

Contract

between

National Grid USA Service Company d/b/a National Grid Inc.

and

The Hallen Construction Co., Inc.

for

Gov 54 &, NL 25 & SL 32

AGREEMENT

This Agreement made and entered into on the date when signed by the party signing last in time, by and between National Grid USA Service Company d/b/a National Grid (hereinafter the "Company"), a Massachusetts corporation with offices at 40 Sylvan Road, Waltham, MA 02451, and The Hallen Construction Co., Inc. (hereinafter the "Contractor"), a New York corporation having its principal place of business at 11 Commercial St., Plainview, NY 11803 for the Work identified as:

Gov 54 &, NL 25 & SL 32

ARTICLE 1 - CONTRACT DOCUMENTS

The following documents, including all attached schedules, appendices, exhibits or other attachments thereto, are incorporated by reference as if fully set forth herein, and are hereinafter referred to collectively and individually as the "Contract" or "Agreement". In the event of a conflict between documents comprising this "Agreement", they are listed below in descending order of precedence.

- 1. Agreement
- 2. Exhibit A: Non-Disclosure Agreement, 12.8.2021
- 3. Exhibit B: Supplemental Conditions (to the Terms and Conditions)
- 4. Exhibit C: Terms and Conditions, 10.13.2015
- 5. Exhibit D: Statement of Work (SOW) & Addendums
- 6. Exhibit E: Design Package
- 7. Exhibit F: Pricing
- 8. Exhibit G: Means & Methods
- 9. Exhibit H: Schedule
- 10. Exhibit I: Exception, Deviations & Clarifications
- 11. Exhibit J: Alternate Proposal
- 12. Exhibit K: Vetting Questions/Contractor Proposal Resource Workbook
- 13. Exhibit L: Consolidated NY & NE OQ Task List for Construction Contractors, dated

- 14. Exhibit M: Safety
 - a. Exhibit M-1: N-1402 Contractor Safety Requirements
- 15. Exhibit N: Environmental
 - a. Exhibit N-1: Environmental Procedure EP6 Appendix A
 - b. Exhibit N-2: Environmental Procedure EP6 Appendix B
 - c. Exhibit N-3: Environmental Procedure EP6 Appendix C
- 16. Exhibit O: Background Check/Security
 - a. Exhibit O-1: NGSP Attachment A
 - b. Exhibit O-2: NGSP Attachment B1, 12,17,2021
 - c. Exhibit O-3: NGSP Attachment B2, 12.17.2021
 - d. Exhibit O-4: NGSP Attachment C
- 17. Exhibit P: Department of Transportation
 - a. Exhibit P-1: SHW-101 Anti-Drug & Alcohol Procedure
 - b. Exhibit P-2: DOT-FMCSA Drug Alcohol Prevention Plan
 - c. Exhibit P-3: DOT-PHMSA Drug Alcohol Prevention Plan
 - d. Exhibit P-4: Contractor Compliance Affidavit, rev.3
- 18. Exhibit Q: Ethics
 - a. Exhibit Q-1: Supplier Code of Conduct, 11.2020
 - b. Exhibit Q-2: Supplier Ethics Certification, 12.17.2021
 - c. Exhibit Q-3: Anti-Fraud & Bribery Policy, 09.2015

ARTICLE 2 - NON-DISCLOSURE/CONFIDENTIALITY

Notwithstanding any other provision of this Agreement, the Parties recognize that they will share certain confidential, proprietary, and nonpublic information ("confidential information") with each other in connection with this Agreement. Accordingly, all such confidential information exchanged by the parties in connection with this Agreement is governed by the Non-Disclosure Agreement dated 12/8/2021 attached to this Agreement as Exhibit A ("NDA"). The NDA shall continue to govern the Agreement notwithstanding any expiration or termination of such NDA.

ARTICLE 3 - SCOPE OF WORK

The Contractor hereby agrees to provide all materials, equipment, apparatus, tools, qualified labor, qualified supervision, services, insurance and facilities necessary to perform all Work in accordance with all the specifications and contract documents associated with this Agreement.

ARTICLE 4 - SCHEDULE

Any work to be performed under this Agreement shall be commenced and completed in accordance with the work schedules delineated in Exhibit H: Schedules, rev.3

ARTICLE 5 – AGREEMENT DURATION

This Agreement, unless lawfully terminated earlier, shall continue in force to the extent the Contractor continues to provide services under the relevant scope of services. The Company reserves the right, at its sole option, to cancel this contract at any time and for any reason.

ARTICLE 6 - CONTRACT PRICE

The contract price for the Work shall be in accordance with Exhibit F: Pricing below, and shall be equitably adjusted to cover any additions, deletions or changes to the Project pursuant to Section 6.0 of the Terms and Conditions and for any adjustments required under Section 35.0 of the Terms and Conditions.

ARTICLE 7 - NOTICES

All legal and contractual notices will be given to the designated Party by registered mail, certified mail or express (overnight) delivery service, postage prepaid, to the intended Party at the following address or at such changed address as may from time to time be designated in a notice similarly delivered or mailed to:

Contractor:

The Hallen Construction Co., Inc. Attention: Pat Ambrosio 11 Commercial St. Plainview, NY 11803 pambrosio@hallen.com 516-432-8300 **Company:**

National Grid USA d/b/a National Grid Inc. Attention: Linda Hiesiger 175 East Old County Rd. Hicksville, NY 11801 <u>Linda.Hiesiger@nationalgrid.com</u> 518-433-4861

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ARTICLE 8 - ENTIRE AGREEMENT

This Agreement, including all Contract Documents, constitutes the entire Agreement between the Company and the Contractor, with respect to the Work specified, and all previous representations relative thereto, either written or oral are hereby annulled and superseded. No modification of any of the provisions of this Agreement shall be binding unless in writing and signed by a duly authorized representative of each party hereto.

IN WITNESS WHEREOF, each party hereto has caused this Agreement to be executed by its duly authorized representative on the day and year set forth below.

Contractor:	Company:
The Hallen Construction Co., Inc.	National Grid USA Service Company
Signature Shuleer	Docusigned by: Mcola Kighy Signature TF64F755E20248A
Pascale J. Ambrosio	Nicola Rigby
Name	Name
Exec. Vice President	Vice President
Title	Title
April 6, 2022	April 8, 2022 2:00 PM EDT
Date	Date

		Lump Sum Pricing - GOV-54	UOM	Rate	Est Qty	EXT
I-A.1	WBS Code No.	Firm Lump Sum Price - Total Project Description of Project : Regulator Station Rebuild and Over Pressure Protection Addition	Lump Sum			
I-A.2.a.	06.04B.CD.02.01	Buried Distribution Pipe Installation	Lump Sum		1	
I-A.2.b.	07.04B.CC.01	Preliminary Commissioning (testing)	Lump Sum		1	
I-A.2.c.	07.04B.CC.02.01	Shut-Down	Lump Sum		1	
I-A.2.d.	07.04B.CC.02.02	Gas in – Tie in	Lump Sum		1	
I-A.2.e.	07.04B.CD.01.02	Site Set Up	Lump Sum		1	
I-A.2.f.	07.04B.CD.04.01	Regulator Station Piping	Lump Sum		1	
I-A.2.g.	07.04B.CD.09.01	Valve Installation	Lump Sum		1	
I-A.2.h.	07.04B.CD.10.01	Vault Installation	Lump Sum		1	
I-A.2.i.	07.04B.PC.02.01	Demolition/Decommissioning/Removal	Lump Sum		1	
I-A.2.j.	07.04B.PC.04.01	Paving and Restoration	Lump Sum		1	
I-A.2.k.	07.04S.01.02	Contractor Project Management	Lump Sum		1	
I-A.2.l.	07.04S.02.01	Contractor Profit & Fee	Lump Sum		1	
		Option Pricing - GOV-54	UOM		Est Qty	
II-A.		Payment Bond in the amount of the Contract Price and as outlined in Section 36.0 of the Terms and Conditions for Construction. (see below)	Lump Sum		1	
II-B.		Payment Bond Adjustment: rate per thousand dollars of increase or decrease in the bond coverage amount. This rate would be an adder to the total bond rate in the amounth of the Contract Price.(see below)	per thousand		1	
II-C.		Performance Bond in the amount of the Contract Price and as outlined in Section 36.0 of the Terms and Conditions for Construction. (see below)	Lump Sum		1	
II-D.		Performance Bond Adjustment: rate per thousand dollars of increase or decrease in the bond coverage amount. This rate would be an adder to the total bond rate in the amounth of the Contract Price. (see below)	per thousand		1	
II-E.		Lien Bond in the amount of the Contract Price and as outlined in Section 36.0 of the Terms and Conditions for Construction. (see below)	Lump Sum		1	
II-F.		Lien Bond Adjustment: rate per thousand dollars of increase or decrease in the bond coverage amount. This rate would be an adder to the total bond rate in the amounth of the Contract Price. (see below)	per thousand		1	
II-G.		Curb to Curb Restoration - Firm Lump Sum Price to providing 2" mill and pave curb to curb along entire route.	Lump Sum		1	
II-H.		Enecon Support - This item is for the contractor to provide support to NGrid's subcontractor, Enecon, for various functions such as, vault sealing, painting of the piping, fittings and regulators. This price must include the cost for a crew to assist with opening and closing of the vaults, setting up and maintaining MPT for all crews and ensuring all workers and pedestrians are working in a safe environment. Price will be based on a crew day with 2 hours overtime to setup and remove MPT. This item shall only be used if a crew is specifically onsite for Enecon support only. If the contractor crew is onsite performing contract work while Enecon is working on site, then this unit will not be exercised.	per day		1	
II-I.		National Grid I&R Support: (1 Operator, 2 Flagger, and 2 laborers)	per day		1	
II-J.		Support of National Grid Crews: (1 Operator, 2 Laborers, 2 Flagger2, and 1 timberman)	per day		1	
II-K.		Cathodic Protection - pipe and fittings coating anode installation and jeeping of pipe	Lump Sum		1	
	Q	uanta's surety provider doesn't separate the payment and performance bond cost. The \$ per thousand is f	or a payment	and performand	e bond.	

Sheet Instructions:

The bidder should add and delete the labor / equipment classifications as necessary in order to account for any resources that will be used to complete the project as provided in the drawings as well as any resources required to complete out of scope services.

Equipment Type	per hour	per day	per week	per month
Crane, up to 45 ton (Crane minimum 8 hr rental)				
Compressor, trailer-mounted 160 - 185 CF with hoses and tools				
Power Generator, 2500 watts				
Backhoe/Tractor/Digger/Loader				
Excavator				
Vacuum Truck, with tools (Vac Truck minimum 8 hr rental)				
Utility Truck, fully equipped				
Crew Truck w/ tools				
Boom Truck/Trailer				
Welding Rig, truck-mounted with equipment				
Flood Light Bank/Light Tower				
Arrow Board, illuminated				
Dump truck, > 12 CY				
Dump truck, > 25 CY				
Jersey Barriers, <= 200 LF (price per linear foot, inclusive of delivery, installation, and removal) (Barrier rental only)				
Jersey Barriers, >200 LF (price per linear foot, inclusive of delivery, installation, and removal) (Barrier rental only)				
Pump w/ hoses, 4"				
Pump w/ hoses, 6"				
Wheel loader with bucket				
Excavator with plate tamper				
Crane Rigger/Truck/Equipment				
Sandblasting Truck				
Welding Maintenace Truck				
Attenuator Truck Rental				

Sheet Instructions: The bidder should add and delete the labor/equipment classifications as necessary in order to account for any resources that will be used to complete the project as provided in the drawings as well as any resources required to complete out of scope services.

	Definitions		
Straight Time	Hours worked between 7am and 3:30pm (straigh	t time ends at 3:3	(Opm)
Saturday/extended day premium time	Hours worked on Saturday between 7am and 7pn shift	n; or any hours wo	orked beyond an 8 hour
Sunday and holiday premium time	Hours worked on Sunday or federally recognized l	holiday between ?	7am and 7pm
Night Differential	Rate differential for hours worked during daytime day rates listed above	hours of 7pm an	d 7am; to be applied to all
Labor Classification	Time Classification	HOM	Doto

Sunday and holiday premium time	Hours worked on Sunday or federally recognized	d holiday between 7a	m and /pm
light Differential	Rate differential for hours worked during daytin	ne hours of 7pm and	7am; to be apı
Night Differential	day rates listed above		
Labor Classification	Time Classification	UOM	Rate
	Straight Time	per Hour	
Faraman	Saturday / extended day premium time	per Hour	
Foreman	Sunday and holiday premium time	per Hour	
	Night Differential	per Hour	
	Straight Time	per Hour	
	Saturday / extended day premium time	per Hour	
Laborer	Sunday and holiday premium time	per Hour	
	Night Differential	per Hour	
	Straight Time	per Hour	
Operating Engineer/Operator	Saturday / extended day premium time	per Hour	
		per Hour	
excavator	Sunday and holiday premium time Night Differential	per Hour	
		· ·	
	Straight Time	per Hour	
	Saturday / extended day premium time	per Hour	
ht Differential	Sunday and holiday premium time	per Hour	
	Night Differential	per Hour	
	Straight Time	per Hour	
Chauffaur/dumentaureleden	Saturday / extended day premium time	per Hour	
Labor Classification Foreman Laborer Operating Engineer/Operator, excavator Operating Engineer/Operator, backhoe/tractor/digger/loader Chauffeur/dump truck driver Flagger Timberman Foreman Timberman Maintenance Person Welder and Welding Rig Welder Helper Compressor Engineer Oiler	Sunday and holiday premium time	per Hour	
	Night Differential	per Hour	
Laborer Operating Engineer/Operator, excavator Operating Engineer/Operator, backhoe/tractor/digger/loader Chauffeur/dump truck driver Flagger Timberman Foreman Timberman Waintenance Person Welder and Welding Rig Welder Helper Compressor Engineer	Straight Time	per Hour	
	Saturday / extended day premium time	per Hour	
Flagger	Sunday and holiday premium time	per Hour	
Timberman Foreman	Night Differential	per Hour	
	Straight Time	per Hour	
	Saturday / extended day premium time	per Hour	
	Sunday and holiday premium time	per Hour	
	Night Differential	per Hour	
	Straight Time	per Hour	
	Saturday / extended day premium time	per Hour	
	Sunday and holiday premium time	per Hour	
	Night Differential	per Hour	
	Straight Time	per Hour	
	Saturday / extended day premium time	per Hour	
Maintenance Person	Sunday and holiday premium time	per Hour	
	Night Differential	per Hour	
Timberman Foreman Timberman Maintenance Person	Straight Time	per Hour	
Labor Classification Foreman Laborer Operating Engineer/Operator, excavator Operating Engineer/Operator, backhoe/tractor/digger/loader Chauffeur/dump truck driver Flagger Timberman Timberman Maintenance Person Welder and Welding Rig Welder Helper Compressor Engineer Crane Operator Oiler	Saturday / extended day premium time	per Hour	
	Sunday and holiday premium time	per Hour	
	Night Differential	per Hour	
	Straight Time	per Hour	
	Saturday / extended day premium time	per Hour	
Laborer Operating Engineer/Operator, excavator Operating Engineer/Operator, backhoe/tractor/digger/loader Chauffeur/dump truck driver Flagger Timberman Foreman Maintenance Person Welder and Welding Rig Welder Helper Compressor Engineer Crane Operator Oiler		<u> </u>	
	Sunday and holiday premium time	per Hour	
	Night Differential	per Hour	
	Straight Time	per Hour	
Compressor Engineer	Saturday / extended day premium time	per Hour	
Compressor Engineer	Sunday and holiday premium time	per Hour	
	Night Differential	per Hour	
	Straight Time	per Hour	
Cura a Cura a cura tra a	Saturday / extended day premium time	per Hour	
Crane Operator	Sunday and holiday premium time	per Hour	
	Night Differential	per Hour	
	Straight Time	per Hour	
	Saturday / extended day premium time	per Hour	
Oiler	Sunday and holiday premium time	per Hour	
	Night Differential	per Hour	
	-	per Hour	
	Straight Time		
		per Hour	
Timberman Maintenance Person Welder and Welding Rig Welder Helper Compressor Engineer Crane Operator Oiler	Saturday / extended day premium time Sunday and holiday premium time	per Hour per Hour	

Family	Item #	Item	Description	Notes / Size	иом	Volume Interval	Rat
Backfill	1	Backfill: Clean Fill	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	≤ 100 CY per day	
Backfill	2	Backfill: Clean Fill	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	100.1 - 1000 CY per day	
ackfill	3	Backfill: Clean Fill	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	> 1000 CY per day	
ackfill	4	Backfill: Clean Sand	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	≤ 100 CY per day	
ackfill	5	Backfill: Clean Sand	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	100.1 - 1000 CY per day	
ackfill	6	Backfill: Clean Sand	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	> 1000 CY per day	
ackfill	7	Backfill: Washed Sand	Furnish & place acceptable washed sand backfill obtained from non-site excavated material. Includes removal and disposal of associated unsuitable fill.		/ cubic yard	≤ 100 CY per day	
ackfill	8	Backfill: Washed Sand	Furnish & place acceptable washed sand backfill obtained from non-site excavated material. Includes removal and disposal of associated unsuitable fill.		/ cubic yard	100.1 - 1000 CY per day	
ackfill	9	Backfill: Washed Sand	Furnish & place acceptable washed sand backfill obtained from non-site excavated material. Includes removal and disposal of associated unsuitable fill.		/ cubic yard	> 1000 CY per day	
ackfill	10	Backfill Materials: National Grid Provided	Pick up, deliver and install material provided by N. Grid		/ cubic yard		
Backfill	11	Backfill Materials: National Grid Provided	Pick up, deliver and install material provided by N. Grid		/ cubic yard		
Backfill	12	Backfill Materials: National Grid Provided	Pick up, deliver and install material provided by N. Grid		/ cubic yard		

Backfill	13	Backfill Materials: National Grid Provided	Pick up, deliver and install material provided by N. Grid		/ cubic yard	
Backfill	14	Contaminated Soils: Stockpile	Stockpile contaminated soil from areas other than those identified in the project specification.		/ cubic yard	
Backfill	15	Contaminated Soils: Disposal	Disposal of contaminated soil from project site at a DEC certified disposal facility.		/ cubic yard	
Backfill	16	Reduced Cover Protection	Steel Plate Installation, One Inch Steel Plate Installed	Contractor to furnish and install one inch thick steel plate as protection over the gas main installed at reduced cover when directed by National Grid.	each	
Excavation	17	Additional Excavation - Extra Depth; Hand- digging only	Extra Depth - adder rate for additional trench depth needed beyond depth as depicted on drawing profiles	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	≤ 25 per day
Excavation	18	Additional Excavation - Extra Depth; Hand- digging only	Extra Depth - adder rate for additional trench depth needed beyond depth as depicted on drawing profiles	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	> 25 per day
Excavation	19	Additional Excavation - Extra Depth; Machine & Hand-Digging	Extra Depth - adder rate for additional trench depth needed beyond depth as depicted on drawing profiles	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	≤ 25 per day
Excavation	20	Additional Excavation - Extra Depth; Machine & Hand-Digging	Extra Depth - adder rate for additional trench depth needed beyond depth as depicted on drawing profiles	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	> 25 per day
Excavation	21	Additional Excavation - Extra Width; Hand- digging only	Extra Width - adder rate to increase the trench width needed beyond standard width of trench	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	≤ 25 per day
Excavation	22	Additional Excavation - Extra Width; Hand- digging only	Extra Width - adder rate to increase the trench width needed beyond standard width of trench	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	> 25 per day

Excava	ation		Additional Excavation - Extra Width; Machine & Hand-Digging	Extra Width - adder rate to increase the trench width needed beyond standard width of trench	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	≤ 25 per day
Excava	ation		Additional Excavation - Extra Width; Machine & Hand-Digging	Extra Width - adder rate to increase the trench width needed beyond standard width of trench	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	> 25 per day
Excava	ation	25	Miscellaneous Pit: Timber/Steel Sheeted	Install miscellaneous timber / steel sheeting (for out of scope tie-in pits, jacking pits, misc. pits) and associated work. Includes furnishing material, labor, equipment, supporting all utilites, transportation, traffic plates, temporary restoration, and removal of sheeting. PE Stamped Drawings Required.	8 ft x 8 ft pit - to a maximum depth of 8 ft	/ cubic yard	
Excava	ation	26	Miscellaneous Pit: Timber/Steel Sheeted	Install miscellaneous timber / steel sheeting (for out of scope tie-in pits, jacking pits, misc. pits) and associated work. Includes furnishing material, labor, equipment, supporting all utilites, transportation, traffic plates, temporary restoration, and removal of sheeting. PE Stamped Drawings Required.	8 ft x 8 ft pit: 8.1 - 12.0 foot depth	/ cubic yard	
Excava	ation	27	Miscellaneous Pit: Timber/Steel Sheeted	Install miscellaneous timber / steel sheeting (for out of scope tie-in pits, jacking pits, misc. pits) and associated work. Includes furnishing material, labor, equipment, supporting all utilites, transportation, traffic plates, temporary restoration, and removal of sheeting. PE Stamped Drawings Required.	9 ft x 8 ft pit: 12.1 - 16.0 foot depth	/ cubic yard	
Excava	ation	28	Miscellaneous Pit: Timber/Steel Sheeted	Install miscellaneous timber / steel sheeting (for out of scope tie-in pits, jacking pits, misc. pits) and associated work. Includes furnishing material, labor, equipment, supporting all utilites, transportation, traffic plates, temporary restoration, and removal of sheeting. PE Stamped Drawings Required.	10 ft x 8 ft pit: 16.1 - 20.0 foot depth	/ cubic yard	
Excava	ation	29	Miscellaneous Pit: Timber/Steel Sheeted	Install miscellaneous timber / steel sheeting (for out of scope tie-in pits, jacking pits, misc. pits) and associated work. Includes furnishing material, labor, equipment, supporting all utilites, transportation, traffic plates, temporary restoration, and removal of sheeting. PE Stamped Drawings Required.	11 ft x 8 ft pit: 20.1 - 24.0 foot depth	/ cubic yard	
Excava	ation	30	Miscellaneous Pit: Timber/Steel Sheeted	Install miscellaneous timber / steel sheeting (for out of scope tie-in pits, jacking pits, misc. pits) and associated work. Includes furnishing material, labor, equipment, supporting all utilites, transportation, traffic plates, temporary restoration, and removal of sheeting. PE Stamped Drawings Required.	12 ft x 8 ft pit: 24.1 - 30.0 foot depth	/ cubic yard	
Excava	ation	31	Miscellaneous Pit: Non- Sheeted	Install miscellaneous pit (for out of scope pipeline trenching). Includes furnishing material, labor, equipment, supporting all utilites, transportation, temporary restoration, and traffic plates.	8 ft x 8 ft pit - to a maximum depth of 5 ft	/ cubic yard	

Excavation	32	Test Holes - Hand / Machine Excavated	Size of additional test holes is approx. 5 ft by 3 ft by 5 ft deep. The unit price includes pavement removal, patch etc. It is understood that this item will cover only the additional test holes NOT covered under the Lump Sum Bid. The lump sum price covers test holes for all mains, ducts, services, pipes, structures, etc. that are shown on the drawings or can be deducted.	Approx. 5 ft by 3 ft by 5 ft deep	each	
Excavation	33	Test Holes - Hand / Machine Excavated Adder	Adder rate for test hole sizes greater than 2.78 cubic yards (i.e. 5 ft by 3 ft by 5 ft deep). To be added to the unit cost of the test hole and is inclusive of pavement removal, patch etc.		/ cubic yard	
Excavation	34	Test Holes - Vacuum Excavated	Size of additional test holes is approx. 5 ft by 3 ft by 5 ft deep. The unit price includes pavement removal, patch etc. It is understood that this item will cover only the additional test holes NOT covered under the Lump Sum Bid. The lump sum price covers test holes for all mains, ducts, services, pipes, structures, etc. that are shown on the drawings or can be deducted.	Approx. 5 ft by 3 ft by 5 ft deep	each	
Excavation	35	Test Holes - Vacuum Excavated Adder	Adder rate for test hole sizes greater than 2.78 cubic yards (i.e. 5 ft by 3 ft by 5 ft deep). To be added to the unit cost of the test hole and is inclusive of pavement removal, patch etc.		/ cubic yard	
Excavation	36	Arborist-directed Hand Digging	Incremental Arborist-directed Hand Digging around trees		/ cubic yard	
Excavation	37	Obstruction	Unit prices are for increased work scope connected with unknown obstructions not shown on prints or that cannot be field identified as a potential interference. These unit prices cover excavating, supporting and providing clearance and installation at the obstruction location. This unit also covers vertical excavations to maintain a minimum of 12" clearance from obstruction. Prices provided are for additions and deletions. If a relocation of the pipe route eliminates going under a "BID" or a designed profile obstruction, National Grid shall receive a credit in the appropriate amount stated above.	≤ 18 inch diameter or width	each	
Excavation	38	Obstruction	Unit prices shown below are for increased work scope connected with unknown obstructions not shown on prints or that cannot be field identified as a potential interference. These unit prices cover excavating, supporting and providing clearance and installation at the obstruction location. This unit also covers vertical excavations to maintain a minimum of 12" clearance from obstruction. Prices shown above are for additions and deletions. If a relocation of the pipe route eliminates going under a "BID" or a designed profile obstruction, National Grid shall receive a credit in the appropriate amount stated above.	18.1 - 36.0 inch diameter or width	each	
Excavation	39	Obstruction	Unit prices shown below are for increased work scope connected with unknown obstructions not shown on prints or that cannot be field identified as a potential interference. These unit prices cover excavating, supporting and providing clearance and installation at the obstruction location. This unit also covers vertical excavations to maintain a minimum of 12" clearance from obstruction. Prices shown above are for additions and deletions. If a relocation of the pipe route eliminates going under a "BID" or a designed profile obstruction, National Grid shall receive a credit in the appropriate amount stated above.	36.1 - 60 inch diameter or width	each	
Excavation	40	Trolley Rail and Tie Removal	Remove and dispose of trolley rail and ties		LF	
Excavation	41	Removal and Disposal of Debris.	This item to be utilized for the removal and proper disposal of any debris found on the project that hinders the pipeline installation. Covered debris includes buried or above grade. Proper disposal must be performed and dump tickets transferred to National Grid (PM&CC).		/ cubic yard	

Excavation	42	The unit prices below cover out of scope requirements for the removal of paving. It includes mark out, saw cut or vermeer cut, removal and disposal of paving.	/ square yard	
Excavation	43	The unit prices below cover out of scope requirements for the removal of paving. It includes mark out, saw cut or vermeer cut, removal and disposal of paving.	/ square yard	
Excavation	44	The unit prices below cover out of scope requirements for the removal of paving. It includes mark out, saw cut or vermeer cut, removal and disposal of paving.	/ square yard	

Welding 2 Dutt Weld Steel Pipe Duth the addition and deletion to the original work scope. Includes end preparation work scope. Includes end preparation buth the addition and deletion to the original work scope. Includes end preparation buth the addition and deletion to the original work scope. Includes end preparation buth the addition and deletion to the original work scope. Includes end preparation buth the addition and deletion to the original work scope. Includes end preparation buth the addition and deletion to the original work scope. Includes end preparation buth the addition and deletion to the original work scope. Includes end preparation to the used for both the addition and deletion to the original work scope. Includes end preparation to the used for both the addition and deletion to the original work scope. Includes end preparation to the used for both the addition and deletion to the original work scope. Includes end preparation to the used for both the addition and deletion to the original work scope. Encludes end preparation to the used for both the addition and deletion to the original work scope. Encludes end preparation to the used for both the addition and deletion to the original work scope. Encludes Tests. Welding 8 Butt Weld Steel Fittings These units spily to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Excludes Tests. Welding 10 Butt Weld Steel Fittings These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Excludes Tests. Welding 10 Butt Weld Steel Valves Butt Weld Ste	ily It	em# Item	Description	Notes / Size	UOM	Volume Interval
Welding 2	ing 1	Butt Weld Steel Pipe	both the addition and deletion to the original work scope. Includes end preparation	2 In. dia. pipe	/EA	
Welding South Weld Steel Pipe Doubt the addition and deletion to the original work scope. Includes end preparation South Weld Steel Pipe Doubt the addition and deletion to the original work scope. Includes end preparation South Weld Steel Pipe Doubt the addition and deletion to the original work scope. Includes end preparation South Weld Steel Pipe Doubt the addition and deletion to the original work scope. Includes end preparation South Weld Steel Pipe Doubt the addition and deletion to the original work scope. Includes end preparation South Weld Steel Pipe Doubt the addition and deletion to the original work scope. Includes end preparation South Weld Steel Pittings Doubt the addition and deletion to the original work scope. Includes end preparation South Weld Steel Pittings Doubt the addition and deletion to the original work scope. Excludes Tees South Weld Steel Pittings Doubt the addition and deletion to the original work scope. Excludes Tees South Weld Steel Pittings Doubt the addition and deletion to the original work scope. Excludes Tees South Weld Steel Pittings Doubt the addition and deletion to the original work scope. Excludes Tees South Weld Steel Pittings Doubt the addition and deletion to the original work scope. Excludes Tees South Weld Steel Pittings Doubt the addition and deletion to the original work scope. Excludes Tees South Weld Steel Pittings Doubt the addition and deletion to the original work scope. Excludes Tees South Weld Steel Pittings Doubt the addition and deletion to the original work scope. Excludes Tees South Weld Steel Pittings Doubt the addition and deletion to the original work scope. Excludes Tees South Weld Steel Pittings Doubt the addition and deletion to the original work scope. Excludes Tees South Weld Steel Pittings Doubt Weld Steel	ing 2	Butt Weld Steel Pipe		4 In. dia. pipe	/EA	
Welding 5 Butt Weld Steel Pipe both the addition and deletion to the original work scope. Includes end preparation Welding 6 Butt Weld Steel Pipe both the addition and deletion to the original work scope. Includes end preparation Welding 7 Butt Weld Steel Fittings both the addition and deletion to the original work scope. Includes end preparation Welding 7 Butt Weld Steel Fittings both the addition and deletion to the original work scope. Includes end preparation Welding 8 Butt Weld Steel Fittings both the addition and deletion to the original work scope. Excludes Tees units to be used for both the addition and deletion to the original work scope. Excludes Tees Welding 8 Butt Weld Steel Fittings both the addition and deletion to the original work scope. Excludes Tees Welding 9 Butt Weld Steel Fittings both the addition and deletion to the original work scope. Excludes Tees Welding 9 Butt Weld Steel Fittings both the addition and deletion to the original work scope. Excludes Tees Welding 10 Butt Weld Steel Fittings both the addition and deletion to the original work scope. Excludes Tees Welding 10 Butt Weld Steel Valves Butt Weld Steel Tees Butt Weld Insulating Joints Butt Weld Insulating Joints Butt We	ing 3	Butt Weld Steel Pipe	1.7	6 In. dia to 8 In. dia. pipe	/EA	
Welding 5 Butt Weld Steel Pipe both the addition and deletion to the original work scope. Includes end preparation 16 in. dia. Pipe / Welding 6 Butt Weld Steel Fittings These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Excludes Tees. 10 in. to 8 in. dia Fittings / Welding 7 Butt Weld Steel Fittings These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Excludes Tees. 10 in. to 12 in. dia Fittings / Welding 9 Butt Weld Steel Fittings These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Excludes Tees. 10 in. to 12 in. dia Fittings / Welding 10 Butt Weld Steel Valves Butt Weld Steel Valves 10 in. to 12 in. dia Fittings / Welding 11 Butt Weld Steel Valves Butt Weld Steel Tees Butt Weld Insulating Joints	ing 4	Butt Weld Steel Pipe		12 In. dia. pipe	/EA	
Welding 7 Butt Weld Steel Fittings both the addition and deletion to the original work scope. Excludes Tees. Welding 8 Butt Weld Steel Fittings both the addition and deletion to the original work scope. Excludes Tees. Welding 8 Butt Weld Steel Fittings both the addition and deletion to the original work scope. Excludes Tees. These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Excludes Tees. Welding 9 Butt Weld Steel Fittings both the addition and deletion to the original work scope. Excludes Tees. Welding 10 Butt Weld Steel Fittings both the addition and deletion to the original work scope. Excludes Tees. Welding 11 Butt Weld Steel Valves Butt Weld Steel Va	ing 5	Butt Weld Steel Pipe		16 In. dia. Pipe	/EA	
welding / Butt Weld Steel Fittings both the addition and deletion to the original work scope. Excludes Tees. Welding 8 Butt Weld Steel Fittings both the addition and deletion to the original work scope. Excludes Tees. Welding 9 Butt Weld Steel Fittings both the addition and deletion to the original work scope. Excludes Tees. Welding 10 Butt Weld Steel Fittings both the addition and deletion to the original work scope. Excludes Tees. Welding 11 Butt Weld Steel Valves Butt Weld Steel Tees Butt Wel	ing 6	Butt Weld Steel Fittings	1 ''' '	2 In. to 4 In. dia. Fittings	/EA	
Welding 8 Butt Weld Steel Fittings both the addition and deletion to the original work scope. Excludes Tees. Welding 9 Butt Weld Steel Fittings both the addition and deletion to the original work scope. Excludes Tees. Welding 10 Butt Weld Steel Valves Butt Weld Insulating Joints Butt Weld	ing 7	Butt Weld Steel Fittings		6 In. to 8 In. dia Fittings	/EA	
Welding 10 Butt Weld Steel Fittings	ing 8	Butt Weld Steel Fittings	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for	10 In. to 12 In. dia Fittings	/EA	
Welding 10 Butt Weld Steel Valves Butt Weld Steel Valves 6 In. to 4 In. dia. Valves // Welding 11 Butt Weld Steel Valves Butt Weld Steel Valves 6 In. to 8 In. dia Valves // Welding 12 Butt Weld Steel Valves Butt Weld Steel Valves 10 In. to 12 In. dia Valves // Welding 13 Butt Weld Steel Valves Butt Weld Steel Valves 16 In. to 18 In. dia Valves // Welding 14 Butt Weld Steel Valves Butt Weld Steel Valves 16 In. to 18 In. dia Valves // Welding 15 Butt Weld Steel Tees Butt Weld Steel Tees Butt Weld Steel Tees Butt Weld Steel Tees 6" X 6" X 6" Tee // Welding 16 Butt Weld Steel Tees 10" X 10" X 10" Tee // Welding 17 Butt Weld Steel Tees Butt Weld Steel Tees Butt Weld Steel Tees 12" X 12" X 12" Tee // Welding 18 Butt Weld Steel Tees Butt Weld Steel Tees Butt Weld Steel Tees 12" X 12" X 12" Tee // Welding 19 Butt Weld Steel Tees Butt Weld Steel Tees Butt Weld Steel Tees Butt Weld Steel Tees 12" X 12" X 12" Tee // Welding 19 Butt Weld Steel Tees Butt Weld Insulating Joints Butt Weld Insulating Joints 10 In. to 4 In. dia Valves // Welding 19 Butt Weld Insulating Joints Butt Weld Insulating Joints 10 In. to 12 In. dia Valves // Welding 19 Butt Weld Insulating Joints Butt Weld Insulating Joints 10 In. to 12 In. dia Valves // Welding 19 Butt Weld Insulating Joints Butt Weld Insulating Joints 10 In. to 12 In. dia Valves // Welding 10 In. to 14 In. dia Valves // Welding 15 Fillet Weld Includes all surface preparation and welds 11 In. to 2 In. dia Fitting // Welding 15 Fillet Weld Includes all surface preparation and welds 11 In. to 2 In. dia Fitting // Welding 15 Fillet Weld Includes all surface preparation and welds 11 In. to 2 In. dia Fitting // Welding 15 Fillet Weld Includes all surface preparation and welds 11 In. to 2 In. dia Fitting // Welding 15 Fillet Weld Includes all surface preparation and welds 11 In. to 2 In. dia Fitting // Welding 15 Fillet Weld Includes all surface	ing 9	Butt Weld Steel Fittings	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for	16 In. to 18 In. dia Fittings	/EA	
Welding 12 Butt Weld Steel Valves Butt Weld Steel Valves		0 Butt Weld Steel Valves	Butt Weld Steel Valves	2 In. to 4 In. dia. Valves	/EA	
Welding 13 Butt Weld Steel Valves Butt Weld Steel Valves 16 In. to 12 In. dia Valves // Welding 14 Butt Weld Steel Valves Butt Weld Steel Valves 16 In. to 18 In. dia Valves // Welding 15 Butt Weld Steel Tees Butt Weld Steel Tees 6" X 6" X 6" X 6" Tee // Welding 16 Butt Weld Steel Tees Butt Weld Steel Tees 8" X 8" X 8" X 8" X 8" Tee // Welding 17 Butt Weld Steel Tees Butt Weld Steel Tees Butt Weld Steel Tees 10" X 10" X 10" X 10" Tee // Welding 18 Butt Weld Steel Tees Butt Weld Steel Tees 10" X 10" X 10" Tee // Welding 18 Butt Weld Steel Tees Butt Weld Steel Tees 12" X 12" X 12" Tee // Welding 19 Butt Weld Steel Tees Butt Weld Steel Tees 12" X 12" X 12" Tee // Welding 19 Butt Weld Steel Tees Butt Weld Steel Tees 16" X 16" X 16" X 16" Tee // Welding 19 Butt Weld Insulating Joints Includes all surface preperation and welds Includes all surface preperation and welds Includes I	ing 1	1 Butt Weld Steel Valves	Butt Weld Steel Valves	6 In. to 8 In. dia Valves	/EA	
Welding 1 Butt Weld Steel Tees Butt Weld Insulating Joints	ing 1	2 Butt Weld Steel Valves	Butt Weld Steel Valves	10 ln. to 12 ln. dia Valves	/EA	
Welding 15 Butt Weld Steel Tees Butt Weld Steel Tees Butt Weld Steel Tees 6" X 6" X 6" Tee // Welding 16 Butt Weld Steel Tees Butt Weld Steel Tees Butt Weld Steel Tees 77 Butt Weld Steel Tees 78 Butt Weld Steel Tees 79 Butt Weld Insulating Joints 70 Butt Weld Insulating Joints	ing 1	3 Butt Weld Steel Valves	Butt Weld Steel Valves	16 In. to 18 In. dia Valves	/EA	
Welding 16 Butt Weld Steel Tees Butt Weld Insulating Joints Butt Weld Insulatin	ing 1	4 Butt Weld Steel Tees	Butt Weld Steel Tees	2 In. to 4 In. dia Tee	/EA	
Welding 17 Butt Weld Steel Tees Butt Weld Steel Tees 10" X 10" X 10" X 10" X 10" Tee // Welding 18 Butt Weld Steel Tees Butt Weld Steel Tees 12" X 12" X 12" Tee // Welding 19 Butt Weld Steel Tees Butt Weld Steel Tees 16" X 16" X 16" Tee // Welding 20 Butt Weld Insulating Joints Butt Weld Insulating Joints 21 In. to 4 In. dia. Valves // Welding 21 Butt Weld Insulating Joints Butt Weld Insulating Joints 6 In. to 8 In. dia Valves // Welding 22 Butt Weld Insulating Joints Butt Weld Insulating Joints 10 In. to 12 In. dia Valves // Welding 23 Butt Weld Insulating Joints Butt Weld Insulating Joints 16 In. to 18 In. dia Valves // Welding 24 Fillet Weld Insulating Joints Includes all surface preperation and welds 1 In. to 2 In. dia Fitting // Welding 25 Fillet Weld Includes all surface preperation and welds 1 In. to 2 In. dia Fitting // Welding 25 Fillet Weld Includes all surface preperation and welds 1 In. to 2 In. dia Fitting //	ing 1	5 Butt Weld Steel Tees	Butt Weld Steel Tees	6" X 6" X 6" Tee	/EA	
Welding 18 Butt Weld Steel Tees Butt Weld Steel Tees Butt Weld Steel Tees 12" X 12" X 12" Tee // Welding 19 Butt Weld Steel Tees Butt Weld Steel Tees 16" X 16" X 16" X 16" Tee // Welding 20 Butt Weld Insulating Joints Butt Weld Insulating Joints 2 In. to 4 In. dia. Valves // Welding 21 Butt Weld Insulating Joints Butt Weld Insulating Joints Butt Weld Insulating Joints Butt Weld Insulating Joints 10 In. to 12 In. dia Valves // Welding 22 Butt Weld Insulating Joints Butt Weld Insulating Joints 10 In. to 12 In. dia Valves // Welding 23 Butt Weld Insulating Joints Butt Weld Insulating Joints 16 In. to 18 In. dia Valves // Welding 24 Fillet Weld Insulating Joints Includes all surface preperation and welds 1 In. to 2 In. dia Fitting // Welding 25 Fillet Weld Includes all surface preperation and welds 1 In. to 2 In. dia Fitting // Welding 25 Fillet Weld Includes all surface preperation and welds 1 In. to 2 In. dia Fitting //	ing 1	6 Butt Weld Steel Tees	Butt Weld Steel Tees	8" X 8" X 8" Tee	/EA	
18 Butt Weld Steel Tees Butt Weld Steel Tees Butt Weld Steel Tees 12" X 12" X 12" X 12" Tee / Welding 19 Butt Weld Steel Tees Butt Weld Steel Tees 16" X 16" X 16" X 16" X 16" Tee / Welding 20 Butt Weld Insulating Joints Welding 22 Butt Weld Insulating Joints Butt Weld Insulating Joints Butt Weld Insulating Joints 10 In. to 12 In. dia Valves / Welding 23 Butt Weld Insulating Joints Butt Weld Insulating Joints Butt Weld Insulating Joints 16 In. to 18 In. dia Valves / Welding 24 Fillet Weld Includes all surface preperation and welds 0.5 In. to 1 In. dia Fitting / Welding 25 Fillet Weld Includes all surface preperation and welds 1 In. to 2 In. dia Fitting / Welding 25 Fillet Weld Includes all surface preperation and welds 1 In. to 2 In. dia Fitting / Welding 25 Fillet Weld Includes all surface preperation and welds 1 In. to 2 In. dia Fitting / Welding 1 In. to 2 In. dia Fitting / Welding 1 In. to 2 In. dia Fitting / Welding 1 In. to 2 In. dia Fitting / Welding 1 In. to 2 In. dia Fitting / Welding 1 In. to 2 In. dia Fitting / Welding 1 In. to 2 In. dia Fitting / Welding 1 In. to 2 In. dia Fitting / Welding 1 In. to 2 In. dia Fitting / Welding 1 In. to 2 In. dia Fitting / Welding 1 In. to 2 In. dia Fitting / Welding 1 In. to 2 In. dia Fitting / Welding 1 In. dia Fitting / Welding / Welding 1 In. dia Fitting / Welding	ing 1	7 Butt Weld Steel Tees	Butt Weld Steel Tees	10" X 10" X 10" Tee	/EA	
Welding 20 Butt Weld Insulating Joints District Service Servic	ing 1	8 Butt Weld Steel Tees	Butt Weld Steel Tees	12" X 12" X 12" Tee	/EA	
Welding 21 Butt Weld Insulating Joints Includes all surface preparation and welds Includes Incl	ing 1	9 Butt Weld Steel Tees	Butt Weld Steel Tees	16" X 16" X 16" Tee	/EA	
Welding 22 Butt Weld Insulating Joints Includes all surface preparation and welds Includes all surface p	ing 2	0 Butt Weld Insulating Joints	Butt Weld Insulating Joints	2 In. to 4 In. dia. Valves	/EA	
22 Butt Weld Insulating Joints Butt Weld Insulating Joints Joint to 12 in. dia Valves / Welding 23 Butt Weld Insulating Joints Butt Weld Insulating Joints Joints Joint to 18 in. dia Valves / Welding 24 Fillet Weld Includes all surface preparation and welds Joint to 18 in. dia Fitting / Welding 25 Fillet Weld Includes all surface preparation and welds Joint to 18 in. dia Fitting / Welding Joint to 18 in. dia Valves / Welding Joint to 18 in. dia Valves / Welding Joint to 18 in. dia Valves /	ing 2	1 Butt Weld Insulating Joints	Butt Weld Insulating Joints	6 In. to 8 In. dia Valves	/EA	
Welding 24 Fillet Weld Includes all surface preperation and welds 1 In. to 2 In. dia Fitting 1 Welding 25 Fillet Weld Includes all surface preperation and welds 1 In. to 2 In. dia Fitting 1 Welding 25 Fillet Weld Includes all surface preperation and welds 1 In. to 2 In. dia Fitting 1	ing 2	2 Butt Weld Insulating Joints	Butt Weld Insulating Joints	10 ln. to 12 ln. dia Valves	/EA	
Welding 25 Fillet Weld Includes all surface preperation and welds 0.5 In. to 1 In. dia Fitting / Welding 25 Fillet Weld Includes all surface preperation and welds 1 In. to 2 In. dia Fitting /	ing 2	3 Butt Weld Insulating Joints	Butt Weld Insulating Joints	16 ln. to 18 ln. dia Valves	/EA	
25 Fillet Weld Includes all surface preperation and welds 1 in. to 2 in. dia Fitting /	ing 2	4 Fillet Weld	Includes all surface preperation and welds	0.5 In. to 1 In. dia Fitting	/EA	
Welding 26 Fillet Weld Includes all surface preparation and welds 4 In dia Fitting	ing 2	5 Fillet Weld	Includes all surface preperation and welds	1 In. to 2 In. dia Fitting	/EA	
	ing 2	6 Fillet Weld	Includes all surface preperation and welds	4 In. dia Fitting	/EA	
Welding 27 Fillet Weld Includes all surface preperation and welds 6 In. dia Fitting /	ing 2	7 Fillet Weld	Includes all surface preperation and welds	6 In. dia Fitting	/EA	
Welding 28 Fillet Weld Includes all surface preperation and welds 8 In. dia Fitting /	ing 2	8 Fillet Weld	Includes all surface preperation and welds	8 In. dia Fitting	/EA	

Welding	29	Fillet Weld	Includes all surface preperation and welds	10 ln. to 12 ln. dia Fitting	/EA
Welding	30	Fillet Weld	Includes all surface preperation and welds	Over 12 In. dia Fitting	/EA
Velding	31	Western Purge	Complete western purge and install to main per NGrid Standards		/EA
Welding	32	Special/Custom Fittings,	Includes all surface preperation and welds	2 In. dia to 4 In dia Special/Custom Fittings,	/EA
Welding	33	Encirclement Type Special/Custom Fittings, Encirclement Type	Includes all surface preperation and welds	Encirclement Type 6 In. dia to 8 In dia Special/Custom Fittings, Encirclement Type	/EA
Welding	34	Special/Custom Fittings,	Includes all surface preperation and welds	Fncirclement Type 10 In. dia to 12 In dia Special/Custom Fittings, Encirclement Type	/EA
Welding	35	Encirclement Type Special/Custom Fittings, Encirclement Type	Includes all surface preperation and welds	Encirclement Type 16 In. dia to 18In dia Special/Custom Fittings, Encirclement Type	/EA
Welding	30	Transition Fitting	Includes all surface preperation, welds and fusion	1 In. dia to 4 In dia Transition Fitting	/EA
Welding	3/	Transition Fitting	Includes all surface preperation, welds and fusion	6 In. dia to 8 In dia Transition Fitting	/EA
Welding	38	Transition Fitting	Includes all surface preperation, welds and fusion	10 In. dia to 12 In dia Transition Fitting	/EA
Welding	39	Lug Welding	Lug Welding for CI To STL Restraints (Standard MAIN-6190)	4 In. dia to 12 In dia Pipe (2 lugs per restraint)	/EA
Welding	40	Lug Welding	Lug Welding for CI To STL Restraints (Standard MAIN-6190)	16 In. dia to 30 In dia Pipe (4 lugs per restraint)	/EA
Welding		Field Cut Segmentable Fittings and End Preparation	Field Cut Segmentable Fittings and End Preparation	2 In. to 4 In. dia. Fittings	/EA
Welding		Field Cut Segmentable Fittings and End Preparation	Field Cut Segmentable Fittings and End Preparation	6 In. to 8 In. dia Fittings	/EA
Welding		Field Cut Segmentable Fittings and End Preparation	Field Cut Segmentable Fittings and End Preparation	10 In. to 12 In. dia Fittings	/EA
Welding	44	Field Cut Segmentable Fittings and End Preparation	Field Cut Segmentable Fittings and End Preparation	16 In. to 18 In. dia Fittings	/EA
Welding	45	Cut & Prep Damaged Pipe	All inclusive unit price to cut and prep damaged ends of steel gas pipe that has been identified by National Grid upon delivery. Does not include cut and bevel elbows.	2 In. dia. pipe	/EA
Welding	46	Cut & Prep Damaged Pipe	All inclusive unit price to cut and prep damaged ends of steel gas pipe that has been identified by National Grid upon delivery. Does not include cut and bevel elbows.	4 In. dia. pipe	/EA
Welding	47	Cut & Prep Damaged Pipe	All inclusive unit price to cut and prep damaged ends of steel gas pipe that has been identified by National Grid upon delivery. Does not include cut and bevel elbows.	6 In. dia to 8 In. dia. pipe	/EA
Welding	48	Cut & Prep Damaged Pipe	All inclusive unit price to cut and prep damaged ends of steel gas pipe that has been identified by National Grid upon delivery. Does not include cut and bevel elbows.	12 In. dia. pipe	/EA
Welding	49	Cut & Prep Damaged Pipe	All inclusive unit price to cut and prep damaged ends of steel gas pipe that has been identified by National Grid upon delivery. Does not include cut and bevel elbows.	16 In. dia. Pipe	/EA

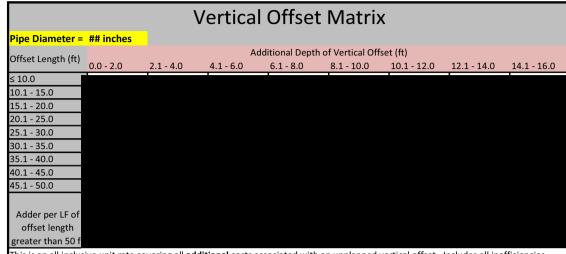
Family	Item#	ltem	Description	Notes	UOM	Volume Interval	Rate
Restoration	1	Concrete Curbing	Curbing, concrete up to 26" with steel face		Per LF		
Restoration	2	Concrete Curbing	Curbing, concrete up to 26"		Per LF		
Restoration	3	Cobblestone	Cobblestone, supply and set		per SF		
Restoration	4	Cobblestone	Cobblestone, reset only		per SF		
Restoration	5	Brick	Brick, supply and set		per SF		
Restoration	6	Brick	Brick, reset only		per SF		
Restoration	7	Curbing, Granite	Curbing, granite, supply and set		Per LF		
Restoration	8	Curbing, Granite	Curbing, granite, reset only		Per LF		
Restoration	9	Curbing, Belgian Block	Curbing, Belgian block, supply and set		Per LF		
Restoration	10	Curbing, Belgian Block	Curbing, Belgian block, reset only		Per LF		
Restoration	11	Bluestone Flag	Bluestone flag, supply and set		Per SF		
Restoration	12	Bluestone Flag	Bluestone flag, reset only		Per SF		
Restoration	13	Sod	Prices include all labor and furnishing of material.		Lump Sum	≤ 18 sq. ft.	
Restoration	14	Sod	Prices include all labor and furnishing of material.		Per SF	> 18 sq. ft.	
Restoration	15	Hydro Seed	Prices include all labor and furnishing of material.		Per SF		
Restoration	16	Topsoil Only – 4" Lift	Prices include all labor and furnishing of material.		Per SF		
Restoration	17	Bus pads	Bus pad panels per NYC DOT Specification, reinforced concrete		Per Panel		
Restoration	18	Pedestrian Ramp	Pedestrian Ramp with curbing, including non-skid insert		Each		
Restoration	22	Mill and Pave	Mill and Pave (up to 2" depth) 50.1 to 100 SY		Per SY	< 100 SY	
Restoration	23	Mill and Pave	Mill and Pave (up to 2" depth) 100.1 to 500 SY		Per SY	100.1 to 500 SY	
Restoration	24	Mill and Pave	Mill and Pave (up to 2" depth) 500.1 to 1,000 SY		Per SY	500.1 to 1000 SY	
Restoration	25	Mill and Pave	Mill and Pave (up to 2" depth) > 1,000 SY		Per SY	> 1000 SY	
Restoration	26	Concrete, reinforced	Concrete, reinforced, up to 9" with 3" asphalt top		Per SY		
Restoration	27	Concrete, reinforced	Concrete, reinforced, sidwalk/driveway up to 7"		Per SF		
Restoration	28	Concrete, reinforced	Concrete, reinforced, > 7" to 12"		Per SF		
Restoration	29	Concrete, reinforced	Concrete, nonreinforced, up to 9" w/3" asphalt top		Per SY		
Restoration	30	Concrete, nonreinforced	Concrete, nonreinforced, up to 7"		Per SF		
Restoration	31	Concrete, nonreinforced	Concrete, nonreinforced, > 7" to 12"		Per SF		
Restoration	32	Concrete, nonreinforced	Concrete, nonreinforced, sidewalk/driveway up to 7"		Per SF		
Restoration	33	Protected & Non Protected Road Openings REGULAR PAVING (per new 2017 DOT rules)	6" to 9" Concrete Base (Regular Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	0 - 50	
Restoration	38	Protected & Non Protected Road Openings REGULAR PAVING (per new 2017 DOT rules)	6" to 9" Concrete Base (Regular Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	50.1 - 300	
Restoration	39	Protected & Non Protected Road Openings REGULAR PAVING (per new 2017 DOT rules)	6" to 9" Concrete Base (Regular Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	300.10 - 1000	
Restoration	40	Protected & Non Protected Road Openings REGULAR PAVING (per new 2017 DOT rules)	6" to 9" Concrete Base (Regular Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	Over 1000	
Restoration	45	Protected & Non Protected Road Openings REGULAR PAVING (per new 2017 DOT rules)	9" to 12" Concrete Base (Regular Paving) HI EARLY CONCRETE	9" conc. / 3" top	Per SY	0 - 50	
Restoration	46	Protected & Non Protected Road Openings REGULAR PAVING (per new 2017 DOT rules)	9" to 12" Concrete Base (Regular Paving) HI EARLY CONCRETE	9" conc. / 3" top	Per SY	50.1 - 300	
Restoration	47	Protected & Non Protected Road Openings REGULAR PAVING (per new 2017 DOT rules)	9" to 12" Concrete Base (Regular Paving) HI EARLY CONCRETE	9" conc. / 3" top	Per SY	300.10 - 1000	
Restoration	48	Protected & Non Protected Road Openings REGULAR PAVING (per new 2017 DOT rules)	9" to 12" Concrete Base (Regular Paving) HI EARLY CONCRETE	9" conc. / 3" top	Per SY	Over 1000	

Restoration						_
nestoration	53	Protected & Non Protected Road Openings REGULAR PAVING (per new 2017 DOT rules)	12" to 16" Concrete Base (Regular Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	0 - 50
Restoration	54	Protected & Non Protected Road Openings REGULAR PAVING (per new 2017 DOT rules)	12" to 16" Concrete Base (Regular Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	50.1 - 300
Restoration	55	Protected & Non Protected Road Openings REGULAR PAVING (per new 2017 DOT rules)	12" to 16" Concrete Base (Regular Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	300.10 - 1000
Restoration	56	Protected & Non Protected Road Openings REGULAR PAVING (per new 2017 DOT rules)	12" to 16" Concrete Base (Regular Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	Over 1000
Restoration	62	Protected & Non Protected Road Openings SAME DAY PAVING (per new 2017 DOT rules)	6" to 9" Concrete Base (Same Day Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	0 - 50
Restoration	63	Protected & Non Protected Road Openings SAME DAY PAVING (per new 2017 DOT rules)	6" to 9" Concrete Base (Same Day Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	50.1 - 300
Restoration	64	Protected & Non Protected Road Openings SAME DAY PAVING (per new 2017 DOT rules)	6" to 9" Concrete Base (Same Day Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	300.10 - 1000
Restoration	65	Protected & Non Protected Road Openings SAME DAY PAVING (per new 2017 DOT rules)	6" to 9" Concrete Base (Same Day Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	Over 1000
Restoration	66	Protected & Non Protected Road Openings SAME DAY PAVING (per new 2017 DOT rules)	9" to 12" Concrete Base (Same Day Paving) HI EARLY CONCRETE	9" conc. / 3" top	Per SY	0 - 50
Restoration	67	Protected & Non Protected Road Openings SAME DAY PAVING (per new 2017 DOT rules)	9" to 12" Concrete Base (Same Day Paving) HI EARLY CONCRETE	9" conc. / 3" top	Per SY	50.1 - 300
Restoration	68	Protected & Non Protected Road Openings SAME DAY PAVING (per new 2017 DOT rules)	9" to 12" Concrete Base (Same Day Paving) HI EARLY CONCRETE	9" conc. / 3" top	Per SY	300.10 - 1000
Restoration	69	Protected & Non Protected Road Openings SAME DAY PAVING (per new 2017 DOT rules)	9" to 12" Concrete Base (Same Day Paving) HI EARLY CONCRETE	9" conc. / 3" top	Per SY	Over 1000
Restoration	70	Protected & Non Protected Road Openings SAME DAY PAVING (per new 2017 DOT rules)	12" to 16" Concrete Base (Same Day Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	0 - 50
Restoration	70	Protected & Non Protected Road Openings SAME DAY PAVING (per new 2017 DOT rules)	12" to 16" Concrete Base (Same Day Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	50.1 - 300
Restoration	71	Protected & Non Protected Road Openings SAME DAY PAVING (per new 2017 DOT rules)	12" to 16" Concrete Base (Same Day Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	300.10 - 1000
Restoration	72	Protected & Non Protected Road Openings SAME DAY PAVING (per new 2017 DOT rules)	12" to 16" Concrete Base (Same Day Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	Over 1000
			All inclusive unit for removal and asphalt wearing course as required per NYC DOT drawing H-1042A dated 3/15/2016; 3" asphalt top. Saw-cut paid separately.			2.2. 2300
Restoration	81	rules)	drawing 11-1042A dated 3/13/2010, 3 aspiralt top. Saw-cut paid separately.		Per SY	
Restoration Restoration	81	rules) Saw-Cutting (per new 2017 DOT rules)	Saw cut full depth of roadway and remove 6" wide cut back portion; Full depth		Per SY Per LF	< 100

Restoration	84	Saw-Cutting (per new 2017 DOT rules)	Saw cut full depth of roadway and remove 6" wide cut back portion; Full depth		Per LF	500.1 - 1,000
Restoration	89	Saw-Cutting (per new 2017 DOT rules)	Saw cut full depth of roadway and remove 6" wide cut back portion; Full depth		Per LF	> 1,000
Restoration	90	Saw-Cutting (per new 2017 DOT rules)	Saw cut wearing course and remove asphalt top up to 12" width; Wearing Course		Per LF	< 100
Restoration	91	Saw-Cutting (per new 2017 DOT rules)	Saw cut wearing course and remove asphalt top up to 12" width; Wearing Course		Per LF	100.1 - 500
Restoration	92	Saw-Cutting (per new 2017 DOT rules)	Saw cut wearing course and remove asphalt top up to 12" width; Wearing Course		Per LF	500.1 - 1,000
Restoration	93	Saw-Cutting (per new 2017 DOT rules)	Saw cut wearing course and remove asphalt top up to 12" width; Wearing Course		Per LF	> 1,000
Restoration	98	Road Plates - Rental	Total steel plate rental rate for a period exceeding 90 days use at the tie-in pits or misc. pits installed.	Steel plate rental rate - Daily Rate	/day/pit	
Restoration	99	Road Plates - Rental	Total steel plate rental rate for a period exceeding 90 days use at the tie-in pits or misc. pits installed.	Steel plate rental rate - Weekly Rate	/week/pit	
Restoration	100	Road Plates - Rental	Total steel plate rental rate for a period exceeding 90 days use at the tie-in pits or misc. pits installed.	Steel plate rental rate - Monthly Rate	/month/pit	
Restoration	101	Road Plates - Recess	Recess Traffic Plates to be flush with surronding road grade		each	
Restoration	102	Road Plate handling (per new 2017 DOT rules)	Boom Truck for road plate delivery: Crew Rate / Straight Time		Per Hour	
Restoration	103	Road Plate handling (per new 2017 DOT rules)	Boom Truck for road plate delivery: Crew Rate / Saturday, Extended day overtime		Per Hour	
Restoration	104	Road Plate handling (per new 2017 DOT rules)	Boom Truck for road plate delivery: Crew Rate /Sunday and Holiday overtime		Per Hour	
Restoration	105	Road Plate handling (per new 2017 DOT rules)	Support crew for road plate installation: Crew Rate / Straight Time		Per Hour	
Restoration	106	Road Plate handling (per new 2017 DOT rules)	Support crew for road plate installation: Crew Rate / Saturday, Extended day overtime		Per Hour	
Restoration	107	Road Plate handling (per new 2017 DOT rules)	Support crew for road plate installation: Crew Rate /Sunday and Holiday overtime		Per Hour	
Restoration	108	Road Plate handling (per new 2017 DOT rules)	Road plate rental per linear foot of opening or trench, any duration of time required. To be used in conjunction with 'Road Plate handling' items.		Per LF	
Restoration	109	Protected Street Backfill	All inclusive unit for labor, equipment and nuclear compaction per NYC DOT requirements on main projects. / Straight Time	Main	Per Hour	
Restoration	110	Protected Street Backfill	All inclusive unit for labor, equipment and nuclear compaction per NYC DOT requirements on main projects. / Saturday, Extended day overtime	Main	Per Hour	
Restoration	111	Protected Street Backfill	All inclusive unit for labor, equipment and nuclear compaction per NYC DOT requirements on main projects. /Sunday and Holiday overtime	Main	Per Hour	
Restoration	112	Protected Street Backfill	All inclusive unit for labor, equipment and nuclear compaction per NYC DOT requirements on service projects. / Straight Time	Service	Per Hour	
Restoration	113	Protected Street Backfill	All inclusive unit for labor, equipment and nuclear compaction per NYC DOT requirements on service projects. / Saturday, Extended day overtime	Service	Per Hour	
Restoration	114	Protected Street Backfill	All inclusive unit for labor, equipment and nuclear compaction per NYC DOT requirements on service projects. /Sunday and Holiday overtime	Service	Per Hour	
Restoration	115	Concrete, New York State road	Concrete, New York State road, reinforced ≤ 8" Quickset w/ or w/o 2" top	≤ 8"	Per SF	
Restoration	116	Concrete, New York State road	Concrete, New York State road, reinforced > 8" Quickset w/ or w/o 2" top	> 8"	Per SF	
Restoration	117	Binder only	Binder only, up to 4"		Per SY	
Restoration	118	Binder only	Binder only, > 4" to 7"		Per SY	
Restoration	119	Binder only	Binder only, > 7" to 10"		Per SY	
Restoration	120	Binder only	Binder only, > 10" to 14"		Per SY	
Restoration	121	Asphalt	Asphalt, 2"		Per SY	

Restoration	122	Asphalt	Binder to Grade - Asphalt, 2"	Per SY	
Restoration	123	Temporary Paving Hot Asphalt	3" thickness. These units apply to the installation of temporary paving above the scope of work identified in the lump sum bid. All inclusive price to furnish and install hot and/or cold patch.	Per SY	
Restoration	124	Asphalt binder w/ top	Asphalt up to 6," binder w/ top	Per SY	
Restoration	125	Asphalt binder w/ top	Asphalt up to 6," binder w/ top	Per SY	
Restoration	126	Asphalt binder w/ top	Asphalt > 6" to 9", binder w/ top	Per SY	
Restoration	127	Asphalt binder w/ top	Asphalt > 6" to 9", binder w/ top	Per SY	
Restoration	128	Asphalt binder w/ top	Asphalt > 9" to 16", binder w/ top	Per SY	
Restoration	129	Asphalt binder w/ top	Asphalt > 9" to 16", binder w/ top	Per SY	
Restoration	130	Incremental Reconstructed Street Bevel Cut & Doweling	Incremental Reconstructed Street Bevel Cut & Doweling	Per LF	
Restoration	131	Thermoplastic Line Striping & Reflectors		Per LF	
Restoration	132	Asphalt Tip-Up Curb	Nassau County DPW asphalt tip-up curb replacement as detailed in section of this Bid Strategy.		

Family	Item #	ltem	Description	Notes	иом	Volume Interval	Rat
				Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections			
				to gas main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not			
orrosion				installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test			
ontrol	1	Test Station	1 lead, 2 anodes in dirt/grass	box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each		
				Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections			
				to gas main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not			
orrosion				installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test			
ntrol	2	Test Station	1 lead, 2 anodes in asphalt/concrete ≤ 6	box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each	≤ 6	
				Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections			Ī i
				to gas main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not			
orrosion				installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test			
ontrol	3	Test Station	1 lead, 2 anodes in asphalt > 6	box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each	> 6	
				Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections			
				to gas main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not			
orrosion				installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test			
ontrol	4	Test Station	2 lead, 4 anodes in dirt/grass	box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each		
				Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections			ì
				to gas main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not			
orrosion				installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test			
ontrol	5	Test Station	2 lead, 4 anodes in asphalt/concrete ≤ 6	box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each	≤ 6	
				Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections			
				to gas main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not			
rrosion				installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test			
ntrol	6	Test Station	2 lead, 4 anodes in asphalt/concrete > 6	box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each	> 6	
			Pipe coating- Unit shall be used to compensate the				
			contractor for the installation of additional pipe coating				
orrosion			for joints or repairs of coating damage not caused by	Also to be used as a credit for pipe coating not performed by the contractor. Pipe coating to be performed as per National Grid Standards			
ntrol	7	Pipe Coating	the contractor.	and Technical Instructions. Materials to be supplied by National Grid.	LF		
orrosion		Holiday	Holiday detection- Unit shall be used to compensate	Also to be used as a credit for holiday detection not performed by the contractor. Holiday detection to be performed as per National			
ontrol	8	Detection	the contractor for additional holiday detection.	Grid Standards and Technical Instructions.	LF		



This is an all inclusive unit rate covering all **additional** costs associated with an unplanned vertical offset. Includes all inefficiencies, delays, and activities required to install a vertical offset from layout to final restoration with the exception of any fusions or welds. Unit rate assumes a minimum of (4) elbows, (2) 3x diameter vertical pups, and (1) 5x diameter horizontal pup.

Unit of Measure is Lump Sum.

Unit of Measure for Adder is PER LF and to be added to the 45.1-50.0 unit rate.

Horizo	ntal Offset Matrix
Offset Length (LF)	Pipe Diameter
	## <u>"</u>
≤ 10.0	\$
10.1 - 20.0	\$
20.1 - 30.0	\$
30.1 - 40.0	\$
40.1 - 50.0	\$
50.1 - 60.0	\$
60.1 - 70.0	\$
70.1 - 80.0	\$
80.1 - 90.0	\$
90.1 - 100.0	\$
Adder per LF of	
offset length	
greater than 100	
ft	\$

This is an all inclusive unit rate covering all additional costs associated with an unplanned horizontal offset. This rate is additional to the lump sum value provided for the original design and includes all inefficiencies, delays, and activities required to install a horizontal offset from layout to final restoration with the exception of any fusions or welds.

Unit of Measure is Lump Sum.

Unit of Measure for Adder is PER LF and to be added to

		Lump Sum Pricing - NL-25	UOM	Rate	Est Qty	EXT
-A.1	WBS Code No.	Firm Lump Sum Price - Total Project	Lump Sum			
-A.1	WB3 Code No.	Description of Project: Regulator Station Rebuild and Over Pressure Protection Addition	Lump Sum			
A.2.a.	06.04B.CD.02.01	Buried Distribution Pipe Installation	Lump Sum		1	
A.2.b.	06.04B.PC.04.01	Paving and Restoration	Lump Sum		1	
A.2.c.	07.04B.CC.01	Preliminary Commissioning (testing)	Lump Sum		1	
A.2.d.	07.04B.CC.02.01	Shut-Down	Lump Sum		1	
A.2.e.	07.04B.CC.02.02	Gas in – Tie in	Lump Sum		1	
A.2.f.	07.04B.CD.01.02	Site Set Up	Lump Sum		1	
A.2.g.	07.04B.CD.04.01	Regulator Station Piping	Lump Sum		1	
4.2.h.	07.04B.CD.07.02	Electrical and Controls (Installation)	Lump Sum		1	
A.2.i.	07.04B.CD.09.01	Valve Installation	Lump Sum		1	
A.2.j.	07.04B.CD.10.01	Vault Installation	Lump Sum		1	
4.2.k.	07.04B.PC.02.01	Demolition/Decommissioning/Removal	Lump Sum		1	
A.2.I.	07.04B.PC.04.01	Paving and Restoration	Lump Sum		1	
\.2.m.	07.045.02.01	Contractor Profit & Fee	Lump Sum		1	
		Option Pricing - NL-25	UOM		Est Qty	
I-A.		Payment Bond in the amount of the Contract Price and as outlined in Section 36.0 of the Terms and Conditions for Construction.	Lump Sum		1	-
I-B.		(see below) Payment Bond Adjustment: rate per thousand dollars of increase or decrease in the bond coverage amount. This rate would be	per thousand		1	
-C.		an adder to the total bond rate in the amounth of the Contract Price. (see below) Performance Bond in the amount of the Contract Price and as outlined in Section 36.0 of the Terms and Conditions for Construction. (see below)	Lump Sum		1	
I-D.		Performance Bond Adjustment: rate per thousand dollars of increase or decrease in the bond coverage amount. This rate would be an adder to the total bond rate in the amounth of the Contract Price. (see below)	per thousand		1	
I-E.		Lien Bond in the amount of the Contract Price and as outlined in Section 36.0 of the Terms and Conditions for Construction. (see below)	Lump Sum		1	
II-F.		Lien Bond Adjustment: rate per thousand dollars of increase or decrease in the bond coverage amount. This rate would be an adder to the total bond rate in the amounth of the Contract Price. (see below)	per thousand		1	
I-G.		Curb to Curb Restoration - Firm Lump Sum Price to providing 2" mill and pave curb to curb along entire route.	Lump Sum		1	
II-H.		Enecon Support - This item is for the contractor to provide support to NGrid's subcontractor, Enecon, for various functions such as, vault sealing, painting of the piping, fittings and regulators. This price must include the cost for a crew to assist with opening and closing of the vaults, setting up and maintaining MPT for all crews and ensuring all workers and pedestrians are working in a safe environment. Price will be based on a crew day with 2 hours overtime to setup and remove MPT. This item shall only be used if a crew is specifically onsite for Enecon support only. If the contractor crew is onsite performing contract work while Enecon is working on site, then this unit will not be exercised.	per day		1	
II-I.		National Grid I&R Support: (1 Operator, 2 Flagger, and 2 laborers)	per day		1	
I-J.		Support of National Grid Crews: (1 Operator, 2 Laborers, 2 Flagger2, and 1 timberman)	per day		1	
I-K.		Cathodic Protection - pipe and fittings coating anode installation and jeeping of pipe	Lump Sum		1	
I-L.			Lump Sum		1	
-M.			Lump Sum		1	
-N.			Lump Sum		1	
-0.			Lump Sum		1	
I-P.			Lump Sum		1	
I-D.			Lump Sum		1	
I-D.			Lump Sum		1	
I-D.			Lump Sum		1	
		rety provider doesn't separate the payment and performance bond cost. The \$				

Sheet Instructions:

The bidder should add and delete the labor / equipment classifications as necessary in order to account for any resources that will be used to complete the project as provided in the drawings as well as any resources required to complete out of scope services.

Equipment Type	per hour	per day	per week	per month
Crane, up to 45 ton (Crane minimum 8 hr rental)	\$			
Compressor, trailer-mounted 160 - 185 CF with hoses and tools	\$			
Power Generator, 2500 watts	\$			
Backhoe/Tractor/Digger/Loader	\$			
Excavator	\$			
Vacuum Truck, with tools (Vac Truck minimum 8 hr rental)	\$			
Utility Truck, fully equipped	\$			
Crew Truck w/ tools	\$			
Boom Truck/Trailer	\$			
Welding Rig, truck-mounted with equipment	\$			
Flood Light Bank/Light Tower	\$			
Arrow Board, illuminated	\$			
Dump truck, > 12 CY	\$			
Dump truck, > 25 CY	\$			
Jersey Barriers, <= 200 LF (price per linear foot, inclusive of delivery, installation, and removal) (Barrier rental only)				
Jersey Barriers, >200 LF (price per linear foot, inclusive of delivery, installation, and removal) (Barrier rental only)				
Pump w/ hoses, 4"	\$			
Pump w/ hoses, 6"	\$			
Wheel loader with bucket				
Excavator with plate tamper				
Crane Rigger/Truck/Equipment				
Sandblasting Truck				
Welding Maintenace Truck				
Attenuator Truck Rental				

Sheet Instructions:

The bidder should add and delete the labor/equipment classifications as necessary in order to account for any resources that will be used to complete the project as provided in the drawings as well as any resources required to complete out of scope services.

services.								
Straight Time	Definitions Hours worked between 7am and 3:30pm (straig	tht time ands	at 3:30nm)					
Straight fille	Tiours worked between 7am and 3.30pm (straig	giit time enus a	at 3.30pm)					
Saturday / extended day premium time	Hours worked on Saturday between 7am and 7p 8 hour shift	om; or any hou	urs worked beyond an					
Sunday and holiday premium time	nium time Hours worked on Sunday or federally recognized holiday between 7am and 7pm							
Night Differential	Rate differential for hours worked during daytin applied to all day rates listed above	ne hours of 7p	m and 7am; to be					
Labor Classification	Time Classification	UOM	Rate					
	Straight Time	per Hour	\$					
	Saturday / extended day premium time	per Hour	\$					
Famanan	Sunday and holiday premium time	per Hour	\$					
Foreman	Night Differential on straight time	per Hour	\$					
	Night Differential on Saturday, extended time							
	and Sunday	per Hour	\$					
	Straight Time	per Hour	\$					
	Saturday / extended day premium time	per Hour	\$					
Laborer	Sunday and holiday premium time	per Hour	\$					
	Night Differential on straight time Night Differential on Saturday, extended time	per Hour	\$					
	and Sunday	per Hour	\$					
	Straight Time	per Hour	\$					
	Saturday / extended day premium time	per Hour	\$					
Operating Engineer/Operator,	Sunday and holiday premium time	per Hour	\$					
excavator	Night Differential on straight time	per Hour	\$					
	Night Differential on Saturday, extended time							
	and Sunday	per Hour	\$					
	Straight Time	per Hour	\$					
Out and time For single 400 and the	Saturday / extended day premium time	per Hour	\$					
Operating Engineer/Operator,	Sunday and holiday premium time	per Hour	\$					
backhoe/tractor/digger/loader	Night Differential on straight time Night Differential on Saturday, extended time	per Hour	\$					
	and Sunday	per Hour	\$					
	Straight Time	per Hour	\$					
	Saturday / extended day premium time	per Hour	\$					
Chauffeur/dump truck driver	Sunday and holiday premium time	per Hour	\$					
	Night Differential	per Hour	\$					
	Straight Time	per Hour	\$					
	Saturday / extended day premium time	per Hour	\$					
Flagger	Sunday and holiday premium time	per Hour	\$					
	Night Differential on straight time	per Hour	\$					
	and Sunday	per Hour	\$					
	Straight Time	per Hour	\$					
	Saturday / extended day premium time	per Hour	\$					
Timberman Foreman	Sunday and holiday premium time	per Hour	\$					
	Night Differential	per Hour	\$					
	Straight Time	per Hour	\$					
Timberman	Saturday / extended day premium time	per Hour	\$					
	Sunday and holiday premium time	per Hour	\$					
	Night Differential	per Hour						
	Straight Time Saturday / extended day premium time	per Hour per Hour	\$					
	Sunday and holiday premium time	per Hour	\$					
Maintenance Person (138)	Night Differential on straight time	per Hour	\$					
	Night Differential on Saturday, extended time							
	and Sunday	per Hour	\$					
	Straight Time	per Hour	\$					
Welder and Welding Rig	Saturday / extended day premium time	per Hour	\$					
	Sunday and holiday premium time	per Hour	\$					
	Night Differential	per Hour						
	Straight Time Saturday / extended day premium time	per Hour per Hour	\$					
Welder Helper	Sunday and holiday premium time	per Hour	\$					
	Night Differential	per Hour	\$					
	Straight Time	per Hour	\$					
	Saturday / extended day premium time	per Hour	\$					
Lead Engineer	Sunday and holiday premium time	per Hour	\$					
Lead Liigilieei	Night Differential on straight time	per Hour	\$					

•	Part Lange and Lange Lange Lange		
	Night Differential on Saturday, extended time		١.
	and Sunday	per Hour	\$
	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
Compressor Operator/ Pump Oper. 3"	Sunday and holiday premium time	per Hour	\$
	Night Differential on straight time	per Hour	\$
	Night Differential on Saturday, extended time		
	and Sunday	per Hour	\$
	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
Oiler	Sunday and holiday premium time	per Hour	\$
Oller	Night Differential on straight time	per Hour	\$
	Night Differential on Saturday, extended time		
	and Sunday	per Hour	\$
	Straight Time	per Hour	\$
Teamster Foreman	Saturday / extended day premium time	per Hour	\$
reamster Foreman	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$
	Straight Time	per Hour	\$
Foreman (731)	Saturday / extended day premium time	per Hour	\$
Foreman (751)	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$
	Straight Time	per Hour	\$
	Juaight Time	per mean	
Laborar (731)	Saturday / extended day premium time	per Hour	\$
Laborer (731)	-		\$

Family	Item #	Item	Description	Notes / Size	UOM	Volume Interval	Rate
Backfill	1	Backfill: Clean Fill	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	≤ 100 CY per day	\$
Backfill	2	Backfill: Clean Fill	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	100.1 - 1000 CY per day	\$
Backfill	3	Backfill: Clean Fill	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	> 1000 CY per day	\$
Backfill	4	Backfill: Clean Sand	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	≤ 100 CY per day	\$
Backfill	5	Backfill: Clean Sand	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	100.1 - 1000 CY per day	\$
Backfill	6	Backfill: Clean Sand	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	> 1000 CY per day	\$
Backfill	7	Backfill: Washed Sand	Furnish & place acceptable washed sand backfill obtained from non-site excavated material. Includes removal and disposal of associated unsuitable fill.		/ cubic yard	≤ 100 CY per day	\$
Backfill	8	Backfill: Washed Sand	Furnish & place acceptable washed sand backfill obtained from non-site excavated material. Includes removal and disposal of associated unsuitable fill.		/ cubic yard	100.1 - 1000 CY per day	\$
Backfill	9	Backfill: Washed Sand	Furnish & place acceptable washed sand backfill obtained from non-site excavated material. Includes removal and disposal of associated unsuitable fill.		/ cubic yard	> 1000 CY per day	\$
Backfill	10	Backfill Materials: National Grid Provided	Pick up, deliver and install material provided by N. Grid		/ cubic yard		\$
Backfill	11	Backfill Materials: National Grid Provided	Pick up, deliver and install material provided by N. Grid		/ cubic yard		\$

Backfill	12	Backfill Materials: National Grid Provided	Pick up, deliver and install material provided by N. Grid		/ cubic yard		\$
Backfill	13	Backfill Materials: National Grid Provided	Pick up, deliver and install material provided by N. Grid		/ cubic yard		\$
Backfill	14	Contaminated Soils: Stockpile	Stockpile contaminated soil from areas other than those identified in the project specification.		/ cubic yard		\$
Backfill	15	Contaminated Soils: Disposal	Disposal of contaminated soil from project site at a DEC certified disposal facility.		/ cubic yard		\$
Backfill	16	Reduced Cover Protection	Steel Plate Installation, One Inch Steel Plate Installed	Contractor to furnish and install one inch thick steel plate as protection over the gas main installed at reduced cover when directed by National Grid.	each		\$
Excavation		Additional Excavation - Extra Depth; Hand-digging only	Extra Depth - adder rate for additional trench depth needed beyond depth as depicted on drawing profiles	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	≤ 25 per day	\$
Excavation	18	Additional Excavation - Extra Depth; Hand-digging only	Extra Depth - adder rate for additional trench depth needed beyond depth as depicted on drawing profiles	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	> 25 per day	\$
Excavation	19	Additional Excavation - Extra Depth; Machine & Hand-Digging	Extra Depth - adder rate for additional trench depth needed beyond depth as depicted on drawing profiles	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	≤ 25 per day	\$
Excavation	20	Additional Excavation - Extra Depth; Machine & Hand-Digging	Extra Depth - adder rate for additional trench depth needed beyond depth as depicted on drawing profiles	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	> 25 per day	\$

Excavation	21	Additional Excavation - Extra Width; Hand-digging only	Extra Width - adder rate to increase the trench width needed beyond standard width of trench	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	≤ 25 per day	\$
Excavation	22	Additional Excavation - Extra Width; Hand-digging only	Extra Width - adder rate to increase the trench width needed beyond standard width of trench	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	> 25 per day	\$
Excavation	23	Additional Excavation - Extra Width; Machine & Hand-Digging	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration		per CY	≤ 25 per day	\$
Excavation	24	Additional Excavation - Extra Width; Machine & Hand-Digging	Extra Width - adder rate to increase the trench width needed beyond standard width of trench	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	> 25 per day	\$
Excavation	25	Miscellaneous Pit: Timber/Steel Sheeted	Install miscellaneous timber / steel sheeting (for out of scope tie-in pits, jacking pits, misc. pits) and associated work. Includes furnishing material, labor, equipment, supporting all utilites, transportation, traffic plates, temporary restoration, and removal of sheeting. PE Stamped Drawings Required.	8 ft x 8 ft pit - to a maximum depth of 8 ft	/ cubic yard		\$
Excavation	26	Miscellaneous Pit: Timber/Steel Sheeted	Install miscellaneous timber / steel sheeting (for out of scope tie-in pits, jacking pits, misc. pits) and associated work. Includes furnishing material, labor, equipment, supporting all utilites, transportation, traffic plates, temporary restoration, and removal of sheeting. PE Stamped Drawings Required.	8 ft x 8 ft pit: 8.1 - 12.0 foot depth	/ cubic yard		\$
Excavation	27	Miscellaneous Pit: Timber/Steel Sheeted	Install miscellaneous timber / steel sheeting (for out of scope tie-in pits, jacking pits, misc. pits) and associated work. Includes furnishing material, labor, equipment, supporting all utilites, transportation, traffic plates, temporary restoration, and removal of sheeting. PE Stamped Drawings Required.	9 ft x 8 ft pit: 12.1 - 16.0 foot depth	/ cubic yard		\$
Excavation	28	Miscellaneous Pit: Timber/Steel Sheeted	Install miscellaneous timber / steel sheeting (for out of scope tie-in pits, jacking pits, misc. pits) and associated work. Includes furnishing material, labor, equipment, supporting all utilites, transportation, traffic plates, temporary restoration, and removal of sheeting. PE Stamped Drawings Required.	10 ft x 8 ft pit: 16.1 - 20.0 foot depth	/ cubic yard		\$

Excavation	29	Miscellaneous Pit: Timber/Steel Sheeted	Install miscellaneous timber / steel sheeting (for out of scope tie-in pits, jacking pits, misc. pits) and associated work. Includes furnishing material, labor, equipment, supporting all utilites, transportation, traffic plates, temporary restoration, and removal of sheeting. PE Stamped Drawings Required.	11 ft x 8 ft pit: 20.1 - 24.0 foot depth	/ cubic yard	\$	
Excavation	30	Miscellaneous Pit: Timber/Steel Sheeted	Install miscellaneous timber / steel sheeting (for out of scope tie-in pits, jacking pits, misc. pits) and associated work. Includes furnishing material, labor, equipment, supporting all utilites, transportation, traffic plates, temporary restoration, and removal of sheeting. PE Stamped Drawings Required.	12 ft x 8 ft pit: 24.1 - 30.0 foot depth	/ cubic yard	\$	
Excavation	31	Miscellaneous Pit: Non- Sheeted	Install miscellaneous pit (for out of scope pipeline trenching). Includes furnishing material, labor, equipment, supporting all utilites, transportation, temporary restoration, and traffic plates.	8 ft x 8 ft pit - to a maximum depth of 5 ft	/ cubic yard	\$	
Excavation	32	Test Holes - Hand / Machine Excavated	Size of additional test holes is approx. 5 ft by 3 ft by 5 ft deep. The unit price includes pavement removal, patch etc. It is understood that this item will cover only the additional test holes NOT covered under the Lump Sum Bid. The lump sum price covers test holes for all mains, ducts, services, pipes, structures, etc. that are shown on the drawings or can be deducted.	Approx. 5 ft by 3 ft by 5 ft deep	each	\$	
Excavation	33	Test Holes - Hand / Machine Excavated Adder	Adder rate for test hole sizes greater than 2.78 cubic yards (i.e. 5 ft by 3 ft by 5 ft deep). To be added to the unit cost of the test hole and is inclusive of pavement removal, patch etc.		/ cubic yard	\$	
Excavation	34	Test Holes - Vacuum Excavated	Size of additional test holes is approx. 5 ft by 3 ft by 5 ft deep. The unit price includes pavement removal, patch etc. It is understood that this item will cover only the additional test holes NOT covered under the Lump Sum Bid. The lump sum price covers test holes for all mains, ducts, services, pipes, structures, etc. that are shown on the drawings or can be deducted.	Approx. 5 ft by 3 ft by 5 ft deep	each	\$	
Excavation	35	Test Holes - Vacuum Excavated Adder	Adder rate for test hole sizes greater than 2.78 cubic yards (i.e. 5 ft by 3 ft by 5 ft deep). To be added to the unit cost of the test hole and is inclusive of pavement removal, patch etc.		/ cubic yard	\$	
Excavation	36	Arborist-directed Hand Digging	Incremental Arborist-directed Hand Digging around trees		/ cubic yard	\$	
Excavation	37	Obstruction	Unit prices are for increased work scope connected with unknown obstructions not shown on prints or that cannot be field identified as a potential interference. These unit prices cover excavating, supporting and providing clearance and installation at the obstruction location. This unit also covers vertical excavations to maintain a minimum of 12" clearance from obstruction. Prices provided are for additions and deletions. If a relocation of the pipe route eliminates going under a "BID" or a designed profile obstruction, National Grid shall receive a credit in the appropriate amount stated above.	≤ 18 inch diameter or width	each	\$	

Excavation	38	Obstruction	Unit prices shown below are for increased work scope connected with unknown obstructions not shown on prints or that cannot be field identified as a potential interference. These unit prices cover excavating, supporting and providing clearance and installation at the obstruction location. This unit also covers vertical excavations to maintain a minimum of 12" clearance from obstruction. Prices shown above are for additions and deletions. If a relocation of the pipe route eliminates going under a "BID" or a designed profile obstruction, National Grid shall receive a credit in the appropriate amount stated above.	18.1 - 36.0 inch diameter or width	each	\$	
Excavation	39	Obstruction	Unit prices shown below are for increased work scope connected with unknown obstructions not shown on prints or that cannot be field identified as a potential interference. These unit prices cover excavating, supporting and providing clearance and installation at the obstruction location. This unit also covers vertical excavations to maintain a minimum of 12" clearance from obstruction. Prices shown above are for additions and deletions. If a relocation of the pipe route eliminates going under a "BID" or a designed profile obstruction, National Grid shall receive a credit in the appropriate amount stated above.	36.1 - 60 inch diameter or width	each	\$	
Excavation	40	Trolley Rail and Tie Removal	Remove and dispose of trolley rail and ties		LF	\$	
Excavation	41	Removal and Disposal of Debris.	This item to be utilized for the removal and proper disposal of any debris found on the project that hinders the pipeline installation. Covered debris includes buried or above grade. Proper disposal must be performed and dump tickets transferred to National Grid (PM&CC).		/ cubic yard	\$	
Excavation	42	Removals - Concrete Sidewalk	The unit prices below cover out of scope requirements for the removal of paving. It includes mark out, saw cut or vermeer cut, removal and disposal of paving.		/ square yard	\$	
Excavation	43	Removals - Concrete road paving	The unit prices below cover out of scope requirements for the removal of paving. It includes mark out, saw cut or vermeer cut, removal and disposal of paving.		/ square yard	\$	
Excavation	44	Removals - Blacktop paving	The unit prices below cover out of scope requirements for the removal of paving. It includes mark out, saw cut or vermeer cut, removal and disposal of paving.		/ square yard	\$	

Family	Item#	ltem	Description	Notes / Size	иом	Ra
Welding		Butt Weld Steel Pipe	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Includes end preparation	2 In. dia. pipe	/EA	
Welding		Butt Weld Steel Pipe	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Includes end preparation	4 In. dia. pipe	/EA	
Velding		Butt Weld Steel Pipe	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Includes end preparation	6 In. dia to 8 In. dia. pipe	/EA	
Velding		Butt Weld Steel Pipe	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Includes end preparation	12 In. dia. pipe	/EA	
Velding		Butt Weld Steel Fittings	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Excludes Tees.	2 In. to 4 In. dia. Fittings	/EA	
Welding		Butt Weld Steel Fittings	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Excludes Tees.	6 In. to 8 In. dia Fittings	/EA	
Welding		Butt Weld Steel Fittings	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Excludes Tees.	10 In. to 12 In. dia Fittings	/EA	
Welding		Butt Weld Steel Valves	Butt Weld Steel Valves	2 In. to 4 In. dia. Valves	/EA	
Welding		Butt Weld Steel Valves	Butt Weld Steel Valves	6 In. to 8 In. dia Valves	/EA	
Welding		Butt Weld Steel Valves	Butt Weld Steel Valves	10 In. to 12 In. dia Valves /E		
Welding		Butt Weld Steel Tees	Butt Weld Steel Tees	2 In. to 4 In. dia Tee	/EA	
Welding		Butt Weld Steel Tees	Butt Weld Steel Tees	6" X 6" X 6" Tee	/EA	
Welding		Butt Weld Steel Tees	Butt Weld Steel Tees	8" X 8" X 8" Tee	/EA	
Welding		Butt Weld Steel Tees	Butt Weld Steel Tees	10" X 10" X 10" Tee	/EA	
Welding		Butt Weld Steel Tees	Butt Weld Steel Tees	12" X 12" X 12" Tee	/EA	
Welding		Butt Weld Insulating Joints	Butt Weld Insulating Joints	2 In. to 4 In. dia. Valves	/EA	
Welding		Butt Weld Insulating Joints	Butt Weld Insulating Joints	6 In. to 8 In. dia Valves	/EA	
Welding		Butt Weld Insulating Joints	Butt Weld Insulating Joints	10 In. to 12 In. dia Valves	/EA	
Welding		Fillet Weld	Includes all surface preperation and welds	0.5 In. to 1 In. dia Fitting	/EA	
Welding		Fillet Weld	Includes all surface preperation and welds	1 In. to 2 In. dia Fitting	/EA	
Welding		Fillet Weld	Includes all surface preperation and welds	4 In. dia Fitting	/EA	
Welding		Fillet Weld	Includes all surface preperation and welds	6 In. dia Fitting	/EA	
Welding		Fillet Weld	Includes all surface preperation and welds	8 In. dia Fitting	/EA	
Welding		Fillet Weld	Includes all surface preperation and welds	10 In. to 12 In. dia Fitting	/EA	
Welding		Western Purge	Complete western purge and install to main per NGrid Standards		/EA	
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Welding	Special/Custom Fittings, Encirclement Type	Includes all surface preperation and welds	2 In. dia to 4 In dia Special/Custom Fittings, Encirclement Type	/EA
Welding	Special/Custom Fittings, Encirclement Type	Includes all surface preperation and welds	6 In. dia to 8 In dia Special/Custom Fittings, Encirclement Type	/EA
Welding	Special/Custom Fittings, Encirclement Type	Includes all surface preperation and welds	10 In. dia to 12 In dia Special/Custom Fittings, Encirclement Type	/EA
Welding	Transition Fitting	Includes all surface preperation, welds and fusion	1 In. dia to 4 In dia Transition Fitting	/EA
Welding	Transition Fitting	Includes all surface preperation, welds and fusion	6 In. dia to 8 In dia Transition Fitting	/EA
Welding	Transition Fitting	Includes all surface preperation, welds and fusion	10 In. dia to 12 In dia Transition Fitting	/EA
Welding	Lug Welding	Lug Welding for CI To STL Restraints (Standard MAIN-6190)	4 In. dia to 12 In dia Pipe (2 lugs per restraint)	/EA
Welding	Field Cut Segmentable Fittings and End Preparation	Field Cut Segmentable Fittings and End Preparation	2 In. to 4 In. dia. Fittings	/EA
Welding	Field Cut Segmentable Fittings and End Preparation	Field Cut Segmentable Fittings and End Preparation	6 In. to 8 In. dia Fittings	/EA
Welding	Field Cut Segmentable Fittings and End Preparation	Field Cut Segmentable Fittings and End Preparation	10 In. to 12 In. dia Fittings	/EA
Welding	Cut & Prep Damaged Pipe	All inclusive unit price to cut and prep damaged ends of steel gas pipe that has been identified by National Grid upon delivery. Does not include cut and bevel elbows.	2 In. dia. pipe	/EA
Welding	Cut & Prep Damaged Pipe	All inclusive unit price to cut and prep damaged ends of steel gas pipe that has been identified by National Grid upon delivery. Does not include cut and bevel elbows.	4 In. dia. pipe	/EA
Welding	Cut & Prep Damaged Pipe	All inclusive unit price to cut and prep damaged ends of steel gas pipe that has been identified by National Grid upon delivery. Does not include cut and bevel elbows.	6 In. dia to 8 In. dia. pipe	/EA
Welding	Cut & Prep Damaged Pipe	All inclusive unit price to cut and prep damaged ends of steel gas pipe that has been identified by National Grid upon delivery. Does not include cut and bevel elbows.	12 In. dia. pipe	/EA

Family	Item #	ltem	Description	Notes	иом	Volume Interval	Rate
Restoration	1	Concrete Curbing	Curbing, concrete up to 26" with steel face		Per LF		
Restoration	2	Concrete Curbing	Curbing, concrete up to 26"		Per LF		\$
Restoration	3	Cobblestone	Cobblestone, supply and set		per SF		
Restoration	4	Cobblestone	Cobblestone, reset only		per SF		
Restoration	5	Brick	Brick, supply and set		per SF		
Restoration	6	Brick	Brick, reset only		per SF		
Restoration	7	Curbing, Granite	Curbing, granite, supply and set		Per LF		
Restoration	8	Curbing, Granite	Curbing, granite, reset only		Per LF		
Restoration	9	Curbing, Belgian Block	Curbing, Belgian block, supply and set		Per LF		
Restoration	10	Curbing, Belgian Block	Curbing, Belgian block, reset only		Per LF		
Restoration	11	Bluestone Flag	Bluestone flag, supply and set		Per SF		
Restoration	12	Bluestone Flag	Bluestone flag, reset only		Per SF		
Restoration	13	Sod	Prices include all labor and furnishing of material.		Lump Sum	≤ 18 sq. ft.	\$
Restoration	14	Sod	Prices include all labor and furnishing of material.		Per SF	> 18 sq. ft.	\$
Restoration	15	Hydro Seed	Prices include all labor and furnishing of material.		Per SF		
Restoration	16	Topsoil Only – 4" Lift	Prices include all labor and furnishing of material.		Per SF		
Restoration	17	Bus pads	Bus pad panels per NYC DOT Specification, reinforced concrete		Per Panel		
Restoration	18	Pedestrian Ramp	Pedestrian Ramp with curbing, including non-skid insert		Each		\$
Restoration	22	Mill and Pave	Mill and Pave (up to 2" depth) 50.1 to 100 SY		Per SY	< 100 SY	\$
Restoration	23	Mill and Pave	Mill and Pave (up to 2" depth) 100.1 to 500 SY		Per SY	100.1 to 500 SY	\$
Restoration	24	Mill and Pave	Mill and Pave (up to 2" depth) 500.1 to 1,000 SY		Per SY	500.1 to 1000 SY	\$
Restoration	25	Mill and Pave	Mill and Pave (up to 2" depth) > 1,000 SY		Per SY	> 1000 SY	\$
Restoration	26	Concrete, reinforced	Concrete, reinforced, up to 9" with 3" asphalt top		Per SY		
Restoration	27	Concrete, reinforced	Concrete, reinforced, sidwalk/driveway up to 7"		Per SF		\$
Restoration	28	Concrete, reinforced	Concrete, reinforced, > 7" to 12"		Per SF		
Restoration	29	Concrete, reinforced	Concrete, nonreinforced, up to 9" w/3" asphalt top		Per SY		
Restoration	30	Concrete, nonreinforced	Concrete, nonreinforced, up to 7"		Per SF		
Restoration	31	Concrete, nonreinforced	Concrete, nonreinforced, > 7" to 12"		Per SF		
Restoration	32	Concrete, nonreinforced	Concrete, nonreinforced, sidewalk/driveway up to 7"		Per SF		\$
Restoration	33	Protected & Non Protected Road Openings REGULAR PAVING (per new 2017 DOT rules)	6" to 9" Concrete Base (Regular Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	0 - 50	
Restoration	38	Protected & Non Protected Road Openings REGULAR PAVING (per new 2017 DOT rules)	6" to 9" Concrete Base (Regular Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	50.1 - 300	
Restoration	39	Protected & Non Protected Road Openings REGULAR PAVING (per new 2017 DOT rules)	6" to 9" Concrete Base (Regular Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	300.10 - 1000	
Restoration	40	Protected & Non Protected Road Openings REGULAR PAVING (per new 2017 DOT rules)	6" to 9" Concrete Base (Regular Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	Over 1000	
Restoration	45	Protected & Non Protected Road Openings REGULAR PAVING (per new 2017 DOT rules)	9" to 12" Concrete Base (Regular Paving) HI EARLY CONCRETE	9" conc. / 3" top	Per SY	0 - 50	
Restoration	46	Protected & Non Protected Road Openings REGULAR PAVING (per new 2017 DOT rules)		9" conc. / 3" top	Per SY	50.1 - 300	
Restoration	47	Protected & Non Protected Road Openings	9" to 12" Concrete Base (Regular Paving) HI EARLY CONCRETE				
		REGULAR PAVING (per new 2017 DOT rules) Protected & Non Protected Road Openings	9" to 12" Concrete Base (Regular Paving) HI EARLY CONCRETE	9" conc. / 3" top	Per SY	300.10 - 1000	
Restoration	48	REGULAR PAVING (per new 2017 DOT rules)	9" to 12" Concrete Base (Regular Paving) HI EARLY CONCRETE	9" conc. / 3" top	Per SY	Over 1000	

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Restoration	53	Protected & Non Protected Road Openings				
		REGULAR PAVING (per new 2017 DOT rules)	12" to 16" Concrete Base (Regular Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	0 - 50
Restoration	54	Protected & Non Protected Road Openings				
Restoration	34	REGULAR PAVING (per new 2017 DOT rules)	12" to 16" Concrete Base (Regular Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	50.1 - 300
Restoration	55	Protected & Non Protected Road Openings				
Restoration	33	REGULAR PAVING (per new 2017 DOT rules)	12" to 16" Concrete Base (Regular Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	300.10 - 1000
Restoration	56	Protected & Non Protected Road Openings				
Restoration	30	REGULAR PAVING (per new 2017 DOT rules)	12" to 16" Concrete Base (Regular Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	Over 1000
D t t	62	Protected & Non Protected Road Openings				
Restoration	62	SAME DAY PAVING (per new 2017 DOT rules)	6" to 9" Concrete Base (Same Day Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	0 - 50
	62	Protected & Non Protected Road Openings				
Restoration	63	SAME DAY PAVING (per new 2017 DOT rules)	6" to 9" Concrete Base (Same Day Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	50.1 - 300
		Protected & Non Protected Road Openings				
Restoration	64	SAME DAY PAVING (per new 2017 DOT rules)	6" to 9" Concrete Base (Same Day Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	300.10 - 1000
		Protected & Non Protected Road Openings	, , , ,		1	
Restoration	65	SAME DAY PAVING (per new 2017 DOT rules)	6" to 9" Concrete Base (Same Day Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	Over 1000
		Protected & Non Protected Road Openings				
Restoration	66	SAME DAY PAVING (per new 2017 DOT rules)	9" to 12" Concrete Base (Same Day Paving) HI EARLY CONCRETE	9" conc. / 3" top	Per SY	0 - 50
		Protected & Non Protected Road Openings		, ,		
Restoration	67	SAME DAY PAVING (per new 2017 DOT rules)	9" to 12" Concrete Base (Same Day Paving) HI EARLY CONCRETE	9" conc. / 3" top	Per SY	50.1 - 300
		Protected & Non Protected Road Openings	5 to 12 Concrete base (same bay raving) in Erner Concrete		1 01 31	56.1 566
Restoration	68	SAME DAY PAVING (per new 2017 DOT rules)	9" to 12" Concrete Base (Same Day Paving) HI EARLY CONCRETE	9" conc. / 3" top	Per SY	300.10 - 1000
		Protected & Non Protected Road Openings	5 to 12 Concrete base (Same bay Faving) in EARLY CONCRETE	5 conc. / 5 top	1 (1 31	300.10 - 1000
Restoration	69	SAME DAY PAVING (per new 2017 DOT rules)	9" to 12" Concrete Base (Same Day Paving) HI EARLY CONCRETE	9" conc. / 3" top	Per SY	Over 1000
		Protected & Non Protected Road Openings	5 to 12 Concrete base (Same bay Faving) in EARLY CONCRETE	s conci / s cop	1 (1 31	OVE: 1000
Restoration	70	SAME DAY PAVING (per new 2017 DOT rules)	12" to 16" Concrete Base (Same Day Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	0 - 50
		Protected & Non Protected Road Openings	12 to 10 Concrete base (Same bay Paving) in EARLY CONCRETE	12 conc. / 5 top	rei 3i	0-30
Restoration	70	SAME DAY PAVING (per new 2017 DOT rules)	12" to 16" Concrete Base (Same Day Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	50.1 - 300
			12 to 16 Coliciete Base (Salife Day Pavilig) fil EARLY CONCRETE	12 conc. / 3 top	rei 3i	30.1 - 300
Restoration	71	Protected & Non Protected Road Openings	13" to 16" Concrete Pass (Same Pay Paying) HI FARIY CONCRETE	12" conc. / 3" top	Per SY	300.10 - 1000
		SAME DAY PAVING (per new 2017 DOT rules)	12" to 16" Concrete Base (Same Day Paving) HI EARLY CONCRETE	12 conc./s top	Per St	300.10 - 1000
Restoration	72	Protected & Non Protected Road Openings	43" to 40" Consents Book (Conse Book Book SARIV CONCRETE	13" / 3" +	D CV	01000
		SAME DAY PAVING (per new 2017 DOT rules)	12" to 16" Concrete Base (Same Day Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	Over 1000
Restoration	81	Abutting Opening Restoration (per new 2017 DOT	All inclusive unit for removal and asphalt wearing course as required per NYC DOT drawing H-1042A dated		5 61	
		rules)	3/15/2016; 3" asphalt top. Saw-cut paid separately.		Per SY	
Restoration	82	Saw-Cutting (per new 2017 DOT rules)	Saw cut full depth of roadway and remove 6" wide cut back portion; Full depth		Per LF	< 100
Restoration	83	Saw-Cutting (per new 2017 DOT rules)	Saw cut full depth of roadway and remove 6" wide cut back portion; Full depth		Per LF	100.1 - 500
Restoration	84	Saw-Cutting (per new 2017 DOT rules)	Saw cut full depth of roadway and remove 6" wide cut back portion; Full depth		Per LF	500.1 - 1,000
Restoration	89	Saw-Cutting (per new 2017 DOT rules)	Saw cut full depth of roadway and remove 6" wide cut back portion; Full depth		Per LF	> 1,000
Restoration	90	Saw-Cutting (per new 2017 DOT rules)	Saw cut wearing course and remove asphalt top up to 12" width; Wearing Course		Per LF	< 100
Restoration	91	Saw-Cutting (per new 2017 DOT rules)	Saw cut wearing course and remove asphalt top up to 12" width; Wearing Course		Per LF	100.1 - 500
Restoration	92	Saw-Cutting (per new 2017 DOT rules)	Saw cut wearing course and remove asphalt top up to 12" width; Wearing Course		Per LF	500.1 - 1,000
Restoration	93	Saw-Cutting (per new 2017 DOT rules)	Saw cut wearing course and remove asphalt top up to 12" width; Wearing Course		Per LF	> 1,000
Restoration	98	Road Plates - Rental		Steel plate rental	/day/pit	
Nestoration	30	Noau Flates - Nelltal	Total steel plate rental rate for a period exceeding 90 days use at the tie-in pits or misc. pits installed.	rate - Daily Rate	/uay/pit	
Dooto u-ti		Dood Dietes Dentel		Steel plate rental	hungli Inte	
Restoration	99	Road Plates - Rental	Total steel plate rental rate for a period exceeding 90 days use at the tie-in pits or misc. pits installed.	rate - Weekly Rate	/week/pit	
Restoration	100	David Blates - Barriel		Steel plate rental	/	
IKACTORation	100	Road Plates - Rental	Total steel plate rental rate for a period exceeding 90 days use at the tie-in pits or misc. pits installed.	rate - Monthly Rate	/month/pit	i I

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Restoration	101	Road Plates - Recess	Recess Traffic Plates to be flush with surronding road grade		each		
Restoration	102	Road Plate handling (per new 2017 DOT rules)	Boom Truck for road plate delivery: Crew Rate / Straight Time		Per Hour		
Restoration	103	Road Plate handling (per new 2017 DOT rules)	Boom Truck for road plate delivery: Crew Rate / Saturday, Extended day overtime		Per Hour		
Restoration	104	Road Plate handling (per new 2017 DOT rules)	Boom Truck for road plate delivery: Crew Rate /Sunday and Holiday overtime		Per Hour		
Restoration	105	Road Plate handling (per new 2017 DOT rules)	Support crew for road plate installation: Crew Rate / Straight Time		Per Hour		
Restoration	106	Road Plate handling (per new 2017 DOT rules)	Support crew for road plate installation: Crew Rate / Saturday, Extended day overtime		Per Hour		
Restoration	107	Road Plate handling (per new 2017 DOT rules)	Support crew for road plate installation: Crew Rate /Sunday and Holiday overtime		Per Hour		
	400	D 181 1 11 / 2017 DOT 1)	Road plate rental per linear foot of opening or trench, any duration of time required. To be used in conjunction with				
Restoration	108	Road Plate handling (per new 2017 DOT rules)	'Road Plate handling' items.		Per LF		
:	100	2	All inclusive unit for labor, equipment and nuclear compaction per NYC DOT requirements on main projects. /				
Restoration	109	Protected Street Backfill	Straight Time	Main	Per Hour		
			All inclusive unit for labor, equipment and nuclear compaction per NYC DOT requirements on main projects. /				$\overline{}$
Restoration	110	Protected Street Backfill	Saturday, Extended day overtime	Main	Per Hour		
			All inclusive unit for labor, equipment and nuclear compaction per NYC DOT requirements on main projects.				
Restoration	111	Protected Street Backfill	/Sunday and Holiday overtime	Main	Per Hour		
			All inclusive unit for labor, equipment and nuclear compaction per NYC DOT requirements on service projects. /				
Restoration	112	Protected Street Backfill	Straight Time	Service	Per Hour		
			All inclusive unit for labor, equipment and nuclear compaction per NYC DOT requirements on service projects. /				
Restoration	113	Protected Street Backfill	Saturday, Extended day overtime	Service	Per Hour		
			All inclusive unit for labor, equipment and nuclear compaction per NYC DOT requirements on service projects.		i ci i i cu		
Restoration	114	Protected Street Backfill	/Sunday and Holiday overtime	Service	Per Hour		
Restoration	115	Concrete, New York State road	Concrete, New York State road, reinforced ≤ 8" Quickset w/ or w/o 2" top	≤ 8"	Per SF		
Restoration	116	Concrete, New York State road	Concrete, New York State road, reinforced > 8" Quickset w/ or w/o 2" top	> 8"	Per SF		
Restoration	117	Binder only	Binder only, up to 4"		Per SY	Ś	
Restoration	118	Binder only	Binder only, > 4" to 7"		Per SY	Ś	
Restoration	119	Binder only	Binder only, > 7" to 10"		Per SY	Ś	
Restoration	120	Binder only	Binder only, > 10" to 14"		Per SY	Ś	
Restoration	121	Asphalt	Asphalt, 2"		Per SY	Ś	
Restoration	122	Asphalt	Binder to Grade - Asphalt, 2"		Per SY	Ś	
nesteration		rispinant	3" thickness. These units apply to the installation of temporary paving above the scope of work identified in the lump		1	Ψ	
Restoration	123	Temporary Paving Hot Asphalt	sum bid. All inclusive price to furnish and install hot and/or cold patch.		Per SY	Ś	
Restoration	124	Asphalt binder w/ top	Asphalt up to 6," binder w/ top		Per SY	Ś	
Restoration	125	Asphalt binder w/ top	Asphalt up to 6," binder w/ top		Per SY	¢	
Restoration	126	Asphalt binder w/ top	Asphalt > 6" to 9", binder w/ top		Per SY	Ś	
Restoration	127	Asphalt binder w/ top	Asphalt > 6" to 9", binder w/ top		Per SY	¢	
Restoration	128	Asphalt binder w/ top	Asphalt > 9" to 16", binder w/ top		Per SY	Ś	
Restoration	129	Asphalt binder w/ top	Asphalt > 9" to 16", binder w/ top		Per SY	¢	
restolation	123	Aspirate billider w/ top	propriates 5 to 20 political wy top		1 61 31	٠	
Restoration	130	Incremental Reconstructed Street Bevel Cut &					
		Doweling	Incremental Reconstructed Street Bevel Cut & Doweling		Per LF		
Restoration	131	Thermoplastic Line Striping & Reflectors			Per LF		
Restoration	132	Asphalt Tip-Up Curb	Nassau County DPW asphalt tip-up curb replacement as detailed in section of this Bid Strategy.			\$	

Family	Item #	Item	Description	Notes	иом	Volume Interval	Rate
				Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections			
				to gas main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not			
Corrosion		Test		installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test			
Control	1	Station	1 lead, 2 anodes in dirt/grass	box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each		
				Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections			
				to gas main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not			
Corrosion		Test		installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test			
Control	2	Station	1 lead, 2 anodes in asphalt/concrete ≤ 6	box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each	≤ 6	
				Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections			
				is main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not			
Corrosion		Test		installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test			
Control	3	Station	1 lead, 2 anodes in asphalt > 6	box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each	> 6	
				Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections			
				to gas main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not			
Corrosion		Test		installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test			
Control	4	Station	2 lead, 4 anodes in dirt/grass	box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each		
				Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections			
				to gas main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not			
Corrosion		Test		installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test			
Control	5	Station	2 lead, 4 anodes in asphalt/concrete ≤ 6	box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each	≤ 6	
				Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections			
				to gas main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not			
Corrosion		Test		installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test			
Control	6	Station	2 lead, 4 anodes in asphalt/concrete > 6	box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each	> 6	
			Pipe coating- Unit shall be used to compensate the				
			contractor for the installation of additional pipe				
Corrosion		Pipe	coating for joints or repairs of coating damage not	Also to be used as a credit for pipe coating not performed by the contractor. Pipe coating to be performed as per National Grid Standards			
Control	7	· ·	caused by the contractor.	and Technical Instructions. Materials to be supplied by National Grid.	I F		
201101	<u> </u>	Joanna	caused by the contractor.	and realistical metabolist materials to be supplied by fluttonial orial	-		
Corrosion		Holiday	Holiday detection- Unit shall be used to compensate	Also to be used as a credit for holiday detection not performed by the contractor. Holiday detection to be performed as per National			
Control	8	1 '	the contractor for additional holiday detection.	Grid Standards and Technical Instructions.	LF		

	Vertical Offset Matrix							
Pipe Diameter =	Diameter = ## inches							
Offset Length (ft)			Ad	lditional Depth	of Vertical Off	set (ft)		
Offset Leffgtif (it)	0.0 - 2.0	2.1 - 4.0	4.1 - 6.0	6.1 - 8.0	8.1 - 10.0	10.1 - 12.0	12.1 - 14.0	14.1 - 16.0
≤ 10.0								
10.1 - 15.0								
15.1 - 20.0								
20.1 - 25.0								
25.1 - 30.0								
30.1 - 35.0								
35.1 - 40.0								
40.1 - 45.0								
45.1 - 50.0								
Adder per LF of								
offset length great								
than 50 ft								

This is an all inclusive unit rate covering all **additional** costs associated with an unplanned vertical offset. Includes all inefficiencies, delays, and activities required to install a vertical offset from layout to final restoration with the exception of any fusions or welds. Unit rate assumes a minimum of (4) elbows, (2) 3x diameter vertical pups, and (1) 5x diameter horizontal pup.

Unit of Measure is Lump Sum.

Unit of Measure for Adder is PER LF and to be added to the 45.1-50.0 unit rate.

Horizontal Offset Matrix					
Offset Length (LF)	Pipe Diameter				
	##" 				
≤ 10.0	\$				
10.1 - 20.0	\$				
20.1 - 30.0	\$				
30.1 - 40.0	\$				
40.1 - 50.0	\$				
50.1 - 60.0	\$				
60.1 - 70.0	\$				
70.1 - 80.0	\$				
80.1 - 90.0	\$				
90.1 - 100.0	\$				
Adder per LF of					
offset length greater					
than 100 ft	\$				

This is an all inclusive unit rate covering all additional costs associated with an unplanned horizontal offset. This rate is additional to the lump sum value provided for the original design and includes all inefficiencies, delays, and activities required to install a horizontal offset from layout to final restoration with the exception of any fusions or welds.

Unit of Measure is Lump Sum.

Unit of Measure for Adder is PER LF and to be added to the 45.1-50.0 unit rate.

		Lump Sum Pricing - SL-32 Refurbishment Project	UOM	Rate	Est Qty	EXT
I-A.1	WBS	Firm Lump Sum Price - Total Project Description of Project	Lump Sum			
I-A.2.a.	07.04B.CD.01.02	Contractor Mobilization	Lump Sum		1	
I-A.2.b.	07.04B.CC.02.01	Shutdown (Assume 3 Days of Support)	Lump Sum		1	
I-A.2.c.	07.04B.CC.02.02	Tie-In (Assume 3 Days of Support)	Lump Sum		1	
I-A.2.d.	07.04B.PC.02.01	Demolition/Decommissioning/Removal	Lump Sum		1	
I-A.2.e.	07.04B.CD.10.01	OPP Vault Installation	Lump Sum		1	
I-A.2.f.	07.04B.CD.04.01	Regulator Station Piping	Lump Sum		1	
I-A.2.g.	07.04B.CD.04.02	Regulator Installation	Lump Sum		1	
I-A.2.h.	07.04B.CD.09.01	Valve Installation	Lump Sum		1	
I-A.2.i.	07.04B.CD.07.02	Electrical and Controls (Installation)	Lump Sum		1	
I-A.2.j.	07.04B.CD.07.03	Control Cabinets Install	Lump Sum		1	
I-A.2.k.	07.04B.CC.01	Preliminary Commissioning (Testing)	Lump Sum		1	
I-A.2.l.	07.04B.PC.04.01	Paving and Restoration	Lump Sum		1	
-A.2.m.	07.045.01.02	Contractor Project Management	Lump Sum		1	
I-A.2.n.	07.045.02.01	Contractor Profit & Fee	Lump Sum		1	

	Option Pricing - SL-32	UOM	Rate	Est Qty	EXT
II-A.	Payment Bond in the amount of the Contract Price and as outlined in Section 36.0 of the Terms and Conditions for Construction. (see below)	Lump Sum		1	
II-B.	Payment Bond Adjustment: rate per thousand dollars of increase or decrease in the bond coverage amount. This rate would be an adder to the total bond rate in the amounth of the Contract Price. (see below)	per thousand		1	
II-C.	Performance Bond in the amount of the Contract Price and as outlined in Section 36.0 of the Terms and Conditions for Construction. (see below)	Lump Sum		1	
II-D.	Performance Bond Adjustment: rate per thousand dollars of increase or decrease in the bond coverage amount. This rate would be an adder to the total bond rate in the amounth of the Contract Price. (see below)	per thousand		1	
II-E.	Lien Bond in the amount of the Contract Price and as outlined in Section 36.0 of the Terms and Conditions for Construction. (see below)	Lump Sum		1	
II-F.	Lien Bond Adjustment: rate per thousand dollars of increase or decrease in the bond coverage amount. This rate would be an adder to the total bond rate in the amounth of the Contract Price. (see below)	per thousand		1	
II-G.	Curb to Curb Restoration - Firm Lump Sum Price to providing 2" mill and pave curb to curb along entire route.	Lump Sum		1	
II-H.	Sod Residents Lawns (809 & 803 Sayville Ave)	sq/ft		1	
II-I.	Repair Customer Driveway	SY		1	
II-J.	Enecon Support - This item is for the contractor to provide support to NGrid's subcontractor, Enecon, for various functions such as, vault sealing, painting of the piping, fittings and regulators. This price must include the cost for a crew to assist with opening and closing of the vaults, setting up and maintaining MPT for all crews and ensuring all workers and pedestrians are working in a safe environment. Price will be based on a crew day with 2 hours overtime to setup and remove MPT. This item shall only be used if a crew is specifically onsite for Enecon support only. If the contractor crew is onsite performing contract work while Enecon is working on site, then this unit will not be exercised.	Per day		1	
II-K.	Remove and Replace Customer Fence in kind (22 13th St, Bohemia)	Lump Sum		1	
II-L.	National Grid I&R Support: (1 Operator, 2 Flagger, and 2 laborers)	Per Day		1	
II-M.	Support of National Grid Crews: (1 Operator, 2 Laborers, 2 Flagger2, and 1 timberman)	Per Day		1	
II-N.	Cathodic Protection - pipe and fittings coating anode installation and jeeping of pipe	Lump Sum		2	

Sheet Instructions:

The bidder should add and delete the labor / equipment classifications as necessary in order to account for any resources that will be used to complete the project as provided in the drawings as well as any resources required to complete out of scope services.

Equipment Type	per hour	per day	per week	per month
Crane, up to 45 ton (Crane minimum 8 hr rental)				
Compressor, trailer-mounted 160 - 185 CF with hoses and tools				
Power Generator, 2500 watts	_			
Backhoe/Tractor/Digger/Loader				
Excavator				
Vacuum Truck, with tools (Vac Truck minimum 8 hr rental)				
Utility Truck, fully equipped				
Crew Truck w/ tools				
Boom Truck/Trailer				
Welding Rig, truck-mounted with equipment				
Flood Light Bank/Light Tower				
Arrow Board, illuminated				
Dump truck, > 12 CY	_			
Dump truck, > 25 CY				
Jersey Barriers, <= 200 LF (price per linear foot, inclusive of delivery, installation, and removal) (Barrier rental only)				
Jersey Barriers, >200 LF (price per linear foot, inclusive of delivery, installation, and removal) (Barrier rental only)				
Pump w/ hoses, 4"				
Pump w/ hoses, 6"				
Wheel loader with bucket				
Excavator with plate tamper				
Crane Rigger/Truck/Equipment				
Sandblasting Truck				
Welding Maintenace Truck				
Attenuator Truck Rental				

Sheet Instructions:

The bidder should add and delete the labor/equipment classifications as necessary in order to account for any resources that will be used to complete the project as provided in the drawings as well as any resources required to complete out of scope services.

	Definitions								
Straight Time	Hours worked between 7am and 3:30pm (straight time ends at 3:30pm)								
Saturday / extended day premium time	Hours worked on Saturday between 7am and 7pm; or any hours worked beyond an 8 hour shift								
Sunday and holiday premium time	Hours worked on Sunday or federally recognized holiday between 7am and 7pm								
Night Differential	Rate differential for hours worked during daytime hours of 7pm and 7am; to be applied to all day rates listed above								

Labor Classification	Time Classification	UOM	Rate
	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
_	Sunday and holiday premium time	per Hour	\$
Foreman	Night Differential on straight time	per Hour	\$
	Night Differential on Saturday, extended time		
	and Sunday	per Hour	\$
	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
Laborer	Night Differential on straight time	per Hour	\$
	Night Differential on Saturday, extended time		
	and Sunday	per Hour	\$
	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
Operating Engineer/Operator,	Sunday and holiday premium time	per Hour	\$
excavator	Night Differential on straight time	per Hour	\$
	Night Differential on Saturday, extended time		
	and Sunday	per Hour	\$
	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
Operating Engineer/Operator,	Sunday and holiday premium time	per Hour	\$
backhoe/tractor/digger/loader	Night Differential on straight time	per Hour	\$
	Night Differential on Saturday, extended time		
	and Sunday	per Hour	\$
	Straight Time	per Hour	\$
Chauffeur/dump truck driver	Saturday / extended day premium time	per Hour	\$
chauneur/dump truck unver	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$
	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
Flagger	Sunday and holiday premium time	per Hour	\$
1108861	Night Differential on straight time	per Hour	\$
	Night Differential on Saturday, extended time		
	and Sunday	per Hour	\$
	Straight Time	per Hour	\$
Timberman Foreman	Saturday / extended day premium time	per Hour	\$
berman i oreman	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$
	Straight Time	per Hour	\$
Timberman	Saturday / extended day premium time	per Hour	\$
20	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$
	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
Maintenance Person (138)	Sunday and holiday premium time	per Hour	\$
(==3)	Night Differential on straight time	per Hour	\$
	Night Differential on Saturday, extended time	nor Harr	ć
	and Sunday	per Hour	\$
	Straight Time	per Hour	\$
Welder and Welding Rig	Saturday / extended day premium time	per Hour	\$
3 3	Sunday and holiday premium time	per Hour	\$

	Night Differential	per Hour	\$
	Straight Time	per Hour	\$
Welder Helper	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$
	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
Lead Engineer	Sunday and holiday premium time	per Hour	\$
Lead Eligilieei	Night Differential on straight time	per Hour	\$
	Night Differential on Saturday, extended time		
	and Sunday	per Hour	\$
	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
Compressor Operator/ Pump Oper.	Sunday and holiday premium time	per Hour	\$
3"	Night Differential on straight time	per Hour	\$
	Night Differential on Saturday, extended time		
	and Sunday	per Hour	\$
	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
Oiler	Sunday and holiday premium time	per Hour	\$
Oller	Night Differential on straight time	per Hour	\$
	Night Differential on Saturday, extended time	-	
	and Sunday	per Hour	\$
	Straight Time	per Hour	\$
-	Saturday / extended day premium time	per Hour	\$
Teamster Foreman	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$
	Straight Time	per Hour	\$
F (721)	Saturday / extended day premium time	per Hour	\$
Foreman (731)	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$
	Straight Time	per Hour	\$
Lab (724)	Saturday / extended day premium time	per Hour	\$
Laborer (731)	Sunday and holiday premium time	per Hour	\$
			Ś

Family	Item #	Item	Description	Notes / Size	иом	Volume Interval
Backfill	1	Backfill: Clean Fill	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	≤ 100 CY per day
Backfill	2	Backfill: Clean Fill	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	100.1 - 1000 CY per day
Backfill	3	Backfill: Clean Fill	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	> 1000 CY per day
Backfill	4	Backfill: Clean Sand	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	≤ 100 CY per day
Backfill	5	Backfill: Clean Sand	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	100.1 - 1000 CY per day
Backfill	6	Backfill: Clean Sand	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	> 1000 CY per day
Backfill	7	Backfill: Washed Sand	Furnish & place acceptable washed sand backfill obtained from non-site excavated material. Includes removal and disposal of associated unsuitable fill.		/ cubic yard	≤ 100 CY per day
Backfill	8	Backfill: Washed Sand	Furnish & place acceptable washed sand backfill obtained from non-site excavated material. Includes removal and disposal of associated unsuitable fill.		/ cubic yard	100.1 - 1000 CY per day
Backfill	9	Backfill: Washed Sand	Furnish & place acceptable washed sand backfill obtained from non-site excavated material. Includes removal and disposal of associated unsuitable fill.		/ cubic yard	> 1000 CY per day
Backfill	10	Backfill Materials: National Grid Provided	Pick up, deliver and install material provided by N. Grid		/ cubic yard	
Backfill	11	Backfill Materials: National Grid Provided	Pick up, deliver and install material provided by N. Grid		/ cubic yard	
Backfill	12	Backfill Materials: National Grid Provided	Pick up, deliver and install material provided by N. Grid		/ cubic yard	
Backfill	13	Backfill Materials: National Grid Provided	Pick up, deliver and install material provided by N. Grid		/ cubic yard	
Backfill	14	Contaminated Soils: Stockpile	Stockpile contaminated soil from areas other than those identified in the project specification.		/ cubic yard	

Backfill	15	Contaminated Soils: Disposal	Disposal of contaminated soil from project site at a DEC certified disposal facility.		/ cubic yard	
Backfill	16	Reduced Cover Protection	Steel Plate Installation, One Inch Steel Plate Installed	Contractor to furnish and install one inch thick steel plate as protection over the gas main installed at reduced cover when directed by National Grid.	each	
Excavation	17	Additional Excavation - Extra Depth; Hand- digging only	Extra Depth - adder rate for additional trench depth needed beyond depth as depicted on drawing profiles	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	≤ 25 per day
Excavation	18	Additional Excavation - Extra Depth; Hand- digging only	Extra Depth - adder rate for additional trench depth needed beyond depth as depicted on drawing profiles	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	> 25 per day
Excavation	19	Additional Excavation - Extra Depth; Machine & Hand-Digging	Extra Depth - adder rate for additional trench depth needed beyond depth as depicted on drawing profiles	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	≤ 25 per day
Excavation	20	Additional Excavation - Extra Depth; Machine & Hand-Digging	Extra Depth - adder rate for additional trench depth needed beyond depth as depicted on drawing profiles	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	> 25 per day
Excavation	21	Additional Excavation - Extra Width; Hand- digging only	Extra Width - adder rate to increase the trench width needed beyond standard width of trench	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	≤ 25 per day
Excavation	22	Additional Excavation - Extra Width; Hand- digging only	Extra Width - adder rate to increase the trench width needed beyond standard width of trench	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	> 25 per day
Excavation	23	Additional Excavation - Extra Width; Machine & Hand-Digging	Extra Width - adder rate to increase the trench width needed beyond standard width of trench	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	≤ 25 per day
Excavation	24	Additional Excavation - Extra Width; Machine & Hand-Digging	Extra Width - adder rate to increase the trench width needed beyond standard width of trench	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	> 25 per day
Excavation	25	Miscellaneous Pit: Timber/Steel Sheeted	Install miscellaneous timber / steel sheeting (for out of scope tie-in pits, jacking pits, misc. pits) and associated work. Includes furnishing material, labor, equipment, supporting all utilites, transportation, traffic plates, temporary restoration, and removal of sheeting. PE Stamped Drawings Required.	8 ft x 8 ft pit - to a maximum depth of 8 ft	/ cubic yard	

Excavation	26	Miscellaneous Pit: Timber/Steel Sheeted	Install miscellaneous timber / steel sheeting (for out of scope tie-in pits, jacking pits, misc. pits) and associated work. Includes furnishing material, labor, equipment, supporting all utilites, transportation, traffic plates, temporary restoration, and removal of sheeting. PE Stamped Drawings Required.	8 ft x 8 ft pit: 8.1 - 12.0 foot depth	/ cubic yard
Excavation	27	Miscellaneous Pit: Timber/Steel Sheeted	Install miscellaneous timber / steel sheeting (for out of scope tie-in pits, jacking pits, misc. pits) and associated work. Includes furnishing material, labor, equipment, supporting all utilites, transportation, traffic plates, temporary restoration, and removal of sheeting. PE Stamped Drawings Required.	9 ft x 8 ft pit: 12.1 - 16.0 foot depth	/ cubic yard
Excavation	28	Miscellaneous Pit: Timber/Steel Sheeted	Install miscellaneous timber / steel sheeting (for out of scope tie-in pits, jacking pits, misc. pits) and associated work. Includes furnishing material, labor, equipment, supporting all utilites, transportation, traffic plates, temporary restoration, and removal of sheeting. PE Stamped Drawings Required.	10 ft x 8 ft pit: 16.1 - 20.0 foot depth	/ cubic yard
Excavation	29	Miscellaneous Pit: Timber/Steel Sheeted	Install miscellaneous timber / steel sheeting (for out of scope tie-in pits, jacking pits, misc. pits) and associated work. Includes furnishing material, labor, equipment, supporting all utilites, transportation, traffic plates, temporary restoration, and removal of sheeting. PE Stamped Drawings Required.	11 ft x 8 ft pit: 20.1 - 24.0 foot depth	/ cubic yard
Excavation	30	Miscellaneous Pit: Timber/Steel Sheeted	Install miscellaneous timber / steel sheeting (for out of scope tie-in pits, jacking pits, misc. pits) and associated work. Includes furnishing material, labor, equipment, supporting all utilites, transportation, traffic plates, temporary restoration, and removal of sheeting. PE Stamped Drawings Required.	12 ft x 8 ft pit: 24.1 - 30.0 foot depth	/ cubic yard
Excavation	31	Miscellaneous Pit: Non- Sheeted	Install miscellaneous pit (for out of scope pipeline trenching). Includes furnishing material, labor, equipment, supporting all utilites, transportation, temporary restoration, and traffic plates.	8 ft x 8 ft pit - to a maximum depth of 5 ft	/ cubic yard
Excavation	32	Test Holes - Hand / Machine Excavated	Size of additional test holes is approx. 5 ft by 3 ft by 5 ft deep. The unit price includes pavement removal, patch etc. It is understood that this item will cover only the additional test holes NOT covered under the Lump Sum Bid. The lump sum price covers test holes for all mains, ducts, services, pipes, structures, etc. that are shown on the drawings or can be deducted.	Approx. 5 ft by 3 ft by 5 ft deep	each
Excavation	33	Test Holes - Hand / Machine Excavated Adder	Adder rate for test hole sizes greater than 2.78 cubic yards (i.e. 5 ft by 3 ft by 5 ft deep). To be added to the unit cost of the test hole and is inclusive of pavement removal, patch etc.		/ cubic yard
Excavation	34	Test Holes - Vacuum Excavated	Size of additional test holes is approx. 5 ft by 3 ft by 5 ft deep. The unit price includes pavement removal, patch etc. It is understood that this item will cover only the additional test holes NOT covered under the Lump Sum Bid. The lump sum price covers test holes for all mains, ducts, services, pipes, structures, etc. that are shown on the drawings or can be deducted.	Approx. 5 ft by 3 ft by 5 ft deep	each
Excavation	35	Test Holes - Vacuum Excavated Adder	Adder rate for test hole sizes greater than 2.78 cubic yards (i.e. 5 ft by 3 ft by 5 ft deep). To be added to the unit cost of the test hole and is inclusive of pavement removal, patch etc.		/ cubic yard
Excavation	36	Arborist-directed Hand Digging	Incremental Arborist-directed Hand Digging around trees		/ cubic yard

Excavation	37	Obstruction	Unit prices are for increased work scope connected with unknown obstructions not shown on prints or that cannot be field identified as a potential interference. These unit prices cover excavating, supporting and providing clearance and installation at the obstruction location. This unit also covers vertical excavations to maintain a minimum of 12" clearance from obstruction. Prices provided are for additions and deletions. If a relocation of the pipe route eliminates going under a "BID" or a designed profile obstruction, National Grid shall receive a credit in the appropriate amount stated above.	≤ 18 inch diameter or width	each	
Excavation	38	Obstruction	Unit prices shown below are for increased work scope connected with unknown obstructions not shown on prints or that cannot be field identified as a potential interference. These unit prices cover excavating, supporting and providing clearance and installation at the obstruction location. This unit also covers vertical excavations to maintain a minimum of 12" clearance from obstruction. Prices shown above are for additions and deletions. If a relocation of the pipe route eliminates going under a "BID" or a designed profile obstruction, National Grid shall receive a credit in the appropriate amount stated above.	18.1 - 36.0 inch diameter or width	each	
Excavation	39	Obstruction	Unit prices shown below are for increased work scope connected with unknown obstructions not shown on prints or that cannot be field identified as a potential interference. These unit prices cover excavating, supporting and providing clearance and installation at the obstruction location. This unit also covers vertical excavations to maintain a minimum of 12" clearance from obstruction. Prices shown above are for additions and deletions. If a relocation of the pipe route eliminates going under a "BID" or a designed profile obstruction, National Grid shall receive a credit in the appropriate amount stated above.	36.1 - 60 inch diameter or width	each	
Excavation	41	Removal and Disposal of Debris.	This item to be utilized for the removal and proper disposal of any debris found on the project that hinders the pipeline installation. Covered debris includes buried or above grade. Proper disposal must be performed and dump tickets transferred to National Grid (PM&CC).		/ cubic yard	
Excavation	42	Removals - Concrete Sidewalk	The unit prices below cover out of scope requirements for the removal of paving. It includes mark out, saw cut or vermeer cut, removal and disposal of paving.		/ square yard	
Excavation	43	Removals - Concrete road paving	The unit prices below cover out of scope requirements for the removal of paving. It includes mark out, saw cut or vermeer cut, removal and disposal of paving.		/ square yard	
Excavation	44	Removals - Blacktop paving	The unit prices below cover out of scope requirements for the removal of paving. It includes mark out, saw cut or vermeer cut, removal and disposal of paving.		/ square yard	

Family	Item #	ltem	Description	Notes / Size	иом	Volume Interval	Rate
Welding	1	Butt Weld Steel Pipe	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Includes end preparation	2 In. dia. pipe	/EA		\$
Welding	2	Butt Weld Steel Pipe	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Includes end preparation	4 In. dia. pipe	/EA		\$
Velding	3	Butt Weld Steel Pipe	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Includes end preparation	6 In. dia to 8 In. dia. pipe	/EA		\$
Velding	4	Butt Weld Steel Pipe	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Includes end preparation	12 In. dia. pipe	/EA		\$
Velding	5	Butt Weld Steel Fittings	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Excludes Tees.	2 In. to 4 In. dia. Fittings	/EA		\$
Velding	6	Butt Weld Steel Fittings	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Excludes Tees.	6 In. to 8 In. dia Fittings	/EA		\$
Velding	7	Butt Weld Steel Fittings	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Excludes Tees.	10 ln. to 12 ln. dia Fittings	/EA		\$
Velding	8	Butt Weld Steel Valves	Butt Weld Steel Valves	2 In. to 4 In. dia. Valves	/EA		\$
Velding	9	Butt Weld Steel Valves	Butt Weld Steel Valves	6 In. to 8 In. dia Valves	/EA		\$
Velding	10	Butt Weld Steel Valves	Butt Weld Steel Valves	10 In. to 12 In. dia Valves	/EA		\$
Velding	11	Butt Weld Steel Tees	Butt Weld Steel Tees	2 In. to 4 In. dia Tee	/EA		\$
Velding	12	Butt Weld Steel Tees	Butt Weld Steel Tees	6" X 6" X 6" Tee	/EA		\$
Velding	13	Butt Weld Steel Tees	Butt Weld Steel Tees	8" X 8" X 8" Tee	/EA		\$
Velding	14	Butt Weld Steel Tees	Butt Weld Steel Tees	10" X 10" X 10" Tee	/EA		\$
Velding	15	Butt Weld Steel Tees	Butt Weld Steel Tees	12" X 12" X 12" Tee	/EA		\$
Velding	16	Butt Weld Insulating Joints	Butt Weld Insulating Joints	2 In. to 4 In. dia. Valves	/EA		\$
Velding	17	Butt Weld Insulating Joints	Butt Weld Insulating Joints	6 In. to 8 In. dia Valves	/EA		\$
Welding	18	Butt Weld Insulating Joints	Butt Weld Insulating Joints	10 In. to 12 In. dia Valves	/EA		\$
Velding	19	Fillet Weld	Includes all surface preperation and welds	0.5 ln. to 1 ln. dia Fitting	/EA		\$
Velding	20	Fillet Weld	Includes all surface preperation and welds	1 In. to 2 In. dia Fitting	/EA		\$
Velding	21	Fillet Weld	Includes all surface preperation and welds	4 In. dia Fitting	/EA		\$
Welding	22	Fillet Weld	Includes all surface preperation and welds	6 In. dia Fitting	/EA		\$

Welding	23	Fillet Weld	Includes all surface preperation and welds	8 In. dia Fitting	/EA	\$
Welding	24	Fillet Weld	Includes all surface preperation and welds	10 In. to 12 In. dia Fitting	/EA	\$
Welding	25	Fillet Weld	Includes all surface preperation and welds	Over 12 In. dia Fitting	/EA	\$
Welding	26	Western Purge	Complete western purge and install to main per NGrid Standards		/EA	\$
Welding	27	Special/Custom Fittings, Encirclement Type	Includes all surface preperation and welds	2 In. dia to 4 In dia Special/Custom Fittings, Encirclement Type	/EA	\$
Welding	28	Special/Custom Fittings, Encirclement Type	Includes all surface preperation and welds	6 In. dia to 8 In dia Special/Custom Fittings, Encirclement Type	/EA	\$
Welding	29	Special/Custom Fittings, Encirclement Type	Includes all surface preperation and welds	10 In. dia to 12 In dia Special/Custom Fittings, Encirclement Type	/EA	\$
Welding	30		Includes all surface preperation, welds and fusion	1 In. dia to 4 In dia Transition Fitting	/EA	\$
Welding	31	Transition Fitting	Includes all surface preperation, welds and fusion	6 In. dia to 8 In dia Transition Fitting	/EA	\$
Welding	32	Transition Fitting	Includes all surface preperation, welds and fusion	10 In. dia to 12 In dia Transition Fitting	/EA	\$
Welding	33	Lug Welding	Lug Welding for CI To STL Restraints (Standard MAIN-6190)	4 In. dia to 12 In dia Pipe (2 lugs per restraint)	/EA	\$
Welding	34	Lug Welding	Lug Welding for CI To STL Restraints (Standard MAIN-6190)	16 In. dia to 30 In dia Pipe (4 lugs per restraint)	/EA	\$
Welding	35	Field Cut Segmentable Fittings and End Preparation	Field Cut Segmentable Fittings and End Preparation	2 In. to 4 In. dia. Fittings	/EA	\$
Welding	36	Field Cut Segmentable Fittings and End Preparation	Field Cut Segmentable Fittings and End Preparation	6 In. to 8 In. dia Fittings	/EA	\$
Welding	37	Field Cut Segmentable Fittings and End Preparation	Field Cut Segmentable Fittings and End Preparation	10 In. to 12 In. dia Fittings	/EA	\$
Welding	38	Cut & Prep Damaged Pipe	All inclusive unit price to cut and prep damaged ends of steel gas pipe that has been identified by National Grid upon delivery. Does not include cut and bevel elbows.	2 In. dia. pipe	/EA	\$
Welding	39	Cut & Prep Damaged Pipe	All inclusive unit price to cut and prep damaged ends of steel gas pipe that has been identified by National Grid upon delivery. Does not include cut and bevel elbows.	4 In. dia. pipe	/EA	\$
Welding	40	It lif & Pren Damaged Pine	All inclusive unit price to cut and prep damaged ends of steel gas pipe that has been identified by National Grid upon delivery. Does not include cut and bevel elbows.	6 In. dia to 8 In. dia. pipe	/EA	\$
Welding	41		All inclusive unit price to cut and prep damaged ends of steel gas pipe that has been identified by National Grid upon delivery. Does not include cut and bevel elbows.	12 In. dia. pipe	/EA	\$

Family	Item#	Item	Description	Notes	иом	Volume Interval	Rate
Restoration	1	Concrete Curbing	Curbing, concrete up to 26" with steel face		Per LF		
Restoration	2	Concrete Curbing	Curbing, concrete up to 26"		Per LF		
Restoration	3	Cobblestone	Cobblestone, supply and set		per SF		
Restoration	4	Cobblestone	Cobblestone, reset only		per SF		
Restoration	5	Brick	Brick, supply and set		per SF		
Restoration	6	Brick	Brick, reset only		per SF		
Restoration	7	Curbing, Granite	Curbing, granite, supply and set		Per LF		
Restoration	8	Curbing, Granite	Curbing, granite, reset only		Per LF		
Restoration	9	Curbing, Belgian Block	Curbing, Belgian block, supply and set		Per LF		
Restoration	10	Curbing, Belgian Block	Curbing, Belgian block, reset only		Per LF		
Restoration	11	Bluestone Flag	Bluestone flag, supply and set		Per SF		
Restoration	12	Bluestone Flag	Bluestone flag, reset only		Per SF		
Restoration	13	Sod	Prices include all labor and furnishing of material.		Lump Sum	≤ 18 sq. ft.	
Restoration	14	Sod	Prices include all labor and furnishing of material.		Per SF	> 18 sq. ft.	
Restoration	15	Hydro Seed	Prices include all labor and furnishing of material.		Per SF		
Restoration	16	Topsoil Only – 4" Lift	Prices include all labor and furnishing of material.		Per SF		
Restoration	17	Bus pads	Bus pad panels per NYC DOT Specification, reinforced concrete		Per Panel		
Restoration	18	Pedestrian Ramp	Pedestrian Ramp with curbing, including non-skid insert		Each		
Restoration	22	Mill and Pave	Mill and Pave (up to 2" depth) 50.1 to 100 SY		Per SY	< 100 SY	
Restoration	23	Mill and Pave	Mill and Pave (up to 2" depth) 100.1 to 500 SY		Per SY	100.1 to 500 SY	
Restoration	24	Mill and Pave	Mill and Pave (up to 2" depth) 500.1 to 1,000 SY		Per SY	SY	
Restoration	25	Mill and Pave	Mill and Pave (up to 2" depth) > 1,000 SY		Per SY	> 1000 SY	
Restoration	26	Concrete, reinforced	Concrete, reinforced, up to 9" with 3" asphalt top		Per SY	7 1000 51	
Restoration	27	Concrete, reinforced	Concrete, reinforced, sidwalk/driveway up to 7"		Per SF		
Restoration	28	Concrete, reinforced	Concrete, reinforced, > 7" to 12"		Per SF		
	29	Concrete, reinforced Concrete, reinforced	Concrete, nonreinforced, up to 9" w/3" asphalt top		Per SY		
Restoration			Concrete, nonreinforced, up to 7"		Per SF		
Restoration	30	Concrete, nonreinforced	Concrete, nonreinforced, 4p to 7 Concrete, nonreinforced, > 7" to 12"				
Restoration	31	Concrete, nonreinforced	Concrete, nonreinforced, > 7 to 12 Concrete, nonreinforced, sidewalk/driveway up to 7"		Per SF		
Restoration	32	Concrete, nonreinforced	Concrete, nonreimorced, sidewaik/driveway up to 7		Per SF		
Restoration	33	Protected & Non Protected Road Openings REGULAR PAVING (per new 2017 DOT rules)	6" to 9" Concrete Base (Regular Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	0 - 50	
Restoration	38	Protected & Non Protected Road Openings REGULAR PAVING (per new 2017 DOT rules)	6" to 9" Concrete Base (Regular Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	50.1 - 300	
Restoration	39	Protected & Non Protected Road Openings REGULAR PAVING (per new 2017 DOT rules)	6" to 9" Concrete Base (Regular Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	300.10 - 1000	
Restoration	40	Protected & Non Protected Road Openings REGULAR PAVING (per new 2017 DOT rules)	6" to 9" Concrete Base (Regular Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	Over 1000	
Restoration	45	Protected & Non Protected Road Openings REGULAR PAVING (per new 2017 DOT rules)	9" to 12" Concrete Base (Regular Paving) HI EARLY CONCRETE	9" conc. / 3" top	Per SY	0 - 50	
Restoration	46	Protected & Non Protected Road Openings REGULAR PAVING (per new 2017 DOT rules)	9" to 12" Concrete Base (Regular Paving) HI EARLY CONCRETE	9" conc. / 3" top	Per SY	50.1 - 300	
Restoration	47	Protected & Non Protected Road Openings REGULAR PAVING (per new 2017 DOT rules)	9" to 12" Concrete Base (Regular Paving) HI EARLY CONCRETE	9" conc. / 3" top	Per SY	300.10 - 1000	
Restoration	48	Protected & Non Protected Road Openings REGULAR PAVING (per new 2017 DOT rules)	9" to 12" Concrete Base (Regular Paving) HI EARLY CONCRETE	9" conc. / 3" top	Per SY	Over 1000	

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Restoration	53	Protected & Non Protected Road Openings REGULAR PAVING (per new 2017 DOT rules)	12" to 16" Concrete Base (Regular Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	0 - 50	
Restoration	54	Protected & Non Protected Road Openings REGULAR PAVING (per new 2017 DOT rules)	12" to 16" Concrete Base (Regular Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	50.1 - 300	
Restoration	55	Protected & Non Protected Road Openings REGULAR PAVING (per new 2017 DOT rules)	12" to 16" Concrete Base (Regular Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	300.10 - 1000	
Restoration	56	Protected & Non Protected Road Openings REGULAR PAVING (per new 2017 DOT rules)	12" to 16" Concrete Base (Regular Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	Over 1000	
Restoration	62	Protected & Non Protected Road Openings SAME DAY PAVING (per new 2017 DOT rules)	6" to 9" Concrete Base (Same Day Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	0 - 50	
Restoration	63	Protected & Non Protected Road Openings SAME DAY PAVING (per new 2017 DOT rules)	6" to 9" Concrete Base (Same Day Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	50.1 - 300	
Restoration	64	Protected & Non Protected Road Openings SAME DAY PAVING (per new 2017 DOT rules)	6" to 9" Concrete Base (Same Day Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	300.10 - 1000	
Restoration	65	Protected & Non Protected Road Openings SAME DAY PAVING (per new 2017 DOT rules)	6" to 9" Concrete Base (Same Day Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	Over 1000	
Restoration	66	Protected & Non Protected Road Openings SAME DAY PAVING (per new 2017 DOT rules)	9" to 12" Concrete Base (Same Day Paving) HI EARLY CONCRETE	9" conc. / 3" top	Per SY	0 - 50	
Restoration	67	Protected & Non Protected Road Openings SAME DAY PAVING (per new 2017 DOT rules)	9" to 12" Concrete Base (Same Day Paving) HI EARLY CONCRETE	9" conc. / 3" top	Per SY	50.1 - 300	
Restoration	68	Protected & Non Protected Road Openings SAME DAY PAVING (per new 2017 DOT rules)	9" to 12" Concrete Base (Same Day Paving) HI EARLY CONCRETE	9" conc. / 3" top	Per SY	300.10 - 1000	
Restoration	69	Protected & Non Protected Road Openings SAME DAY PAVING (per new 2017 DOT rules)	9" to 12" Concrete Base (Same Day Paving) HI EARLY CONCRETE	9" conc. / 3" top	Per SY	Over 1000	
Restoration	70	Protected & Non Protected Road Openings SAME DAY PAVING (per new 2017 DOT rules)	12" to 16" Concrete Base (Same Day Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	0 - 50	
Restoration	70	Protected & Non Protected Road Openings SAME DAY PAVING (per new 2017 DOT rules)	12" to 16" Concrete Base (Same Day Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	50.1 - 300	
Restoration	71	Protected & Non Protected Road Openings SAME DAY PAVING (per new 2017 DOT rules)	12" to 16" Concrete Base (Same Day Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	300.10 - 1000	
Restoration	72	Protected & Non Protected Road Openings SAME DAY PAVING (per new 2017 DOT rules)	12" to 16" Concrete Base (Same Day Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	Over 1000	
Restoration	81	Abutting Opening Restoration (per new 2017 DOT rules)	All inclusive unit for removal and asphalt wearing course as required per NYC DOT drawing H-1042A dated 3/15/2016; 3" asphalt top. Saw-cut paid separately.		Per SY		
Restoration	82	Saw-Cutting (per new 2017 DOT rules)	Saw cut full depth of roadway and remove 6" wide cut back portion; Full depth		Per LF	< 100	
Restoration	83	Saw-Cutting (per new 2017 DOT rules)	Saw cut full depth of roadway and remove 6" wide cut back portion; Full depth		Per LF	100.1 - 500	
Restoration	84	Saw-Cutting (per new 2017 DOT rules)	Saw cut full depth of roadway and remove 6" wide cut back portion; Full depth		Per LF	500.1 - 1,000	
Restoration	89	Saw-Cutting (per new 2017 DOT rules)	Saw cut full depth of roadway and remove 6" wide cut back portion; Full depth		Per LF	> 1,000	
Restoration	90	Saw-Cutting (per new 2017 DOT rules)	Saw cut wearing course and remove asphalt top up to 12" width; Wearing Course		Per LF	< 100	
Restoration	91	Saw-Cutting (per new 2017 DOT rules)	Saw cut wearing course and remove asphalt top up to 12" width; Wearing Course		Per LF	100.1 - 500	
Restoration	92	Saw-Cutting (per new 2017 DOT rules)	Saw cut wearing course and remove asphalt top up to 12" width; Wearing Course		Per LF	500.1 - 1,000	
Restoration	93	Saw-Cutting (per new 2017 DOT rules)	Saw cut wearing course and remove asphalt top up to 12" width; Wearing Course		Per LF	> 1,000	
Restoration	98	Road Plates - Rental	Total steel plate rental rate for a period exceeding 90 days use at the tie-in pits or misc. pits installed.	Steel plate rental rate - Daily Rate	/day/pit		
Restoration	99	Road Plates - Rental	Total steel plate rental rate for a period exceeding 90 days use at the tie-in pits or misc. pits installed.	Steel plate rental rate - Weekly Rate	/week/pit		
Restoration	100	Road Plates - Rental	Total steel plate rental rate for a period exceeding 90 days use at the tie-in pits or misc. pits installed.	Steel plate rental rate - Monthly Rate	/month/pit		
				Steel plate rental rate -			

Restoration	101	Road Plates - Recess	Recess Traffic Plates to be flush with surronding road grade		each	
Restoration	102	Road Plate handling (per new 2017 DOT rules)	Boom Truck for road plate delivery: Crew Rate / Straight Time		Per Hour	
Restoration	103	Road Plate handling (per new 2017 DOT rules)	Boom Truck for road plate delivery: Crew Rate / Saturday, Extended day overtime		Per Hour	
Restoration	104	Road Plate handling (per new 2017 DOT rules)	Boom Truck for road plate delivery: Crew Rate /Sunday and Holiday overtime		Per Hour	
Restoration	105	Road Plate handling (per new 2017 DOT rules)	Support crew for road plate installation: Crew Rate / Straight Time		Per Hour	
Restoration	106	Road Plate handling (per new 2017 DOT rules)	Support crew for road plate installation: Crew Rate / Saturday, Extended day overtime		Per Hour	
Restoration	107	Road Plate handling (per new 2017 DOT rules)	Support crew for road plate installation: Crew Rate /Sunday and Holiday overtime		Per Hour	
			Road plate rental per linear foot of opening or trench, any duration of time required. To be used in conjunction with			
Restoration	108	Road Plate handling (per new 2017 DOT rules)	'Road Plate handling' items.		Per LF	
			All inclusive unit for labor, equipment and nuclear compaction per NYC DOT requirements on main projects. /			
Restoration	109	Protected Street Backfill	Straight Time	Main	Per Hour	
			All inclusive unit for labor, equipment and nuclear compaction per NYC DOT requirements on main projects. /			
Restoration	110	Protected Street Backfill	Saturday, Extended day overtime	Main	Per Hour	
			All inclusive unit for labor, equipment and nuclear compaction per NYC DOT requirements on main projects.			
Restoration	111	Protected Street Backfill	/Sunday and Holiday overtime	Main	Per Hour	
			All inclusive unit for labor, equipment and nuclear compaction per NYC DOT requirements on service projects. /			
Restoration	112	Protected Street Backfill	Straight Time	Service	Per Hour	
			All inclusive unit for labor, equipment and nuclear compaction per NYC DOT requirements on service projects. /			
Restoration	113	Protected Street Backfill	Saturday, Extended day overtime	Service	Per Hour	
			All inclusive unit for labor, equipment and nuclear compaction per NYC DOT requirements on service projects.		1	
Restoration	114	Protected Street Backfill	/Sunday and Holiday overtime	Service	Per Hour	
Restoration	115	Concrete, New York State road	Concrete, New York State road, reinforced ≤ 8" Quickset w/ or w/o 2" top	≤ 8"	Per SF	
Restoration	116	Concrete, New York State road	Concrete, New York State road, reinforced > 8" Quickset w/ or w/o 2" top	> 8"	Per SF	
Restoration	117	Binder only	Binder only, up to 4"		Per SY	
Restoration	118	Binder only	Binder only, > 4" to 7"		Per SY	
Restoration	119	Binder only	Binder only, > 7" to 10"		Per SY	
Restoration	120	Binder only	Binder only, > 10" to 14"		Per SY	
Restoration	121	Asphalt	Asphalt, 2"		Per SY	
Restoration	122	Asphalt	Binder to Grade - Asphalt, 2"		Per SY	
			3" thickness. These units apply to the installation of temporary paving above the scope of work identified in the lump			
Restoration	123	Temporary Paving Hot Asphalt	sum bid. All inclusive price to furnish and install hot and/or cold patch.		Per SY	
Restoration	124	Asphalt binder w/ top	Asphalt up to 6," binder w/ top		Per SY	
Restoration	125	Asphalt binder w/ top	Asphalt up to 6," binder w/ top		Per SY	
Restoration	126	Asphalt binder w/ top	Asphalt > 6" to 9", binder w/ top		Per SY	
Restoration	127	Asphalt binder w/ top	Asphalt > 6" to 9", binder w/ top		Per SY	
Restoration	128	Asphalt binder w/ top	Asphalt > 9" to 16", binder w/ top		Per SY	
Restoration	129	Asphalt binder w/ top	Asphalt > 9" to 16", binder w/ top		Per SY	
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Restoration	130	Incremental Reconstructed Street Bevel Cut &				
		Doweling	Incremental Reconstructed Street Bevel Cut & Doweling		Per LF	
Restoration	131	Thermoplastic Line Striping & Reflectors			Per LF	
Restoration	132	Asphalt Tip-Up Curb	Nassau County DPW asphalt tip-up curb replacement as detailed in section of this Bid Strategy.			

Family	Item #	ltem	Description	Notes	иом	Volume Interval	Rate
Corrosion Control	1	Test Station	1 lead, 2 anodes in dirt/grass	Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections to gas main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each		
Corrosion Control	2	Test Station	1 lead, 2 anodes in asphalt/concrete ≤ 6	Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections to gas main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each	≤ 6	
Corrosion Control	3	Test Station	1 lead, 2 anodes in asphalt > 6	Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections to gas main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each	> 6	
Corrosion Control	4	Test Station	2 lead, 4 anodes in dirt/grass	Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections to gas main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each		
Corrosion Control	5	Test Station	2 lead, 4 anodes in asphalt/concrete ≤ 6	Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections to gas main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each	≤ 6	
Corrosion Control	6	Test Station	2 lead, 4 anodes in asphalt/concrete > 6	Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections to gas main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each	> 6	
Corrosion Control	7	Pipe Coating	Pipe coating- Unit shall be used to compensate the contractor for the installation of additional pipe coating for joints or repairs of coating damage not caused by the contractor.	Also to be used as a credit for pipe coating not performed by the contractor. Pipe coating to be performed as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	LF		
Corrosion Control	8	Holiday Detection	Holiday detection- Unit shall be used to compensate the contractor for additional holiday detection.	Also to be used as a credit for holiday detection not performed by the contractor. Holiday detection to be performed as per National Grid Standards and Technical Instructions.	LF		

		V	'ertical	Offset	Matrix			
Pipe Diameter =	## inches							
Offset Length (ft)			A	dditional Deptl	of Vertical Off	set (ft)		
Offset Leffgtif (it)	0.0 - 2.0	2.1 - 4.0	4.1 - 6.0	6.1 - 8.0	8.1 - 10.0	10.1 - 12.0	12.1 - 14.0	14.1 - 16.0
≤ 10.0								
10.1 - 15.0								
15.1 - 20.0								
20.1 - 25.0								
25.1 - 30.0								
30.1 - 35.0								
35.1 - 40.0								
40.1 - 45.0								
45.1 - 50.0								
Adder per LF of								
offset length greate								
than 50 ft								

This is an all inclusive unit rate covering all **additional** costs associated with an unplanned vertical offset. Includes all inefficiencies, delays, and activities required to install a vertical offset from layout to final restoration with the exception of any fusions or welds. Unit rate assumes a minimum of (4) elbows, (2) 3x diameter vertical pups, and (1) 5x diameter horizontal pup.

Unit of Measure is Lump Sum.

Unit of Measure for Adder is PER LF and to be added to the 45.1-50.0 unit rate.

H	Horizontal Offset Matrix					
Offset Length (LF)	Pipe Diameter					
	##"					
≤ 10.0	\$					
10.1 - 20.0	\$					
20.1 - 30.0	\$					
30.1 - 40.0	\$					
40.1 - 50.0	\$					
50.1 - 60.0	\$					
60.1 - 70.0	\$					
70.1 - 80.0	\$					
80.1 - 90.0	\$					
90.1 - 100.0	\$					
Adder per LF of						
offset length greater						
than 100 ft	\$					

This is an all inclusive unit rate covering all **additional** costs associated with an unplanned horizontal offset. This rate is additional to the lump sum value provided for the original design and includes all inefficiencies, delays, and activities required to install a horizontal offset from layout to final restoration with the exception of any fusions or welds.

Unit of Measure is Lump Sum.

Unit of Measure for Adder is PER LF and to be added to the 45.1-50.0 unit rate.