbed, settled or damaged by or as a result of performance of this Contract. This item shall also include the application of permanent pavement markings as required by the appropriate highway jurisdiction.

f. This item shall include the cost to remove, restore, and/or replace traffic signal equipment as necessary for the installation of the water system improvements.

g. For cold milling, this item shall include cold milling of the existing asphalt pavement to the limits and depths detailed on the Contract Drawings.

h. For cold milling, this item shall include the application of a bituminous tack coat on all cold milled areas as shown, specified or directed.

i. This item shall include maintenance of all lawn areas until establishment of a good stand of grass and the first mowing.

j. Restoration of all areas outside the payment limits is the responsibility of the CONTRACTOR and shall conform to the Contract Requirements which apply.

k. The tree removal items include all costs for removal and disposal of the tree trunk and all branches/leaves as shown, specified, or directed. It shall also include grinding of the stump a minimum of 12 inches below finished grade or complete stump removal as requested by ENGINEER.

l. Tree diameter shall be based on the rounded circumference, measuring around the tree trunk 24 inches above finished grade and dividing by 3.14 to obtain the average diameter.

m. The tree replacement item includes all costs for tree planting with trees in like and kind with a minimum six foot height and three inch minimum diameter as shown, specified or directed.

n. The concrete sidewalk restoration item includes all work necessary to properly install curb ramps to NYSDOT standards including the installation of the contrasting-color 'button field' for the visually impaired.

2. Measurement:

a. The quantity of concrete restoration (except for curb/gutter restoration) and asphalt restoration for which payment will be made will be computed using the payment dimension on the trench payment limits detail without regard to the actual dimension or quantities required and the number of linear feet of watermain installed as measured along the centerline of the pipe without regard for valves or fittings. The area shall be figured on the basis of square yardage within the trench limits as shown, specified, or directed.

b. The quantity of cold milling shall be the number of square yards of pavement surface milled to a depth as detailed on the plans or as directed. In no case will a deduction be made for minor unmilled areas due to catch basins, manholes or minor low areas in pavement from the measured surface areas that has been milled. Minor unmilled or low areas are those areas of 3 square yards or less.

c. The quantity of concrete curb/gutter restoration shall be the number of linear feet of curb/gutter installed within the limits shown, specified, or directed.

d. The quantity of landscape restoration shall be the number of linear feet of watermain installed within the limits shown, specified, or directed. The length shall be measured along the centerline of the pipe without regard for valves or fittings.

e. The quantity of tree removals and tree replacements shall be the number of trees removed or installed as shown, specified, or directed.

3. Payment:

a. The unit prices bid for restoration items shall be at the fixed minimum unit price established by the OWNER where shown in the Bid Proposal or as modified by the CONTRACTOR,

whichever is greater, as stated in the Bidder's Proposal. The prices bid for these items shall be full compensation for all labor, material, equipment, sampling, testing and incidentals necessary for restoration as shown, specified, or directed and within the pay limits shown specified, or directed.

b. The unit prices bid for restoration items that are not at fixed minimum unit prices shall be full compensation for furnishing all labor, materials, and equipment required to furnish and install restoration items within the pay limits as shown, specified, or directed.

c. The subdivisions of this item are:

- 11A Concrete Restoration
  - 11A1 Sidewalk
  - 11A2 Driveway
  - 11A3 6 inch Concrete Base Course
  - 11A4 Curb/Gutter
- 11B Asphalt Restoration
  - 11B1 Sidewalk
  - 11B2 Driveway
  - 11B3 2-inch Pavement Top Course
  - 11B4A 2½-inch Pavement Binder Course
  - 11B4B 4½-inch Pavement Binder Course
  - 11B5A 8-inch Pavement Base Course – State/County Roads
  - 11B5B 4-inch Pavement Base Course – Local Roads
  - 11B6 2-inch Cold Milling of Asphalt Pavement
- 11C Landscape Restoration
  - 11C1 Landscaping

L. ITEM 12 - TESTING AND DISINFECTION

1. Work Included:

a. This item includes flushing, sampling and testing, pressure and leakage testing, and disinfection of the watermain and fittings prior to placing the watermains into service. The watermain and valves are not considered pressure or leakage tested until the pipe complies with the specifications. All necessary retesting will be at the CONTRACTOR'S expense. The CONTRACTOR shall adhere to the application procedures outlined in the specification for disinfection and flushing. All sampling and testing shall be at the points specified and in accordance with the latest Health Department requirements.

2. Measurement:

a. The quantity of disinfection and testing shall be the number of linear feet of watermain installed within the limits shown, specified, or directed. The length shall be measured along the centerline of the pipe without regard for valves, fittings or hydrant assemblies.

3. Payment:
   a. The unit prices bid for testing and disinfection items shall be at the fixed minimum unit price established by the OWNER or as modified by CONTRACTOR, whichever is greater, as stated in the Bidder's Proposal and shall be full compensation for all labor, materials, equipment, sampling, testing, and incidentals necessary to test and place into service new watermain as shown, specified, or directed.
   b. The subdivisions of this item are:
      12A Testing and Disinfection

M. ITEM 13 - EXTRA WORK ITEMS

1. 13A and 13 B Extra Excavation (8 feet to 10 feet deep) and Extra Excavation (10 feet to 12 feet deep).
   a. Work Included:
      1) This item includes all labor, materials, equipment and incidentals required to perform extra trench excavations, as directed. This item also includes dewatering, backfilling, and compaction of the excavation.
      2) This item includes disposal of excavated material, when directed.
      3) This item does not include excavation associated with other items in the Contract such as watermain and test pit excavation and backfill.
   b. Measurement:
      1) The quantity to be paid for under this item shall be the number of linear feet of trench excavated, as directed.
   c. Payment:
      1) The unit price bid per linear foot shall be at the fixed minimum unit prices established by OWNER or as modified by CONTRACTOR, whichever is greater, as stated in the Bidder's Proposal and shall be full compensation for all labor, material, equipment and incidentals required to perform excavations.
      2) The subdivisions of this item are:
         13A Extra Excavation (8 to 10 feet deep)
         13B Extra Excavation (10 to 12 feet deep)
2. 13C Extra Concrete
   1. Work Included:
      1) This item includes all labor, materials, sampling and testing, equipment and incidentals required to furnish and install extra concrete such as encasement at water line and sewer line crossings, as directed.
      2) This item includes reinforcing steel, as directed or specified.

3) This item does not include concrete for restoration or thrust blocks or for any other concrete that is shown on the drawings or required by the specifications.

2. Measurement:
   a. The quantity to be paid for under this item shall be the actual cubic yards furnished, placed and measured.
3. Payment:
   a. The unit price bid per cubic yard shall be at the fixed minimum unit price established by OWNER or as modified by CONTRACTOR, whichever is greater, as stated in the Bidder's Proposal and shall be full compensation for all labor, materials, sampling and testing, equipment and incidentals required to furnish concrete, as directed.
   b. The subdivisions of this item are:
      13C Extra Concrete

N. ITEM 14 – REPAIR CREW LABOR AND EQUIPMENT

1. Work included:
   a. This item includes providing a crew consisting of labor and equipment and incidentals as specified and required to make improvements, installations, modifications or repairs to water domestic and fire service lines, distribution mains, transmission mains, and appurtenances.
   b. The use of crew labor and equipment will be ordered by ENGINEER when it is determined that additional work is required to be performed.
   c. Additional payment shall not be made if CONTRACTOR provides additional labor or equipment beyond what is specified herein or ordered.
   d. This item includes disposal of excavated material, when directed.
   e. This item does not include any other work associated with other items in the Contract such as watermain, valve, and test pit excavation and backfill.
   f. This item includes all related costs of CONTRACTOR, including, but not limited to, supervision, wages, benefits, operating costs, overhead, profit, fuel, insurance, permits, licenses, equipment etc.
   g. Under this item, ENGINEER and Authority personnel shall order the work at the site, but the CONTRACTOR shall be responsible for all county, state, and federal safety codes (OSHA) and any costs involved for this shall be included in this item.
2. Measurement:
   a. The quantity to be paid for under this item shall be the actual number of crew labor and equipment hours performed by CONTRACTOR as ordered by ENGINEER.
   b. Payment for Item 14A shall start when the crew and equipment arrives at the site and ends when the crew and equipment leaves

the site when the Work is completed. There shall be no payment for travel time to or from the CONTRACTOR'S place of business. Payment will be made for travel time between two Work sites for the equipment necessary for the second or succeeding work.

3. Payment:
   a. The unit price bid for this item shall be full compensation for furnishing all labor, equipment, and incidentals required to perform the work as ordered or necessary.
   b. The subdivisions of this item are:
      14A Crew Labor and Equipment

O. ITEM 15 – VACUUM TRUCK AND LABOR

1. Work included:
   a. This item includes providing all labor, equipment, and incidentals as specified and required to perform vacuum excavations, as requested.
   b. The use of vacuum truck and labor will be ordered by ENGINEER when it is determined that vacuum excavation work is required to be performed.
   c. Additional payment shall not be made if CONTRACTOR provides additional labor or equipment beyond what is specified herein or ordered.
   d. This item includes disposal of excavated material, when directed.
   e. This item includes backfilling and compaction of all vacuum excavations with indigenous soil or select backfill as required by ENGINEER.
   f. This item does not include excavation, or any other work associated with other items in the Contract such as watermain, valves, and test pit excavation and backfill.
   g. This item includes all related costs of CONTRACTOR, including, but not limited to, supervision, wages, benefits, operating costs, overhead, profit, fuel, insurance, permits, licenses, equipment etc.
   h. Under this item, Authority personnel shall coordinate the work at the site, but the CONTRACTOR shall be responsible for all county, state, and federal safety codes (OSHA) and any costs involved for this shall be included in this item.
2. Measurement:
   a. The quantity to be paid for under this item shall be the actual number vacuum truck and labor hours performed by CONTRACTOR as ordered by ENGINEER.
   b. Payment for Item 15A shall start when the labor and equipment arrives at the site and ends when the labor and equipment leaves the site when the Work is completed. There shall be no payment for travel time to or from the CONTRACTOR'S place of business. Payment will be made for travel time between two Work sites for the equipment necessary for the second or succeeding work.

3. Payment:
   a. The unit price bid for this item shall be full compensation for furnishing all labor, equipment, and incidentals required to perform the work as ordered or necessary.
   b. The subdivisions of this item are:
      15A Vacuum Truck and Labor

P. ITEM 16 – WORK STOPPAGE DUE TO AN "ALL STOP" ORDER

1. Work included:
   a. This item includes providing all labor, equipment, and incidentals as specified and required when a work stoppage due to an "ALL STOP" order is identified by National Grid and enforced by OWNER.
   b. The "ALL STOP" item is only to be used when written notification is given to CONTRACTOR by ENGINEER or OWNER, and the CONTRACTOR's entire crew and equipment are on-site and standing by to resume work.
   c. Payment shall not be made if CONTRACTOR is able to easily move to other job site areas and perform work applicable to this contract.
   d. This item includes all related costs of CONTRACTOR, including, but not limited to, supervision, wages, benefits, operating costs, overhead, profit, fuel, insurance, permits, licenses, etc.
   e. All costs for securing the construction site including, but not limited to signage, erection of safety fencing, placement of steel plates, moving of equipment, personnel and/or materials, and security briefings/training shall be included in this item. All costs for remobilization after the "ALL STOP" order is lifted are also included in this item.
2. Measurement:
   a. The quantity to be paid for under this item shall be the actual number of "ALL STOP" hours where the CONTRACTOR could not work and remained on stand-by as ordered by ENGINEER.
   b. Payment for Item 16 shall start when the ENGINEER or OWNER defines the "ALL STOP" order and ends when the ENGINEER or OWNER defines that the "ALL STOP" order has been lifted.
   c. For an "ALL STOP" issued during normal business hours, payment for this item shall be limited to normal business work hours only. For an "ALL STOP" issued during off-hours, payment under this item shall be measured from the time work was suspended, and at the discretion of the ENGINEER up to a maximum of eight (8) hours.
3. Payment:
   a. The unit price bid per hour for Work Stoppage Due To An "ALL STOP" Order shall be at the fixed minimum unit price established by OWNER or as modified by CONTRACTOR, whichever is greater, as stated in the Bidder's Proposal and shall be full compensation for all labor, materials, equipment and incidentals necessary to provide

Work Stoppage Due To An "ALL STOP" Order as shown, specified, or directed.

b. The subdivisions of this item are:
16A Work Stoppage due to "ALL STOP" Order

Q. ITEM 17 – ELECTRICALLY QUALIFIED PERSON

1. Work included:
   a. This item includes all costs associated with providing an electrically qualified person (spotter) on site to monitor all construction activities and Work whenever in close proximity to high voltage overhead and/or buried electric lines, cables, conduits, or facilities within National Grid property, or as required by National Grid.
   b. The qualified person must be approved by National Grid, the OWNER, and the ENGINEER.
   c. The use of a third party, electrically qualified person will be as ordered by the ENGINEER when it is determined that one is required to be present at the direction of the utility owner/operator, National Grid.
   d. Additional payment shall not be made if CONTRACTOR provides additional services beyond what is specified herein or ordered.
   e. This item includes all related costs of CONTRACTOR, including, but not limited to, supervision, wages, benefits, operating costs, overhead, profit, fuel, insurance, permits, licenses, etc.
2. Measurement:
   a. The quantity to be paid for under this item shall be the actual number hours that the third party, electrically qualified person is on site as ordered by ENGINEER.
   b. Payment for Item 17 shall start when the third party electrically qualified person arrives at the site and ends when the third party electrically qualified person leaves the site when the services are no longer needed. There shall be no payment for travel time by the qualified person to or from the project site.
3. Payment:
   a. The unit price bid for this item shall be full compensation for furnishing all labor, equipment, and incidentals required to perform the work as ordered or necessary.
   b. This item does not include any other Work associated with other items in the Contract.
   c. The subdivisions of this item are:
      17A Electrically Qualified Person

R. ITEM 18 – FLOWABLE FILL

1. Work Included:
   a. This item includes all labor, materials, sampling and testing, equipment and incidentals required to furnish and install flowable

fill such as for filling abandoned watermains as shown, specified, or directed.

2. Measurement:
   a. The quantity to be paid for under this item shall be the actual cubic yards furnished, placed and measured.
3. Payment:
   a. The unit price bid per cubic yard shall be at the fixed minimum unit price established by OWNER or as modified by CONTRACTOR, whichever is greater, as stated in the Bidder's Proposal and shall be full compensation for all labor, materials, sampling and testing, equipment and incidentals required to furnish flowable fill, as shown, specified, or directed.
   b. The subdivisions of this item are:
      18A Flowable Fill

S. ITEM 19 - ALLOWANCES

1. Work Included:
   a. Section 01210, Allowances, includes stipulated amounts available as reserve for sole use by OWNER to cover unanticipated costs.
2. Measurement:
   a. OWNER shall authorize contingency allowances for required work not covered in other bid items and as specified or directed by ENGINEER.
3. Payment:
   a. Payment for Work authorized under Item 18 will be full compensation for providing all Work authorized under the contingency allowance, complete as specified or directed by ENGINEER. Work authorized under contingency allowance may be included in subsequent Application(s) for Payment, as applicable, following authorization and performance of contingency allowance Work.
   b. The subdivisions of this item are:
      19A Contingency Allowance

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 15121

CASING PIPE

PART 1 - GENERAL

1.01 DESCRIPTION

A. Work Specified
The Work specified shall include all labor, materials, tools, equipment, services and incidentals necessary to furnish and install new casing pipe and incidentals as shown, specified and required.

B. Related Work Specified Elsewhere:
1. Section 02316 - Select Granular Materials
2. Section 02351 - Excavation, Backfill and Trenching
3. Section 15106 - Ductile Iron Pipe and Fittings
4. Section 15110 - Valves and Appurtenances

1.02 QUALITY ASSURANCE

A. All materials shall be new, of first quality and in first class condition. They shall be of the type and manufacturer shown or specified, and substitutions will not be permitted unless specified by the ENGINEER.

B. Reference Standards:
1. ASTM A123, Zinc (Hot Galvanized) Coatings of Products Fabricated from Rolled, Pressed and Forged Steel Shapes, Bars, Plate Bars and Strips
2. ASTM A139, Electric Fusion (ARC) Welding Steel Pipe
3. ASTM A153, Zinc Coating (Hot Dip) on Iron and Steel Hardware
4. ASTM A307, Low Carbon Steel Externally and Internally Threaded Standard Fasteners
5. ASTM A252, Welded and Seamless Pipe Piles
6. ASTM A570, Standard Specification for Steel, Sheet and Strip, Carbon, Hot-Rolled, Structural Quality
7. ASTM C32, Standard Specification for Sewer and Manhole Brick (made from clay or shale)
8. ASTM C207, Standard Specification for Hydrated Lime for Masonry Purposes

C. Steel casing pipe and all incidentals shall be furnished by one supplier.

D. Requirements of Regulatory Agencies:
   1. The CONTRACTOR shall be responsible for obtaining all required permits and shall comply with all provisions thereof at his own expense.
   2. The CONTRACTOR shall, in addition to #1 above, obtain all additional permits, provide insurance, bonds and guarantees, and all else required by the governing authorities at his own expense. The CONTRACTOR'S responsibility under this paragraph may include, but not be limited to the following:
      a. Constructing and removing temporary facilities or structures.
      b. Providing details of construction methods.
      c. Providing detailed construction schedules.
      d. Reimbursing the applicable authority for any and all expenses incurred by them in connection with the Work.
      e. Traffic maintenance.
      f. Coordination of scheduling with the Authority.
      g. Necessary clean-up and restoration.

E. Tolerances:
   1. The casing pipe shall be installed on the lines and grades shown on the Drawings and within tolerances required to allow the carrier pipe to pass through the crossing in accordance with the lines and grades shown, specified, or directed.

F. Welding:
   1. Welding shall be done in strict accordance with manufacturer's written requirements.
   2. Welding operators shall be prequalified in accordance with the standard qualification procedure of the American Welding Society, and certificates attesting thereto shall be delivered to the ENGINEER prior to beginning of any welding operations.

1.03 SUBMITTALS

A. Shop Drawings identifying the casing pipe materials and installation procedure.

B. Certifications for welding operators.

C. All permits necessary for county highway crossings.

D. The CONTRACTOR shall submit certificates of compliance with the applicable referenced standards.

1.04 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. During delivery and handling, all materials shall be braced and protected from any distortion or damage in accordance with the manufacturer's requirements; any such distortion or damage shall be basis for rejection of the materials.

B. Equipment used for unloading shall be covered with wood or rubber to avoid damage to the exterior of the pipe, fittings and accessories. Do not drop or roll materials off trucks.

C. The materials shall be inspected before and after unloading. Materials that are found to be cracked, chipped, gouged, dented or otherwise damaged will not be accepted.

D. Interiors of materials shall be kept free from dirt and foreign matter.

E. Store casing pipe on heavy wood blocking or platforms so they are not in contact with the ground.

F. Casing pipe shall be unloaded opposite to or as close to the place where they are to be laid as is practical to avoid unnecessary handling.

1.05 JOB CONDITIONS

A. Provide guardrails, fences, signs, lights, barricades, barrels, and all other protective items necessary in accordance with the requirements of all applicable permits, laws, regulations, and ordinances, and as necessary to prevent damage or injury to private or public property or to workmen or the general public.

PART 2 - PRODUCTS

2.01 PROPERTIES OF STEEL CASING PIPE

A. Design Criteria: Steel Casing Pipe
   1. Minimum Tensile Strength - 60,000 PSI
   2. Minimum Yield Strength - 35,000 PSI
   3. Minimum Wall Thickness as Follows:

Carrier Pipe	Casing Diameter	Minimum Wall Thickness
4"	12"	0.313
6"	16"	0.313
8"	18"	0.313
10"	20"	0.313
12"	24"	0.563
16"	30"	0.563
20"	36"	0.563
24"	42"	0.563
30"	48"	0.625
36"	60"	0.625
42"	66"	0.625

B. Casing pipe diameter shall be nominal outside diameter.

C. Steel casing pipe shall be in accordance with ASTM A139, Grade B or ASTM A252, Grade 2.

2.02 MATERIALS

A. Steel Casing Pipe
1. Steel casing pipe shall be fabricated in accordance with the above listed specifications to the lengths and diameters shown on the Contract Drawings.
2. For casing pipes 30-inches in diameter and smaller, grout holes will not be required. For casing pipes larger than 30-inches in diameter, provide an adequate number of 1-$^1/_2$ inch holes, furnished three feet on center alternating 30 degrees with the top of the casing pipe. This shall be provided before installation to check for voids in the space between the ground and the outside of the casing pipe after the casing pipe is installed.
3. The 1-$^1/_2$ inch holes in steel casing pipe shall be tapped to receive 1-$^1/_2$" pipe plugs.
4. Grouting or other methods approved by the ENGINEER shall be used to fill such voids as uncovered.
5. All steel casing pipe must be new in first-class condition. Used or recycled casing pipe will not be allowed, regardless of condition.

B. Brick Bulkheads
1. Brick shall meet the requirements of ASTM C32, Grade MS.
2. Mortar shall be composed of Portland Cement, hydrated lime and sand in which the volume of sand shall not exceed three times the sum of the volumes of cement and lime.
   a. Cement shall be type II Portland Cement.
   b. Hydrated lime shall be types conforming to ASTM C207.

C. Cathodic Protection

1. One (1) seventeen pound magnesium anode shall be provided and installed for each end of each casing for cathodic protection.
2. Follow manufacturer's recommendations for attaching to casing pipe and proper burial procedures.

D. Casing Spacers

1. Stainless Steel
   a. All casing spacers shall be made of 14 gauge Type 304 stainless steel with $^{5}/_{16}$" Type 304 stainless steel fasteners.
   b. Runners shall be high molecular weight polyethylene.
   c. Spacers shall electrically insulate watermain from casing pipe to provide proper cathodic protection.
   d. Acceptable manufacturers:
      1) Smith-Blair,
      2) Approved equal.

PART 3 - EXECUTION

3.01 INSTALLATION

A. General

1. Installation of the casing pipes shall include installation of the steel casing pipe by either the boring and/or jacking method in both earth and/or rock wherever it is encountered.
2. Bulkheads shall be installed at each end of the casing pipe of sufficient strength and quality to support the filling operation and to support annular fill. Vents shall be provided as required to assure complete filling of annular space as required by applicable authorities.
3. When a carrier pipe is installed inside a casing pipe, the entire annular space around the carrier pipe shall be filled with sand or pea gravel.
4. Recovery pits shall be excavated at each bore or jack location to determine possible conflicts in alignment with existing utilities not shown on the plans.
5. The CONTRACTOR is responsible for proper line and grade at each crossing. Misalignment or improper grade, as compared to the Contract Drawings, will require extra work to be performed at no additional cost to the OWNER.
6. Tight vertical sheeting shall be driven before excavating for bore and receiving pits as required. Sheeting shall be for the full length, width, and depth of the excavation. Sheeting shall conform to the applicable requirements of Section 02351, Excavation, Backfill, and Trenching.
7. Sheeting details shall be submitted by the CONTRACTOR to any affected agency for approval in advance of performing the Work.

B. Boring

1. The boring method shall consist of pushing the casing pipe into the fill with a boring auger rotating inside the pipe to remove the spoil.
2. The front of the casing pipe shall be provided with suitable mechanical arrangements or devices that will positively prevent the auger and cutting head from leading the pipe so that there will be no unsupported excavation ahead of the pipe.
3. The equipment and mechanical arrangements or devices used to bore and remove the earth and/or rock shall be removable from within the casing pipe in the event an obstruction is encountered.
4. The face of the cutting edge shall be arranged to provide reasonable obstruction to the free flow of soft or poor soil.
5. Water or other liquids shall not be used to facilitate casing emplacement or spoil removal.
6. The diameter of the boring hole shall be essentially the same as the outside diameter of the casing pipe.
7. If voids develop around the casing pipe as it is bored, cement grout will be pumped to fill all such voids; or fill by other means acceptable to the ENGINEER. All voids shall be filled as soon as possible after completion of the boring operation.

C. Jacking

1. The steel casing pipe installed by the jacking method shall be weldable steel pipe.
2. No type of auger, boring or drilling equipment shall be used.
3. Bracing and backstops shall be designed of sufficient rating such that jacking can be accomplished in a continuous manner until the leading edge of the pipe reaches the final position shown on the Contract Drawings.
4. The diameter of the boring hole shall be essentially the same as the outside diameter of the pipe.
5. If voids develop around the casing pipe as it is jacked, cement grout will be pumped to fill all such voids; or fill be other means acceptable to the ENGINEER. All voids shall be filled as soon as possible after completion of the jacking operation.
6. Jacking operations shall be in accordance with the American Railway Engineering Association Specifications, Chapter 1, Part 4, "Jacking Culvert Pipe Through Fills".

D. Obstruction

If an obstruction is encountered during installation by jacking or boring and it is impossible to advance the casing pipe, the CONTRACTOR shall choose one of the following:

1. Abandon the casing pipe in place and fill completely with grout. Provide whatever bulkheading is necessary to accomplish the grouting operation. The crossing will be moved to another location acceptable to the ENGINEER and the crossing rebored at the CONTRACTOR'S expense.

2. As acceptable to the ENGINEER and authority having jurisdiction, the CONTRACTOR may continue the casing pipe by tunneling and installation of liner plates. This continuation by the tunneling method shall be at the CONTRACTOR'S expense.

E. Welding
1. Welding shall be done in accordance with the manufacturer's written requirements.
2. Welding operators shall be prequalified in accordance with the standard qualification procedure of the American Welding Society, and certification attesting thereto shall be delivered to the ENGINEER prior to beginning of any welding operation.

F. Inspection
1. All casing pipe will be inspected by the ENGINEER prior to installation.
2. Prior to the work in this section, the CONTRACTOR shall inspect the installation area to determine if the work of other trades has progressed to the point where the installation may properly commence.
3. The CONTRACTOR shall verify that the installation can proceed in accordance with all pertinent codes and regulations, the original design and the referenced standards.

G. Installation of Carrier Pipe in Steel Casing.
1. Verify that casing is installed to the proper lines and grades.
2. Joints for all carrier pipes 24-inches and larger in diameter shall be made within the casing pipe unless otherwise permitted by the ENGINEER.
3. Push or pull each length of pipe into casing, adjust line and grade as necessary without disturbing adjacent joints.
4. All carrier pipe joints falling within the steel casing pipe shall be restrained whether or not the pipe section falls within a restrained section of pipe as shown on the Drawings.

H. Discrepancies
1. If the above referenced inspection reveals discrepancies, the CONTRACTOR shall notify the ENGINEER immediately.
2. The CONTRACTOR shall not proceed with the installation in areas of discrepancy until said discrepancy is resolved.

I. Blasting
1. Blasting is not allowed.

J. Annular Fill and Bulkhead
1. Provide vents as required to assure complete filling of annular space and as required by the applicable authorities.

2. Prior to the filling of the annular space, carrier pipe shall be properly and sufficiently secured against flotation and against all movement which would disturb joints.
   a. The CONTRACTOR shall be responsible for all improper joints including all joints disturbed by placing annular fill.
   b. The CONTRACTOR shall repair, replace or take whatever action is necessary to properly install casing pipe at no additional expense to the OWNER.
3. After the carrier pipe is installed in casing, fill annular space with pea gravel between carrier pipe and casing and construct brick and mortar bulkheads as specified herein.
4. Fill annular space in three (3) stages in the presence of the ENGINEER to his/her satisfaction.
5. The volume of pea gravel used shall be compared to the annular space volume to ensure complete filling. Incomplete filling of annular space will not be considered acceptable. CONTRACTOR will remove pea gravel and reinstall, at his expense, if so ordered by the ENGINEER.
6. Install bulkheads at pipe joints at each end of the casing of sufficient strength and quality to support the filling operation, and to support annular fill.

END OF SECTION

APPENDIX B

Insurance specs:

The following minimum insurance requirements shall apply to vendors providing services to the Erie County Water Authority (the Authority). If a service or project, in the opinion of the Authority, represents an unusual or exceptional risk, the Authority may establish additional insurance requirements for that service or project. All insurance required herein shall be obtained at the sole cost and expense of the contractor, including deductibles and self-insured retentions, and shall be in full force and effect on the contract commencement date and for the duration of the contract. These requirements include but are not limited to the minimum insurance requirements.

Insurance Requirements:

a. **Workers Compensation:**
   Part 1: Workers Compensation: Statutory
   Part 2: Employers Liability: $1,000,000.
   Note: If New York State domiciled employees are used, coverage to be New York Statutory for both Parts 1 and 2

b. **New York Disability Benefits Liability:** Statutory coverage if New York State domiciled employees are used.

c. **Commercial General Liability:**
   - $2,000,000. General Aggregate
   - $2,000,000. Products/Completed Operations Aggregate
   - $1,000,000. Each Occurrence
   - $1,000,000. Personal Injury/Advertising Liability
   - Erie County Water Authority to be scheduled as an Additional Insured for both on-going and completed operations (attach Additional Insured endorsement to Certificate of Insurance)
   - Insurance to be primary and non-contributory

d. **Automobile Liability:**
   - $1,000,000. Each Accident
   - Erie County Water Authority to be scheduled as an Additional Insured.

e. **Umbrella Liability:**
   - $5,000,000. Each Occurrence
   - $5,000,000. Aggregate
   - Erie County Water Authority to be scheduled as an Additional Insured

f. **Contractor's Pollution Liability:**
   - $5,000,000. Per Claim
   - $5,000,000. Aggregate

e. **All-Risk Installation Floater**: Builder's risk completed value form based on the total value of the project, providing coverage for work performed, equipment, supplies and materials at the project location, as well as any off-site storage location.

Certificates of Insurance to be provided to the Authority prior to start of work as follows:

ACORD 25 including copy of Additional Insured Endorsement Note: If coverage provided for NYS domiciled employees require Forms C 105.2 and DB 120.1 for Workers Compensation and NYS DBL.

Certificates of Insurance, on forms approved by the New York State Department of Insurance, must be submitted to the Authority prior to the award of contract. Renewals of Certificates of Insurance, on forms approved by the New York State Department of Insurance, must be received by the Authority 30 days prior to the expiration of the insurance policy period.

Certificates of Insurance and renewals, on forms approved by the New York State Department of Insurance, must be submitted to the Authority prior to the award of contract. Each insurance carrier issuing a Certificate of Insurance shall be rated by A. M. Best no lower than "A-" with a Financial Strength Code (FSC) of at least VII. The professional service provider shall name the Authority, its officers, agents and employees as additional insured on a Primary and Non-Contributory Basis, including a Waiver of Subrogation endorsement (form CG 20 26 11 85 or equivalent), on all applicable liability policies. Any liability coverage on a "claims made" basis should be designated as such on the Certificate of Insurance. Such insurance shall continue through the term of this Agreement and vendor shall purchase at his sole expense either 1) an Extended Reporting Endorsement (also, known as Tail Coverage); or 2) Prior Acts Coverage from new insurer with a retroactive date back to the date of, or prior to, the inception of this Agreement; or 3) demonstrate through Certificates of Insurance that vendor has Maintained continuous coverage with the same or original insurer. Coverage provided under items; 1), 2), or 3) will continue as long as the law allows.

To avoid confusion with similar insurance company names and to properly identify the insurance company, please make sure that the insurer's National Association of Insurance Commissioners (N.A.I.C.) identifying number or A. M. Best identifying number appears on the Certificate of Insurance. Also, at the top of the Certificate of Insurance, please list the project number.

Acceptance of a Certificate of Insurance and/or approval by the Authority shall not be construed to relieve the outside vendor of any obligations, responsibilities or liabilities.

Certificates of Insurance should be e-mailed to mmusarra@ecwa.org or mailed to Ms. Molly Jo Musarra, Claim Representative/Risk Manager Erie County Water Authority, 295 Main Street – Room 350, Buffalo, New York 14203-2494, or If you have any questions you can contact Ms. Musarra by e-mail or phone (716) 849-8465.

ERIECOU-03 TLANZA

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 12/15/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER License # 1009544 Lawley, LLC 361 Delaware Avenue Buffalo, NY 14202	CONTACT NAME: Tania Lanza PHONE (A/C, No, Ext): (716) 849-1546 1546 FAX (A/C, No): (716) 849-8291 E-MAIL ADDRESS: tlanza@lawleyinsurance.com
	INSURER(S) AFFORDING COVERAGE — NAIC #
	INSURER A : Philadelphia Indemnity Ins Co — 18058
INSURED Erie County Water Authority 295 Main St Suite #350 Buffalo, NY 14203-2494	INSURER B : INSURER C : INSURER D : INSURER E : INSURER F :

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE	$ 1,000,000
	[ ] CLAIMS-MADE [X] OCCUR	X	X	PHPK2294180	7/1/2021	7/1/2022	DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 1,000,000
							MED EXP (Any one person)	$ 10,000
							PERSONAL & ADV INJURY	$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$ 3,000,000
	X POLICY [X] PRO-JECT [ ] LOC						PRODUCTS - COMP/OP AGG	$ 3,000,000
	[ ] OTHER:							$
A	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
	X ANY AUTO	X	X	PHPK2294180	7/1/2021	7/1/2022	BODILY INJURY (Per person)	$
	[ ] OWNED AUTOS ONLY [ ] SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	[ ] HIRED AUTOS ONLY [ ] NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
								$
A	[ ] UMBRELLA LIAB [X] OCCUR						EACH OCCURRENCE	$ 10,000,000
	X EXCESS LIAB [ ] CLAIMS-MADE			PHUB774740	7/1/2021	7/1/2022	AGGREGATE	$ 10,000,000
	[ ] DED [ ] RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY						[ ] PER STATUTE [ ] OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y / N [ ] (Mandatory in NH)	N / A					E.L. EACH ACCIDENT	$
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$
							E.L. DISEASE - POLICY LIMIT	$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

National Grid USA, its direct and indirect parents, subsidiaries and affiliates are named as an additional insured as required by written contract with regards to general liability, and automobile liability.

Waiver of Subrogation applies as required by written contract with regards to general liability and automobile liability. Umbrella follows form.

CERTIFICATE HOLDER

National Grid
300 Erie Blvd West
Syracuse, NY 13202

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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NYSIF
New York State Insurance Fund

PO Box 66699, Albany, NY 12206
| nysif.com

CERTIFICATE OF WORKERS' COMPENSATION INSURANCE

^ ^ ^ ^ ^ ^ 166000337
LAWLEY LLC
361 DELAWARE AVE STE 200
BUFFALO NY 14202

SCAN TO VALIDATE
AND SUBSCRIBE

POLICYHOLDER	CERTIFICATE HOLDER
ERIE COUNTY WATER AUTHORITY 295 MAIN STREET, ROOM 350 BUFFALO NY 142032494	NATIONAL GRID 300 ERIE BLVD WEST SYRACUSE NY 13202

POLICY NUMBER	CERTIFICATE NUMBER	POLICY PERIOD	DATE
B2009 327-4	247958	07/01/2021 TO 07/01/2022	12/15/2021

THIS IS TO CERTIFY THAT THE POLICYHOLDER NAMED ABOVE IS INSURED WITH THE NEW YORK STATE INSURANCE FUND UNDER POLICY NO. 2009 327-4, COVERING THE ENTIRE OBLIGATION OF THIS POLICYHOLDER FOR WORKERS' COMPENSATION UNDER THE NEW YORK WORKERS' COMPENSATION LAW WITH RESPECT TO ALL OPERATIONS IN THE STATE OF NEW YORK, EXCEPT AS INDICATED BELOW, AND, WITH RESPECT TO OPERATIONS OUTSIDE OF NEW YORK, TO THE POLICYHOLDER'S REGULAR NEW YORK STATE EMPLOYEES ONLY.

IF YOU WISH TO RECEIVE NOTIFICATIONS REGARDING SAID POLICY, INCLUDING ANY NOTIFICATION OF CANCELLATIONS, OR TO VALIDATE THIS CERTIFICATE, VISIT OUR WEBSITE AT HTTPS://WWW.NYSIF.COM/CERT/CERTVAL.ASP. THE NEW YORK STATE INSURANCE FUND IS NOT LIABLE IN THE EVENT OF FAILURE TO GIVE SUCH NOTIFICATIONS.

THE POLICY INCLUDES A WAIVER OF SUBROGATION ENDORSEMENT UNDER WHICH NYSIF AGREES TO WAIVE ITS RIGHT OF SUBROGATION TO BRING AN ACTION AGAINST THE CERTIFICATE HOLDER TO RECOVER AMOUNTS WE PAID IN WORKERS' COMPENSATION AND/OR MEDICAL BENEFITS TO OR ON BEHALF OF AN EMPLOYEE OF OUR INSURED IN THE EVENT THAT, PRIOR TO THE DATE OF THE ACCIDENT, THE CERTIFICATE HOLDER HAS ENTERED INTO A WRITTEN CONTRACT WITH OUR INSURED THAT REQUIRES THAT SUCH RIGHT OF SUBROGATION BE WAIVED.

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS NOR INSURANCE COVERAGE UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICY.

NEW YORK STATE INSURANCE FUND

DIRECTOR,INSURANCE FUND UNDERWRITING

VALIDATION NUMBER: 431735864

U-26.3

EXHIBIT "B"

Conditions for Proposed Activities within Electric Transmission Line Rights-of-Way

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1. Scope

1.1. This document presents minimum conditions for work within National Grid electric transmission line rights-of-way, whether owned in fee or by easement. Activities that are not fully in conformance with this document may sometimes be allowed provided they are specifically shown on plans or described in specifications or other documents that have been reviewed and accepted by National Grid.

1.2. "Requestor" as used in this document refers to any person, organization, corporation or other entity requesting permission to conduct activities within an electric transmission line right-of-way or anyone acting on the Requestor's behalf.

2. Compliance/Safety

2.1. All activities conducted by the Requestor shall comply with all applicable Federal, state, and local laws, statutes, rules, regulations, and codes. In particular, the requirements of the following statutes, regulations, and safety codes and guidelines, appropriate for the voltage(s) of the electric transmission line(s) within the right-of-way, must be met:

2.1.1. National Electrical Safety Code

2.1.2. In Massachusetts:

2.1.2.1. 220 CMR 125.00, "Installation and Maintenance of Electric Transmission Lines,"

2.1.2.2. MGL Chapter 166 Section 21A "Coming into Close Proximity to High Voltage Lines" except that the required clearance of six feet is insufficient. The minimum clearance allowed by OSHA shall be maintained.

2.1.3. In New York, Part 57 of the New York State Industrial Codes Rules (also known as the "High-Voltage Proximity Act")

(http://www.labor.ny.gov/workerprotection/safetyhealth/sh57.shtm)

2.1.4. All OSHA regulations governing working clearances to electric distribution and transmission lines shall be followed. Although regulations 29 CFR 1926 Subpart CC and 29 CFR 1926.1501 may be specific to equipment that can hoist, lower, and horizontally move a suspended load, all equipment operating within a right-of-way shall maintain the clearances specified in these regulations, including but not limited to cranes, backhoes, excavators, forklifts, pile drivers, and drill-rigs.

2.1.4.1. In accordance with 1926.1408, if the Requestor asks to encroach upon the 20 foot clearance requirement and requests voltages of electric lines near the proposed work or activity, the Requestor shall provide an aerial photograph or detailed survey plan delineating the area of work or activity in proximity to electric lines and structures. Requests may be emailed to TransmissionEngineering@NationalGrid.com or mailed to National Grid c/o Transmission Engineering, 40 Sylvan Road, Waltham, MA 02451.

2.2. The Requestor shall not place or store any items within the right-of-way including, but not limited to vehicles, construction materials, equipment, or debris, excavated soil, trailers, or storage containers.

2.3. The Requestor shall not unload or load vehicles or equipment within the right-of-way.

2.4. The Requestor shall adequately ground vehicles, equipment, fences and gates, at all times and in accordance with applicable Federal, state, and local laws, statutes, rules, regulations, and design codes, including, but not limited to, those listed in paragraph A above and IEEE Standard 80.

3. Protection of Electric Transmission Line Facilities

3.1. The Requestor shall, at all times, protect electric transmission line facilities from damage. In addition to compliance with safety codes as described in Section 2, protection of transmission facilities shall, as a minimum, include the following:

3.1.1. The Requestor shall operate equipment and vehicles at least 50 feet horizontally away from any electric transmission line pole, tower, overhead wire, guy wire, or guy anchor.

3.1.2. When making a rough cut during excavation, the Requestor shall disturb no earth within an area bounded by a line drawn 25 feet plus 2.5 times the depth of the cut from the nearest electric transmission line pole, tower leg, guy wire, or guy anchor, but not less than 50 feet. Upon completion of the rough cut, the slopes of the bank shall be graded on a slope no steeper than one vertical to five horizontal and stabilized with vegetation or rip-rap. The top of the slope shall be at least 50 feet from the nearest pole, tower leg, guy wire, or guy anchor. In cases where these criteria cannot be met, the Requestor may, at the discretion of Transmission Engineering, need to engage a qualified Professional Engineer familiar with Transmission work and perform a stability analysis proving stability

of both the proposed excavation and the transmission structure and/or guy anchor.

3.1.3. The Requestor shall not store or use explosives within the right-of-way.

3.1.4. The Requestor shall locate all ground wires buried in areas to be excavated and shall protect them against damage. If a buried ground wire is broken, the Requestor shall prevent anyone from touching it and shall notify National Grid.

4. Access to Right-of-way

4.1. The Requestor shall not at any time block or impede access to or along the right-of-way.

4.2. The Requestor shall not damage roads or trails used to gain access to or along the right-of-way.

4.3. All underground utilities, pipes, conduits, and all proposed bituminous and/or concrete drive surfaces and underground utilities shall be designed to minimally withstand AASHTO *Standard Specifications for Bridges and Highways* HS-25 highway class design criteria for vehicular loading when located within the utility corridor unless otherwise accepted by Transmission Engineering. Certain crossing locations at the discretion of National Grid shall be designed to withstand 100,000 lbs (loaded concrete truck). Details and designs shall be certified by a qualified Professional Engineer.

5. Preservation of Rights and Future Use

5.1. National Grid retains all rights granted in the original right-of-way deed. Specifically, National Grid reserves the right to place future structures or relocate existing structures anywhere within the right-of-way, and reserve the right to control any vegetation within the right-of-way.

5.2. The Requestor shall place no above or below ground structures within the right-of-way, including streetlights, signs, sheds, fences, septic systems, retention or detention ponds or basins, and swimming pools.

5.3. Improvements shall not continuously occupy more than 100 feet along any line drawn longitudinally along the right-of-way.

5.4. Improvements shall not occupy future locations of transmission structures. This includes the bisector of angles in the right-of-way and generally includes areas adjacent to existing structures.

6. Protection of Interests

6.1. National Grid shall not be held liable for any damage to the Requestor's activities within the right-of-way when such damage is the result of construction, maintenance, or operation or other use of existing or future electric transmission line facilities.

6.1.1. For any proposed underground pipe or conduit the Requestor shall provide warning tape in the trench for all and tracer cable for non-metallic pipes or conduits when located within a transmission corridor. Plans provided for review shall identify such warning tape and tracer cable.

6.1.2. All new utilities, pipes, and conduits shall have field markers installed above the asset and shall be located not to impede access or in the way of future development.

6.1.3. Requestor may submit their company standard cut-sheet detailing their marker's dimensions and composition, otherwise use Rhino Tri-View Post Markers with appropriate labelling suitable to the project.

6.2. The Requestor shall pay all costs associated with modifications or repairs made necessary to National Grid's facilities as a result of activities by the Requestor, including the cost of repairs or modifications to buried ground wires. Repairs and/or modifications shall be performed by National Grid. The Requestor shall notify National Grid's Manager of Transmission Line Services when a buried wire is damaged.

6.3. The Requestor shall notify National Grid in writing at least 24 hours before the start of the work. In New York the notification shall also be made in accordance with the requirements of the High Voltage Proximity Act (Section 57.7).

6.4. Electrostatic currents may occur in proximity to electric transmission lines under certain circumstances. Although people may experience annoying shocks due to these currents when touching conductive objects, National Grid is not able to eliminate the currents. The steady-state current due to these electrostatic effects is within the limits established by the National Electrical Safety Code.

7. Pipelines

7.1. Pipelines proposed along or across electric transmission line rights-of-way for any length shall comply with the requirements of Appendix C

8. Deliverables

8.1. Full-sized paper copies of plans prepared to an appropriate scale shall be provided by the Requestor. Plans shall be certified by an appropriate professional licensed in the state in which the project is located. Digital signatures of a licensed professional will not be accepted. If plans are acceptable and an agreement can be achieved, the Requestor shall provide final plans in both paper and pdf versions.

8.2. Upon completion of any development located within a transmission corridor, Requestor shall provide upon request by Transmission Engineering, a certified As-Built Plan. Plan shall be certified by a qualified licensed professional.

9. Measuring and Reporting Wire Heights

9.1. The methodology described in Appendix A shall be followed when determining the heights of wires

9.2. The clearances between personnel and equipment and energized conductors described in Section 2 shall be met at all times. Measurements shall be taken using remote measuring techniques only. Wire height measurements shall be displayed on a drawing as shown on the template in Appendix B. In most cases, this data will be required to be certified by a licensed Land Surveyor.

Appendix A

Procedure for Determining Wire Heights

- Elevations of conductors (wires) should be taken* at the point of attachments at bottom insulator on transmission structure.
- Elevations should be taken* at mid-span and quarter-span.
- Elevations should be taken* at any obvious low points (other than mid-point) which may occur due to grade changes below.
- Elevations should be taken directly above any proposed improvements or areas of proposed activity(s) as applicable.
- Existing grade elevations corresponding to aerial shots cited above should also be recorded. Any proposed finish grades different from existing grades, should also be recorded.
- As measurements are recorded, the following information must be recorded: date, time, ambient air temperature, wind direction and velocity, and weather conditions (e.g.: sunny, rain, snow, etc).

* WARNING Conductors are electrically energized and are to be considered dangerous to approach. All measurements to conductors shall be made by remote measurement techniques which shall in no case cause measuring devices or personnel to come within safety parameters established by OSHA 1926.550 or New York State's High Voltage Proximity Act.

c = clearance from grade

H = measured horizontal offset distance (perpendicular to conductor at point of crossing)

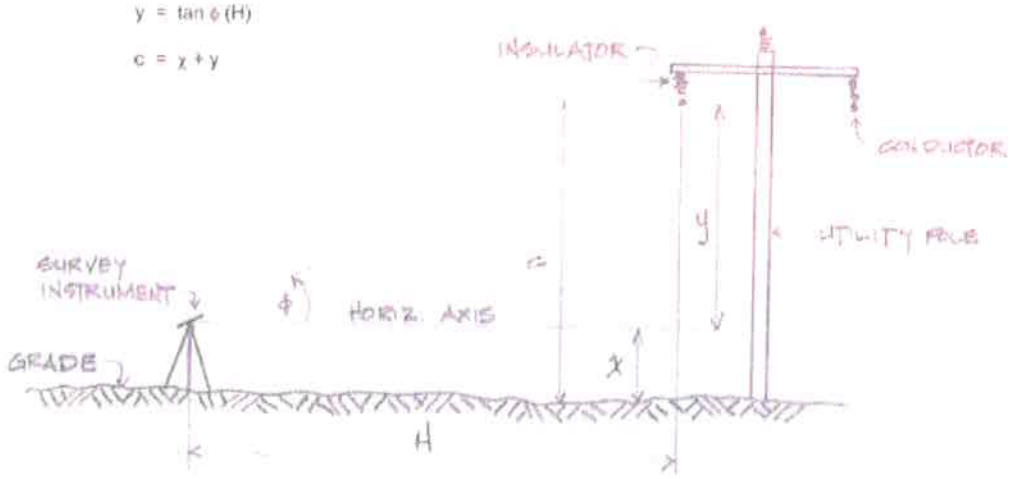
χ = measured vertical distance from horizontal axis of instrument eye piece to grade at a point

ϕ = measured vertical angle from horizontal axis of instrument eye piece to conductor

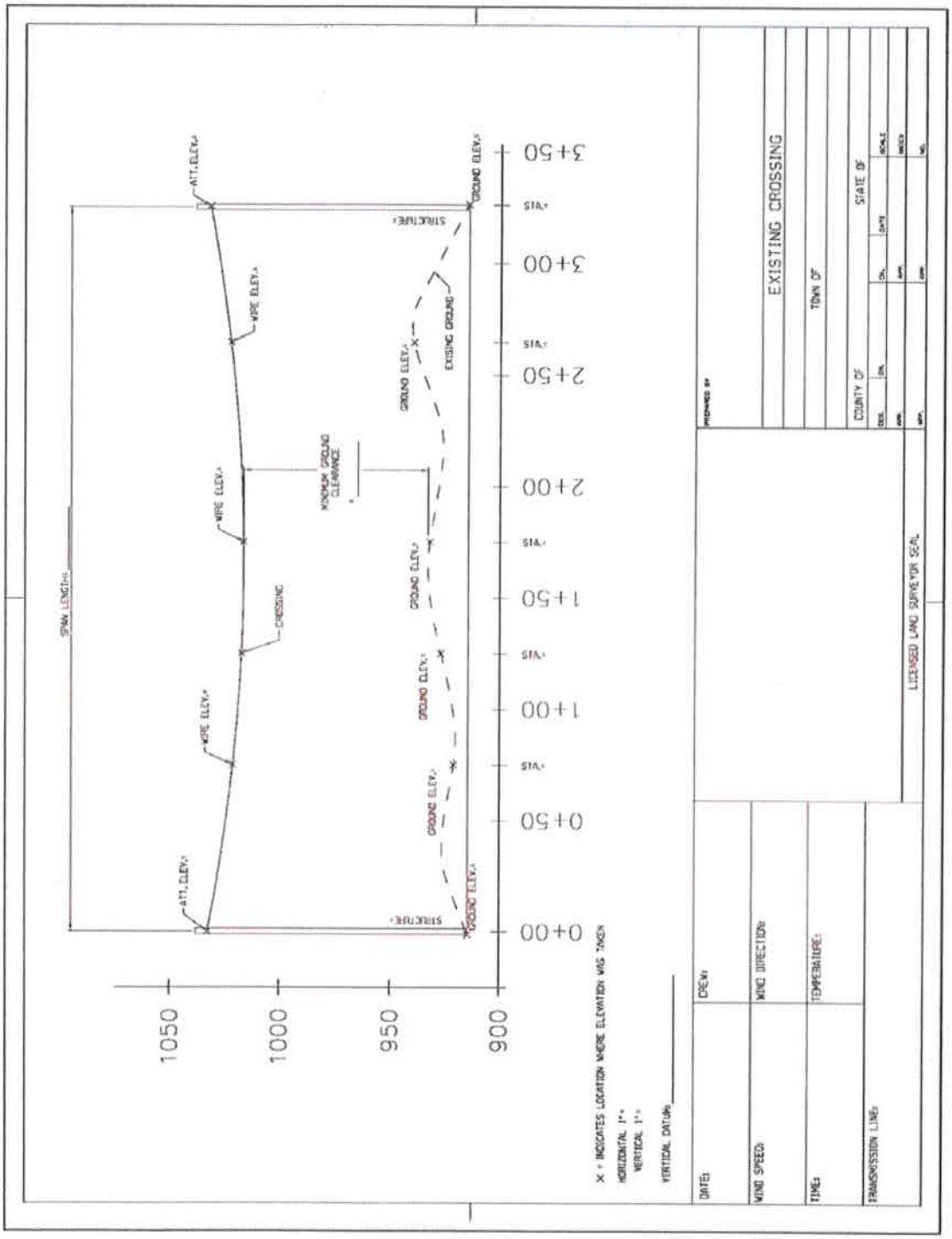
y = calculated vertical distance from horizontal axis to conductor

$y = \tan \phi \, (H)$

$c = \chi + y$



Appendix B


EXISTING CROSSING
TOWN OF
COUNTY OF
STATE OF
LICENSED LAND SURVEYOR SEAL
3+50
3+00
2+50
2+00
1+50
1+00
0+50
0+00
1050
1000
950
900
ATT. ELEV.
STRUCTURE
WIRE ELEV.
CROSSING
SPAN LENGTH
MINIMUM GROUND CLEARANCE
GROUND ELEV.
EXISTING GROUND
X = INDICATES LOCATION WHERE ELEVATION WAS TAKEN
HORIZONTAL 1" =
VERTICAL 1" =
VERTICAL DATUM:
DATE:
CREW:
WIND SPEED:
WIND DIRECTION:
TIME:
TEMPERATURE:
TRANSMISSION LINE:

Appendix C – Pipelines within Electric Transmission Line Rights-of-Way

This appendix provides guidelines for the safe, reliable and efficient occupation of electric transmission line rights-of-way by pipelines where those occupations are appropriate.

1. Pipeline Design

1.1. The centerline of pipelines occupying the right-of-way longitudinally shall be no more than 5 feet from the nominal edge of electric transmission line rights-of-way.

1.2. The centerline of pipelines for perpendicular crossings of National Grid rights-of-way shall at no time be closer than 50 feet to a National Grid transmission facility including, but not limited to, a structure, pole or guy. Perpendicular crossings at mid span locations should be avoided.

1.3. Hardcopy full scale prints and digital (pdf and dwg) plan drawings, profile drawings and wire height surveys (see Section 9) shall be prepared and submitted to National Grid as described below.

a) Surveys of the heights of wires shall be conducted and prepared in accordance with Appendices A and B and certified by a Licensed Land Surveyor.

b) The pipeline project information listed in Appendix D shall be submitted with the drawings as a separate document.

c) Plan View Drawings

a. Plan view drawings at a scale at least as detailed as 1"=50' shall be submitted.

b. Plan view drawings shall include all information necessary for review by National Grid. This includes, but is not limited to, the following information:

i. Edges of the electric transmission line right-of-way

ii. Existing and proposed grades

iii. Centerline of pipeline

iv. Locations of laterals, valves, blow-offs, compressor stations and all other ancillary facilities within and adjacent to the right-of-way

v. Pipeline material, size and pressure rating

vi. Pipeline stationing

vii. Construction methodologies (e.g. trench, horizontal directional drill)

viii. Locations of access routes/roads

ix. AC mitigation and cathodic protection devices

x. Locations of construction work areas and maintenance work areas (differentiate between temporary and permanent)

xi. Locations of electric wires, structures and guy wires

xii. Locations of other utilities, facilities and structures (including fences, gates, encroachments, and stone walls) within the electric transmission line right-of-way

xiii. Locations of state and Federal wetlands

xiv. Locations of hazardous waste sites

d) Profile Drawings

a. Profile drawings at a horizontal scale at least as detailed as 1"=50' and with a ratio of horizontal scale to vertical scale of 5 to 1 (e.g. 1"=50' horizontal and 1" = 10' vertical).

b. Profile drawings shall include all information necessary for review by National Grid. This includes, but is not limited to, the following information:

i. Existing ground profile

ii. Proposed ground profile

iii. Locations of utilities that are within 100 feet horizontally of the pipeline

iv. Heights of electric wires where they are within 30 feet horizontally of the pipeline

v. pipeline

vi. pipeline stationing

e) Pipeline supporting detail drawings shall be prepared and submitted for review including, but not limited to trench cross-sections, marker post details, AC mitigation and cathodic protection devices, and access road cross-sections.

f) At a minimum marker post shall be installed over the pipeline at entry and exit points of the right-of-way, angle points, directly under or over other utilities, and hill crests.

g) All pipeline crossing and longitudinal occupancies shall have a minimum of 42 inches of cover and meet AASHTO HS-25 load rating.

2. Effects due to Electric Transmission Lines

2.1. Pipelines shall be planned, designed, and installed to avoid safety hazards to people and adverse effects on the pipeline due to the electric transmission line(s) and on the electric transmission line(s) due to the pipeline.

2.2. Unless otherwise provided in this guideline, all aspects of the pipeline and its construction and operation shall comply with the latest edition of NACE Standard SP0177 "Mitigation of Alternating Current and Lightning Effects on Metallic Structures and Corrosion Control Systems" ("NACE Standard"). This includes measures that are suggested, recommended, or offered for consideration by the NACE Standard.

2.3. The maximum allowable current to which a person may be subjected shall be 4.5 mA (even though the NACE Standard allows 10 mA).

2.4. Impacts on pipelines due to the following steady state and fault condition effects of electric transmission lines shall be assessed in an interference study performed by a

qualified professional engineer: power arcing, lightning arcing, resistance coupling, capacitor coupling and induction coupling.

2.5. Mitigation shall be provided for hazards to the safety of people and for adverse effects on the pipeline. As a minimum the mitigation objectives in section 4.1.4 of the NACE Standard shall be met. Where mitigation is based on physical separation between a pipeline and electric transmission structures, foundations, guy anchors or other components, the minimum separation distances shall be multiplied by a factor of safety of at least 2.5.

Appendix D – Pipeline Project Information

- Date
- Project Name
- Pipeline/Project Number/Designation (if any)
- Estimated Construction Start Date
- Estimated Construction Completion Date
- Person Submitting this Information
  - Name
  - Address
  - Phone
  - Email
- Project Description
- Pipeline Information
  - Pipeline Owner
  - Medium to be Transported by Pipeline
  - Pipe Material
  - Operating Pressure of Pipeline (psig)
  - Rated Pipeline Pressure (psig)
  - Outside Diameter of Pipeline (in)
  - Original In-Service Date of Pipeline (for existing pipelines)
  - Date of Most Recent Pipeline Inspection (for existing pipelines)
  - Overview of Corrosion Protection Measures/Systems