

Gas Main Replacement Project Baker Street West Roxbury, Massachusetts

REQUEST FOR DETERMINATION OF APPLICABILITY

National Grid 40 Sylvan Road Waltham, Massachusetts

March 2022

Tighe&Bond

Tighe&Bond

WO# 1213100 N-5068-169 March 23, 2022

Boston Conservation Commission 1 City Hall Square Room 709 Boston, Massachusetts 02201

Re: Request for Determination of Applicability Gas Main Replacement Project Baker Street, West Roxbury, Massachusetts

Dear Executive Director Moreno and Members of the Boston Conservation Commission:

On behalf of the Boston Gas Company, Tighe & Bond respectfully submits this Request for Determination of Applicability (RDA) for a proposed gas main replacement project within Baker Street and connecting roads, including Lasell Street, Capital Street, Farragut Street, Ellswood Street, Durant Street, Chesbrough Road, Amesbury Street, Baker Place, Cutter Road, and Dow Road in West Roxbury, Massachusetts.

This RDA is being filed because a portion of the proposed work in Baker Street will occur within the 100-foot Buffer Zone to a Bordering Vegetated Wetland (BVW). This area is regulated under the Massachusetts Wetlands Protection Act (WPA, M.G.L. c. 131 § 40) and the City of Boston Wetlands Protection Ordinance (Chapter VII) and their implementing regulations. All proposed work will be within previously paved areas with no anticipated impacts to nearby wetland resource areas.

Tighe & Bond respectfully requests that the Conservation Commission issue a Negative Determination confirming that the proposed work does not require the filing of a Notice of Intent.

This RDA application includes the following items:

- Attachment A WPA Form 1 (certified digital signatures) and Filling Fee
- Attachment B Figures and Site Plans
- Attachment C Photographic Log
- Attachment D Abutter Notification Information
- Attachment E National Grid Best Management Practices

The following text discusses the wetland resource areas, proposed activities, and proposed protective measures.

Wetland Resource Areas

Wetland resource areas were reviewed by a Tighe & Bond wetland scientist using publicly available data, including the Massachusetts Department of Environmental Protection (MassDEP) Online Map Viewer. These data were field verified during a delineation conducted on February 23, 2022. Please refer to Figure 3 in Attachment B for the locations of the resource areas and their respective buffers.

Bordering Vegetated Wetland (BVW)

A BVW was delineated on the west side of Baker Street. Bordering on Sawbill Brook, this BVW is classified as a Freshwater Scrub-Shrub Wetland (PSS1E) and Freshwater Emergent Wetland (PEM1E) per the *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al. 1979). Wetland indicators observed included saturation, standing water,

water-stained leaves, and geomorphic position. Hydric soils (10YR 2/2, redoximorphic features 7.5YR 3/3) and hydrophytic vegetation including common reed (*Phragmites australis*), cattail (*Typha spp.*), and red maple (*Acer rubrum*) were also observed.

A small portion of the project area falls within the 100-foot Buffer Zone of a BVW adjacent to Sawmill Brook, which runs east-west of the project area across Baker Street. No adverse impacts to the BVW are anticipated as all work will be completed within the existing roadway.

Rare Species

The project area does not fall within *Priority Habitats of Rare Species* or *Estimated Habitats of Rare Wildlife* based on a review of the Massachusetts Natural Heritage and Endangered Species Program (NHESP) Atlas (15th edition; August 1, 2021) and NHESP data available on MassGIS online (August 2021), as shown on Figure 2.

Proposed Activities

The existing gas main within Baker Street is comprised of the following:

- 1,540 linear feet (If) of 4-inch and 6-inch diameter low-pressure (LP) cast iron (CI) (1909/1928/1929) piping
- 365 If of 6-inch diameter LP CI (1909) piping
- 1,165 If of 6-inch diameter LP CI (1909) piping

A summary of the proposed activities is provided in the enclosed Table 1. A total of 3,580 lf of replacement gas main is proposed in Baker Street. The location of the project area is depicted on Figures 1 through 3 and in the Project Drawings provided in Attachment B.

Project Area:

Baker Street

Approximately 2,050 lf of 12-inch diameter bare steel in Baker Street from Vermont Street to Brook Farm Road.

Approximately 365 If of 8-inch diameter plastic in Baker Street from the existing 8-inch diameter plastic at Cotuit Street, to the existing 12-inch diameter bare steel in Vermont Street.

Approximately 1,165 If of 8-inch diameter plastic in Baker Street from north of the railroad crossing at 270 Baker Street, to the existing 8-inch diameter coated steel at Rumford Road.

Only a portion of the proposed work on Baker Street is within the 100-foot Buffer Zone to BVW, at the intersection of Baker Street and Brook Farm Road. Work occurring in the Buffer Zone is depicted on Figure 3.

Work Methodology

In general, the gas main replacement activities will entail the excavation of an approximately two-foot-wide trench for safe installation. The trench bottom will be excavated and graded such that the pipe will be supported for its entire length on undisturbed bottom at a depth of approximately three feet below surface grade. The trench will be excavated within the paved roadway footprints for all sites, with the precise locations of the gas lines to be determined in the field so that existing utilities can be avoided. The project involves relaying the existing gas mains and installation of new gas mains, as described above. The existing gas mains will be abandoned in place. Upon installation of the replacement mains, the trenches will be backfilled and restored in kind. Refer to the Project Drawings in Attachment B.

Equipment scheduled for use during the proposed construction and restoration of the trench include excavator and dump truck. Excavated material will be placed in the dump truck for removal to an off-site National Grid processing facility. Suitable soils and bedding materials are utilized in accordance with current gas pipe standards and the City of Boston requirements.



Work Within Buffer Zone

Approximately 174 If of work, or approximately 348 square feet (sf), is proposed within the 100-foot Buffer Zone. It is not anticipated that the proposed work will result in impacts to the BVW. The areas where the work is proposed consist entirely of existing paved roadways. The proposed work will not change the general characteristics of the area, as the entire project is contained within previously developed areas and will be subsurface. The site will be restored to pre-existing elevations.

Protective Measures

Work will be conducted in accordance with National Grid's EG-303NE Best Management Practices document. Please refer to Attachment E for further details. During the gas line construction, erosion control measures (*e.g.*, straw bales, silt fence, straw wattles, catch basin silt sack inserts) will be installed as deemed necessary.

Climate Resiliency

The City of Boston has established an Ordinance Protecting Local Wetlands and Promoting Climate Change Adaptation in the City of Boston (Boston Wetlands Ordinance; City of Boston Code, Ordinances, Chapter 7-1.4) regarding activities within their jurisdiction as well as administrative procedures relative to proposed projects. The Ordinance directs the Boston Conservation Commission to consider future climate impacts like rising sea levels in applications for construction and is stricter than statewide standards. According to the Climate Ready Boston Map Explorer, the project area is not within any predicted coastal or stormwater flood zones.

Regardless, the underground infrastructure is designed in consideration of groundwater. Conduit ends are sealed watertight with a manufacturer-recommended material compatible with the gas main. Additionally, the pipes are manufactured to withstand extreme environments inclusive of water penetration. In this manner, the below ground infrastructure is designed and capable of withstanding potential climate change and future climate impacts.

Application Requirements

As required under the City of Boston Wetlands Protection Ordinance, abutters to the project area have been notified via Certificate of Mailing, in accordance with abutter notification requirements. Copies of the abutter notification forms (English, Spanish with translation certification), the list of abutters, and Affidavit of Service (with certified digital signature) are enclosed in Attachment D.

As the project will be conducted entirely within public roadway rights-of-way (ROW) in existing Boston Gas Company easements, property owner notification is not warranted.

Summary

We look forward to having the opportunity to discuss this project with the City of Boston Conservation Commission during the public hearing scheduled for April 6, 2022. We anticipate these materials are sufficient for the Commission to issue a Negative Determination, confirming that a Notice of Intent (NOI) will not be required for the proposed work to proceed. Should you have any questions regarding this application or require any additional information, please do not hesitate to contact me at (413) 250-2424 or via email at MPCoady@tighebond.com.

Sincerely,

TIGHE & BOND, INC.

mun Con

Melissa P. Coady Project Manager

Enclosures

Copy: MassDEP NERO Jaime Walker, National Grid

Table 1 Boston Gas Company Gas Main Replacement West Roxbury, Massachusetts

Street	Gas Main Maintenance (linear feet)	Work within 100- foot Buffer Zone to BVW
Baker Street from Brook Farm Road to Vermont Street	2,050 lf	Yes (174 lf)
Baker Street from Vermont Street to Cotuit Street	365 lf	No
Baker Street from Rumford Road to 270 Baker Street	1,165 lf	No

ATTACHMENT A

WPA FORM 1

FILING FEE



Massachusetts Department of Environmental Protection Bureau of Resource Protection - Wetlands

WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

A. General Information

important.
When filling out
forms on the
computer, use

Important.

forms on the
computer, use
only the tab key
to move your
cursor - do not
use the return
kev.

1. Applicant:				
Boston Gas Company (c/o Jaime Wal	ker) jaime.walke	iaime.walker@nationalgrid.com		
Name	E-Mail Address	ŝ		
40 Sylvan Road				
Mailing Address				
Waltham	MA	02451		
City/Town	State	Zip Code		
(978) 551-1156				
Phone Number	Fax Number (if	f applicable)		
2. Representative (if any):				
Tighe & Bond, Inc.				
Firm				
Melissa Coady	MPCoady@	tighebond.com		
Contact Name	E-Mail Address	ŝ		
53 Southampton Road				
Mailing Address				
Westfield	MA	01085		
City/Town	State	Zip Code		
(413) 572-3224				
Phone Number	Fax Number (if	f applicable)		

B. Determinations

- 1. I request the Boston make the following determination(s). Check any that apply: **Conservation Commission**
 - a. whether the **area** depicted on plan(s) and/or map(s) referenced below is an area subject to jurisdiction of the Wetlands Protection Act.
 - b. whether the **boundaries** of resource area(s) depicted on plan(s) and/or map(s) referenced below are accurately delineated.
 - c. whether the **work** depicted on plan(s) referenced below is subject to the Wetlands Protection Act.
 - ☑ d. whether the area and/or work depicted on plan(s) referenced below is subject to the jurisdiction of any municipal wetlands ordinance or bylaw of:

Name of Municipality

e. whether the following scope of alternatives is adequate for work in the Riverfront Area as depicted on referenced plan(s).



Boston City/Town

WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

C. Project Description

1. a. Project Location (use maps and plans to identify the location of the area subject to this request):

Baker Street, Lasell Street, Capital Street, Farragut Street, Ellswood Street, Durant Street, Chesbrough Street, Amesbury Street, Baker Place, Cutter Road, and Dow Road

West Roxbury City/Town

Not applicable, roadway right-of-way Assessors Map/Plat Number

Parcel/Lot Number

b. Area Description (use additional paper, if necessary):

Baker Street, Lasell Street, Capital Street, Farragut Street, Ellswood Street, Durant Street, Chesbrough Road, Amesbury Street, Baker Place, Cutter Road, and Dow Road all serve as residential and commercial areas. The project area is east of the Veterans of Foreign Wars Parkway.

c. Plan and/or Map Reference(s):

Figure 1-Site Location	March 2022
Title	Date
Figure 2- Priority Resources	March 2022
Title	Date
Figure 3 - Site Plan	March 2022
Title	Date

2. a. Work Description (use additional paper and/or provide plan(s) of work, if necessary):

Boston Gas Company proposes to replace an existing gas main within Baker Street and extend the main into adjacent roadways. Please refer to the attached cover letter for additional details.



Boston City/Town

WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

C. Project Description (cont.)

b. Identify provisions of the Wetlands Protection Act or regulations which may exempt the applicant from having to file a Notice of Intent for all or part of the described work (use additional paper, if necessary).

310 CMR 10.02(2)(a)(2) - Activities conducted to maintain, repair or replace, but not substantially change or enlarge an existing and lawfully located structure or facility used in the service of the public and used to provide electric, gas

310 CMR 10.02(2)(b)(2)(i) - Installation of underground utilities (e.g., electric, gas, water) within existing paved or unpaved roadways and private roadways/driveways, provided that all work is conducted within the roadway or driveway and that all trenches are closed at the completion of each workday

- 3. a. If this application is a Request for Determination of Scope of Alternatives for work in the Riverfront Area, indicate the one classification below that best describes the project.
 - Single family house on a lot recorded on or before 8/1/96
 - Single family house on a lot recorded after 8/1/96
 - Expansion of an existing structure on a lot recorded after 8/1/96
 - Project, other than a single family house or public project, where the applicant owned the lot before 8/7/96
 - New agriculture or aquaculture project
 - Public project where funds were appropriated prior to 8/7/96
 - Project on a lot shown on an approved, definitive subdivision plan where there is a recorded deed restriction limiting total alteration of the Riverfront Area for the entire subdivision
 - Residential subdivision; institutional, industrial, or commercial project
 - Municipal project
 - District, county, state, or federal government project
 - Project required to evaluate off-site alternatives in more than one municipality in an Environmental Impact Report under MEPA or in an alternatives analysis pursuant to an application for a 404 permit from the U.S. Army Corps of Engineers or 401 Water Quality Certification from the Department of Environmental Protection.

b. Provide evidence (e.g., record of date subdivision lot was recorded) supporting the classification above (use additional paper and/or attach appropriate documents, if necessary.)



Boston City/Town

WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

D. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Request for Determination of Applicability and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge.

I further certify that the property owner, if different from the applicant, and the appropriate DEP Regional Office were sent a complete copy of this Request (including all appropriate documentation) simultaneously with the submittal of this Request to the Conservation Commission.

Failure by the applicant to send copies in a timely manner may result in dismissal of the Request for Determination of Applicability.

Name and address of the property owner:

Boston Gas Company (c/o Jaime Walker)	
Name	
40 Sylvan Road	
Mailing Address	
Waltham	
City/Town	
MA	02451
State	Zip Code

Signatures:

I also understand that notification of this Request will be placed in a local newspaper at my expense in accordance with Section 10.05(3)(b)(1) of the Wetlands Protection Act regulations.

Walker

Signature of Applicant

Signature of Representative (if any)

3/21/22 Date

3/21/22

Date

PROPOSED GAS MAIN REPLACEMENT APPROXIMATELY 3,545' OF 4", 2,250' OF 8" PLASTIC & 2,050' OF 12" COATED STEEL - 22 PSIG 270-585 BAKER ST & 891-903 VFW PKWY, WEST ROXBURY, MA W.O. NO. 1213100







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	INDEX	OF SHEETS
PAGE	NAME	TITLE
1	DPL-WRO-067813-1053 G-001	COVER SHEET
2	DPL-WRO-067813-1053 G-002	CONSTRUCTION NOTES AND BOM
3	DPL-WRO-067813-1053 C-001	PROPOSED INSTALLATION PLAN
4	DPL-WRO-067813-1053 C-002	PROPOSED INSTALLATION PLAN
5	DPL-WRO-067813-1053 C-003	PROPOSED INSTALLATION PLAN
6	DPL-WRO-067813-1053 C-004	PROPOSED INSTALLATION PLAN
7	DPL-WRO-067813-1053 C-005	PROPOSED INSTALLATION PLAN
8	DPL-WRO-067813-1053 C-006	PROPOSED INSTALLATION PLAN
9	DPL-WRO-067813-1053 C-007	PROPOSED INSTALLATION PLAN
10	DPL-WRO-067813-1053 C-008	PROPOSED INSTALLATION PLAN
11	DPL-WRO-067813-1053 C-009	PROPOSED INSTALLATION PLAN
12	DPL-WRO-067813-1053 C-010	PROPOSED INSTALLATION PLAN
13	DPL-WRO-067813-1053 C-011	PROPOSED INSTALLATION PLAN
14	DPL-WRO-067813-1053 C-012	PROPOSED INSTALLATION PLAN
15	DPL-WRO-067813-1053 C-013	PROPOSED INSTALLATION PLAN
16	DPL-WRO-067813-1053 C-201	PROPOSED TIE-IN DETAILS
17	DPL-WRO-067813-1053 C-202	PROPOSED TIE-IN DETAILS
18	DPL-WRO-067813-1053 C-203	PROPOSED TIE-IN DETAILS
19	DPL-WRO-067813-1053 C-301	NATIONAL GRID STANDARD CONSTRUCTION DETAILS
20	DPL-WRO-067813-1053 C-302	NATIONAL GRID STANDARD CONSTRUCTION DETAILS
21	DPL-WRO-067813-1053 C-303	NATIONAL GRID STANDARD CONSTRUCTION DETAILS
22	DPL-WRO-067813-1053 C-304	NATIONAL GRID STANDARD CONSTRUCTION DETAILS
23	DPL-WRO-067813-1053 C-305	NATIONAL GRID STANDARD CONSTRUCTION DETAILS

ROPOSED GAS MAIN REPLACEMENT 585 BAKER ST & 891–903 VFW PKWY				PAGE 1 OF 23			
	WEST RO>	KBURY, MA			DRAWING NO.	SHEET NO.	
	COVER	SHEET			DPI – WRO–067813–1053	G-001	
	ENGINEER	DATE:	ASSET I.D.	W.O. NO.:			
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CONSTRUCTION NOTES	CODES &	: STANDARDS
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 <u>GENERAL</u> NO FIELD CHANGES SHALL BE MADE TO THIS DESIGN WITHOUT APPROVAL FROM THE ASSIGNED NATIONAL GRID ENGINEER ENGINEER: DE LA CRUZ, JORGE PHONE: 781-718-1957 EMAIL: JORGE.DELACRUZ@NATIONALGRID.COM NEW MAINS SHALL BE INSTALLED IN ACCORDANCE WITH THE TYPICAL TRENCH DETAIL INCLUDED IN THESE DRAWINGS, UNLESS NOTED OTHERWISE. 	AA. MEC AB. 030 AC. DAM AD. CS- AE. CS- AF. CNS AG. VAL	CH5010: JOINTS OTHER THAN 018—CS SPECIFICATION AND 101008: CAST IRON ENCROAC -CNST002—MA: TYPICAL UTIL -MAIN004: PRESSURE TESTIN GT6061: TRACER WIRE INSTAL V6010: STEEL VALVE INSTAL
 A. 36 INCHES OF COVER FROM FINAL GRADE WHERE PRACTICAL B. STATE HIGHWAY MINIMUM COVER: 36 INCHES C. DISTRIBUTION MAIN MINIMUM COVER: 24 INCHES D. SAND PADDING IN ALL DIRECTIONS, 6 INCHES MINIMUM E. CAUTION TAPE SHALL BE INCLUDED ONE FOOT BELOW GRADE 3. SERVICES SHALL BE INSTALLED WITH 24 INCHES OF COVER A. MINIMUM IN PUBLIC ROW: 18 INCHES B. MINIMUM IN PRIVATE PROPERTY: 12 INCHES C. SAND PADDING IN ALL DIRECTIONS, 6 INCHES MINIMUM D. CAUTION TAPE SHALL BE INCLUDED ONE FOOT BELOW GRADE 4. REFER TO CNST-6030 FOR SHALLOW MAINS. PRIOR TO INSTALLING GAS MAINS WITH LESS THAN 24 INCHES OF COVER, COMPLETE REQUEST FOR WAIVER FORM AND CONTACT GAS PIPELINE SAFETY & COMPLIANCE FOR APPROVAL: 	UP AH. VAL AI. FITS AJ. CS- 5. SERVICE SF A. CMS B. CMS C. CNS D. CNS E. CNS	TO 124 PSI V6020: 2 IN. – 12 IN. POLY 6370: VALVE BOXES UP TO LIVE001: ACCEPTABLE METH PECIFIC GAS POLICIES AND W 603002: CUSTOMER METER A 604002: PURGING PROCEDURI 6T03011: NO-INTERRUPT SER 6T06002: INSTALLING DISTRIB 6T06003: INSTALLATION & M/
 A. JENNIFER GILLIS - (617) 594-5157 (MA EXCLUDING CAPE AND WEBSTER) B. LIEN GAUTHIER - (617) 438-9069 (MA EXCLUDING CAPE AND WEBSTER) C. IF A PROPOSED TOP TEE CONNECTION RESULTS IN A SHALLOW MAIN THAT CANNOT MEET THE WAIVER CRITERIA, A FULL TEE CONNECTION IS AN ACCEPTABLE ALTERNATIVE. A SPHERICAL TEE IS ONLY ACCEPTABLE WITH APPROVAL FROM NATIONAL GRID STRATEGIC ASSET AND SYSTEM PLANNING. 5. ALL MAINS SHOULD BE INSTALLED WITH CLEARANCE OF 12 INCHES FROM OTHER FACILITIES. A. DISTRIBUTION MINIMUM CLEARANCE: 6 INCHES B. APPROPRIATE PROTECTIVE MEASURES SHALL BE USED TO PROTECT THE GAS FACILITY IF MINIMUMS CANNOT BE ATTAINED. APPROVAL IS REQUIRED BY GAS SYSTEMS ENGINEERING. 6. THE PIPE ALIGNMENT IS SHOWN FOR REFERENCE ONLY AS APPROXIMATELY 3 FEET FROM THE EXISTING MAIN (BASED ON AVAILABLE RECORD INFORMATION). THE ACTUAL ROUTE AND ALL VERTICAL AND HORIZONTAL OFFSETS ARE TO BE FIELD ROUTED WITHIN THE PUBLIC RIGHT-OF-WAY BASED ON THE ACTUAL LOCATION OF EXISTING UTILITIES. ADDITIONAL FITTINGS NOT SHOWN 	INS F. CNS G. CNS H. CNS I. CS- J. CS- K. CS- L. CS- M. CS- N. CS-	TALLED METER CAPACITIES O 5T06009: METER/SERVICE RE 5T06020: COMPLETION AND F 5T06030: NOTIFICATION OF C SERV001: TYPICAL 1/2" SEF SERV002: TYPICAL 1" SERVI SERV003: TYPICAL 1-1/4" S SERV004: TYPICAL 2" SERVI SERV005: EXCESS FLOW VAI SERV009: TYPICAL 1/2" SEF
 WILL BE REQUIRED. A. ELBOWS SHOWN ARE ASSUMED TO BE 45 DEGREES IN MOST APPLICATIONS. 90 DEGREE ELBOWS MAY BE NEEDED BASED ON FIELD CONDITIONS. 7. VALVES DEPICTED IN THE DESIGN ARE THE MINIMUM REQUIRED FOR SECTIONALIZING, ISOLATION, CRITICAL VALVES, AND/OR TO ACCOMMODATE TIE-INS. ADDITIONAL FULL PORT VALVES MAY BE ADDED TO ACCOMMODATE CONSTRUCTION. A. VALVES FOR BRANCHES AT INTERSECTIONS SHOULD BE FIELD LOCATED JUST OUTSIDE OF THE INTERSECTION WHERE 	O. CS- P. HTA TO Q. SER R. SER	-SERV010: TYPICAL 1" SERVIO P-6010: NO-INTERRUPT 1 II 60 PSIG MAINS V-5075: RELOCATION OF ME V-6185: HOT TAPPING MD E
 8. ELECTROFUSION COUPLINGS MAY BE INTERCHANGED WITH BUTT FUSION WHERE APPLICABLE. 9. TIE-IN LOCATIONS MAY VARY UP TO 100 FEET OF THE PROPOSED LOCATION TO ACCOMMODATE CONSTRUCTION, EXCEPT FOR WHEN THE FOLLOWING CONDITIONS APPLY: A. REGULATOR STATION IS WITHIN THE SCOPE OF THE JOB OR WITHIN 200 FEET OF THE TIE-IN LOCATION B. CHANGE TO THE NUMBER OF CONNECTIONS (ADDITIONAL ADDED FROM AN INTERSECTION OR OTHERWISE) C. MATERIAL/SIZE CHANGE AT NEW LOCATION 10. NOT ALL BYPASSES, GAUGES, PURGES AND OTHER MISCELLANEOUS FITTINGS ARE SHOWN. CONSTRUCTION SHALL INSTALL THESE FITTINGS AS NEEDED IN ACCORDANCE WITH THE APPROVED SOP. 	S. VAL 6. SEE TIE IN 7. SEE BILL C "FITS" REF A. FOR STR ON	V6110: 1/2 INCH – 3 INCH DETAILS FOR APPLICABLE M OF MATERIAL FOR MATERIAL S ERENCE THIS PROJECT, GRADE B, X ENGTHS IF APPLICABLE. ALTE MATERIAL AVAILABILITY.
 11. WHEN CONNECTING NEW DEAD MAIN TO NEW DEAD MAIN: AS LONG AS THE CONNECTION BRANCH SIZE SHOWN IN THE DRAWINGS CAN BE ACHIEVED, THE FOLLOWING CONNECTION TYPES ARE ACCEPTED AND INTERCHANGEABLE. A. INLINE TEE B. PLASTIC HIGH VOLUME TAPPING TEE (2" BRANCH SIZE OR LESS) C. PLASTIC BRANCH SADDLE (WITH MAIN CUTTER SIZE SHOWN IN NATIONAL GRID POLICIES) D. STEEL THREE-WAY TEE (WITH MAIN CUTTER SIZE SHOWN IN NATIONAL GRID POLICIES) 12. THE LIVE MAIN CONNECTION DETAIL SHOWN IN THE DRAWINGS SHALL BE FOLLOWED. ANY CHANGES TO THE TIE IN CONNECTION TYPE SHALL BE APPROVED BY THE NATIONAL GRID ENGINEER PRIOR TO CONSTRUCTION. 13. ALL CUSTOMEER SERVICES WITHIN THE SCORE OF MAIN TO BE ADAMPONED SHALL BE TRANSFERRED OF DELAYED BY THE 	DESIGN 1. DESIGN A. B. C. 2. PROPOS	CRITERIA IN ACCORDANCE WITH THE FOLL ENG02001: DESIGN OF GAS SER ENG04001: DESIGN OF DISTRIBU ENG04010: DESIGN REQUIREMEN ED PIPING: DESIGN CLASS LOCATION
 13. ALL COSTOMER SERVICES WITHIN THE SCOPE OF MAIN TO BE ADARDONED STALL BE TRANSFERRED ON RELATED BY THE CONTRACTOR TO THE NEW MAIN PRIOR TO ABANDONMENT. WHEN RELAYING A LOWER PRESSURE MAIN WITH A HIGHER PRESSURE MAIN, ALL SERVICES SHALL BE RELAYED OR INSERTED. 14. DRESSER STYLE COMPRESSION FITTINGS ON PLASTIC MAY BE USED AS AN ALTERNATIVE TO ELECTROFUSION FITTINGS ON PLASTIC TO PLASTIC PIPE CONNECTIONS PROVIDED THAT THE COUPLINGS ARE: i) MADE FOR PLASTIC TO PLASTIC APPLICATIONS. ii) PULL-OFF RESISTANT. iii) INSTALLED WITH AN APPROPRIATELY SIZED ANODE ATTACHED. THE SAME STYLE COUPLING MAY BE USED AS A 	B. C. D. 3. PIPE SIZ 4. BYPASS GRID OP PROCES:	NOMINAL SIZE – 4 INCH, 8 INC MATERIAL – MDPE & COATED S SYSTEM MAOP – 22 PSIG ZING DETERMINED BY NATIONAL REQUIREMENTS FOR ALL MAIN PERATIONS ENGINEERING AND IMF S.
 PERMANENT LINE CAP PROVIDED THAT THE CORRECT FACTORY END PLATE IS UTILIZED AS AN ALTERNATIVE TO A FUSED END PLASTIC END CAP. iv) DRESSER STYLE CAPS AND PERMASERT CAPS ARE INTERCHANGEABLE WITH FUSION CAPS, PROVIDED CATHODIC PROTECTION REQUIREMENTS ARE USED FOR METALLIC BOLT STYLE FITTINGS REMAINING IN SERVICE. 15. FOR HOST STEEL MAIN CONNECTIONS: IN LIEU OF THE USE OF TDW 3-WAY TEE FITTINGS. ESPECIALLY WHERE INSUFFICIENT COVERAGE PROHIBITS THEIR USE, A MUELLER WELD ON BOTTOM-OUT FITTING OR A TDW SPHERICAL 3-WAY TEE CAN BE USED FOR STOP OFF/TAKE OFF APPLICATIONS. A TDW SHORTSTOPP FITTING CAN ALSO BE USED AS AN ALTERNATIVE, BUT REQUIRES ANALYSIS FOR BYPASS ETC. NATIONAL GRID SYSTEM PLANNING SHALL REVIEW AND APPROVE THE USE OF AN ALTERNATIVE FITTING. A PULL OUT RESISTANT COUPLING MUST BE USED FOR THE CONNECTION OF THE NEW MAIN TO THE HOST MAIN. 16. FOR HOST CAST IRON MAIN CONNECTIONS: IN LIEU OF THE USE OF TDW 3-WAY TEE FITTINGS, WELDED ON A DRESSER STYLE 50A REPAIR SLEEVE, ESPECIALLY WHERE INSUFFICIENT COVERAGE PROHIBITS THEIR USE, AN INLINE TEE CAN BE SUBSTITUTED IN CONJUNCTION WITH EITHER A TDW SHORTSTOPP FITTING WELDED ON TOP OF A DRESSER STYLE 50A REPAIR SLEEVE, TDW SHORTSTOPP FITTING CAN BE USED BUT REQUIRES ANALYSIS FOR BYPASS ETC. 	5. FOR WO IN THE REPLACI CREATEI	RK ORDERS PERTAINING TO ENC FIELD THE EXACT LOCATION OF EMENT COMPLIES WITH DAMO100 D BY THE ENCROACHMENT.
 INATIONAL GRID GAS STSTEM PLANNING SHALL REVIEW AND APPROVE THE USE OF AN ALTERNATIVE FITTING. A PULL OUT RESISTANT COUPLING MUST BE USED FOR THE CONNECTION OF THE NEW MAIN TO THE HOST MAIN. 17. ON NEW PLASTIC TO EXISTING STEEL CONNECTIONS, IN-LINE TIE-INS USING A STOP-OFF FITTING AND A PULLOUT RESISTANT DRESSER STYLE COUPLING IS INTERCHANGEABLE WITH USING A TDW 3-WAY TEE, AN ELBOW AND A PLASTIC TO STEEL TRANSITION FITTING ON A HIGH PRESSURE DISTRIBUTION MAIN OR SERVICE. 18. STEEL MUELLER ANSI 150 CLASS FITTINGS ARE INTERCHANGEABLE WITH TDW FITTINGS OF 150 POUND CLASS PROVIDED THAT THEY ARE THE SAME SIZE AND CAN PROVIDE THE SAME FUNCTION IN A SAFE MANNER IN ACCORDANCE TO THE 		Drawing Copyright © 2022
 MANUFACTURER'S SPECIFICATIONS. 19. PLASTIC INLINE TEES AND BRANCH SADDLES ARE INTERCHANGEABLE PROVIDED THE SADDLE IS THE EQUIVALENT SIZE OF THE TEE INCLUDING REDUCERS AND TAPPED OUT TO THE MAXIMUM SIZE ALLOWED BY THE MANUFACTURER. 20. FOR A 2" PLASTIC TIE-IN TO AN EXISTING 2" PLASTIC PIPE, EITHER A 2" HVT OR A STRAIGHT BUTT CONNECTION ARE ACCEPTABLE ALTERNATIVES PROVIDED THERE ARE NO ONE WAY FEED ISSUES. 21. BUTT FUSE PLASTIC CAPS, WITH OR WITHOUT ELECTROFUSION COUPLINGS. MAY BE USED IN LIFU OF FLECTROFUSION CAPS AS 		141 Longwater Drive, Suite 1 Norwell, MA 02061-1620 781-982-7700 . www.chacompar

NEEDED.

rive. Suite 104 Norwell, MA 02061-1620 781-982-7700 . www.chacompanies.com

I OCAL, STATE, AND FEDERAL CODES IN ADDITION TO NATIONAL GRID ODS. WHERE ANY CONFLICTS OF CODES, STANDARDS, AND REGULATIONS NT CODE. STANDARD. OR REGULATION SHALL APPLY. ACCORDANCE WITH THE MOST CURRENT REVISION AVAILABLE AT THE

- NSPORTATION OF NATURAL AND OTHER GAS BY PIPELINE: MINIMUM
- OF PUBLIC UTILITIES ACHUSETTS GAS DISTRIBUTION CODE
- ECHANICAL ENGINEERS
- ON AND DISTRIBUTION PIPING SYSTEMS
- DRMED IN ACCORDANCE WITH NATIONAL GRID GAS POLICIES IG BUT NOT LIMITED TO:
- ND RESTORATION
- ON OF GAS FACILITY HISTORICAL RECORDS LLY AVAILABLE SHORING SYSTEMS
- TING CAST IRON JOINTS
- OFF OPERATIONS
- OPERATIONS ON LOW PRESSURE MAINS EQUIREMENTS FOR GAS PIPELINES
- G OPERATIONS DIRECT REPLACEMENT
- NG OPERATIONS COMPLETE INERT FILL
- NG OPERATIONS SLUG METHOD
- OPERATIONS FOR KLEISS EQUIPMENT STEEL DISTRIBUTION MAINS
- BENDING OF LINE PIPE
- PLASTIC MAINS
- INT OF MAINS ABANDONED PIPELINES
- IN AND SERVICE GATE BOXES
- PLASTIC PIPE ON OF DRESSER 700 COUPLINGS
- NSTRUCTION REQUIREMENTS AND PIPE HANDLING
- AND EXCAVATION NOTIFICATION REQUIREMENTS FOR UNDERGROUND HUSETTS AND RHODE ISLAND
- MARKOUT REQUIREMENTS FOR UNDERGROUND GAS FACILITIES MARK OUT OF UNDERGROUND FACILITIES
- ERATING PROCEDURE (SOP)
- UALIFICATION PLAN
- GAS MAIN AND NEW SERVICE WORK PACKAGES ITROL PROCEDURE FOR STANDARD CONSTRUCTION PROJECTS
- AL ODORIZATION FOR NEW PIPING OF POLYETHYLENE PIPE
- ER THAN WELDED
- ON AND HANDLING OF TRAFFIC PLATES
- ENCROACHMENT POLICY FOR MASSACHUSETTS AND RHODE ISLAND AL UTILITY CROSSING AND TRENCH GUIDELINES
- TESTING OF NEW MAINS MAOP OF 124 PSIG OR LESS
- INSTALLATIONS FOR PLASTIC MAINS AND SERVICES
- INSTALLATIONS 2 IN. 12 IN. FOR DISTRIBUTION SYSTEM OPERATING
- N. POLYETHYLENE VALVE INSTALLATIONS ON GAS MAIN UP TO 8 IN. VALVES AND ALL RISER RINGS
- E METHODS OF ISOLATION FOR PERFORMING HOT WORK
- AND WORK METHODS IETER AND SERVICE REGULATOR DESIGN AND INSTALLATION POLICY DCEDURES FOR CUSTOMER METER SERVICES
- UPT SERVICE TRANSFER
- DISTRIBUTION SERVICES
- ON & MAINTENANCE POLICY FOR CURB VALVES ON SERVICE LINES WITH CITIES OVER 1000 SCFH THAT DON'T HAVE EXCESS FLOW VALVES
- VICE RELOCATION GUIDELINE
- AND PROCESSING OF GAS SERVICE RECORD CARDS IN OF CUSTOMERS INVOLVED IN THE INTERRUPTION OF GAS SERVICES
- /2" SERVICE OUTSIDE SETS SERVICE OUTSIDE SETS
- -1/4" SERVICE OUTSIDE SETS
- " SERVICE LOW VALVE REQUIREMENTS ON HP SERVICES
- 2" SERVICE INSIDE SETS
- SERVICE INSIDE SETS
- UPT 1 INCH CTS AND 1-1/4 INCH CTS SERVICE TRANSFER (NIST) LP
- OF METER SET ASSEMBLIES INSIDE TO OUTSIDE
- NG MD BRANCH SADDLES OFF 4IN 12IN 60 PSIG
- 3 INCH POLYETHYLENE GAS SERVICE VALVE INSTALLATION
- ABLE MAIN CONNECTION REFERENCES TERIAL SPECIFICATION, STANDARD AND/OR APPLICABLE NATIONAL GRID
- DE B, X42, X52 AND EQUIVALENT ARE ACCEPTABLE STEEL MATERIAL LE. ALTERNATES TO THE BOM ARE ALLOWED WITHIN THIS RANGE BASED
- THE FOLLOWING: GAS SERVICES DISTRIBUTION MAINS UIREMENTS FOR INSTALLATION OF CASINGS
- H. 8 INCH & 12 INCH OATED STEEL
- TIONAL GRID STRATEGIC ASSET AND SYSTEM PLANNING L MAIN CONNECTIONS TO BE DETERMINED BY NATIONAL AND IMPLEMENTED IN ACCORDANCE WITH THE SOP
- TO ENCROACHMENTS, NATIONAL GRID SHALL DETERMINE TION OF THE ENCROACHMENT TO ENSURE THE DAM01008 AND REMOVES ANY POTENTIAL HAZARD

4/6/2022

AUTHORIZED ALTERATION OR ADDITION T THIS DOCUMENT IS A VIOLATION OF

APPLICABLE STATE AND/OR LOCAL LAWS

SEQUENCE OF CONSTRUCTION

- CONTRACTOR SHALL CALL DIGSAFE (DIAL 811 OR 888-344-7233) AT LEAST 72 HOURS PRIOR TO CONSTRUCTION. SATURDAYS, SUNDAYS, AND HOLIDAYS ARE EXCLUDED. CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES AND STRUCTURES DEPICTED OR NOT DEPICTED ON THIS DESIGN PRIOR TO CONSTRUCTION.
- INSTALL MAIN AS INDICATED IN SCOPE OF WORK.
- PRESSURE TEST INSTALLED MAIN (SEE PRESSURE TESTING SECTION). CONNECT NEW 12 IN ST 22 PSIG MAIN TO EXISTING 12 IN BS 22 PSIG MAIN AT BAKER ST AND
- BROOK FARM RD PER PROPOSED TIE-IN DETAIL 1 CONNECT NEW 8 IN PL 22 PSIG MAIN TO EXISTING 8 IN CS 22 PSIG MAIN AT BAKER ST AND
- RUMFORD RD PER PROPOSED TIE-IN DETAIL 9. 7. PURGE NEW MAIN INTO SERVICE.
- 8. PERFORM TRANSFER / RELAY OF SERVICES.
- CONNECT NEW 12 IN ST 22 PSIG MAIN TO EXISTING 12 IN BS 22 PSIG MAIN AT BAKER ST AND VFW PKWY PER PROPOSED TIE-IN DETAIL 2. 10. CONNECT NEW 4 IN PL 22 PSIG MAIN TO EXISTING 4 IN PL 22 PSIG MAIN AT BAKER ST AND
- GLENHAM ST PER PROPOSED TIE-IN DETAIL 3.
- 11. CUT AND CAP EXISTING 6 IN PL LP MAIN AT LASELL ST AND TEMPLE ST PER PROPOSED TIE-IN DETAIL 4. 12. CUT AND CAP EXISTING 6 IN PL LP MAIN AT BAKER ST AND KEITH ST PER PROPOSED TIE-IN
- DETAIL 5. 13. CONNECT NEW 12 IN ST 22 PSIG MAIN TO EXISTING 12 IN BS 22 PSIG MAIN AT BAKER ST AND
- VERMONT ST PER PROPOSED TIE-IN DETAIL 6. 14. CUT AND CAP EXISTING 6 IN PL LP MAIN NEAR #421 BAKER ST PER PROPOSED TIE-IN DETAIL 7.
- 15. CONNECT NEW 8 IN PL 22 PSIG MAIN TO EXISTING 8 IN PL 22 PSIG MAIN AT BAKER ST AND COTUIT ST PER PROPOSED TIE-IN DETAIL 8. 16. CONNECT NEW 8 IN PL 22 PSIG MAIN TO EXISTING 8 IN CS 22 PSIG MAIN AT CHESBROUGH RD
- AND RUMFORD RD PER PROPOSED TIE-IN DETAIL 10. 17. VERIFY THAT TRANSFER / RELAY OF SERVICES IS COMPLETE.
- 18. CUT AND CAP EXISTING 6 IN CI LP MAIN NEAR #270 BAKER ST PER PROPOSED TIE-IN DETAIL 11 19. PURGE OLD MAIN OUT OF SERVICE AND ABANDON. 20. PERFORM RESTORATION.
- PRESSURE TESTING
- 1. PRESSURE TESTING TO BE IN ACCORDANCE WITH:
 - A. CNST04003: PRESSURE TESTING MAINS OPERATING BELOW 125 PSIG.
 - B. TEST PRESSURE (MINIMUM): 90 PSIG C. TEST DURATION BASED ON LENGTH AND DIAMETER IN ACCORDANCE WITH TABLE 1 TEST MEDIUM: AIR AND/OR NITROGEN
- CS-MAIN004: PRESSURE TESTING OF NEW MAINS MAOP OF 124 PSIG OR LESS 2. PRESSURE TEST SERVICES IN ACCORDANCE WITH:
- A. CNST06008: PRESSURE TESTING SERVICE LINES

WELDING

- NATIONAL GRID WELDING GAS POLICIES AND WORK METHODS INCLUDE:
- CNST05002: WELDING POLICY
- CNST05003: PIPE WELDING SAFETY
- CNST05005: WELDING PROCEDURE SPECIFICATIONS MS-030: WELDING FILLER MATERIALS
- 2. PRIOR TO THE START OF ANY WORK THE CONTRACTOR SHALL SUBMIT WELDER CERTIFICATION DOCUMENTS FOR EACH OF THE WELDERS EMPLOYED ON THIS PROJECT.
- .3 WELDING PROCEDURE SPECIFICATIONS REQUIRED A. BUTT WELDS (GROOVE): WPS-SMAW-E6010/7010 (LATEST REVISION)
- B. FILLET WELDS (BRANCH): WPS-SMAW-E6010/7010 (LATEST REVISION)
- 4. 10% (AT LEAST 1) OF WELDS IN EACH CATEGORY BELOW SHALL BE SUBJECT TO NON-DESTRUCTIVE EXAMINATION (NDE). A. BUTT WELDS 2-INCH AND GREATER: 10% RADIOGRAPH
- BUTT WELDS < 2-INCHES: 10% MAGNETIC PARTICLE FILLET WELDS: 10% MAGNETIC PARTICLE NDE AND WELD MAP SHALL BE PROVIDED BY SKYTESTING
- 6. SKYTESTING SCHEDULING CONTACT:
- WILLIAM (BILL) CLARK

ENVIRONMENTAL

ANDREW L. SHELBY PHONE: (781) 907-1867

2. ENVIRONMENTAL ENGINEERING CONTACT

- CELL: (704) 858-7794
- EMAIL: WCLARK@SKYTESTING.COM
- CATHODIC PROTECTION
- IF EXISTING TEST STATIONS, WIRES, AND/OR MAGNESIUM ANODES ARE DISTURBED OR DAMAGED. NOTIFY THE NATIONAL GRID CORROSION DEPARTMENT: BUTCH VINCENT: (617) 438-5192
- 2. 24 HOUR NOTICE IS REQUIRED PRIOR TO INSTALLATION OF INSULATED FITTINGS TO ALLOW FOR
- ACCEPTANCE TESTING 3. CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH NATIONAL GRID CORROSION GAS
- POLICIES AND WORK METHODS INCLUDING: COR01100: CORROSION DESIGN CRITERIA
- COR02001: APPLICATION OF COATING SYSTEMS
- COR02020: INSPECTING EXPOSED STEEL PIPE FOR CORROSION

COR03001: TESTING OF PIPE COATING (JEEP TESTING)

COR04001: INSTALLATION OF MAGNESIUM ANODES

030024-CS: INSTALLATION OF MAGNESIUM ANODES

WORK SHALL CONFORM TO THE NATIONAL GRID ENVIRONMENTAL POLICY.

GUIDANCE FORMS, FOR EXAMPLE EG-301, FOR THE RESPECTIVE STATE.

SHE02001: HANDLING CONTAMINATED MATERIALS AND PIPING SHE02002: REMOVING MERCURY REGULATORS AND DEVICES SHE02003: ENCOUNTERING CONTAMINATION WHILE EXCAVATING

6. NATIONAL GRID ENVIRONMENTAL POLICIES AND PROCEDURES INCLUDE:

EG303-NE: BEST MANAGEMENT PRACTICES

EG140: USED GAS PIPE MANAGEMENT

COR04004: INSTALLATION OF WIRE CONNECTION

TIE IN A PLASTIC PIPE TO A METALLIC PIPE

030036-CS: INSTALLING WIRE CONNECTIONS

030031-CS: FACILITY COATING GUIDE

EMAIL: ANDREW.SHELBY@NATIONALGRID.COM

SHALL NOTIFY THEIR IMMEDIATE SUPERVISOR.

DETERMINATION FOR ITS PROPER DISPOSAL.

7. ENVIRONMENTAL REQUIREMENTS: N/A

REVISED PER CLIENTS COMMENTS (DATED 03/30/2022)

REVISED PER CLIENTS COMMENTS (DATED 02/09/2022)

DESCRIPTION

ISSUED FOR CONSTRUCTION

NO.

COR02021: INSPECTING EXPOSED CAST OR DUCTILE PIPING FOR GRAPHITIZATION

COR04003: INSTALLATION OF TEST STATIONS FOR CATHODIC PROTECTION

COR04005: INSTALLATION OF INSULATING JOINTS FOR CATHODIC PROTECTION

030026-CS: INSTALLATION OF TEST STATIONS FOR CATHODIC PROTECTION

030028-CS: INSTALLATION OF INSULATING JOINTS FOR CATHODIC PROTECTION

4. CORROSION DESIGN: SEE CONTENTS OF THIS DESIGN FOR CATHODIC PROTECTION DETAILS.

3. CONTRACTOR SHALL REVIEW THE PROJECT WORK ORDER PACKAGE FOR THE ENVIRONMENTAL

5. NO EXCAVATED SOIL SHALL LEAVE THE WORK SITE UNTIL ENVIRONMENTAL HAS MADE A

04/06/2022 | RA | MLT | GWP

02/11/2022 | RA | MLT | GWP

01/20/2022 | RA | MLT | GWP

DATE | DR.BY | CK.BY | APP.BY

4. WHEN SOILS OR LIQUIDS ARE ENCOUNTERED THAT ARE BELIEVED TO BE CONTAMINATED WITH OIL

AND/OR HAZARDOUS MATERIAL, EXCAVATION WORK SHALL BE HALTED AND FIELD PERSONNEL

BOSTON GAS COMPANY

d/b/a

nationalgric

40 SYLVAN ROAD WALTHAM, MA 02451

FINAL

M. 030016-CS: ELECTRICAL ISOLATION REQUIREMENTS OF A METALLIC COUPLING INSTALLED TO

SA	FETY
1.	WORK SHALL CONFORM TO THE NATIONAL GRID EMPLOYEE SAFETY HANDBOOK AND OSHA REQUIREMENTS
2.	REQUIRED PPE SHALL BE WORN AND UTILIZED IN ACCORDANCE WITH THE CURRENT NATIONAL GRID SAFETY POLICY.
3.	A NATIONAL GRID APPROVED CONTRACTOR HEALTH AND SAFETY PLAN (HASP) IS REQUIRED PRIOR TO CONSTRUCTION.
4.	CONSTRUCTION SIGNING, DRUMS, BARRICADES, AND OTHER DEVICES SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC
	CONTROL DEVICES (M.U.T.C.D.) PART VI AND SHALL BE MAINTAINED BY THE CONTRACTOR.
5.	NATIONAL GRID SAFETY POLICIES AND PROCEDURES INCLUDE:
	A- ADMINISTRATIVE B- INSPECTIONS
	C- WALKING WORKING SURFACES D- MEANS OF EGRESS
	E- MATERIAL HANDLING AND STORAGE F- TOXIC AND HAZARDOUS SUBSTANCES
	G- HAZARDOUS MATERIALS H- PERSONAL PROTECTIVE EQUIPMENT
	I- GENERAL ENVIRONMENTAL CONTROLS J- ACCIDENT INVESTIGATION
	K— MACHINERY AND GUARDING L— WELDING/CUTTING/BRAZING
	M– EXCAVATIONS N– CONTRACTORS
	FIRE PROTECTION Q- FLEET AND ROADWAY SAFETY
6.	GAS WORK METHODS SAFETY PROCEDURES INCLUDE:
	A. SHE01001: GENERAL SAFETY REQUIREMENTS
	B. SHE01002: SUPPLIED-AIR RESPIRATORS
	C. SHEU1003: USING AND MAINTAINING PORTABLE GAS MONITORS
	D. SHEUTUU4: USING AND MAINTAINING FLAME TUNIZATION UNITS
	E. SHEUTUUD: DISSIPATING STATIC ELECTRICAL CHARGES ON PLASTIC PIPE
	F. SHEUTUUDI: ENTERING GAS UTILITE VAULTS
	G. SHEUTUUG: USING AND MAINTAINING THE GAS-EAPLUKER H - SHEATAAA, DISSIDATING STATIC ELECTRICAL CHARCES ON DLASTIC DIDE
	T. STEVIUUS, DISSIPATING STATIC ELECTRICAL CHARGES ON PLASTIC PIPE
	THE FIELD
	J. SHE02001: HANDLING CONTAMINATED MATERIALS AND PIPING

OTHER PERMITTING REQUIREMENTS

- CITY/TOWN OF WEST ROXBURY STREET OPENING PERMIT. - DCR AND MWRA PERMIT NEEDED FOR WORK IN VFW PKWY.

REFERENCE DRAWINGS

SAFET

ITEM

2

3

4

10

11

35

HODIC PROT

G4

G5

DESIGNER

R.ALABADI

DWG SIZE

22"X34"

NOTE; ALL MATERI

JNKNOWN AS-FO

UNDERGROUND UTILITIES ARE NOT SHOWN, NATIONAL GRID FACILITIES ARE SHOWN BASED ON AVAILABLE MAPS AND RECORDS.

THE TOPOGRAPHIC AND ELEVATION DATA SHOWN HEREON WAS OBTAINED FROM MASS GIS AND IS NOT CERTIFIED AS CORRECT AND/OR ACCURATE BY THIS ENGINEER. USERS RELY ON SAID DATA AT THEIR OWN RISK.

CONSULTANT CONTACT INFORMATION

CHA CONSULTING, INC .: JEFFREY O'DONNELL, P.E. BUSINESS PRACTICE LEADER - GAS ENGINEERING (781) 982-5456 JODONNELL@CHACOMPANIES.COM

BILL OF MATERIALS

QTY	UOM	DESCRIPTION	SIZE (IN.)	NATIONAL GRID REFERENCE	STOCK OR NON-STOCK ID #
2050	FT	PIPE, STEEL, COATED, 0.375" WALL	12	120020-MS	9340771
2250	FT	PIPE, PLASTIC, MDPE	8	120026-MS	9340862
3545	FT	PIPE, PLASTIC, MDPE-STRAIGHT 40'	4	120026-MS	9340857
3	EA	INSULATING JOINT, COUPLING, INSULATED WELD END	12	FITS6015	9311202
4	EA	ELBOW, STEEL, 45 DEGREE	12	MATL3100	9308373
3	EA	CAP, STEEL, DRESSER, SELF-RESTRAINING	12	FITS6024	9315212
3	EA	VALVE, GATE, CL150, BW	12	VALV6010	9323336
1	EA	TEE, STEEL, 0.375" WALL	12	MATL3100	9315875
1	EA	TEE, 3 WAY, TAPPING, CONTOURED	6	HTAP6046	9315478
1	EA	FITTING, TRANSITION, MDPE	6	HTAP6045 HTAP6046	9339395
1	EA	REDUCER, PLASTIC, MDPE	6 X 4	CS-FIT013	9342678
10	EA	VALVE, PLASTIC, FULL BORE/PORT, MDPE	4	VALV6020	9341709
A/R	EA	COUPLING, PLASTIC ELECTROFUSION	4	CS-FIT015	9314593
A/R	EA	ELBOW, PLASTIC, MDPE, 90 DEGREE	4	CS-FIT011	9341397
1	EA	SADDLE, ELECTROFUSION, HDPE	4 X 4	CS-FIT015	9314424
A/R	EA	CAP, PLASTIC, MDPE, BUTT FUSE	4	CS-FIT010	9339534
A/R	EA	CAP, PLASTIC, HDPE, ELECTRO FUSE	4	CS-FIT015	9393582
2	EA	TEE, 3 WAY, TAPPING, CONTOURED	8	HTAP6055	9315495
3	EA	FITTING, TRANSITION, MDPE	8	HTAP6055	9339396
7	EA	VALVE, PLASTIC, FULL BORE/PORT, MDPE	8	VALV6020	9386594
A/R	EA	COUPLING, PLASTIC ELECTROFUSION	8	CS-FIT015	9314591
A/R	EA	CAP, PLASTIC, MDPE, BUTT FUSE	8	CS-FIT010	9339559
A/R	EA	CAP, PLASTIC, HDPE, ELECTRO FUSE	8	CS-FIT015	9393633
A/R	EA	COUPLING, PLASTIC ELECTROFUSION	6	CS-FIT015	9314592
A/R	EA	CAP, PLASTIC, MDPE, BUTT FUSE	6	CS-FIT010	9339733
A/R	FA	CAP, PLASTIC, HDPE, ELECTRO FUSE	6	CS-FIT015	9393581
3	FA	TEE, 3 WAY, TAPPING, CONTOURED	4	HTAP6035	9315477
3	FA	FITTING. TRANSITION. MDPE	4	HTAP6035	9339394
1	EA	TEE, 3 WAY, TAPPING, CONTOURED	12	HTAP6020	9315494
6	FA	FITTING, LINE STOPPER, WILLIAMSON, CONTOURED	12	HTAP5010	9341086
1	FA	TEE, 3 WAY, TAPPING, FLAT BOTTOM	8	HTAP6055	9308511
1	FA	REDUCER, PLASTIC, MDPE PUP	12 X 8	CS-FIT013	9342617
1	FA	FITTING. TRANSITION. MDPE	12	HTAP6020	9339397
4	EA	SADDLE, ELECTROFUSION, HDPE	8 X 4	CS-FIT015	9307522
1	FA	TEE. PLASTIC, MDPE	8	CS-FIT012	9342070
A/R	FA	ELBOW, PLASTIC, MDPE, 90 DEGREE	8	CS-FIT011	9341398
2	EA	CAP, CAST IRON, DRESSER, SELF-RESTRAINING	12	FITS6024	9315167
1	FA	TEE, PLASTIC, MDPE	4	CS-FIT012	9342523
1	EA	CAP, STEEL, WELD END	6	FITS6100	9312094
A/R	EA	ELBOW, PLASTIC, MDPE, 45 DEGREE	4	CS-FIT011	9341400
TION					
A/R	EA	CP TEST BOX W/ COVER	N/A	030026-CS	(SEE STD)
A/R	EA	17# ANODE	N/A	030024-CS	9311183
A/R	FT	TRACER WIRE	-	CNST6061	9315005
A/R	FT	YELLOW CAUTION TAPE - GAS MAIN - 6" WIDE	6	CNST6060	9341904
3	EA	VALVE BOX ASSEMBLY	12	FITS6350	(SEE STD)
10	EA	VALVE BOX ASSEMBLY	4	FITS6370	(SEE STD)
7	EA	VALVE BOX ASSEMBLY	8	FITS6370	(SEE STD)
	ES ARE ESTIMA	TED BASED ON PROPOSED DESIGN. ADDITIONAL QUANTITIES AND/OR OTHER MA	I	D TO CONSTRUCT VERTICAL OFFS	ETS OR DUE TO OTHER
D CONDITIC	NS/DESIGN CC	ONFLICTS AND FOR TESTING.			

PROPOSED GAS MAIN REPLACEMENT	PAGE
270-585 BAKER ST & 891-903 VFW PKWY	
WEST ROXBURY, MA	DRAWING NO.

PAGE 2 **OF** 23

)PI-WR0-067813-1053 G-002

SHEET NO.

CONSTRUCTION NOTES AND BOM

ENGINEER DATE: ASSET I.D. W.O. NO.: M.THOMPSON 01/20/2022 DISTRIBUTION 1213100



RD 585-583	224 224 EXISTING 12-INCH BS 22 PSIG GAS MAIN (1949) TO BE ABANDONED		
PROPOSED 12-INCH COATED STEEL 22 PSIG GAS MAIN () PROPOSED 12-INCH ST VALVE (?) (G3) WETLAND BOUNDARY LINE	IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	BAKER ST EXISTING 6-INCH CI LP (1928) TO BE ABANDOI	ALTER AND ALTER
		 NOTES: 1. THIS PROJECT INVOLVES RE ENSURE THAT ALL SERVICE REGULATORS PRIOR TO TRAUSING. 2. TOTAL FOOTAGE EXCEEDS 2 	PLACING LP GAS MAIN WITH 22 PSIG GAS MAIN. S ARE FITTED APPROPRIATELY WITH SERVICE INSFERRING OVER FROM THE LP TO 22 PSIG 2500 FEET. CONTACT I&R FOR PICKLING PROCEDURE.
om	BOSTON GAS COMPANY d/b/a BOSTON GAS COMPANY d/b/a DATE DR.BY CK.BY APP.BY BOSTON GAS COMPANY BOSTON GAS COMPANY BOSTON GAS COMPANY BOSTON GAS COMPANY DATE DR.BY CK.BY APP.BY BOSTON GAS COMPANY BOSTON GAS COMPANY BOSTON GAS COMPANY A/b/a BOSTON GAS COMPANY d/b/a DATE DR.BY CK.BY APP.BY BOSTON GAS COMPANY A/b/a BOSTON GAS COMPANY A/b/a BOSTON GAS COMPANY A/b/a DATE DR.BY CK.BY APP.BY BOSTON GAS COMPANY A/b/a BOSTON GAS COMPANY A/b/a BOSTON GAS COMPANY A/b/a DATE DR.BY CK.BY APP.BY BOSTON GAS COMPANY A/b/a BOSTON GAS COMPANY A/b/a DATE DR.BY CK.BY APP.BY BOSTON GAS COMPANY A/b/a BOSTON GAS COMPANY A/b/a DATE DR.BY CK.BY APP.BY	PROPOSED GAS MAIN REPLACEMENT 270–585 BAKER ST & 891–903 VFW PKWY WEST ROXBURY, MA PROPOSED INSTALLATION PLAN SIZE DESIGNER ENGINEER DATE: ASSET I.D. W.O. N 'X34" R.ALABADI M.THOMPSON 01/20/2022 DISTRIBUTION 12131	PAGE 3 OF 23 DRAWING NO. SHEET NO. DPL-WR0-067813-1053 C-001



	TOF 2							BOSTON GAS COMPANY d/b/a		P
	ARY WAR							national grid		270-
	CIVIL No. 52392							40 SYLVAN ROAD WALTHAM, MA 02451		
	C/STERE	2	REVISED PER CLIENTS COMMENTS (DATED 03/30/2022)	04/06/2022	RA	MLT	GWP			PROPC
1	SSIONAL ENGLA	1	REVISED PER CLIENTS COMMENTS (DATED 02/09/2022)	02/11/2022	RA	MLT	GWP			1
s.com	UNALITHORIZEA/RADON OR ADDITION TO	0	ISSUED FOR CONSTRUCTION	01/20/2022	RA	MLT	GWP	FINAL	DWG SIZE	DESIGNER
	THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS	NO.	DESCRIPTION	DATE	DR.BY	CK.BY	APP.BY		22"X34"	R.ALABADI



ROPOSED GAS MAIN REPLACEMENT 585 BAKER ST & 891–903 VFW PKWY					PAGE 4 OF 23		
	WEST RO>	(BURY, MA			DRAWING NO.	SHEET NO.	
)	SED INST	ALLATIC	ON PLAN		DPI – WRO–067813–1053	C - 002	
	ENGINEER	DATE:	ASSET I.D.	W.O. NO.:		0 0 0 2	
	M.THOMPSON	01/20/2022	DISTRIBUTION	1213100			



SI SI BAKER ST SI	P-1926 // A/////////////////////////////////	A42 A42 A42 A42 A42 A42 A42 A42	
	3'±-	PROPOSED 12-INCH COATED STEEL BA	PB-22 PSG-1944/ KER ST 3'3
m UNAUTHORIZE4/6/PO22 OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF NO. DESCRIPTION MO. DESCRIPTION	Image: Second	PROPOSED GAS MAIN REPLACEMENT 270–585 BAKER ST & 891–903 VFW PKWY WEST ROXBURY, MA PROPOSED INSTALLATION PLAN DWG SIZE DESIGNER ENGINEER DATE: ASSET I.D. W.O. NO.: 22"X34" R.ALABADI M.THOMPSON 01/20/2022 DISTRIBUTION 1213100	PAGE 5 OF 23 DRAWING NO. SHEET NO. DPL-WR0-067813-1053 C-003





								BOSTON GAS COMPANY d/b/a		PR
	CARY W							national grid		270-5
_	PAWERIA OCOUNT							40 SYLVAN ROAD WALTHAM, MA 02451		
	CISTERE STA	2	REVISED PER CLIENTS COMMENTS (DATED 03/30/2022)	04/06/2022	RA	MLT	GWP			PROPOS
	ESSIONAL ENGINE	1	REVISED PER CLIENTS COMMENTS (DATED 02/09/2022)	02/11/2022	RA	MLT	GWP			1
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	THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS	NO.	DESCRIPTION	DATE	DR.BY	CK.BY	APP.BY		22"X34"	R.ALABADI
	•								-	

÷ 🔶	MASPCS83	485		447
				EXISTING 12-INCH B 22 PSIG GAS MAIN (TO BE ABANDONED
			PROPOSED 12-INC. 22 PSIG GAS MAIN	H COATED STEEL BAKEP
		488		
			8	
			12	
			18	
LEGEND	 EXISTING CS CAP EXISTING CS GAS TRANSITION FITTING EXISTING CS REDUCER EXISTING CS VALVE PROPOSED GAS CAP PROPOSED GAS TRANSITION FITTING PROPOSED GAS REDUCER PROPOSED GAS VALVE BUILDING LINE PROPERTY LINE RIGHT OF WAY LINE EDGE OF PAVEMENT CURB LINE EXISTING CS GAS MAIN EXISTING GAS MAIN TO BE ABANDONED PROPOSED GAS LINE EXISTING PL GAS MAIN EXISTING CI GAS MAIN 	I - EXISTING BS GAS CAP I - EXISTING BS GAS TRANSITION FITTING BS GAS TRANSITION FITTING - EXISTING BS GAS REDUCER I - EXISTING PL GAS CAP I - EXISTING PL GAS CAP I - EXISTING PL GAS CAP I - EXISTING PL GAS TRANSITION FITTING - EXISTING PL GAS REDUCER I - EXISTING PL GAS VALVE I - EXISTING CI GAS CAP I - EXISTING CI GAS CAP I - EXISTING CI GAS TRANSITION FITTING - EXISTING CI GAS TRANSITION FITTING - EXISTING CI GAS TRANSITION FITTING - EXISTING CI GAS REDUCER M - EXISTING CI GAS REDUCER M - EXISTING CI GAS NALVE I - EXISTING CI GAS VALVE I - EXISTING CI GAS VALVE I - EXISTING CI GAS NALVE I - EXISTING CI GAS VALVE I - EXISTING CI GAS NALVE I - EXISTING CI GAS NALVE	GRAPHIC SCALE (FEET) 20' 10' 0 20' SCALE: 1" = 20'	Drawing Copyright © 2022



WITH OF MASS							BOSTON GAS COMPANY d/b/g		PR 270–58	0 8
PANE BANG COULS							40 SYLVAN ROAD WALTHAM, MA 02451			_
C/STERS	2	REVISED PER CLIENTS COMMENTS (DATED 03/30/2022)	04/06/2022	RA	MLT	GWP			PROPOS	Ś
SSIONAL ENGLA	1	REVISED PER CLIENTS COMMENTS (DATED 02/09/2022)	02/11/2022	RA	MLT	GWP			I	_
UNAUTHORIZEA/S /PA DON OR ADDITION TO	0	ISSUED FOR CONSTRUCTION	01/20/2022	RA	MLT	GWP	FINAL	DWG SIZE	DESIGNER	
THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS	NO.	DESCRIPTION	DATE	DR.BY	CK.BY	APP.BY		22"X34"	R.ALABADI	

R (OPOSED GAS M 35 BAKER ST (1AIN REPLACEM & 891-903 VF	ENT W PKWY		PAGE 7 OF 23	
	WEST RO>	KBURY, MA			DRAWING NO.	SHEET NO.
S	SED INST	ALLATIC	ON PLAN		DPI – WRO–067813–1053	C-005
	ENGINEER	DATE:	ASSET I.D.	W.O. NO.:		
	M.THOMPSON	01/20/2022	DISTRIBUTION	1213100		





M.THOMPSON

01/20/2022 DISTRIBUTION

1213100

REVISED PER CLIENTS COMMENTS (DATED 03/30/2022) 04/06/2022 | RA | MLT | GWP REVISED PER CLIENTS COMMENTS (DATED 02/09/2022) 02/11/2022 RA MLT GWP FINAL DWG SIZE DESIGNER 01/20/2022 | RA | MLT | GWP DATE DR.BY CK.BY APP.BY 22"X34" R.ALABADI





M. THOMPSON

01/20/2022 DISTRIBUTION 1213100

							BOSTON GAS COMPANY d/b/a		PR
CARY WALL							nationalgrid		270-58
CIVIL No.52392							40 SYLVAN ROAD WALTHAM, MA 02451		
C/STERE	2	REVISED PER CLIENTS COMMENTS (DATED 03/30/2022)	04/06/2022	RA	MLT	GWP			PROPOS
SSIONAL ENGLA	1	REVISED PER CLIENTS COMMENTS (DATED 02/09/2022)	02/11/2022	RA	MLT	GWP			1
LINALITHORIZEA A TOTAL OR ADDITION TO	0	ISSUED FOR CONSTRUCTION	01/20/2022	RA	MLT	GWP	FINAL	DWG SIZE	DESIGNER
THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS	N0.	DESCRIPTION	DATE	DR.BY	CK.BY	APP.BY		22"X34"	R.ALABADI





	PAMERIA OCOPE							BOSTON GAS COMPANY d/b/g		PR(270–58
	No.52392							40 SYLVAN ROAD WALTHAM, MA 02451	-	
	STONAL ENSI	2	REVISED PER CLIENTS COMMENTS (DATED 03/30/2022)	04/06/2022	RA	MLT	GWP			PROPUS
	1/0/0000	1	REVISED PER CLIENTS COMMENTS (DATED 02/09/2022)	02/11/2022	RA	MLT	GWP			1
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	THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS	N0.	DESCRIPTION	DATE	DR.BY	CK.BY	APP.BY		22"X34"	R.ALABADI

REVISED PER CLIENTS COMMENTS (DATED 03/30/2022)

REVISED PER CLIENTS COMMENTS (DATED 02/09/2022)

DESCRIPTION

0 ISSUED FOR CONSTRUCTION

UNAUTHORIZED 4/6/2022 OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS NO.

04/06/2022 RA MLT GWP

02/11/2022 RA MLT GWP

01/20/2022 RA MLT GWP

DATE DR.BY CK.BY APP.BY

FINAL

DWG SIZE

22"X34" R.ALABADI

GRAPHIC SCALE (FEET) 10' 0

SCALE: 1" = 20'

(WHEN PLOTTED AT 34"x22")

NOTES:

- THIS PROJECT INVOLVES REPLACING LP GAS MAIN WITH 22 PSIG GAS MAIN. ENSURE THAT ALL SERVICES ARE FITTED APPROPRIATELY WITH SERVICE REGULATORS PRIOR TO TRANSFERRING OVER FROM THE LP TO 22 PSIG SYSTEM.

- TOTAL FOOTAGE EXCEEDS 2500 FEET. CONTACT I&R FOR PICKLING PROCEDURE.

LEGEND	 EXISTING CS CAP EXISTING CS GAS TRANSITION FITTING EXISTING CS REDUCER 	 – EXISTING BS GAS CAP – EXISTING BS GAS TRANSITION FITTING
1	– EXISTING CS VALVE – PROPOSED GAS CAP	 EXISTING BS GAS REDUCER EXISTING BS GAS VALVE
 ⊳ ⊠	 PROPOSED GAS TRANSITION FITTING PROPOSED GAS REDUCER PROPOSED GAS VALVE 	 – EXISTING PL GAS CAP – EXISTING PL GAS TRANSITION FITTING
	 BUILDING LINE PROPERTY LINE RIGHT OF WAY LINE EDGE OF PAVEMENT CURB LINE 	 EXISTING PL GAS REDUCER EXISTING PL GAS VALVE EXISTING CI GAS CAP EXISTING CI GAS TRANSITION FLITTING
G	 EXISTING CS GAS MAIN EXISTING GAS MAIN TO BE ABANDONED PROPOSED GAS LINE EXISTING PL GAS MAIN EXISTING CI GAS MAIN EXISTING BS GAS MAIN 	 ► - EXISTING CI GAS REDUCER ► EXISTING CI GAS VALVE ← EXISTING FIRE HYDRANT ⊞ - EXISTING CATCH BASIN ○ - EXISTING UTILITY POLE

PR 270-58	OPOSED GAS N 35 BAKER ST d	IAIN REPLACEM & 891-903 VF	ENT W PKWY		PAGE 12 OF 23	
	WEST RO>	(BURY, MA			DRAWING NO.	SHEET NO.
PROPOS	SED INST	ALLATIC	ON PLAN		DPI – WRO–067813–1053	C-010
DESIGNER	ENGINEER	DATE:	ASSET I.D.	W.O. NO.:		
R.ALABADI	M. THOMPSON	01/20/2022	DISTRIBUTION	1213100		

	ALTH OF MASSIE							BOSTON GAS COMPANY d/b/d nationalgrid		PR 270-5
	PAREBAROUTER CIVIL No.52392	2	REVISED PER CLIENTS COMMENTS (DATED 03/30/2022)	04/06/2022	RA	міт	GWP	40 SYLVAN ROAD WALTHAM, MA 02451		
	SSIONAL ENGLA	1	REVISED PER CLIENTS COMMENTS (DATED 02/09/2022)	02/11/2022	RA	MLT	GWP			
n		0	ISSUED FOR CONSTRUCTION	01/20/2022	RA	MLT	GWP	FINAL	DWG SIZE	DESIGNER
	THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS	N0.	DESCRIPTION	DATE	DR.BY	CK.BY	APP.BY		22"X34"	R.ALABADI

	TH-OF M							BOSTON GAS COMPANY d/b/a		PR
	A RY WARE							nationalgrid		270-3
	CIVIL No.52392							40 SYLVAN ROAD WALTHAM, MA 02451		
	CISTER S	2	REVISED PER CLIENTS COMMENTS (DATED 03/30/2022)	04/06/2022	RA	MLT	GWP			PROPOS
	SSIONAL ENGLY	1	REVISED PER CLIENTS COMMENTS (DATED 02/09/2022)	02/11/2022	RA	MLT	GWP			1
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	THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS	NO.	DESCRIPTION	DATE	DR.BY	CK.BY	APP.BY		22"X34"	R.ALABADI

- NOTES: THIS PROJECT INVOLVES REPLACING LP GAS MAIN WITH 22 PSIG GAS MAIN. ENSURE THAT ALL SERVICES ARE FITTED APPROPRIATELY WITH SERVICE REGULATORS PRIOR TO TRANSFERRING OVER FROM THE LP TO 22 PSIG
- TOTAL FOOTAGE EXCEEDS 2500 FEET. CONTACT I&R FOR PICKLING PROCEDURE.

						BOSTON GAS COMPANY d/b/a		PR	OPOSED GAS M	IAIN REPLACEM	IENT		PAGE 15 OF 23		
	AND THE OWNER					national arid		270-5	85 BAKER SI (West Roy	& 891-903 VF	W PKWY				=
	GARY WARE BLAND					national gra			WEST NO/	ADUNT, MA			DRAWING NO.	SHEET NO.	
	CIVIL No.52392					40 SYLVAN ROAD WALTHAM, MA 02451									
	PECISTER S	2	REVISED PER CLIENTS COMMENTS (DATED 03/30/2022)	04/06/2022	RA MLT GWP			PROPOS	SED INST	TALLATIC	ON PLAN				
	SSIONAL ENGLA	1	REVISED PER CLIENTS COMMENTS (DATED 02/09/2022)	02/11/2022	RA MLT GWP			1		1			UPL-WKU-U6/8 3-1053	(-0)	
om	LINALITHORIZED AND ADDITION TO	0	ISSUED FOR CONSTRUCTION	01/20/2022	RA MLT GWP	FIINAL	DWG SIZE	DESIGNER	ENGINEER	DATE:	ASSET I.D.	W.O. NO.:			
	THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS	N0.	DESCRIPTION	DATE	DR.BY CK.BY APP.BY		22"X34"	R.ALABADI	M. THOMPSON	01/20/2022	DISTRIBUTION	1213100			

								BOSTON GAS COMPANY d/b/a		PR
	ARY WE							national grid		270-58
	PAWERIA OCOURT							40 SYLVAN ROAD		
	No.52392	2	REVISED PER CLIENTS COMMENTS (DATED 03/30/2022)	04/06/2022	RA	MLT	GWP	WALITIAM, WA 02401		PROF
	SJSIONAL ENGLY	1	REVISED PER CLIENTS COMMENTS (DATED 02/09/2022)	02/11/2022	RA	MLT	GWP			
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	THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS	NO.	DESCRIPTION	DATE	DR.BY	CK.BY	APP.BY		22"X34"	R.ALABADI

R(58	DPOSED GAS N 35 BAKER ST d	1AIN REPLACEM & 891-903 VF	ENT W PKWY		PAGE 16 OF 23	
	WEST RO>	KBURY, MA			DRAWING NO.	SHEET NO.
) F	POSED T	IE-IN DE	TAILS		DPI – WRO–067813–1053	C-201
	ENGINEER	DATE:	ASSET I.D.	W.O. NO.:		0 201
	M. THOMPSON	01/20/2022	DISTRIBUTION	1213100		

R(58	DPOSED GAS M 35 BAKER ST d	1AIN REPLACEM & 891-903 VF	ENT W PKWY		PAGE 17 OF 23	
	WEST RO>	KBURY, MA			DRAWING NO.	SHEET NO.
F	OSED T	IE-IN DE	TAILS		DPI – WRO–067813–1053	C-202
	ENGINEER	DATE:	ASSET I.D.	W.O. NO.:		
	M.THOMPSON	01/20/2022	DISTRIBUTION	1213100		

GRAPHIC SCALE (FEET) 1.5' SCALE: 1" = 3' (WHEN PLOTTED AT 34"x22")

								BOSTON GAS COMPANY d/b/a		070	PR
	CARY W							national grid		270-	-5
	PAREBIA OCOURT							40 SYLVAN ROAD WALTHAM, MA 02451			
	NO.32392	2	REVISED PER CLIENTS COMMENTS (DATED 03/30/2022)	04/06/2022	RA	MLT	GWP			PRC	J
	SSIONAL ENGLY	1	REVISED PER CLIENTS COMMENTS (DATED 02/09/2022)	02/11/2022	RA	MLT	GWP		<u> </u>		
n		0	ISSUED FOR CONSTRUCTION	01/20/2022	RA	MLT	GWP	FINAL	DWG SIZE	DESIGNER	
	THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS	NO.	DESCRIPTION	DATE	DR.BY	CK.BY	APP.BY		22"X34"	R.ALABADI	
n	No. 52392 CONTRACTOR OF ADDITION TO THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS	2 1 0 NO.	REVISED PER CLIENTS COMMENTS (DATED 03/30/2022) REVISED PER CLIENTS COMMENTS (DATED 02/09/2022) ISSUED FOR CONSTRUCTION DESCRIPTION	04/06/2022 02/11/2022 01/20/2022 DATE	RA RA RA DR.BY	MLT MLT MLT CK.BY	GWP GWP GWP APP.BY	FINAL	DWG SIZE 22"X34"	DESIGNE R.ALABA	

NOTES

ITEM

(INCHES)

0-200 PSIG STAINLESS STEEL ¼" NPT 3-1/2" DIAL 0-200 PSIG STAINLESS STEEL ¼" NPT 2-1/2" DIAL

6" MAIN X 1/2" BUTT FUSE OUTLET LI/MA/NY/NYC

8" MAIN X 1/2" BUTT FUSE OUTLET LI/MA/NY/NYC

100 PSIG STAINI ESS STEEL

1/4" MAIN X 1" OUTLET

2" MAIN X 1" OUTLET L 4" MAIN X 1" OUTLET L

6" MAIN X 1" OUTLET L

8" MAIN X 1" OUTLET LI

2" MAIN X 1" IPS OUTLET MASS 3" MAIN X 1" IPS OUTLET MASS 4" MAIN X 1" IPS OUTLET MASS

6" MAIN X 1" IPS OUTLET MASS

2" MAIN X 1/2" OUTLET LI 4" MAIN X 1/2" OUTLET LI

6" MAIN X 1/2" OUTLET L

8" MAIN X 1/2" OUTLET LI

2" MAIN X 1" OUTLET LI 4" MAIN X 1" OUTLET LI 6" MAIN X 1" OUTLET LI

8" MAIN X 1" OUTLET L

12" MAIN X 1" OUTLET

2" MAIN X 1/2" OL

4" MAIN X 1/2" OUTLET

6" MAIN X 1/2" OUTLET

8" MAIN X 1/2" OUTLET

2" MAIN X 1" OUTLE 3" MAIN X 1" OUTLE

4" MAIN X 1" OUTLE

6" MAIN X 1" OUTLE

8" MAIN X 1" OUTLET

UNCONTROLLED WHEN PRINTED Effective Date 7/15/2013

8" MAIN X 1" IPS OUTLET MASS 12" MAIN X 1" IPS OUTLET LI, NYC, MA

TEE SERVICE MECHANICAL X PERFECTION OUTLET

	DESCRIPTION	ORACLE ITEM ID LI / MA / NYC	PEOPLESOFT ITEM RI AND UNY
10	END CAPS – STEEL WELD END STANDARD WALL –GRADE B		
	2"	9312095 2"	9312095
		9308719 3"	9308719
	A^n	9312096 4"	9312096
		9312094 6"	9312094
	8"	9312093 8"	9312093
	10"	9315182 10"	9315182
	10"	9312092 12"	0312002
	16"	9314824 16"	9314824
	20"	9339687 20"	9314823
11	THOR FITTING	-	-
	1/2" MALE NPT X HOSE CONNECTION	00504089	NON STOCK
	3/4" FEMLAE X HOSE CONNECTION	00504301	NON STOCK
12	THRED-O-LET	-	2
	12" - 6" X ¾" 3000# PER ASTM A-105 GRADE B	9341652 12-6X3/4	NON STOCK
	10" – 6" X 1" 3000# PER ASTM A-105 GRADE B	9341656 10-6X1	NON STOCK
	36" – 12" X 1" 3000# PER ASTM A-105 GRADE B	9342052 36-12X1	NON STOCK
	2" X 1" 3000# PER ASTM A-105 GRADE B	NON STOCK	9307678 2X1
	10" – 6" X 1" 3000# PER ASTM A-105 GRADE B	NON STOCK	9307695 10-6X
	36"-14" X ¾" 3000# PER ASTM A-105 GRADE B	NON STOCK	9307677 36-14X3
13	VALVE		
13A	VALVE (OPTIONAL – TO SHUT OFF TEST ASSEMBLY)		
14	LUG ASSEMBLY		
	7/8" x 24" LONG (LI ONLY - SEE MAIN-6210)	9342211	NON STOCK
	7/8"X 44"LONG (LI ONLY - SEE MAIN-6210)	9342212	NON STOCK
	LUG GREEN 3"- 8"MAIN 7/8" DIAM. (NYC ONLY – SEE MAIN-6230 & MAIN-6230)	9357904	NON STOCK
	LUG YELLOW 10"- 30" MAIN 1-1/16" DIAM. (NYC ONLY – SEE MAIN-6230& MAIN-6230)	9357905	NON STOCK
	ROD 3/4" X 12' LONG (NYC ONLY	9328152	NON STOCK
	ROD 1" X 12" LONG (NYC ONLY)	9328150	NONSTOCK
	LUG ASSEMBLY % X 30° LONG	NON STOCK	9315741
15	COUPLING - END 2" PERFECTION	NON STOCK	0803641
16	TEST CAP		TOOL ROOM
	FOR SADDLE FUSION TEE – CENTRAL PLASTICS	9325109	ITEM
	FOR SADDLE FUSION TEE- JM EAGLE / POLY / UPONOR	9325017	
	FOR SADDLE FUSION TEE – PERFORMANCE PIPE TEES	9341368	
	FOR HVTT (HIGH VOLUME TAPPING TEE) SADDLE FUSION CENTAL PLASTICS	9384268	
	FOR HVTT (HIGH VOLUME TAPPING TEE) SADDLE FUSION-JM EAGLE / POLY/ UPONOR	9384174	
	FOR HVTT (HIGH VOLUME TAPPING TEE) SADDLE FUSION PERFORMANCE PIPE TEES	9323715	
	FOR HV11 ELECTROFUSION TEE	9382494	
	FOR ELECTROFUSION TEE	9381846	
	FOR PERFECTION PMTT MECHANICAL TEE (CAP FITS ALL MAIN SIZE & OUTLET SIZES	9339561	
	OF PMITS)		
UNCO	NTROLLED WHEN PRINTED 6 OF 6 [©] National G	Grid Gas plc 2021 - All Rights	Reserved
Effecti	ve Date 2/15/2021	CS	-MAIN004

CARY WEBLANDOOD							BOSTON GAS COMPANY d/b/g		PR 270-5
CIVIL No. 52392 COISTERS							40 SYLVAN ROAD WALTHAM, MA 02451		NATIO CON
7/13/2021 UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF	NO	DESCRIPTION	DATE				FINAL	DWG SIZE	
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PRC

PROPOSED GAS MAIN REPLACEMENT PAGE 19 OF 23							
70-585 BAKER ST & 891-903 VFW PKWY	PAGE 19 OF 23						
WEST ROXBURY, MA DRAWING NO. S	HEET NO.						
TIONAL GRID STANDARD ONSTRUCTION DETAILS	- 301						
ER ENGINEER DATE: ASSET I.D. W.O. NO.:	001						
ADI M.THOMPSON 01/20/2022 DISTRIBUTION 1213100							

te .D	New England SAP	Rhode Island SAP	MATERIAL NOTES
1	Item I.D	Item I.D	
TE NIN	9339892	(Sm - 445) 9311209 or (Lg - 556) in Prov. 9311208	DISCARD FOOT PIECE.
	9339391		USE, WITHOUT COVER
	9339797		NON-LOCKING COVER
39	9307539	9307539	TEST WIRE ONLY, NOT FOR GROUND BEDS, UPSTATE AND RI WIRE HAS 19 STRANDS.
95	9311795	9311795	BOND WIRE ONLY, NOT FOR GROUND BEDS
,	9334171	NON	USE IN STRAY CURRENT
x 70	9334056	9316070	NOT FOR PIPE COATING
80	9331578	NON STOCK	USE WITH NO. 6 CABLE
	9331612		USE WITH 1/0 CABLE
81	9330683	9314631	
124			LABEL WITH #1 (N) OR (E),
8	9307918	9307918	CONSECUTIVELY TO (S) OR
95	9307896	9307895	(W) SEE DETAILS "B" AND "C"
4	9307894	9307894	
2	NON	NON	AS SPECIFIED BY
	STOCK	STOCK	CORROSION ENGINEERING
3	9311183	9311183	SATURATE WITH WATER BEFORE BACKFILL. ANODE MAY BE INSTALLED VERTICALLY OR HORIZONTALLY
	9386100	By	MC MILLER OR EQUAL
ion	9385758	By	BORIN MFGR INC OR

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	PAMERIA DOCOLO						BOSTON GAS COMPANY d/b/g nationalgrid 40 sylvan road		PR 270-5 NIATI
	NO. 52 392						WALTHAM, MA 02451		CON
.com	//13/2021						FINAL	DWG SIZE	DESIGNER
	THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS	NO.	DESCRIPTION	DATE	DR.BY CK.BY	APP.BY		22"X34"	R.ALABADI
						•	•		

ENGINEER DATE: ASSET I.D. W.O. NO.: M. THOMPSON 01/20/2022 DISTRIBUTION 1213100

)PL-WRO-067813-1053 C-302

J. For horizontal directional drill installations, use stainless wire, item #2.

REFER TO THIS DRAWING FOR CONCRETE BASE.

COAT PIPE & FITTINGS IN ACCORDANCE WITH APPROPRIATE NGRID STANDARDS.

а	WELDING TO CONFORM TO NGRID SPECIFICATIONS. SEE NGRID STANDARD DRAWING 030024-CS FOR ANODE TEST LEAD INSTALLATION. ALL CONCRETE SHALL BE 1 ½ TO 3 MIX. WATER CONTENT NOT TO EXCEED 6 % GAL. PER BAG OF CEMENT. CENTER OPERATING NUT IN VALVE BOX OR PIT. EXTEND LUBRICATION FITTINGS TO 12" BELOW GRADE. USE EXTRA HEAVY PIPE. (SCH. 80). INSTALL CONCRETE BLOCKS BETWEEN PAD AND BOTTOM OF PRECAST PIT ON ALL FOUR SIDES. WELDED CONSTRUCTION PREFERRED ON STEEL MAINS. SELF RESTRAINING OR STRAPPED NON RESTRAINING COUPLINGS ACCEPTABLE AS AN ALTERNATE, UP TO 99 PSIG (L.I.) AND 100 PSIG (NE). FOR DISTRIBUTION MAINS, PLASTIC VALVES MAY BE PREFERRED WHEN REPLACING A STEEL VALVE. CONTACT GAS ENGINEERING PRIOR TO INSTALLATION. FLANGED ENDS SHOWN AS ALTERNATE END PREPARATION. WELD END PREFERRED. FLANGES ARE SHOWN AS AN OPTION. CONSULT THE CORROSION SECTION TO DETERMINE IF AN INSULATING GASKET IS REQUIRED. FOR VALVES UP TO 6" DIAMETER. IN NYC & LI AN 18" MANHOLE FRAME AND COVER MUST BE USED FOR ALL NORMALLY
3. 	SEE NGRID STANDARD DRAWING 030024-CS FOR ANODE TEST LEAD INSTALLATION. ALL CONCRETE SHALL BE 1 ½ TO 3 MIX. WATER CONTENT NOT TO EXCEED 6 ¾ GAL. PER BAG OF CEMENT. CENTER OPERATING NUT IN VALVE BOX OR PIT. EXTEND LUBRICATION FITTINGS TO 12° BELOW GRADE. USE EXTRA HEAVY PIPE. (SCH. 80). INSTALL CONCRETE BLOCKS BETWEEN PAD AND BOTTOM OF PRECAST PIT ON ALL FOUR SIDES. WELDED CONSTRUCTION PREFERRED ON STEEL MAINS. SELF RESTRAINING OR STRAPPED NON RESTRAINING COUPLINGS ACCEPTABLE AS AN ALTERNATE, UP TO 99 PSIG (L.I.) AND 100 PSIG (NE). FOR DISTRIBUTION MAINS, PLASTIC VALVES MAY BE PREFERRED WHEN REPLACING A STEEL VALVE. CONTACT GAS ENGINEERING PRIOR TO INSTALLATION. FLANGED ENDS SHOWN AS ALTERNATE END PREPARATION. WELD END PREFERRED. FLANGES ARE SHOWN AS AN OPTION. CONSULT THE CORROSION SECTION TO DETERMINE IF AN INSULATING GASKET IS REQUIRED. FOR VALVES UP TO 6° DIAMETER. IN NYC & LI AN 18° MANHOLE FRAME AND COVER MUST BE USED FOR ALL NORMALLY
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К. И. И. Л.	INSTALL CONCRETE BLOCKS BETWEEN PAD AND BOTTOM OF PRECAST PIT ON ALL FOUR SIDES. WELDED CONSTRUCTION PREFERRED ON STEEL MAINS. SELF RESTRAINING OR STRAPPED NON RESTRAINING COUPLINGS ACCEPTABLE AS AN ALTERNATE, UP TO 99 PSIG (I.I.) AND 100 PSIG (NE). FOR DISTRIBUTION MAINS, PLASTIC VALVES MAY BE PREFERRED WHEN REPLACING A STEEL VALVE. CONTACT GAS ENGINEERING PRIOR TO INSTALLATION. FLANGED ENDS SHOWN AS ALTERNATE END PREPARATION. WELD END PREFERRED. FLANGES ARE SHOWN AS AN OPTION. CONSULT THE CORROSION SECTION TO DETERMINE IF AN INSULATING GASKET IS REQUIRED. FOR VALVES UP TO 6° DIAMETER. IN NYC & LI AN 18° MANHOLE FRAME AND COVER MUST BE USED FOR ALL NORMALLY
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D.	FOR VALVES UP TO 6" DIAMETER. IN NYC & LI AN 18" MANHOLE FRAME AND COVER MUST BE USED FOR ALL NORMALLY
	CLOSED VALVES FOR ADEQUATE CLEARANCE TO INSTALL A LOCKING DEVICE.
.	FOR 8" AND 12" VALVES, IN NYC & LI A 30" MANHOLE FRAME AND COVER MUST BE USED FOR ALL NORMALLY CLOSED VALVES FOR ADEQUATE CLEARANCE TO INSTALL A LOCKING DEVICE.
2.	FOR VALVE INSTALLATION ON CAST IRON MAINS, TWO CAST IRON TO STEEL SELF RESTRAINING OR STRAPPED NON RESTRAINING COUPLINGS SHALL BE USED.
२ .	DELETED.
S. '	THIS DRAWING CAN BE APPLIED TO THE INSTALLATION OF BALL VALVES.
. 1	CONSULT CORROSION TO DETERMINE WHICH METHOD IS APPLICABLE FOR INSULATING THE MAIN.
J. ·	TEST STATIONS SHALL BE INSTALLED ON INSULATING FITTING AS PER LATEST NGRID CORROSION PROCEDURE.
/.	IN NYC AND LI REGIONS, ALL <u>NEWLY</u> INSTALLED NORMALLY CLOSED VALVES REQUIRE A LOCKING DEVICE AS SPECIFIED HEREIN. IN ADDITION, NORMALLY OPEN VALVES ARE TO BE LOCKED AFTER INSTALLATION USING THE DEVICES HEREIN IF DIRECTED BY I&R . ON <u>EXISTING</u> SMALLER VALVE BOXES WHERE THE LOCKING DEVICES HEREIN WILL NOT FIT, MULCARE TYPE RUBBER STOPPERS INSERTED INTO THE VALVE BOX ROUND EXTENSION TUBE WILL SERVE AS AN ACCEPTABLE LOCKING DEVICE.
JNC	CONTROLLED WHEN PRINTED 3 of 3 © National Grid Gas plc 2013 – All Rights Reserved to the control of the control

AS REQUIRED, CONSULT GAS ENGINEERING FOR GAUGE / PURGE LINE REQUIREMENTS. IN NYC & LI, FOLLOW REGIONAL STDS. REGL-6010 & 6020 AND PURG-6015 AS REQUIRED.

IN NYC & LI, WHERE MANHOLES ARE USED, REFER TO FITS-6280, 6290, 6310, 6320, AND 6330 FOR PITS AND HARDWARE.

WHERE VALVE BOXES ARE USED, ENSURE THEY ARE SUPPORTED ON WELL COMPACTED BACKFILL BASE. FOR MANHOLES,

	NUTH OF MAD						BOSTON GAS COMPANY d/b/a		PR 270-58	OPOSED GAS M 85 BAKER ST (1AIN REPLACEM & 891-903 VF	IENT W PKWY		PAGE 21 OF 23	
	PAWERAD DOOL						nationalgrid			WEST RO>	KBURY, MA			DRAWING NO.	SHEET NO.
	No. 52392						40 SYLVAN ROAD WALTHAM, MA 02451		NATIO	DNAL GR	ID STAN	IDARD			
	STONAL ENGLA								CON	ISTRUCT	ION DET	TAILS		DPI – WRO–067813–1053	(-303)
.com	7/13/2021 UNAUTHORIZED ALTERATION OR ADDITION TO						FINAL	DWG SIZE	DESIGNER	ENGINEER	DATE:	ASSET I.D.	W.O. NO.:		
	THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS	NO.	DESCRIPTION	DATE	DR.BY CK.BY	APP.BY		22"X34"	R.ALABADI	M.THOMPSON	01/20/2022	DISTRIBUTION	1213100		

K. Tracer wire installed in boxes should allow enough v	wire to extend 18" to 24" above grade.
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L. Verification: upon completion, the installer shall verify the location of the main or service using the tracer wire and locating device and perform a mark out using the conductive method.

M. LI and MA: Required to terminate the tracing wire with a 3# anode. This is to ground the tracer wire and increase signal strength when locating. This practice is recommended in all areas where signal strength is an issue.

Regional Notes

NYC ONLY: refer to Installation of Marker Tapes and EMS Pipeline Locators for Mains and Services [CNST6060-NYC] for installation of electronic marker ball in place of tracer wire.

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A. VALVE FOOT PIECE TO BE INSTALLED AROUND THE VALVE THEN INSERTED INTO THE BOTTOM FLANGE OF THE VALVE BOX.

. THE RANGE OF THE VALVE BOX. FROM TOP OF GRADE TO TOP OF VALVE, IS 24" TO 38". FOR DEEPER VALVES USE EXTENSION TUBE STOCK CODE 00308023.

THESE BOXES CAN ALSO BE USED WITH THE APPROPRIATE SIZE STEEL VALVE. IF USED WITH A STEEL VALVE THE "VALVE FOOT PIECE" IS NOT TO BE USED; HOWEVER, PRIOR TO BACKFILLING INSTALL THE LOWER PORTION OF THE VALVE KEY ON THE VALVE OPERATING NUT. THEN PLACE THE LOWER SECTION OF THE BOX ON THE VALVE. WHEN THE BOTTOM SECTION IS BACKFILLED TO WITHIN 6" FROM ITS TOP REMOVE THE VALVE KEY & INSTALL THE TOP SECTION OF THE BOX.

ITEM 2 SHALL ONLY BE USED IN SIDEWALK AND NON-PAVED, NON TRAFFIC AREA EXCEPT DRIVEWAYS.

THE TOP OF THE BOX ASSEMBLY SHALL BE FABRICATED SO AS TO FIT INSIDE THE BOTTOM SECTION.

MATERIAL SHALL CONFORM TO ASTM SPECIFICATIONS FOR GREY CAST IRON CASTINGS, DESIGNATED A48, CLASS 25.

COVER SHALL CREATE A TIGHT FIT WITH TOP OF CASTING TO PREVENT RATTLING. FOR CODES 00308054 & 00308055 COVER SHALL BE OF VENTED DESIGN. FOR OTHER STOCK CODES THE COVER SHALL INCLUDE A DIRECTIONAL ARROW. THIS SHALL BE DESIGNED TO ALLOW THE ARROW TO BE POSITIONED AT 60 INTERVALS.

ALL SURFACES SHALL BE COVERED WITH ONE COAT OF FLINTKOTE HYDALT PROTECTIVE COATING, C-13-E OR APPROVED EQUAL.

THE PLASTIC USED FOR THE TUBES SHALL BE PROTECTED FROM UV RAYS & AND HAVE THE PROPER INHIBITORS TO PROTECT FROM BRITTLENESS AT ZERO DEGREES. DIMPLES SHALL BE FORMED SO AS TO EXERT ENOUGH PRESSURE ON INNER TUBE TO SUPPORT ENTIRE ASSEMBLY IN EXTENDED POSITION.

DIMENSIONAL TOLERANCES: MANUFACTURE SHALL ADHERE TO THE FOLLOWING DIMENSIONAL TOLERANCES ALL PLASTIC TUBING SHALL BE +/- 0.015" TO THOSE SHOWN ON THE DRAWING. ALL CASTINGS SHALL BE MANUFACTURED TO WITHIN +/- 0.0625" TO THE DIMENSIONS SHOWN ON THE DRAWING.

10. TOP SECTION OF VALVE BOX SHALL HAVE THE PLASTIC TUBE FORCED FIT AND CEMENTED INTO THE CASTING. THIS JOINT SHALL BE CAPABLE OF WITHSTANDING A PULL OUT FORCE OF 20 POUNDS.

13. TOP FLANGE OF ROADWAY BOX SHALL BE FLAT AND WIDE ENOUGH TO ACCOMMODATE A 3/8" METAL NUMBER STAMP EMBEDDED INTO THE CASTING BY CKD IN THE FIELD.

4 OF 5

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FITS-637

MANUFACTURER SHALL SUBMIT SAMPLES TO THE ENGINEER FOR APPROVAL PRIOR TO BID ACCEPTANCE.

 THE VALVE FOOT PIECE SHALL BE DESIGNED TO FIT THE FOLLOWING MANUFACTURER'S VALVES. %"- 1 %" - PERFECTION
 2" - NORDSTROM OR PERFECTION UNIVERSAL FOOT PC FOR BOTH MFG.
 4" - 8" NORDSTROM

USE ITEM 1 ON MAIN LINE VALVES INSTALLED IN PAVED AND NON PAVED AREAS. AFTER INSTALLATION OF MAIN LINE VALVE & BOX NOTIFY GSO OF COMPLETION.

INSTALLATION NOTES:

MANUFACTURING NOTES:

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ALL TOPS & BOTTOMS SHALL BE INTERCHANGEABLE.

DIMENSIONS SHALL BE CONSISTENT THROUGHOUT THE CASTING.

12. STREET BOXES SHALL BE DESIGNED TO HANDLE TO AN H-20 ROADWAY LOADING.

18	PENTAGON KEY FOR ITEMS 8B AND 11B (NOT SHOWN)	9354644
17	2" REGRADE ADAPTER FOR 12" LOCKING BOX SC1200 R2	9384175
16	VALVE BOX ADAPTER RING, 1/4 INCH THICK X 7-5/8 INCH I.D. X 10-1/2 IN O.D. FLAT RING TO RAISE OLD LEGACY OBSOLETE LILCO ROUND CASTINGS	9353359
15	ONE INCH GRADE ADAPTER & COVER FOR CP TEST#445 ROADWAY BOX - NH ONLY	9383913
*	REPLACEMENT COVER FOR LIL #2 BOX - LI ONLY COVER MARKED "GAS" FOR 445 BOX (WITH UNIDIRECTIONAL ARROW) COVER MARKED "GAS" FOR 445 BOX (WITHOUT UNIDIRECTIONAL ARROW) COVER MARKED "GAS" FOR 4" STAY PUT BOX - NYC ONLY COVER MARKED "GAS" FOR #11B BOX COVER MARKED "GAS" FOR #10 BOX RESURFACE REPAIR SLEEVE RING	9339829 9339828 9388350 9339759 9339858 9339762
14	1" REGRADE ADAPTER WITH COVER FOR CP TEST # 11B BOX - SEE NOTE B	9382611
13A 13B	¾" REGRADE ADAPTER FOR B&T STAY PUT SERVICE BOX WITH SLOTS NYC ONLY 1-½" REGRADE ADAPTER FOR B&T STAY PUT SERVICE BOX WITH SLOTS NYC ONLY	9339800 9339725
12	1" REGRADE ADAPTER FRAME FOR THE LIL# 2 & 3 VALVE BOX. COVER FOR ABOVE (NOT SHOWN) - LI ONLY	9339859 9339860
11B	COVER, REPLACEMENT, LOCKING, MARKED "GAS" FOR EXISTING LOCK TYPE 200 BOX, WITH PENTHEAD BOLT - LI ONLY (NOT SHOWN)	9384338
11A	COVER, REPLACEMENT, NON-LOCK, MARKED "GAS" FOR EXISTING NON-LOCK TYPE 200 BOX - LI ONLY (NOT SHOWN)	9339798
11	1" REGRADE ADAPTER FRAME & COVER FOR 200 VALVE BOX - LI ONLY	9339826
*	2-1/2" REGRADE ADAPTER FOR 200 VALVE BOX. FITS EXISTING COVER. (NOT SHOWN) - LI ONLY	9339799
10	1 " REGRADE ADAPTER & COVER FOR 91C BOX - LI ONLY	9339761
9	1 ¾" REGRADE ADAPTER FOR LIL 2&3 BOX - LI ONLY	9339758
8B	COVER, REPLACEMENT, LOCKING, MARKED "GAS" FOR 7-1/2" EXISTING TYPE "A" LOCK VALVE BOXES, WITH PENTHEAD BOLT - LI ONLY (NOT SHOWN)	9339760
8A	COVER, REPLACEMENT, MARKED "GAS" FOR 7-1/2" EXISTING TYPE "A" NON-LOCK VALVE BOXES AND ALL TYPE "A" ADAPTER RINGS - LI ONLY (NOT SHOWN)	9384430
8	1 " REGRADE ADAPTER FOR TYPE "A" VALVE BOX. FITS EXISTING COVER LI ONLY	9339827
7	2 - ½" REGRADE ADAPTER FOR TYPE "A" VALVE BOX . 2-1/2 IN MIN TO 8 IN MAX RISE. FITS EXISTING COVER LI ONLY	9339763
6	1" REGRADE ADAPTER RING EXTENSION WITH 10" PLASTIC SKIRT TO REPAIR TOPS OF CP TEST #10 BOX	9381407
5	1" REGRADE ADAPTER FOR CP TEST #10 BOX	9339823
4	EXTENSION TUBE – FOR CP TEST #11 BOX EXTENSION TUBE - FOR CP TEST #10 BOX	9382619 9339824
*	EXTENSION TUBE, FOR CP TEST #558 BOX, 18" LONG – (NOT SHOWN) - NE ONLY EXTENSION TUBE, FOR CP TEST #334 BOX, 24" LONG – (NOT SHOWN) - NE ONLY	9383199 9383198
3	ROADWAY BOX ASSEMBLY AND COVER FOR 8" POLYVALVE CP TEST #11B OR APPV'D EQUAL ROADWAY BOX ASSEMBLY AND COVER FOR 6" POLYVALVE CP TEST 11B OR APPV'D EQUAL ROADWAY BOX ASSEMBLY AND COVER FOR 4" POLYVALVE CP TEST #10 OR APPV'D EQUAL ROADWAY BOX ASSEMBLY AND COVER FOR 2" AND 3" POLYVALVES CP TEST #10 OR APPR'D EQUAL ROADWAY BOX ASSEMBLY AND COVER FOR 2" AND 3" POLYVALVES CP TEST #10 OR APPR'D EQUAL ROADWAY BOX ASSEMBLY AND COVER FOR 1"- 2" MUELLER SERVICE VALVE TEE CP TEST #10 OR APPV'D EQUAL	9339893 9339892 9339891 9339890 9339887
2	ROADWAY SERVICE BOX AND COVER FOR ½" TO 1" PLASTIC VALVE NE ONLY CP TEST #10 OR APPV'D EQUAL	9382767
1	SIDEWALK VALVE BOX ASSEMBLY AND UNIDIRECTIONAL ARROW COVER FOR ½" TO 1 ½" PLASTIC VALVES CP TEST #445 OR APPR'D EQUAL SIDEWALK VALVE BOX ASSEMBLY AND UNIDIRECTIONAL ARROW COVER FOR 2" TO 3" PLASTIC VALVES CP TEST #445 OR APPROVED EQUAL	9339888 9339889
No.	ITEM	N.G. CODE N
	BILL OF MATERIAL	
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NATIONAL GRID CONSTRUCTION DETAILS *THIS DRAWING DEPICTS TYPICAL NATIONAL GRID STANDARDS AND IS PROVIDED FOR THIS PROJECT ONLY

	9339889		(RECOMMEND	DED JOINING METHOD)		11 COUPLING, F	PE TO CI, LOCKING INSU	LATING, MECHANICAL			
ITEM	N.G. CODE No.	national arid		2"-12" PE VALVE TYPICA		12 COUPLING, F	PE TO STL, LOCKING, NOI	N-INSULATING MECHANIC	AL (SEE NOTE C)		
		national	ALL REGIONS	INSTALLATION						al Grid Gas nlc 2020 – All Rinhts Reserved	
5 OF 5 Vational Grid Gas plc 2014 -	All Rights Reserved FITS-6370	REVISIONS: UPDATED ITEM ID'S		DATE: 07/01/2003 EFFECTIVE DATE: 06/0 DESIGN: AJG / MAM STD. DWG. DRAWN: P. DIMAIO NO.	v-6020	UNCONTROLLED WI Effective Date 06/09/2	/HEN PRINTED 2020	2 OF 2	© National	Grid Gas plc 2020 – All Rights Reserved VALV-6020	
		UNCONTROLLED WHEN PRINTED	1 OF 2	© National Grid Gas plc 2020– All Rig	its Reserved						
WALTH OF MADE				BOSTON GAS COMPANY d/b/a		PROPOSED GAS M 270-585 BAKER ST d	/AIN REPLACEW & 891—903 VF	IENT W PKWY		PAGE 22	OF 23
CARY WE BANDOO BE				BOSTON GAS COMPANY d/b/d nationalgric	1	PROPOSED GAS N 270-585 BAKER ST (WEST RO)	/AIN REPLACEN & 891—903 VF XBURY, MA	IENT W PKWY		PAGE 22 DRAWING NO.	OF 23
PAWE RIA COMPANY No. 52392				BOSTON GAS COMPANY d/b/a nationalgric 40 SYLVAN ROAD WALTHAM, MA 02451	1	PROPOSED GAS N 270–585 BAKER ST (WEST RO) NATIONAL GR CONSTRUCT	AAIN REPLACEN & 891–903 VF XBURY, MA RID STAN	IENT W PKWY IDARD FAILS		PAGE 22 DRAWING NO.	ог 23 SHEET I -1053 С3
PANT H OF MASS PANT H				BOSTON GAS COMPANY d/b/a nationalgric 40 sylvan Road waltham, ma 02451 FINAL	DWG SIZE DI	PROPOSED GAS M 270–585 BAKER ST & WEST ROX NATIONAL GR CONSTRUCT	MAIN REPLACEN & 891–903 VF XBURY, MA RID STAN ION DE DATE:	IENT W PKWY IDARD FAILS ASSET I.D.	W.O. NO.:	page 22 drawing no. DPL-WR0-067813	ог 23 SHEET I -1053 С-3

. INS . NO . RE	STALL TRACER WIRE IT USED ON THE DNY FER TO REGIONAL S	OR BALL MARKERS AS REQUIRED IN YOUR RI ' LI 99 & 124 PSI <u>PE</u> SYSTEM. TANDARDS FOR MATERIAL IDS NOT GIVEN BE	Egion for pe installations.	
		SAP ID	SAP ID	SAP ID
		UNY AND RI	LIONLY	LI, NYC AND NE
		LP TO 100 PSIG HD	99 AND 124 PSIG HD	LP TO 60 PSIG MEDIUM DENSITY
Į.	VALVE, PE (PORT CONFIGURATION AS NOTED)	9311203 12" DR 11 FULL PORT W/ GEAR OPERATOR RI ONLY 9307909 12" DR 13.5 FULL PORT W/ GEAR OPER UNY ONLY 9315189 8" DR 11 FULL PORT RI ONLY 9312116 6" DR 11 FULL PORT RI ONLY 9312216 6" DR 11 FULL PORT 9308261 3" DR 11 FULL PORT RI ONLY 9312060 2" DR 11 FULL PORT RI ONLY 9312164 2" DR 11 FULL PORT 9312166 2" DR 11 FULL PORT 9311146 2" DR 11 FULL PORT	9341706 8" RED PORT DR 9 9341705 6" RED PORT DR 9 9341700 4" RED PORT DR 9 9341699 2" FULL PORT DR 9	9341704 12" FULL PORT DR 13.5 9386594 8" FULL PORT DR 13.5 9323032 6" FULL PORT DR 11.5 9341709 4" FULL PORT DR 11.5 9323299 3" FULL PORT DR 11 9341784 2" FULL PORT DR 11 9341784 2" FULL PORT DR 13.5 9341757 6" RED PORT DR 11.5 9341756 3" RED PORT DR 11.5 9341756 3" RED PORT DR 11.5 9341756 3" RED PORT DR 11.5
				922610 4" RED PORT DR 11 932611 6" RED PORT DR 11 9323612 8" RED PORT DR 11 9312060 2" FULL PORT DR 11 9312058 4" FULL PORT DR 11 9312116 6" FULL PORT DR 11
		SAP ID SELECT ROADWAY VALVE BOX BELOW TO MATCH SIZED VALVE GIVEN	SAP ID SELECT ROADWAY VALVE BOX BELOW TO MATCH SIZED VALVE GIVEN	SAP ID SELECT ROADWAY VALVE BOX BELOW TO MATCH SIZED VALVE GIVEN
2	ROADWAY VALVE BOX WITH COVER	SEE DWG FITS 6360 (FOR 12" VALVE) 9311208 (FOR 2" THRU 8" VALVE)	9341706 8" RED PORT 9341705 6" RED PORT 9341700 4" RED PORT 9341699 2" FULL PORT	9382626 FOR 12" FULL PORT 9382626 FOR 8" FULL PORT 9338933 FOR 6" FULL PORT 9339892 FOR 4" FULL PORT 9339890 FOR 2" FULL PORT 9339890 FOR 2" FULL PORT 9339890 FOR 2" FULL PORT 9339891 FOR 8" RED PORT 9339892 FOR 6" RED PORT 9339891 FOR 4" RED PORT 9339891 FOR 4" RED PORT 9339891 FOR 4" RED PORT
3	COUPLING ELECTR	OFUSE		SSSSST TOR S REPTORT
	PLASTIC PIPE			
	BURIAL TAPE			
	INSERT STIFFENER	(SEE NOTE C)		
	ANODE, 17 LB			
	TRANSITION FITTIN	G STL TO PE		
	TRACER WIRE OR	(BALL MARKER IF USED IN REGION)		
)	COUPLING 2" PERF	ECTION PERMASERT (SEE NOTE C)		
1	COUPLING, PE TO	CI, LOCKING INSULATING, MECHANICAL		
2	COUPLING, PE TO S	TL, LOCKING, NON-INSULATING MECHANICAL	(SEE NOTE C)	
		P	TEM	

PAGE 5 OF 5

NOTES:

 PLUG VALVES SHOULD BE GREASED PRIOR TO SHUTTING OFF TO INSURE TIGHT SHUTOFF.

 USE THE BALL VALVE'S BLOCK AND BLEED AND / OR PURGE ASSEMBLY IF AVAILABLE TO VENT GAS BETWEEN THE TWO CLOSED VALVES.
 REFER TO MANUFACTURER'S LITERATURE FOR PRESSURE LIMITS OF STOPPERS AND DRILLING EQUIPMENT.

 WELDING SHALL NOT BE PERFORMED AGAINST A BAG WHERE THE BAG IS USED AS THE PRIMARY MEANS OF STOPPING THE GAS FLOW. SEE STOP-OFF OPERATIONS ON LOW PRESSURE MAINS [CNST-03002].

CS-LIVE001

	CARY WE PLAN PORT							BOSTON GAS COMPANY d/b/g		PR 270-58
	CIVIL No. 52392 CISTERS SONAL LIST							40 SYLVAN ROAD WALTHAM, MA 02451		NATIC CON
.com	7/13/2021							FINAL	DWG SIZE	DESIGNER
	THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS	NO.	DESCRIPTION	DATE	DR.BY	CK.BY	APP.BY		22"X34"	R.ALABADI

२(58	OPOSED GAS N 35 BAKER ST d	1AIN REPLACEM & 891-903 VF	ENT W PKWY		PAGE 23 OF 23						
	WEST RO>	KBURY, MA			DRAWING NO.	SHEET NO.					
C N	ONAL GR	ID STAN	IDARD TAILS		DPI – WRO–067813–1053	C - 305					
	ENGINEER	DATE:	ASSET I.D.	W.O. NO.:							
	M.THOMPSON	01/20/2022	DISTRIBUTION	1213100							