

**RESOLUTION AUTHORIZING THE AWARD OF THE
2019 COLLECTION SYSTEM IMPROVEMENTS PROJECT**

MOTIONED BY: Soares

SECONDED BY: Velezquez

WHEREAS, the North Hudson Sewerage Authority (hereinafter "Authority") is a public body, duly formed under the Sewerage Authorities law, constituting Chapter 138 of the Laws of New Jersey of 1946, as amended (Chapter 14A of Title 40 of the New Jersey Statutes Annotated) and possesses the powers set forth therein; and

WHEREAS, the Authority has the need to make repairs to miscellaneous combined sewers and appurtenances on a regular basis in the collection systems of the four municipalities that it services; and

WHEREAS, pursuant to a solicitation of bids for the construction of the 2019 Collection System Improvements Project, three (3) bids were received with the lowest responsible bid from National Water Main, Kearny, New Jersey, in the amount of \$709,405.00 as compared to the Engineer's Estimate of \$750,000.00; and

WHEREAS, the Facilities Review Board has reviewed the bids and recommends award of the contract to National Water Main, Kearny, New Jersey, in the amount of \$709,405.00.

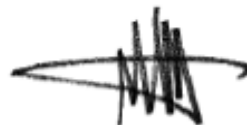
NOW, THEREFORE, BE IT RESOLVED that the Authority approves the award of a contract for the construction of the 2019 Collection System Improvements Project to National Water Main, Kearny, New Jersey, in the amount of \$709,405.00

DATED: AUGUST 20, 2020

RECORD OF COMMISSIONERS' VOTE

	YES	NO	ABSENT
Commissioner Soares	x		
Commissioner Kappock	x		
Commissioner Marotta	x		
Commissioner Gardiner	x		
Commissioner Friedrich	x		
Commissioner Sanchez	x		
Commissioner Velazquez	x		
Commissioner Roque			x
Commissioner White	x		

**THIS IS TO CERTIFY THAT THIS RESOLUTION WAS DULY ADOPTED BY THE
NORTH HUDSON BOARD OF COMMISSIONERS ON AUGUST 20, 2020.**



SECRETARY

August 10, 2020

Ms. Belissa Vega
Executive Director
North Hudson Sewerage Authority
1600 Adams Street
Hoboken, New Jersey 07030

**RE: 2019 Collection System Improvements
Bid Analysis Quantity Review and Engineers Estimate**

Dear Ms. Vega:

Michael Baker International, Inc. (Michael Baker) attended the bid opening for the 2019 Collection System Improvements on August 4, 2020 and completed our review and analysis of the three bids received (En-Tech Corporation, National Water Main, and North American Pipeline). Michael Baker compared the bids by evaluating the completeness of application in accordance with the bid checklist. It was determined that each bid package included all required items listed on the checklist. Following review for completeness of the bids, the quantities and estimates were reviewed against the contract plans and documents.

The Engineer’s Estimate (EE) was developed by Mott MacDonald based on industry standards and professional experience. Where historical information was not available for non-standard items and/or lump sum costs, pricing was developed based on similar type items, discussions with manufacturers, and similar project history.

Each bidders’ information was compared to the Engineer’s Estimate for reference. National Water Main is the low bidder for the project and following review of their quantities and cost, their overall bid appears to be reasonably balanced. A summary of the bids is in Table 1.

Bidder Name	Amount	Difference from Engineer’s Estimate	
		Cost	Percentage
Engineer’s Estimate	\$750,000.00		
En-Tech Corporation	\$720,670.00	(\$23,330.00)	-3.91%
National Water Main	\$709,405.00	(\$40,595.00)	-5.41%
North American Pipeline	\$1,229,240.00	\$479,240.00	63.90%

Table 1: 2019 Collection System Improvements Bid Amounts Received

The project consisted of a total of 31 pay items. Exhibit A includes the Engineer’s Estimate and a comparison of the unit prices between the Engineer’s Estimate and all three bids.

The lowest bid was approximately 5.41% below the Engineer’s Estimate. The highest bid was 63.90% above the Engineers Estimate and 70.57% above the lowest bidder. As such, we find that the total bid price from the low bidder is in accordance with a competitive bid process.

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The lowest bid was approximately 5.41% below the Engineer's Estimate. The highest bid was 63.90% above the Engineers Estimate and 70.57% above the lowest bidder. As such, we find that the total bid price from the low bidder is in accordance with a competitive bid process.

The greatest deviation between the Engineer's Estimate and the lowest bid (National Water Main) were for the following Items:

- Item No 1, MOBIIIZATION (\$50,000.00 lesser than Engineer's Estimate)
- Item No 2l, CIPP TOP HATS FOR 4" ID LATERALS (\$47,500.00 higher than Engineer's Estimate)
- Item No 2m, CIPP TOP HATS FOR 6" ID LATERALS (\$47,500.00 higher than Engineer's Estimate)
- Item No 3a, EPOXY LINING AND GENERAL REHABILITATION OF MANHOLES (\$44,700.00 higher than Engineer's Estimate)
- Item No 5b, OPEN CUT REPLACEMENT AND INSTALLATION OF SEWER WITH 15-INCH PVC PIPE (\$60,000.00 lesser than Engineer's Estimate)

The greatest deviation between the Engineer's Estimate and the highest bid (North American Pipeline) were for the following Items:

- Item No 1, MOBIIIZATION (\$68,150.00 lesser than Engineer's Estimate)
- Item No 2f, LINING 15-INCH PIPES (\$67,830.00 higher than Engineer's Estimate)
- Item No 2l, CIPP TOP HATS FOR 4" ID LATERALS (\$64,075.00 higher than Engineer's Estimate)
- Item No 2m, CIPP TOP HATS FOR 6" ID LATERALS (\$64,075.00 higher than Engineer's Estimate)
- Item No 3a, EPOXY LINING AND GENERAL REHABILITATION OF MANHOLES (\$107,000.00 higher than Engineer's Estimate)
- Item No 5b, OPEN CUT REPLACEMENT AND INSTALLATION OF SEWER WITH 15-INCH PVC PIPE (\$140,000.00 higher than Engineer's Estimate)

Based on our evaluation of the bid packages received, it is our opinion that National Water Main is the lowest responsible bidder. The MOBILIZATION and OPEN CUT REPLACEMENT AND INSTALLATION OF SEWER WITH 15-INCH PVC PIPE costs may be attributable to National Water Main's means and methods, and therefore not deemed unreasonable. Michael Baker recommends awarding the 2019 Collection System Improvements Contract in the amount of \$709,405.00 to National Water Main.

Should you have any questions or need any additional information, please call me at (609) 807-9527 or Lori Wade, P.E. at (609) 807-9538 at your convenience.

Sincerely,

MICHAEL BAKER INTERNATIONAL, INC.



William McBride Jr., P.E.

Project Manager

Attachment: Exhibit A: Bid Analysis spreadsheet

Exhibit A: Bid Analysis Quantity Review

Item No.	Item Description	Unit	Contract Qty	En-Tech Unit Price	En-Tech Total Cost	National Water Main Unit Price	National Water Main Total Cost	North American Pipeline Unit Price	North American Pipeline Total Cost	Average of Bidders
1	MOBILIZATION	LS	1.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 6,850.00	\$ 6,850.00	\$ 18,950.00
2a	CLEANING AND PRE-INSPECTION 8-INCH & 10-INCH PIPES	LF	200.00	\$ 11.00	\$ 2,200.00	\$ 9.25	\$ 1,850.00	\$ 9.00	\$ 1,800.00	\$ 1,950.00
2b	LINING 8-INCH AND 10-INCH PIPES	LF	200.00	\$ 45.00	\$ 9,000.00	\$ 41.30	\$ 8,260.00	\$ 97.00	\$ 19,400.00	\$ 12,220.00
2c	CLEANING AND PRE-INSPECTION 12-INCH PIPES	LF	1,210.00	\$ 8.50	\$ 10,285.00	\$ 9.25	\$ 11,192.50	\$ 6.00	\$ 7,260.00	\$ 9,579.17
2d	LINING 12-INCH PIPES	LF	1,210.00	\$ 53.50	\$ 64,735.00	\$ 61.25	\$ 74,112.50	\$ 75.00	\$ 90,750.00	\$ 76,532.50
2e	CLEANING AND PRE-INSPECTION 15-INCH PIPES	LF	1,420.00	\$ 9.25	\$ 13,135.00	\$ 9.25	\$ 13,135.00	\$ 8.00	\$ 11,360.00	\$ 12,543.33
2f	LINING 15-INCH PIPES	LF	1,330.00	\$ 55.00	\$ 73,150.00	\$ 70.30	\$ 93,499.00	\$ 106.00	\$ 140,980.00	\$ 102,543.00
2g	CLEANING AND PRE-INSPECTION 18-INCH PIPES	LF	180.00	\$ 23.00	\$ 4,140.00	\$ 9.25	\$ 1,665.00	\$ 10.00	\$ 1,800.00	\$ 2,535.00
2h	LINING 18-INCH PIPES	LF	180.00	\$ 90.00	\$ 16,200.00	\$ 92.45	\$ 16,641.00	\$ 153.00	\$ 27,540.00	\$ 20,127.00
2i	DISPOSAL OF MATERIAL REMOVED FROM CLEANING	T	50.00	\$ 75.00	\$ 3,750.00	\$ 100.00	\$ 5,000.00	\$ 103.00	\$ 5,150.00	\$ 4,633.33
2j	CUTTING OUT PROTRUDING LATERALS (IF AND WHERE DIRECTED)	EA	50.00	\$ 50.00	\$ 2,500.00	\$ 1.00	\$ 50.00	\$ 200.00	\$ 10,000.00	\$ 4,183.33
2k	GROUTING OF JOINTS, LATERALS AND MISCELLANEOUS PORTIONS OF COMBINED SEWER (IF AND WHERE DIRECTED)	GAL	1,000.00	\$ 1.00	\$ 1,000.00	\$ 1.00	\$ 1,000.00	\$ 52.00	\$ 52,000.00	\$ 18,000.00
2l	CIPP TOP HATS FOR 4" ID LATERALS (IF AND WHERE DIRECTED)	EA	25.00	\$ 2,585.00	\$ 64,625.00	\$ 2,000.00	\$ 50,000.00	\$ 2,663.00	\$ 66,575.00	\$ 60,400.00
2m	CIPP TOP HATS FOR 6" ID LATERALS (IF AND WHERE DIRECTED)	EA	25.00	\$ 2,585.00	\$ 64,625.00	\$ 2,000.00	\$ 50,000.00	\$ 2,663.00	\$ 66,575.00	\$ 60,400.00
2n	CIPP TOP HATS FOR 8" ID LATERALS (IF AND WHERE DIRECTED)	EA	5.00	\$ 3,025.00	\$ 15,125.00	\$ 3,200.00	\$ 16,000.00	\$ 3,116.00	\$ 15,580.00	\$ 15,568.33
3a	EPOXY LINING AND GENERAL REHABILITATION OF MANHOLES (IF AND WHERE DIRECTED)	VF	100.00	\$ 350.00	\$ 35,000.00	\$ 475.00	\$ 47,500.00	\$ 1,098.00	\$ 109,800.00	\$ 64,100.00
3b	REMOVAL AND REPLACEMENT OF EXISTING MANHOLE WITH NEW 48-INCH ID PRECAST CONCRETE	MH	1.00	\$ 13,200.00	\$ 13,200.00	\$ 12,000.00	\$ 12,000.00	\$ 22,660.00	\$ 22,660.00	\$ 15,953.33
3c	REMOVE AND REPLACE EXISTING MANHOLE FRAME AND COVER (IF AND WHERE DIRECTED)	EA	10.00	\$ 880.00	\$ 8,800.00	\$ 800.00	\$ 8,000.00	\$ 1,545.00	\$ 15,450.00	\$ 10,750.00
4a	ADDITIONAL EXCAVATION INCLUDING ALL NECESSARY SHEETING AND DISPOSAL (IF AND WHERE DIRECTED)	CY	50.00	\$ 33.00	\$ 1,650.00	\$ 30.00	\$ 1,500.00	\$ 52.00	\$ 2,600.00	\$ 1,916.67
4b	FURNISHING AND PLACING SELECT BACKFILL FOR ADDITIONAL EXCAVATIONS (IF AND WHERE DIRECTED)	CY	50.00	\$ 27.50	\$ 1,375.00	\$ 25.00	\$ 1,250.00	\$ 206.00	\$ 10,300.00	\$ 4,308.33
4c	ADDITIONAL PERMANENT PAVEMENT RESTORATION (IF AND WHERE DIRECTED)	SY	100.00	\$ 49.50	\$ 4,950.00	\$ 45.00	\$ 4,500.00	\$ 129.00	\$ 12,900.00	\$ 7,450.00
4d	FURNISHING AND PLACING ADDITIONAL 3/4" STONE (IF AND WHERE DIRECTED)	CY	50.00	\$ 27.50	\$ 1,375.00	\$ 25.00	\$ 1,250.00	\$ 124.00	\$ 6,200.00	\$ 2,941.67
4e	TEST PIT (IF AND WHERE DIRECTED)	CY	50.00	\$ 22.00	\$ 1,100.00	\$ 20.00	\$ 1,000.00	\$ 52.00	\$ 2,600.00	\$ 1,566.67
4f	TRANSPORTATION AND DISPOSAL OF HAZARDOUS MATERIAL (IF AND WHERE DIRECTED)	T	150.00	\$ 55.00	\$ 8,250.00	\$ 50.00	\$ 7,500.00	\$ 88.00	\$ 13,200.00	\$ 9,650.00
5a	OPEN CUT REPLACEMENT AND INSTALLATION OF SEWER WITH 12-INCH PVC PIPE, INCLUDING EXCAVATION, TRENCHING, LAYING, AND BACKFILL	LF	20.00	\$ 550.00	\$ 11,000.00	\$ 500.00	\$ 10,000.00	\$ 1,400.00	\$ 28,000.00	\$ 16,333.33
5b	OPEN CUT REPLACEMENT AND INSTALLATION OF SEWER WITH 15-INCH PVC PIPE, INCLUDING EXCAVATION, TRENCHING, LAYING, AND BACKFILL	LF	200.00	\$ 660.00	\$ 132,000.00	\$ 600.00	\$ 120,000.00	\$ 1,600.00	\$ 320,000.00	\$ 190,666.67
5c	OPEN CUT REPLACEMENT AND INSTALLATION OF SEWER WITH 36-INCH PVC PIPE, INCLUDING EXCAVATION, TRENCHING, LAYING, AND BACKFILL	LF	50.00	\$ 1,100.00	\$ 55,000.00	\$ 1,000.00	\$ 50,000.00	\$ 1,545.00	\$ 77,250.00	\$ 60,750.00
5d	OPEN CUT REPLACEMENT OF ADDITIONAL LENGTH OF SEWER LATERALS INCLUDING ALL NECESSARY EXCAVATION, TRENCHING, LAYING, AND BACKFILL	LF	100.00	\$ 110.00	\$ 11,000.00	\$ 100.00	\$ 10,000.00	\$ 103.00	\$ 10,300.00	\$ 10,433.33
5e	OPEN CUT DEFECTIVE SERVICE CONNECTION TAPS COMPLETE INCLUDING EXCAVATION, SEWER TRENCHING, LAYING, AND BACKFILL	TAP	1.00	\$ 5,500.00	\$ 5,500.00	\$ 5,000.00	\$ 5,000.00	\$ 12,360.00	\$ 12,360.00	\$ 7,620.00
6	ENVIRONMENTAL PROTECTION AND RESTORATION	LS	1.00	\$ 1,000.00	\$ 1,000.00	\$ 2,500.00	\$ 2,500.00	\$ 2,000.00	\$ 2,000.00	\$ 1,833.33
7	ALLOWANCE FOR OFF-DUTY POLICE FOR TRAFFIC CONTROL		1.00	\$ 60,000.00	\$ 60,000.00	\$ 60,000.00	\$ 60,000.00	\$ 60,000.00	\$ 60,000.00	\$ 60,000.00
				En-Tech \$	720,670.00	National Water Main \$	709,405.00	North American Pipeline \$	1,229,240.00	

Diff. ET from EE

-3.91% Diff. NWM from EE

-5.41% Diff. NAP from EE

63.90%

Engineer's Averaged Total Cost	Cost Diff (EnTech- EE)	Cost Diff (National Water - EE)	Cost Diff (North American - EE)
\$ 75,000.00	\$ (50,000.00)	\$ (50,000.00)	\$ (68,150.00)
\$ 15.00	\$ (800.00)	\$ (1,150.00)	\$ (1,200.00)
\$ 50.00	\$ (1,000.00)	\$ (1,740.00)	\$ 9,400.00
\$ 17.00	\$ (10,285.00)	\$ (9,377.50)	\$ (13,310.00)
\$ 52.50	\$ 63,525.00	\$ 1,210.00	\$ 27,225.00
\$ 19.00	\$ 26,980.00	\$ (13,845.00)	\$ (15,620.00)
\$ 55.00	\$ 73,150.00	\$ -	\$ 67,830.00
\$ 21.00	\$ 3,780.00	\$ 360.00	\$ (1,980.00)
\$ 60.00	\$ 10,800.00	\$ 5,400.00	\$ 16,740.00
\$ 100.00	\$ 5,000.00	\$ (1,250.00)	\$ 150.00
\$ 150.00	\$ 7,500.00	\$ (5,000.00)	\$ 2,500.00
\$ 25.00	\$ 25,000.00	\$ (24,000.00)	\$ 27,000.00
\$ 100.00	\$ 2,500.00	\$ 62,125.00	\$ 64,075.00
\$ 100.00	\$ 2,500.00	\$ 62,125.00	\$ 64,075.00
\$ 150.00	\$ 750.00	\$ 14,375.00	\$ 14,830.00
\$ 28.00	\$ 2,800.00	\$ 32,200.00	\$ 107,000.00
\$ 10,000.00	\$ 10,000.00	\$ 3,200.00	\$ 12,660.00
\$ 3,500.00	\$ 35,000.00	\$ (26,200.00)	\$ (19,550.00)
\$ 75.00	\$ 3,750.00	\$ (2,100.00)	\$ (1,150.00)
\$ 100.00	\$ 5,000.00	\$ (3,625.00)	\$ 5,300.00
\$ 50.00	\$ 5,000.00	\$ (50.00)	\$ 7,900.00
\$ 15.00	\$ 750.00	\$ 625.00	\$ 5,450.00
\$ 150.00	\$ 7,500.00	\$ (6,400.00)	\$ (4,900.00)
\$ 125.00	\$ 18,750.00	\$ (10,500.00)	\$ (5,550.00)
\$ 800.00	\$ 16,000.00	\$ (5,000.00)	\$ 12,000.00
\$ 900.00	\$ 180,000.00	\$ (48,000.00)	\$ 140,000.00
\$ 1,300.00	\$ 65,000.00	\$ (10,000.00)	\$ 12,250.00
\$ 100.00	\$ 10,000.00	\$ 1,000.00	\$ 300.00
\$ 125.00	\$ 125.00	\$ 5,375.00	\$ 12,235.00
\$ 1,500.00	\$ 1,500.00	\$ (500.00)	\$ 500.00
\$ 60,000.00	\$ 60,000.00	\$ -	\$ -
Engineer's \$	750,000.00	(29,330.00)	(40,595.00)
			479,240.00

*averaged costs (estimated)