

Item No. 5:

Plan Sheet 13 OF 17:

- **DELETE - 10"x6" TAPPING SLEEVE AND GATE VALVE ASSEMBLY**
- **INSERT – 12"x6" TAPPING SLEEVE AND GATE VALVE ASSEMBLY**

NOTE: Existing main line on Winter Street is 12" diameter water main.

Questions:

Q1. Sewer & Drain inverts do not appear on the plans. Please provide sewer and drain pipe inverts.

A1. Some inverts are shown at some locations. No additional inverts will be provided. The intent is to lay the pipe in the same location under or over existing pipes.

Q2. Specs state that excavations should be backfilled and paved each day. Will the use of steel plates be permitted over sideline and temporary service connections?

A2. All trenches shall be paved every day. Plates will not be allowed in traveled ways for vehicles including the roadway, driveway entrances or parking lots.

Q3. Were any borings performed on the project route and could they be provided to the bidders?

A3. Boring information is included in this addendum under Section 00220.

Q4. Measurement & payment item 5B refers to a proposed water main on Franklin Street. Can you clarify where this work is shown on the contract plans or whether it is a typo?

A4. The correct name is addressed on page 1 of the addendum.

Q5. The contract plans include a 10" x 6" and 8" x 6" TSGV's to be installed and no bid item exists? Can bid items be added for these items?

A5. A revised bid section page has been added to this addendum address the items question.

All other portions of the Contract Documents remain **unchanged**. NOTE: THE GENERAL BID DATE HAS **NOT** CHANGED.

Please be reminded to acknowledge this Addendum on the bid forms.

--- End of Addendum No. 2 ---

SECTION 00220

SUBSURFACE DATA

PART 1 GENERAL

- 1.01 TEST HOLES & LOCATION
- 1.02 INFORMATION NOT GUARANTEED
- 1.03 BORING, GROUNDWATER, AND/PROBE LOGS

PART 1 GENERAL

1.01 TEST HOLES & LOCATION

- A. The Owner has made borings in the project area, the approximate locations are as follows:

- P-8 – Approx. Sta. 41+70, Approx. Off. – 15' R
- P-10 – Approx. Sta. 51+60, Approx. Off. – 0'
- P-12 – Approx. Sta. 61+60, Approx. Off. – 5' L
- P-13 – Approx. Sta. 66+50, Approx. Off. – 5' R
- P-14 – Approx. Sta. 71+50, Approx. Off. – 0'
- P-15 – Approx. Sta. 76+50, Approx. Off. – 0'

- B. The data obtained from these test borings are contained within this section.

1.02 INFORMATION NOT GUARANTEED

- A. Any available data concerning subsurface materials or conditions, which are based upon soundings, test pits or test borings, have been obtained by the retained Engineers for their own use in designing this project. These are not representations or warranties as to the accuracy or completeness thereof by the Owner or the Engineer. The test boring stationing locations which are listed, reference the contract plan stationing baseline presented in plan view on the Contract Documents. The Contractor shall assume all risks in excavating for this project.
- B. Subsurface information is offered in good faith solely for the purpose of placing the Contractor in receipt of all information available to the Owner.

1.03 BORING, GROUNDWATER, PROBE LOGS, AND SOILS REPORT

- A. See attached test boring logs.
- B. See Contract Document plans for approximate project baseline stationing.

END OF SECTION

TEST BORING LOG

SHEET 1

Soil Exploration Corp.
 Geotechnical Drilling
 Groundwater Monitor Well
 148 Pioneer Drive
 Leominster, MA 01453
 978 840-0391

GCG Associates, Inc.
Site: Proposed Water Main
Replacement
Waltham, MA

BORING P-8

PROJECT NO. 16-0710

DATE: July 11, 2016

Ground Elevation:
 Date Started: July 8, 2016
 Date Finished: July 8, 2016
 Driller: TF

Soil Engineer/Geologist:

GROUNDWATER OBSERVATIONS

DATE	DEPTH	CASING	STABILIZATION

Depth Ft.	Casing bl/ft	Sample				Strata	Visual Identification of Soil and / or Rock Sample
		No.	Pen/Rec	Depth	Blows/6"		
1				2'6"-3'6"		10"	Asphalt.
5						7'0"	Dry, fine to coarse sand, fine to coarse gravel, cobbles to auger refusal.
10							Auger refusal at 7'0". No water encountered.
15							
20							
25							
30							
35							
39							

Notes: Hollow Stem Auger Size - 4 1/4"

Cohesionless: 0 - 4 V. Loose, 4 - 10 Loose, 10 -30 M Dense, 30 -50 Dense, 50+ V Dense. Cohesive: 0 -2 V Soft, 2 -4 Soft, 4 -8 M Stiff 8 -15 Stiff, 15 -30 V. Stiff, 30 + Hard.	Trace 0 to 10% Little 10 to 20% Some 20 to 35% And 35% to 50%	ID SIZE (IN) HAMMER WGT (LB) HAMMER FALL (IN)	CASING SAMPLE CORE TYPE	SS 140 lb. 30"
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TEST BORING LOG

SHEET 2

Soil Exploration Corp.
 Geotechnical Drilling
 Groundwater Monitor Well
 148 Pioneer Drive
 Leominster, MA 01453
 978 840-0391

GCG Associates, Inc.
Site: Proposed Water Main
Replacement
Waltham, MA

BORING P-10

PROJECT NO. 16-0710

DATE: July 11, 2016

Ground Elevation:
 Date Started: July 8, 2016
 Date Finished: July 8, 2016
 Driller: TF

Soil Engineer/Geologist:

GROUNDWATER OBSERVATIONS

DATE	DEPTH	CASING	STABILIZATION

Depth Ft.	Casing bl/ft	Sample				Strata	Visual Identification of Soil and / or Rock Sample
		No.	Pen/Rec	Depth	Blows/6"		
1				1'6"-5'0"		11"	Asphalt.
5						5'0"	Fine to coarse sand, fine to coarse gravel.
10				8'0"-10'0"		10'0"	Silty sand and some organics into fine to coarse sand and gravel.
15							
20							
25							
30							
35							
39							

Notes: Hollow Stem Auger Size - 4 1/4"

Cohesionless: 0 - 4 V. Loose, 4 - 10 Loose, 10 -30 M Dense, 30 -50 Dense, 50+ V Dense. Cohesive: 0 -2 V Soft, 2 -4 Soft, 4 -8 M Stiff 8 -15 Stiff, 15 -30 V. Stiff, 30 + Hard.	Trace 0 to 10% Little 10 to 20% Some 20 to 35% And 35% to 50%	CASING ID SIZE (IN) HAMMER WGT (LB) HAMMER FALL (IN)	SAMPLE SS 140 lb. 30"	CORE TYPE
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TEST BORING LOG

SHEET 3

Soil Exploration Corp.
 Geotechnical Drilling
 Groundwater Monitor Well
 148 Pioneer Drive
 Leominster, MA 01453
 978 840-0391

GCG Associates, Inc.
Site: Proposed Water Main
Replacement
Waltham, MA

BORING P-12

PROJECT NO. 16-0710

DATE: July 11, 2016

Ground Elevation:
 Date Started: July 8, 2016
 Date Finished: July 8, 2016
 Driller: TF

Soil Engineer/Geologist:

GROUNDWATER OBSERVATIONS

DATE	DEPTH	CASING	STABILIZATION

Depth Ft.	Casing bl/ft	Sample				Strata	Visual Identification of Soil and / or Rock Sample
		No.	Pen/Rec	Depth	Blows/6"		
1						11"	Asphalt.
5						4'6"	Fine to coarse sand, fine to coarse gravel, cobbles, some inorganic silt.
10						6'6"	Silty sand and fine to coarse gravel.
15							Auger refusal at 6'6".
20							Water encountered at 6'0".
25							
30							
35							
39							

Notes: Hollow Stem Auger Size - 4 1/4"

Cohesionless: 0 - 4 V. Loose, 4 - 10 Loose, 10 -30 M Dense, 30 -50 Dense, 50+ V Dense. Cohesive: 0 -2 V Soft, 2 -4 Soft, 4 -8 M Stiff 8 -15 Stiff, 15 -30 V. Stiff, 30 + Hard.	Trace 0 to 10% Little 10 to 20% Some 20 to 35% And 35% to 50%	CASING ID SIZE (IN) HAMMER WGT (LB) HAMMER FALL (IN)	SAMPLE SS 140 lb. 30"	CORE TYPE
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TEST BORING LOG

SHEET 6

Soil Exploration Corp.
 Geotechnical Drilling
 Groundwater Monitor Well
 148 Pioneer Drive
 Leominster, MA 01453
 978 840-0391

GCG Associates, Inc.
Site: Proposed Water Main

BORING P-13

PROJECT NO. 16-0710

DATE: July 11, 2016

Replacement
Waltham, MA

Ground Elevation:
 Date Started: July 8, 2016
 Date Finished: July 8, 2016
 Driller: TF

GROUNDWATER OBSERVATIONS

DATE	DEPTH	CASING	STABILIZATION

Soil Engineer/Geologist:

Depth Ft.	Casing bl/ft	Sample				Strata	Visual Identification of Soil and / or Rock Sample
		No.	Pen/Rec	Depth	Blows/6"		
1						1'0"	Asphalt.
5						4'0"	Fine to coarse sand, fine to coarse gravel, cobbles and some inorganic silt to 4'0". At 4'0" fine to coarse gravel, fine to coarse sand and cobbles, some inorganic silt.
10							No water encountered.
15							
20							
25							
30							
35							
39							

Notes: Hollow Stem Auger Size - 4 1/4"

Cohesionless: 0 - 4 V. Loose, 4 - 10 Loose, 10 -30 M Dense, 30 -50 Dense, 50+ V Dense.	Trace	0 to 10%						
Cohesive: 0 -2 V Soft, 2 -4 Soft, 4 -8 M Stiff	Little	10 to 20%	ID SIZE (IN)	CASING	SAMPLE	CORE TYPE		
8 -15 Stiff, 15 -30 V. Stiff, 30 + Hard.	Some	20 to 35%	HAMMER WGT (LB)		140 lb.			
	And	35% to 50%	HAMMER FALL (IN)		30"			

TEST BORING LOG

SHEET 4

Soil Exploration Corp.
 Geotechnical Drilling
 Groundwater Monitor Well
 148 Pioneer Drive
 Leominster, MA 01453
 978 840-0391

GCG Associates, Inc.
Site: Proposed Water Main
Replacement
Waltham, MA

BORING P-14

PROJECT NO. 16-0710

DATE: July 11, 2016

Ground Elevation:
 Date Started: July 8, 2016
 Date Finished: July 8, 2016
 Driller: TF

Soil Engineer/Geologist:

GROUNDWATER OBSERVATIONS

DATE	DEPTH	CASING	STABILIZATION

Depth Ft.	Casing bl/ft	Sample				Strata	Visual Identification of Soil and / or Rock Sample
		No.	Pen/Rec	Depth	Blows/6"		
1						11"	Asphalt.
5						5'0"	Fine to coarse sand, fine to coarse gravel, inorganic silt, little cobbles.
10						8'6"	Fine to coarse sand, fine to coarse gravel, cobbles.
15						10'0"	Silty fine sand.
20							Water encountered at 8'0".
25							
30							
35							
39							

Notes: Hollow Stem Auger Size - 4 1/4"

Cohesionless: 0 - 4 V. Loose, 4 - 10 Loose, 10 -30 M Dense, 30 -50 Dense, 50+ V Dense. Cohesive: 0 -2 V Soft, 2 -4 Soft, 4 -8 M Stiff 8 -15 Stiff, 15 -30 V. Stiff, 30 + Hard.	Trace 0 to 10% Little 10 to 20% Some 20 to 35% And 35% to 50%	ID SIZE (IN) HAMMER WGT (LB) HAMMER FALL (IN)	CASING SAMPLE CORE TYPE	SS 140 lb. 30"
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TEST BORING LOG

SHEET 5

Soil Exploration Corp.
 Geotechnical Drilling
 Groundwater Monitor Well
 148 Pioneer Drive
 Leominster, MA 01453
 978 840-0391

GCG Associates, Inc.
Site: Proposed Water Main
Replacement
Waltham, MA

BORING P-15

PROJECT NO. 16-0710

DATE: July 11, 2016

Ground Elevation:
 Date Started: July 8, 2016
 Date Finished: July 8, 2016
 Driller: TF

Soil Engineer/Geologist:

GROUNDWATER OBSERVATIONS

DATE	DEPTH	CASING	STABILIZATION

Depth Ft.	Casing bl/ft	Sample				Strata	Visual Identification of Soil and / or Rock Sample
		No.	Pen/Rec	Depth	Blows/6"		
1						11" 3'6"	Asphalt. Fine to coarse sand, fine gravel, some inorganic silt. Boring stopped at 3'6". No water encountered.
5							
10							
15							
20							
25							
30							
35							
39							

Notes: Hollow Stem Auger Size - 4 1/4"

Cohesionless: 0 - 4 V. Loose, 4 - 10 Loose, 10 -30 M Dense, 30 -50 Dense, 50+ V Dense. Cohesive: 0 -2 V Soft, 2 -4 Soft, 4 -8 M Stiff 8 -15 Stiff, 15 -30 V. Stiff, 30 + Hard.	Trace 0 to 10% Little 10 to 20% Some 20 to 35% And 35% to 50%	ID SIZE (IN) HAMMER WGT (LB) HAMMER FALL (IN)	CASING SAMPLE CORE TYPE	SS 140 lb. 30"
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BRIEF DESCRIPTION

BASE BID

ITEM NO.	BID PRICE ENTERED IN BOTH WORDS AND FIGURES (UNIT PRICE)	ESTIMATED QUANTITY	TOTAL PRICE (UNIT PRICE X QUANTITY)
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1. WATER PIPE & FITTINGS

1A.	Furnish and Install 12" Dia. Class 56, Cement Lined Ductile Iron (CLDI) Water Pipe, Restraining Gaskets and Fittings, all depths of cover, per Linear Foot _____dollars and _____cents (\$ _____)	7,600 L.F.	\$ _____
1B.	Furnish and Install 10" Dia. Class 56 Cement Lined Ductile Iron (CLDI) Water Pipe, Restraining Gaskets and Fittings, all depths of cover, per Linear Foot _____dollars and _____cents (\$ _____)	75 L.F.	\$ _____
1C.	Furnish and Install 8" Dia. Class 56 Cement Lined Ductile Iron (CLDI) Water Pipe, Restraining Gaskets and Fittings, all depths of cover, per Linear Foot _____dollars and _____cents (\$ _____)	530 L.F.	\$ _____
1D.	Furnish and Install 6" Dia. Class 56 Cement Lined Ductile Iron (CLDI) Water Pipe, Restraining Gaskets and Fittings, all depths of cover, per Linear Foot _____dollars and _____cents (\$ _____)	950 L.F.	\$ _____
1E.	Furnish and Install 4" Dia. Class 56 Cement Lined Ductile Iron (CLDI) Water Pipe, Restraining Gaskets and Fittings, all depths of cover, per Linear Foot _____dollars and _____cents (\$ _____)	140 L.F.	\$ _____
1E-a.	Furnish and Install 8"x6" Tapping Sleeve And 6" Gate Valve Assembly, With Valve Box, as specified, Each _____dollars and _____cents (\$ _____)	1 EA.	\$ _____
1F.	Furnish and Install 12"x6" Tapping		

Subtotal for Page \$ _____
Base Bid