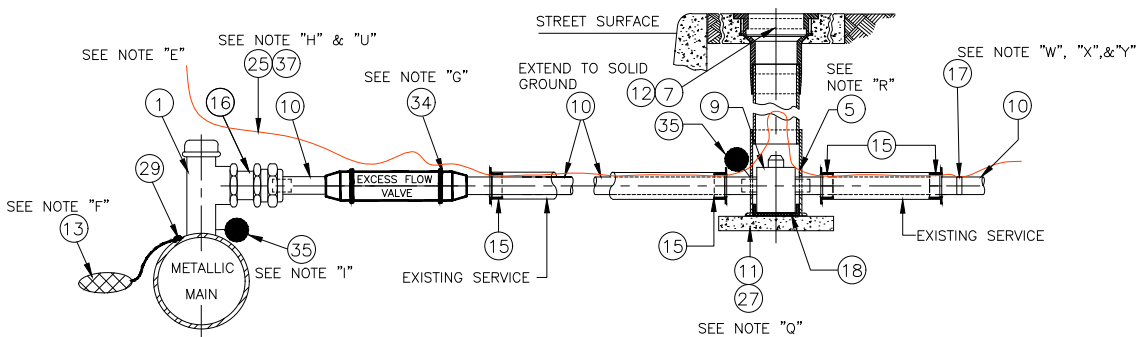
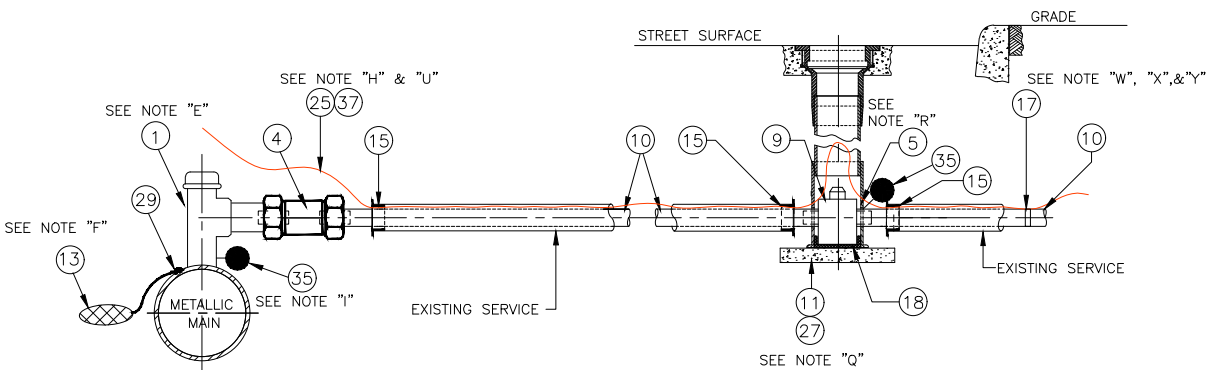


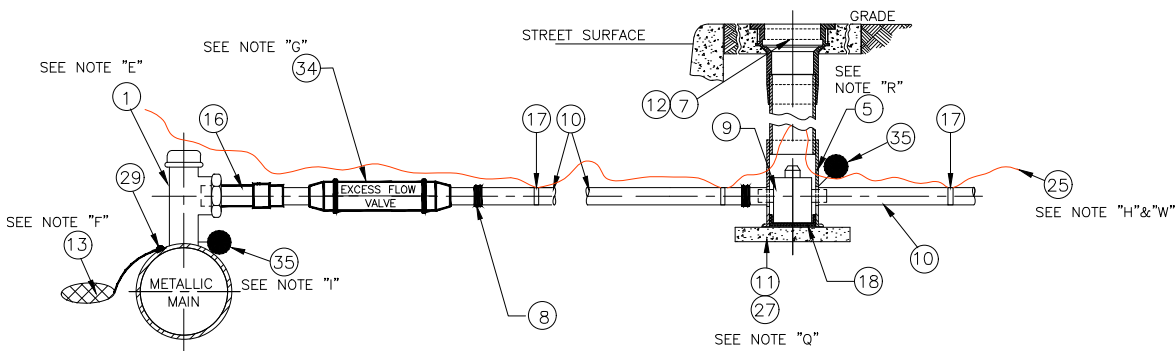
101 EIGHTS 14-1991-03	
REVISIONS	
M. BALDOVIN B.DAS	2
REDRAWN BY CAD. UPDATED DWG. REVISED NOTES. ADDED SHEET #4 OF 4	
RAJ 5/16/06	
M. BALDOVIN 7/27/06	3
REVISED DWG AND NOTES.	
CP 6/23/06	
M. BALDOVIN 6/22/11	4
REVISED DRAWING AND NOTES.	
D.J. 6/22/11	
M. BALDOVIN 9/15/16	5
REVISED DRAWING AND NOTES.	
S.E. 9/15/16	
M. BALDOVIN 11/29/18	6
REVISED DRAWING. ADDED CALLOUT "U", "V", "W", "X", & "Y" ADDED BALOON #37 REMOVED STAB ENDS ON EXCESS FLOW VALVES	
V.O./R.R. 11/29/18	



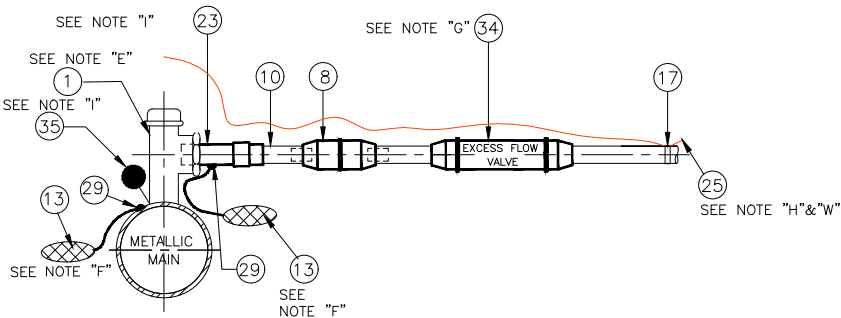
RECOMMENDED INSERTION INSTALLATION



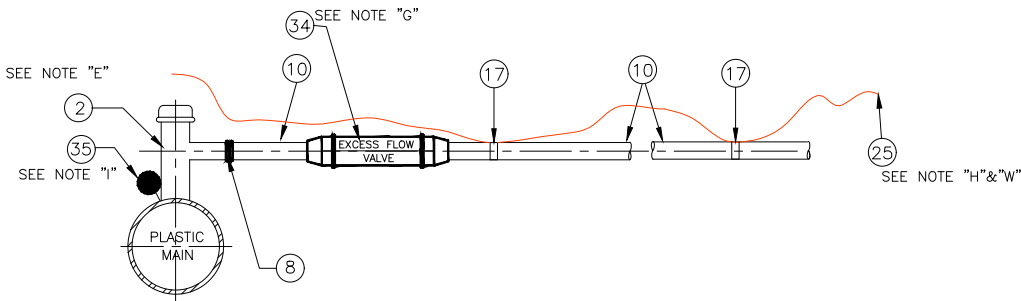
ALTERNATE INSTALLATION OF CURB VALVE FOR
SERVICE RENEWALS BY REAMING THROUGH THE EXISTING CURB VALVE (SEE NOTE D)



RECOMMENDED DIRECT BURIAL INSTALLATION



ALTERNATE TEE CONNECTION DIRECT BURIAL INSTALLATION



TYPICAL HP DIRECT BURIAL INSTALLATION

SEE ADDITIONAL SHEETS 2 OF 4 FOR NOTES OF THIS DRAWING # EO-16641-A INSTALLATION OF PLASTIC (DIRECT BURIAL OR INSERTION) GAS SERVICE PIPING, AND SHEETS 3 & 4 FOR BILL OF MATERIALS.

INSTALLATION OF PLASTIC (DIRECT BURIAL OR
INSERTION) GAS SERVICE PIPING

CONSOLIDATED EDISON COMPANY OF N.Y., INC.
GAS ENGINEERING DEPT

DATE 2/9/84
LAST REV. 11/29/18

DWG. NO. **EO-16641-A**
SHEET 1 OF 4

REV.

EO-16641-A-SHEET 2 OF 4	
REVISIONS	
M. BALDOVIN B. DAS	2
REDRAWN BY CAD UPDATED DRAWING REVISED NOTES. ADDED SHEET #4 OF 4	
RAJ.	5/16/06
M. BALDOVIN 7/27/06	3
UPDATED DRAWING REVISED NOTES.	
C.P.	6/26/06
M. BALDOVIN 6/22/11	4
UPDATED DRAWING REVISED NOTES.	
D.J.	6/22/11
M. BALDOVIN 9/15/16	5
UPDATED DRAWING REVISED NOTES.	
S.E.	9/15/16
M. BALDOVIN 7/06/17	6
ADDED NOTE T.	
C.S.	6/14/17
M. BALDOVIN 11/29/18	7
REVISED NOTES. ADDED NOTES U, V, W, X, Y	
V.O. / R.R. 11/29/18	
CONST. STDS. VOLUME 2	

SEE NOTE "V"

12' TYP.

END OF UNDERGROUND COATING

FINAL GRADE

19

SEE NOTE "P"

BUILDING WALL

33

ANODELESS RISER
SEE NOTE "M"

10

8

35

OUTSIDE CONNECTION TO CUSTOMER'S PIPING

SEE NOTE "V"

12' TYP.

END OF UNDERGROUND COATING

FINAL GRADE

19

SEE NOTE "P"

BUILDING WALL

33

ANODELESS RISER
SEE NOTE "M"

10

8

35

OUTSIDE CONNECTION TO CUSTOMER'S PIPING

OUTSIDE BLDG. WALL OR VAULTED WALL

10

14

35

28

3

15

24" MAX.

THREADED END

**INDOOR SERVICE HEAD ADAPTER
WITH NEW WALL SLEEVE UP TO 2' PE SERVICE**

OUTSIDE BLDG. WALL OR VAULTED WALL

10

20

23

35

26

20

THREADED END

FUSE

NEW WALL SLEEVE
SEE NOTE "O"

19

SEE NOTES "K"

**ALTERNATE CONNECTION TO
CUSTOMER'S PIPING**

OUTSIDE BLDG. WALL OR VAULTED WALL

10

FUSE

EXISTING 3" OR 4" PIPE

WATERPROOF CAULKING MATERIAL
SEE NOTE "O"

23

24" MAX.

THREADED END

**INSERTION OF 2' PLASTIC INTO 3' STEEL PIPE
OR 3' PLASTIC INTO 4' STEEL PIPE**

NOTES:

A. REFER TO G-8100 FOR DETAILED CONSTRUCTION REQUIREMENTS FOR THE INSTALLATION OF NEW AND REPLACEMENT GAS SERVICES.

B. ALL CUSTOMER'S WORK SHALL CONFORM TO COMPANY SPECIFICATIONS, "A CUSTOMER GUIDE TO NATURAL GAS SERVICE INSTALLATION," (YELLOW BOOK) AND ALL LOCAL CODE REQUIREMENTS.

C. REFER TO G-8200 FOR MINIMUM SIZES OF NEW/REPLACEMENT DIRECT BURIED SERVICES.

D. ALL CTS POLYETHYLENE (PE) PLASTIC PIPE SIZES (EXCEPT FOR 1/2" CTS) DIRECT BURIED AS PART OF AN INSERTION SHALL HAVE A PROTECTIVE SLEEVE INSTALLED AROUND THE CTS PE PLASTIC PIPE (ITEM 14).

E. REFER TO G-8100 FOR INSTALLATION REQUIREMENTS OF SERVICE CONNECTIONS TO PE PLASTIC AND METALLIC GAS MAINS.

F. REFER TO G-8205 FOR MAGNESIUM ANODE INSTALLATION REQUIREMENTS ON METALLIC FITTING AND UNPROTECTED STEEL GAS MAIN. A MAGNESIUM ANODE IS NOT REQUIRED FOR ANODELESS RISER INSTALLATION.

G. REFER TO G-8100 FOR EXCESS FLOW VALVE (EFV) INSTALLATION REQUIREMENTS ON HIGH PRESSURE SERVICES.

H. REFER TO G-8100 FOR TRACER WIRE INSTALLATION REQUIREMENTS ON DIRECT BURIED, TRENCHLESS TECHNOLOGY, AND INSERTED SERVICES.

I. REFER TO 502664 FOR INSTALLATION REQUIREMENTS OF ELECTRONIC MARKERS (ITEM 35) ON DIRECT BURIED, TRENCHLESS TECHNOLOGY, AND INSERTED SERVICES. AT A MINIMUM, ELECTRONIC MARKERS ARE TO BE INSTALLED AT MAIN-TO-SERVICE CONNECTION AND CURB VALVE.

J. REFER TO G-8100 AND 309495 FOR INSTALLATION REQUIREMENTS OF "WARNING BURIED GAS LINES BELOW" TAPE (ITEM 31).

K. REFER TO G-8100 FOR SERVICE HEAD VALVE (S/H/V) INSTALLATION REQUIREMENTS.

L. REFER TO G-8100 FOR INSTALLATION REQUIREMENTS OF TRANSITION FITTINGS.

M. REFER TO G-8100 FOR INSTALLATION REQUIREMENTS OF GAS SERVICES THAT ENTER A BUILDING THROUGH THE FLOOR; GAS SERVICES INSERTED/INSTALLED UNDER AN ENCLOSED LIVING SPACE; GAS SERVICES INSTALLED THROUGH A SUBSURFACE VAULT OR OPEN AREAWAY; GAS SERVICES INSTALLED IN AN OPEN AREA UNDERNEATH AN OUTSIDE STAIRCASE. SEE EO-16546-B, EO-4890-B, G-8096.

N. NEW AND REPLACEMENT SERVICES THAT ENTER A BUILDING (EITHER ABOVE GROUND OR UNDERGROUND) THROUGH THE BUILDING'S CONCRETE/MASONRY FOUNDATION/VAULTED WALL, SHALL ENTER VIA THE OLD SERVICE PIPE FOR AN INSERTION OR CONTINUOUS STEEL OR PVC SLEEVE FOR A NEW/REPLACEMENT SERVICE.

O. REFER TO G-8100 AND G-8096 FOR ANNULAR SPACE SEALING REQUIREMENTS.

P. RISER SUPPORT TO BE INSULATED FROM PIPE WITH NEOPRENE (OR EQUIVALENT) WRAPPED AROUND PIPE.

Q. SUPPORT THE CURB VALVE BOX (ITEM 5) WITH PRE-CAST BASE (ITEM 11) OR BRICKS (ITEM 27). ENTIRE ASSEMBLY SHOULD BE ON WELL COMPACTED SOIL.

R. PLASTIC CURB VALVE BOX (ITEM 5) IS ONLY TO BE USED IN SIDEWALK AND NON-PAVED AREAS. CAST IRON CURB VALVE BOX (ITEM 5) IS TO BE USED IN THE STREET.

S. REFER TO G-8204 FOR PRESSURE TESTING REQUIREMENTS FOR NEW, REPLACED, AND RECONNECTED SERVICES.

T. INSTALL ASG GROUND KIT (ITEM #36) OR WET RAGS/BURLAP WHEN CUTTING OR DISCONNECTING A PLASTIC PIPE THAT CONTAINS NATURAL GAS.

U. THERMIT WELD (WITH SLEEVE ADAPTER INSTALLED ON THE STRIPPED END OF THE WIRE) IS THE PREFERRED METHOD FOR ATTACHING TRACER WIRE TO A METALLIC PIPE OR SLEEVE. IF THERMIT WELD IS NOT PRACTICAL, APPROVED MECHANICAL CONNECTIONS (C/S# 342-0073 FOR 1/2" TO 1" PIPE SIZE; C/S# 342-0074 FOR 1-1/4" TO 2" PIPE SIZES) IS ACCEPTABLE. CONTACT CORROSION CONTROL FOR MECHANICAL FITTINGS > 2".

V. SEE DWG.502163 FOR BUMPER INSTALLATION REQUIREMENT, WHERE APPLICABLE.

W. REFER TO EO-600344 FOR TRACER WIRE INSTALLATION & EO-14838 FOR INSERTION OF PE. GAS SERVICES.

X. FOR GAS SERVICE INSERTIONS USE EITHER OF THE FOLLOWING METHODS FOR TRACER WIRE INSTALLATION:

1) TAPE TRACER WIRE AT 20-30 FT. OR APPROPRIATE INTERVALS TO PLASTIC SERVICE TO BE INSERTED AND BRING ONE END OF THE TRACER WIRE TO THE TOP OF THE VALVE BOX.

OR

2) BEFORE PIPE INSERTION, JUMP THE GAPS IN THE CASING WITH TRACER WIRE AND THERMIT WELD THE TRACER WIRE ON EACH END OF THE CASING. IF THERMIT WELD IS NOT PRACTICAL, USE AN APPROVED MECHANICAL GROUND CLAMP. BRING ONE END OF THE TRACER WIRE TO THE TOP OF THE VALVE BOX.

Y. WHEN BRINGING TRACER WIRE UP TO A RISER OR WITHIN A VALVE BOX, THE BARE END OF THE WIRE SHALL BE TAPED TO PREVENT DIRECT CONTACT WITH THE RISER OR METAL SURFACE.

SEE ADDITIONAL SHEETS 3 OF 4 AND 4 OF 4 FOR BILL OF MATERIAL

INSTALLATION
OF PLASTIC (DIRECT BURIAL OR INSERTION)
GAS SERVICE PIPING

CONSOLIDATED EDISON COMPANY OF N.Y., INC.
GAS ENGINEERING DEPT.

DATE 2/9/84
LAST REV. 11/29/18

DWG. NO. EO-16641-A
SHEET 2 OF 4

REV.

EO-16641-16641-00 SHEET 4 OF 4

REVISIONS

M. BALDOVIN B. DAS	0
REDRAWN BY CAD	
RAJ.	5/16/06
M. BALDOVIN 7/27/06	1
UPDATED MATERIAL LIST	
C.P.	6/26/06
M. BALDOVIN 6/22/11	2
UPDATED MATERIAL LIST	
D.J.	6/22/11
M. BALDOVIN 9/15/16	3
UPDATED MATERIAL LIST	
S.E.	9/15/16
M. BALDOVIN 7/06/17	4
UPDATED MATERIAL LIST	
C.S.	6/14/17
M. BALDOVIN 11/29/18	5
ADDED ITEM 37. ADDED ITEMS TO 29.	
REMOVED ITEM 25 C/S# 563-1361 REPLACED ALL STAB END EXCESS FLOW VALVES	
R.R.	11/29/18
CONST. STDS. VOLUME 2	

ITEM NO.	CLASS & STOCK NO.	DESCRIPTION	DWG NO. / SPEC NO.
24		Reducer, Plastic:	G-8104
	341-4927	12" IPS x 10" IPS	
	341-3861	12" IPS x 8" IPS	
	341-4109	10" IPS x 8" IPS	
	341-2814	8" IPS x 6" IPS	
	341-4067	6" IPS x 4" IPS	
	341-1204	4" IPS x 3" IPS	
	341-2855	4" IPS x 2" IPS	
	341-1212	3" IPS x 2" IPS	
	341-1220	2" IPS x 1 1/4" IPS	
	341-1170	2" IPS x 1 1/4" CTS	
	341-1188	1 1/4" IPS x 1 1/4" CTS	
	341-4620	1 1/4" IPS x 1" IPS	
	341-2749	1" IPS x 1 1/4" CTS	
	341-2079	1" IPS x 1" CTS	
	341-1196	1" IPS x 1/2" CTS	
23		Fitting, Transition, Plastic to Steel, Threaded End	G-8104
	341-4414	4" IPS	
	341-4356	3" IPS	
	341-4349	2" IPS	
	341-4331	1 1/4" IPS	
	341-4323	1" IPS	
		Fitting, Transition, Plastic to Steel, Beveled End	
22	341-0278	16" IPS x 16" IPS	ANSI B 16.3
	341-3820	12" IPS x 12" IPS	
	341-2822	8" IPS x 8" IPS	
	341-1063	6" IPS x 6" IPS	
	341-1071	4" IPS x 4" IPS	
	341-1089	3" IPS x 3" IPS	
	341-1097	2" IPS x 2" IPS	
	341-1105	1 1/4" IPS x 1 1/4" IPS	
	341-1113	1" IPS x 1" IPS	
		Elbow, Threaded End	
	332-1080	3"	
21	332-1049	2"	ASTMA53 GR B
	332-1023	1 1/2"	
	332-1007	1 1/4"	
	332-0983	1"	
	332-1429	3/4"	
		Nipple, Steel, Shoulder.SCH.80	
	330-1694	4" x 4" LONG	
	330-1629	3" x 4" LONG	
20	330-1322	2" x 3 1/2" LONG	G-100, 237 / G-8096
	330-3286	1 1/2" x 2 1/2" LONG	
	330-2999	1 1/4" x 2" LONG	
	330-0837	1" x 2 1/2" LONG	
	330-0662	3/4" x 2" LONG	
		Seal, Link	
	341-0776	12" x 16" (12 LINKS)	
	341-1030	10" x 16" (10 LINKS)	
	341-1006	8" x 12" (12 LINKS)	
	341-1006	6" x 10" (10 LINKS)	
	341-0750	4" x 6" (10 LINKS)	
	341-0750	3" x 5" (8 LINKS)	
	341-0750	2" x 4" (6 LINKS)	
	341-1048	1 1/2" x 3" (6 LINKS)	
	NON-STOCK	1 1/4" x 3" (8 LINKS)	
19	341-0750	1" x 3" (4 LINKS)	G-8096
	341-1048	1/2" x 2" (4 LINKS)	
		3M Cold Shrink	
	341-5676	1" x 3/4" (WILL ALSO SEAL 1" x 1/2")	
	341-5684	1 1/2" x 1 1/4" (WILL ALSO SEAL 1 1/2" x 1 1/4")	
	341-5692	2" x 1 1/2" (WILL ALSO SEAL 2" x 1 1/4")	
	341-5700	3" x 2" (WILL ALSO SEAL 3" X 1 1/2")	
		Valve, Plug, Service Head	
25	374-2319	12" FLANGED END	G-100, 298
	374-2772	10" FLANGED END	
	374-2293	8" FLANGED END	
	374-2277	6" FLANGED END	
	374-2335	4" FLANGED END	
	374-2103	4" THREADED END	
	374-1345	3" FLANGED END	
	374-0354	3" THREADED END	
	374-0321	2" THREADED END	
	374-2095	1 1/2" THREADED END	
	374-2434	1 1/4" THREADED END	
	374-0248	1" THREADED END	
	374-2350	3/4" THREADED END	

NOTES :

SEE SHEETS 1 OF 4 AND 2 OF 4 OF THIS DRAWING
EO-16641 INSTALLATION OF PLASTIC (DIRECT BURIAL
OR INSERTION) GAS SERVICE PIPING.

ITEM NO.	CLASS & STOCK NO.	DESCRIPTION	DWG NO. / SPEC NO.
37		Tracer Wire Mechanical Connection	G-8100
	342-0073	Grnd Clamp for Tracer Wire, Direct Bury 1/2"-1" Pipe Dia.	
	342-0074	Grnd Clamp for Tracer Wire, Direct Bury 1-1/4"-2" Pipe Dia.	
36	025-2569	ASG Grounding Kit Electronic Marker (EM)	See Note T
35	456-0481	Gas Marker Ball for <5' Deep	502664
	456-0482	Gas Full-Range Marker for ≥5' and <8' Deep	
	007-6273	30" Cable Ties	
		Excess Flow Valves	
34	377-1741	1"IPSx12" LONG Series 1100 w/Plain Ends, Gasbreaker P/N25355GB	G-8100
	377-1742	1"IPSx12" LONG Series 1800 w/Plain Ends, Gasbreaker P/N25356GB	
	377-1743	1"IPSx12" LONG Series 2600 w/Plain Ends, Gasbreaker P/N25357GB	
	377-1740	2"IPSx16" LONG Series 5500 w/Plain Ends, Gasbreaker P/N25362GB	
	377-1739	1/2"CTSx12" LONG Series 800 w/Plain Ends, Gasbreaker P/N25346GB	
		Bend, Anodeless Riser	
33	341-5601	4" IPS x 4" IPS FLANGED	G-8104
	341-5585	4" IPS x 4" IPS THREADED	
	341-5593	3" IPS x 3" IPS FLANGED	
	341-5577	3" IPS x 3' IPS THREADED	
	341-5304	2" IPS x 2" IPS	
	341-5023	1" IPS x 1" IPS	
	341-5650	1 1/4" IPS x 1 1/2" IPS	
	341-3739	1" CTS x 1" IPS	
	341-3721	1/2" CTS x 1" IPS	
		Elbow, Plastic, 90 Degrees, " Met-Fit"	
32	341-3994	1 1/4" CTS	G-100,285
	341-3986	1" CTS	
	341-3978	1/2" CTS	
	NS0245775	1" IPS	
		Elbow, Plastic, 90 Degrees	G-8104
	341-3796	12" IPS	
	341-4141	10" IPS	
	341-3044	8" IPS	
	341-2095	6" IPS	
	341-1337	4" IPS	
	341-1345	3" IPS	
	341-1352	2" IPS x 2" IPS	
	341-1360	1 1/4" IPS	
	341-1378	1" IPS	
		Elbow, Plastic, 45 Degrees	G-8104
	341-3804	12" IPS	
	341-4091	10" IPS	
	341-2806	8" IPS	
	341-2160	6" IPS	
	341-2111	4" IPS	
	341-2103	3" IPS	
		Electrofusision 90 Degree Elbows	G-8104
	341-1207	2" IPS	
	341-1208	4" IPS	
	341-1209	6" IPS	
	341-1210	8" IPS	
		Electrofusision 45 Degree Elbows	G-8104
	341-1203	2" IPS	
	341-1205	4" IPS	
	341-1206	6" IPS	
	341-1211	8" IPS	
		Electrofusision Adjustable Elbows	G-8104
	341-1062	4" IPS Adjustable Elbow	
	341-1064	6" IPS Adjustable Elbow	
31	024-6660	Tape, "WARNING GAS LINES BELOW"	G-8100
30		Bend, Piper, Riser :	
	003-0700	2" IPS	
	003-1047	3" IPS	
29	058-3534	Thermit Weld: For Steel	G-100, 279
	058-3559	Copper Wire sleeve Adapter for thermit weld	
	058-3542	Thermit Weld for Cast Iron	
28		Sleeve, Wall, SCH.40, Steel.Thread One End	
27	000-0372	Brick, No.1 Common Red:	
26		Sleeve, Wall, SCH.40, Steel or P.V.C. Pipe. Tracer Wire	G-8100
25	571-0312	Snake Bite Wire Connector for No. 12 Wire	
	571-0313	DRYCONN Wire Connector (No. 14 to No. 10)	
	563-0199	Wire, Plastic Coated Copper Red, No. 14	
	563-0040	Wire, Plastic Coated Copper Yellow, No. 12	
	NON-STOCK	Trace-Safe Kevlar -Coated Yellow No. 19 AWG Tracer Wire (Trenchless ONLY)	

INSTALLATION OF PLASTIC (DIRECT BURIAL OR INSERTION) GAS SERVICE PIPING
BILL OF MATERIAL

CONSOLIDATED EDISON COMPANY OF N.Y., INC.
GAS ENGINEERING DEPT

DATE	5/16/06	DWG. NO.	EO-16641-A	REV.	5
LAST REV.	11/29/18	SHEET 4 OF 4			