

**PUBLIC WORKS DEPARTMENT MEMORANDUM  
#43-2020**

**DATE:** December 21, 2020  
**TO:** Honorable Mayor Meredith Leighty and City Council Members  
**THROUGH:** Heather Geyer, City Manager *hmg*  
**FROM:** Kent Kisselman, PE – Director of Public Works *CHK*  
**SUBJECT:** CR-188 – Force Main A Replacement Project Guaranteed Maximum Price

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**PURPOSE**

To consider CR-188, a resolution to approve Amendment No. 1 to the contract with BT Construction, Inc. for the construction of the Force Main A Replacement Project. The amendment will accept the Guaranteed Maximum Price (GMP) for the project.

**BACKGROUND**

Force Main A conveys sewage from Lift Station A to the Wastewater Treatment Plant. The force main has been identified for replacement due to previous breaks and maintenance issues. Northglenn has already entered into contracts with an engineering consultant to design the proposed replacement, and these plans are 95% complete.

Northglenn has also signed a pre-construction services contract with BT Construction to provide Construction Manager at Risk services for the force main replacement, which allows for the development of this GMP request. This amendment will add the GMP to the BT Construction contract, and allow the work to begin.

**STAFF RECOMMENDATION**

Staff requests a 2.5% owner's contingency, based on cost of work only, to be added to the project. Attached to this memorandum is CR-188, a resolution that, if approved, would authorize the Mayor to execute Amendment No. 1 to the contract between the City and BT Construction, Inc. for the Force Main A Replacement Project in an amount not to exceed \$14,011,886 and authorizes the City Manager, on behalf of the City, to approve changes in scope of services and execute relevant change orders up to the approved expenditure limit of \$14,276,761. Staff recommends approval of CR-188.

**BUDGET/TIME IMPLICATIONS**

This project is part of the Lift Station A and Force Main Project, which has a budget placeholder of \$27 million of future bond sales. The entire project is summarized in the table below. The Force Main A Project portion is shown in bold and other specific projects listed will have their own resolutions.

<b>DESCRIPTION</b>	<b>CONTRACT NUMBER</b>	<b>AMOUNT</b>
Lift Station A GMP including contractor's contingency and fee ( <i>J.R. Filanc Construction Company</i> )	2020-061A	\$9,944,664
Lift Station A owner's contingency*	2020-061A	\$215,178

<b>Force Main A GMP including contractor's contingency and fee (BT Construction)</b>	<b>2020-062A</b>	<b>\$14,011,886</b>
<b>Force Main A owner's contingency*</b>	<b>2020-062A</b>	<b>\$264,875</b>
WWTP odor mitigation engineer's estimate	TBD	\$2,200,000
<b>FINAL BONDING AMOUNT</b>		<b>\$26,636,603</b>

\* 2.5% owner's contingency is based on the construction cost of work only

Construction on the Force Main A Replacement Project is anticipated to begin this spring and last approximately 12 months.

**STAFF REFERENCE**

If Council members have any questions they may contact Director of Public Works Kent Kisselman at 303.450.4005 or [kkisselman@northglenn.org](mailto:kkisselman@northglenn.org).

**ATTACHMENT**

1. Public Works Department Memorandum #24-2020

CR-188 – Lift Station A Replacement Project Guaranteed Maximum Price  
Amendment No. 1 to the Force Main A Replacement Project contract

**ATTACHMENT 1**

**PUBLIC WORKS DEPARTMENT MEMORANDUM  
#24-2020**

**DATE:** July 13, 2020  
**TO:** Honorable Mayor Meredith Leighty and City Council Members  
**THROUGH:** Heather Geyer, City Manager *Hmg*  
**FROM:** Kent Kisselman, PE – Director of Public Works *FKK*  
**SUBJECT:** CR-104 – Force Main A Replacement Project

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**PURPOSE**

City Council is considering CR-104, a resolution to approve a preconstruction contract for the Force Main A Replacement project which will utilize the Construction Manager at Risk (CMAR) contract delivery method.

**BACKGROUND**

The Lift Station A and Force Main Improvements project is being divided into two CMAR contracts due to the complexity of work and the specialty construction required. The Public Works Engineering Division is seeking approval of these contracts, selected through RFP 2019-035, to provide preconstruction services for the Lift Station A and Force Main Replacement Project. These contracts will provide for the selected CMAR contractors to collaborate with the design engineer (Providence Infrastructure Consultants, working under a separate contract), to provide a Guaranteed Maximum Price (GMP) for the two parts of the project. The GMP will then be added to each respective contract via a future amendment to fund the construction work.

The Lift Station A and Force Main Replacement project is being divided as follows:

- J.R. Filanc Construction Company, Inc. is providing services for the preconstruction work related to the replacement of Lift Station A. The preconstruction cost for this contract is \$34,935.00, as considered through CR-103.
- BT Construction, Inc. is providing services for the preconstruction work related to the replacement of Force Main A. The preconstruction cost for this contract is \$39,240.00, as considered through CR-104.

**STAFF RECOMMENDATION**

Attached to this memorandum is CR-104, a resolution that, if approved, would authorize the Mayor to execute a contract between the City of Northglenn and BT Construction, Inc. for the Force Main A Replacement project in an amount not to exceed \$39,240.00. Staff recommends approval of CR-104.

**BUDGET/TIME IMPLICATIONS**

As part of the RFP for this project, the selected CMAR contractors provided a non-binding cost opinion based on the 30% design drawings. These costs are shown in the table below. It is important to note that this preliminary number can and will change as the design progresses.

This project will be funded out of the Wastewater Fund through the issuance of Wastewater Revenue Bonds. The following table summarizes how the total project budget may look, based on the 30% non-binding cost opinions.

Lift Station A and Force Main Improvement Project Budget	\$28,000,000.00
Lift Station A Preconstruction Fee - Filanc	(\$34,935.00)
Lift Station A non-binding cost opinion, provided by Filanc	(\$7,082,045.00)
Force Main A Preconstruction Fee - BT Construction	(\$39,240.00)
Force Main A non-binding cost opinion, provided by BT Construction	(\$12,600,759.00)
Estimated Remaining Budget	\$8,243,021.00

Project timeline:

MILESTONE	TARGET DATE
CMAR Agreement(s) Approved	July 2020
60% Design Documents completed	July 2020
95% Design Documents completed	Friday, October 2, 2020
Owner receives Guaranteed Maximum Price Proposal(s)	Friday, November 13, 2020
Owner issues Notice to Proceed for Construction	Thursday, December 31, 2020
Substantial Completion of Construction	April 2022
Final Completion of Construction	May 2022

**STAFF REFERENCE**

If Council members have any comments or questions they may contact Kent Kisselman, Director of Public Works, at 303.450.4005, [kkisselman@northglenn.org](mailto:kkisselman@northglenn.org).

SPONSORED BY: MAYOR LEIGHTY

COUNCILMAN'S RESOLUTION

RESOLUTION NO.

No. CR-188  
Series of 2020

\_\_\_\_\_  
Series of 2020

A RESOLUTION APPROVING AMENDMENT NO. 1 TO THE CONTRACT BETWEEN THE CITY OF NORTHGLENN AND BT CONSTRUCTION, INC. FOR THE FORCE MAIN A REPLACEMENT PROJECT

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF NORTHGLENN, COLORADO, THAT:

Section 1. Amendment No. 1 to the contract between the City of Northglenn and BT Construction, Inc., attached hereto, in the amount of \$14,011,886.00, with an owner's contingency of \$264,875.00, for a total amount not to exceed \$14,276,761.00 for construction of the Force Main A Replacement Project is hereby approved and the Mayor is authorized to execute same on behalf of the City of Northglenn.

DATED, at Northglenn, Colorado, this \_\_\_\_\_ day of \_\_\_\_\_, 2020.

\_\_\_\_\_  
MEREDITH LEIGHTY  
Mayor

ATTEST:

\_\_\_\_\_  
JOHANNA SMALL, CMC  
City Clerk

APPROVED AS TO FORM:

\_\_\_\_\_  
COREY Y. HOFFMANN  
City Attorney

CONTRACT AMENDMENT NO. 1  
Guaranteed Maximum Price Proposal  
Force Main A – Project 2019-035

The Contract Amendment No. 1 (Amendment) is made and entered into on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between the City of Northglenn (hereafter referred to as the OWNER) and BT Construction, Inc. (hereafter referred to as the CONSTRUCTION MANAGER). This is an Amendment to the original contract between the same entities date the 13th day of July, 2020. All provisions of the original contract are included by reference as part of the Amendment. The paragraphs below are the adjustments, revisions or updates to the original Contract.

*ARTICLE 6. CONTRACT PRICE*

The following Sections of Article 6 of the original contract are amended to read as follows:

**6.6** The guaranteed Maximum Price (“GMP”). (Amended Sections)

**6.6.1 GMP** Established after Execution of the Original Contract.

**6.6.1.1.4** In this section amend the Cost Contingency amount to be 15% of the Cost of the Work.

**6.6.1.3 Acceptance of GMO Proposal.** If the Owner accepts the GMP Proposal, as may be amended by Construction Manager, in writing on or before the GMP Proposal Deadline, the GMP and its basis shall be set forth in an amendment to this Contract.

The GMP proposal accepted by the Owner for this project is for the amount of fourteen million eleven thousand eight hundred eighty-six dollars (\$14,011,886). A summary of the GMP proposal, including Cover Letter, Table of contents and the Contract Price Summary is included as Exhibit 1A and the supporting documents of the entire GMP proposal by OWNER, dated November 20, 2020 become part of the Contract Documents are included to this Amendment by reference. (The Cover Sheet and Table of Contents for the drawings and specifications prepared by PROVIDENCE INFRASTRUCTURE CONSULTANTS, dated November 9, 2020 for the project are included in Exhibit 1B) The complete set of drawings and specifications prepared by PROVIDENCE INFRASTRUCTURE CONSULTANTS, dated November 9, 2020, which define the scope of the project and become part of the Contract Documents are hereby included to this Amendment No. 1 by reference.

In executing this Amendment, Owner and Construction Manager each individually represents that it has the necessary financial resources to fulfill its obligations under this Amendment and referenced Contract, and each has the necessary corporate or other approvals to execute this Amendment, and perform the services described.

**CITY OF NORTHGLENN, COLORADO**

By:

Meredith Leighty

Print Name

Mayor

Title

ATTEST:


\_\_\_\_\_  
Johanna Small, CMC Date  
City Clerk

APPROVED AS TO FORM:


\_\_\_\_\_  
Corey Y. Hoffmann Date  
City Attorney

**CONTRACTOR**

By:

  
\_\_\_\_\_  
Josh Livermore  
Print Name

ATTEST:

  
By: \_\_\_\_\_  
Chris Gray  
Print Name  
Vice President 12/10/20  
Title Date

Vice-President 12/10/20  
Title Date



**BT Construction, Inc.**  
9885 Emporia Street  
Henderson, CO 80640  
Phone: 303-469-0199  
Fax: 303-466-8309

November 20, 2020

City of Northglenn  
Attn: Mike Roman  
2350 W 112th Avenue  
Northglenn, CO 80234

RE: Northglenn Forcemain A

Dear Mr. Roman:

BT Construction, Inc. (BTC) is pleased to provide this final pricing to supply all labor, equipment, materials, and supervision necessary to complete the Northglenn Forcemain A project. It has been a great experience working with the City and Providence Infrastructure over the last year to complete design and get this project ready for financing and construction. In the following pages please find our final CMAR pricing documentation and a complete cost report for the project.

Thank you for giving us the opportunity to work with the City of Northglenn. Please do not hesitate to call if you have any questions or need more information.

Sincerely,

*Robert Willis*

Director of Estimating and Business Development



<b>Cost Component</b>	<b>Cost Breakdown</b>
Cost of the Work	\$10,594,999.15
15% Cost of Work Contingency	\$1,589,249.87
Total Cost of Work + Contingency	\$12,184,249.02
CMAR Fee (15%)	\$1,827,637.35
TOTAL GMP	\$14,011,886.38



**LIFT STATION A  
REPLACEMENT PROJECT**

**PROJECT NO. 191001**




**TECHNICAL CONSTRUCTION SPECIFICATIONS  
DIVISION 01 - 48**

**NOVEMBER 2020**

**CDPHE REVIEW SET  
FINAL DESIGN SUBMITTAL**



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	<p><u>GENERAL, CIVIL &amp; PROCESS</u>  Specification Divisions 01, 02, 07, 09, 10, 23, 31, 32, 33, 35, 40, 43, 44, 46</p>
	<p><u>STRUCTURAL</u>  Specification Divisions 03, 05, 06, 31, 40</p>
	<p><u>ELECTRICAL</u>  Specification Divisions 26, 40</p>

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SECTION 01 01 10

TABLE OF CONTENTS FOR TECHNICAL SPECIFICATIONS (DIVS. 01-48)

<b>DIVISION 01</b>	<b>GENERAL REQUIREMENTS</b>
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01 14 01	Method of Procedure (MOP) Requirements
01 14 14	Control of Work
01 31 13	Project Coordination
01 31 19	Project Meetings
01 32 16	CPM Construction Schedule Requirements
01 33 00	Submittals
01 35 53	Site Security
01 42 13	Abbreviations and Acronyms
01 42 19	Reference Standards
01 45 16	Contractor Quality Control
01 45 33	Special Inspections and Testing
01 50 00	Temporary Facilities and Controls
01 55 26	Traffic Control
01 57 13	Temporary Environmental Controls
01 61 00	Common Product Requirements
01 65 00	Delivery, Storage, and Handling
01 74 00	Cleaning
01 75 00	Manufacturer Services
01 75 16	Equipment Testing and Start-Up
01 77 00	Contract Closeout
01 78 23	Operation and Maintenance Data
01 78 39	Record Documents
01 81 10	Snow, Wind, and Seismic Design Criteria
01 93 10	Installation, Operation, and Maintenance Manuals

**DIVISION 02      EXISTING CONDITIONS**

- 02 01 20 Protection of Existing Utilities
- 02 01 30 Connections to Existing Buried Pipelines
- 02 32 19 Subsurface Utility Locating (Potholing)
- 02 41 00 Equipment, Piping, and Materials Demolition

**DIVISION 03      CONCRETE**

- 03 01 30 Concrete Repair
- 03 05 10 Leakage Testing of Containment Structures
- 03 10 00 Concrete Formwork
- 03 15 00 Concrete Joints and Accessories
- 03 21 00 Reinforcement Bars
- 03 30 00 Cast-in-Place Concrete
- 03 35 00 Concrete Finishes
- 03 40 00 Precast Concrete
- 03 42 10 Precast Circular Concrete Manholes
- 03 42 20 Precast Reinforced Concrete Vaults
- 03 60 00 Grout

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- 05 50 00 Miscellaneous Metal
- 05 53 00 Access Hatches

**DIVISION 06      WOOD, PLASTICS, AND COMPOSITES**

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**DIVISION 07 THERMAL AND MOISTURE PROTECTION**

07 92 00 Architectural Caulking and Sealants

**DIVISION 08 OPENINGS (NOT USED)**

**DIVISION 09 FINISHES**

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09 97 06 Polyethylene Encasement (AWWA C105)

09 97 12 Fusion-Bonded Epoxy Coatings and Linings (AWWA C116 and AWWA C213)

09 97 52 Cold-Applied Wax Tape Coating

09 97 78 Ceramic Epoxy Lining for Ductile Iron Pipe

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**DIVISION 23 HEATING, VENTILATING, AND AIR CONDITIONING (HVAC)**

23 00 00 Heating, Ventilating, and Air Conditioning

23 09 00 HVAC Control System

23 31 16 Thermoset Fiberglass-Reinforced Plastic Ducts

23 34 23 HVAC Power Ventilators

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- 26 05 00 Electrical
- 26 05 73 Short-Circuit/Coordination Study/Arc Flash Hazard Analysis
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- 26 24 19 Motor Control Centers
- 26 27 16 Electrical Equipment Enclosure
- 26 29 23 Variable-Frequency Motor Controllers
- 26 42 12 Cathodic Protection

**DIVISIONS 27-30 (NOT USED)**

**DIVISION 31 EARTHWORK**

- 31 10 00 Site Clearing
- 31 23 00 Earthwork
- 31 23 19 Dewatering and Control of Water
- 31 23 23 Gravel and Crushed Rock Base for Structures
- 31 23 43 Trenching, Backfilling, and Compacting
- 31 25 00 Erosion and Sedimentation Control
- 31 41 16 Sheet Piling

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- 33 11 02 Flexible Pipe Couplings and Expansion Joints
- 33 11 04 Wall Pipes, Seep Rings, and Penetrations
- 33 11 12 Ductile Iron Pipe
- 33 11 15 PVC Pipe (3-Inches and Smaller)
- 33 11 17 PVC Pipe (4 to 8 Inches) With Solvent-Welded Joints
- 33 11 20 PVC Pressure Pipe
- 33 12 16 Valves for Water Works
- 33 14 00 Pressure Testing of Piping
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- 40 07 75 Equipment, Piping, Duct, and Valve Identification
- 40 50 00 PCIS - General Requirements
- 40 50 10 PCIS - Loop Descriptions
- 40 50 20 Instrumentation Equipment
- 40 50 40 Programmable Logic Controller System

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**DIVISION 46      WATER AND WASTEWATER EQUIPMENT**

46 24 33    Open Channel Grinders

**DIVISIONS 47-48    (NOT USED)**

**SUPPLEMENTS – REPORTS**

1. Brierley Associates. (August 2020). Geotechnical Engineering Report, Northglenn Lift Station A, Northglenn, Colorado.

END OF SECTION