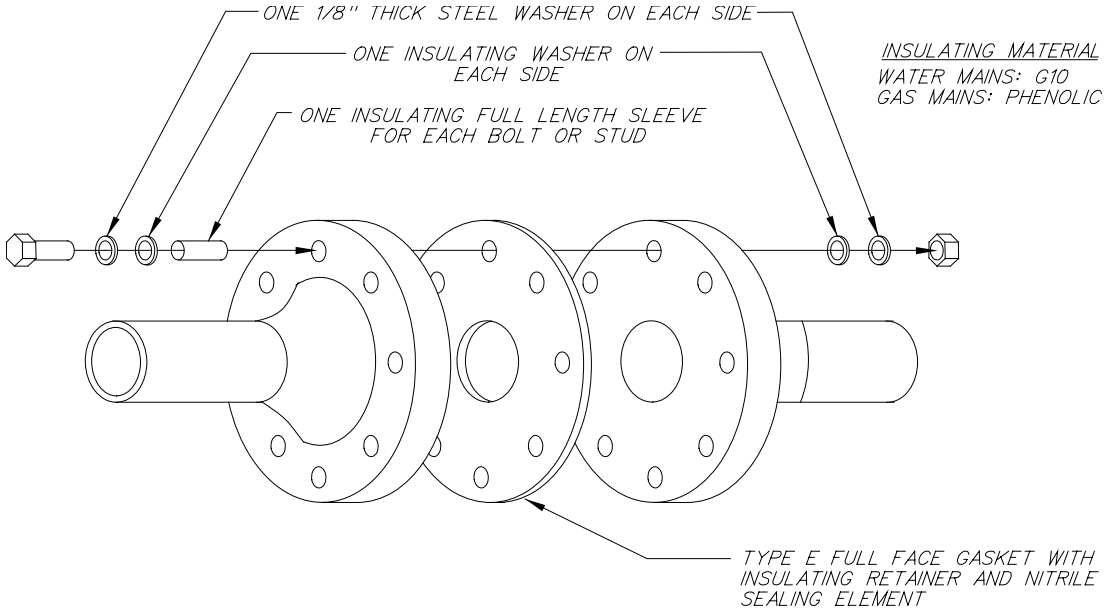

FIG 1

FLANGE INSULATION WITH DOUBLE INSULATING WASHERS (Fig. 1)

USE:

Flange insulating sets shall only be installed at locations specified by the District's Engineering Department.

INSTALLATION:

1. Clean and inspect pipe flange faces and gasket.
2. Install the gasket and align the flanges and gasket so the bolts or studs will be centered.
3. Slip the insulating sleeve over the bolt or stud. Slide the steel and fiber washers over the sleeve up against the head of the bolt.
4. Insert the stud or bolt with both insulating washers against the flange followed by the steel washer and nut.
5. Tighten the bolts or studs alternately around the flange by holding the shank steady and tightening the nut to the necessary torque.
6. The bolt or stud shall be of sufficient length to extend through the nut a minimum of one full thread but not more than 1/2".
7. Electrical insulation shall be verified as directed by Corrosion Section employees.

8. If steel pipe or ductile iron pipe with cathodic protection is involved, install anode per Anodes Required table in C.S. 8.2.1 and attach test wire to pipe per C.S. 8.3.2 (gas) or C.S. 8.3.3 (water). If ductile iron pipe is involved and trace wire is available with existing ductile iron pipe, attach trace wire to existing trace wire per C.S. 11.2.2 (gas) or C.S. 1.14.1 (water). Install either a roadway box, CC box or test marker. Bring wire(s) up alongside or inside roadway box, CC box or test marker per C.S. 8.3.1 and label wire(s). See Fig 2.

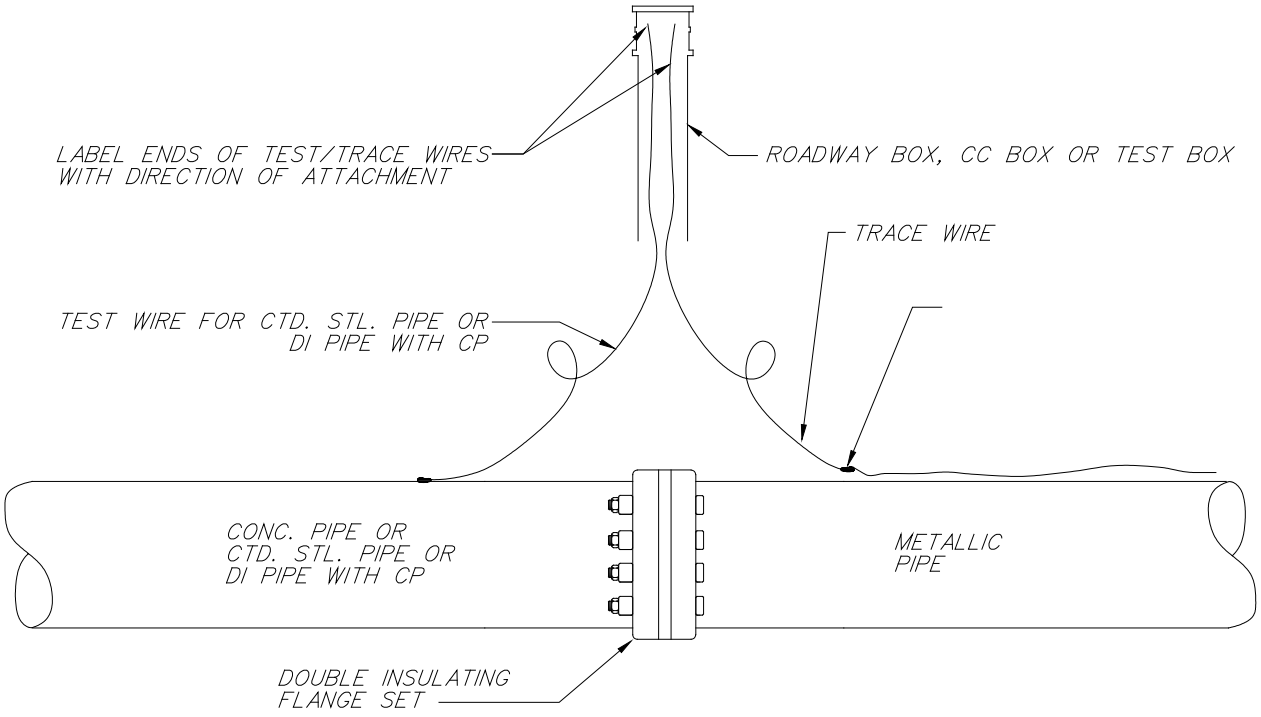

FIG 2

Revision

The latest revision is detailed on the following page(s).

Pages affected: #1 & #2

METROPOLITAN UTILITIES DISTRICT	Construction Standard	No: 8.2.2
		Page: 1 of 2
Prepared by: ~~DJ Satterfield~~Rich Baird	Installation of a Double Insulating Washer Flange Insulating Set	Supersedes: ~~11-4-13~~7-9-18
Approved by: ~~Jeff Schovanec~~James Bartels		Effective: ~~7-9-18~~
The latest revisions can be found at the end of this document		

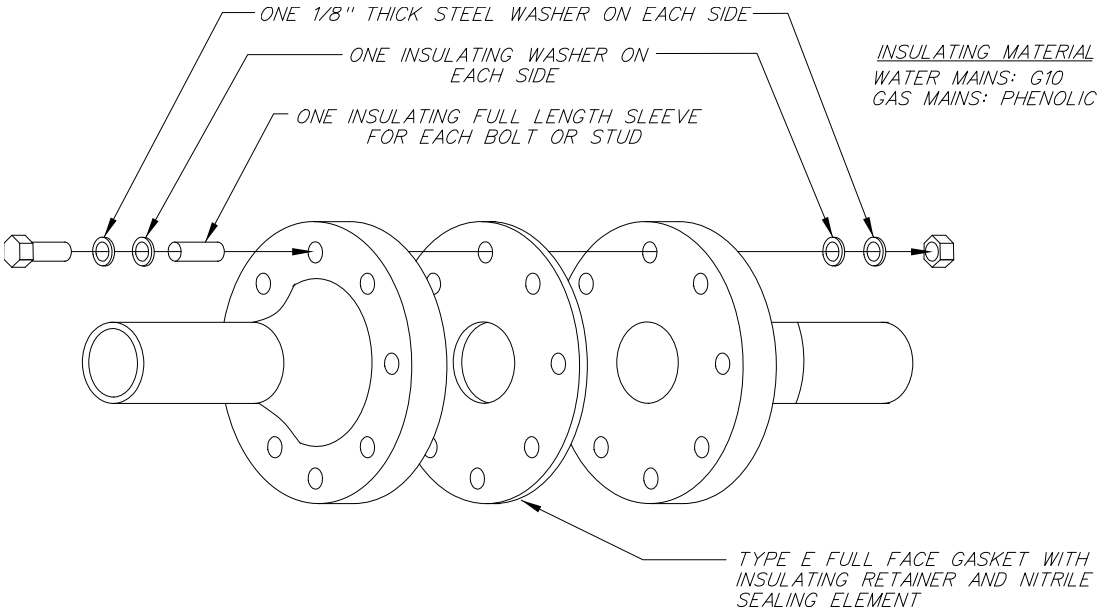

Fig. 1

FLANGE INSULATION WITH DOUBLE INSULATING WASHERS (Fig. 1)

USE:

Flange insulating sets shall only be installed at locations specified by ~~M.U.D.~~the District's Engineering Department.

INSTALLATION:

1. Clean and inspect pipe flange faces and gasket.
2. Install the gasket and align the flanges and gasket so the bolts or studs will be centered.
3. Slip the insulating sleeve over the bolt or stud. Slide the steel and fiber washers over the sleeve up against the head of the bolt.
4. Insert the stud or bolt with both insulating washers against the flange followed by the steel washer and nut.
5. Tighten the bolts or studs alternately around the flange by holding the shank steady and tightening the nut to the necessary torque.
6. The bolt or stud shall be of sufficient length to extend through the nut a minimum of one full thread but not more than ~~½"~~1/2".
7. Electrical insulation shall be verified as directed by ~~the~~ Corrosion ~~Engineer~~Section employees.

** 8. ~~If ductile iron pipe is involved and trace wire is available with existing ductile iron pipe, attach trace wire to existing trace wire per Construction Standard~~ 11.2.2~~. Install either a roadway box, CC box or test marker. Bring wire up alongside or inside roadway box, CC box or test marker per Construction Standard~~ 11.2.2~~. See Fig. 2.~~If steel pipe or ductile iron pipe with cathodic protection is involved, install anode per Anodes Required table in C.S. 8.2.1 and attach test wire to pipe per C.S. 8.3.2 (gas) or C.S. 8.3.3 (water). If ductile iron pipe is involved and trace wire is available with existing ductile iron pipe, attach trace wire to existing trace wire per C.S. 11.2.2 (gas) or C.S. 1.14.1 (water). Install either a roadway box, CC box or test marker. Bring wire(s) up alongside or inside roadway box, CC box or test marker per C.S. 8.3.1 and label wire(s). See Fig 2.

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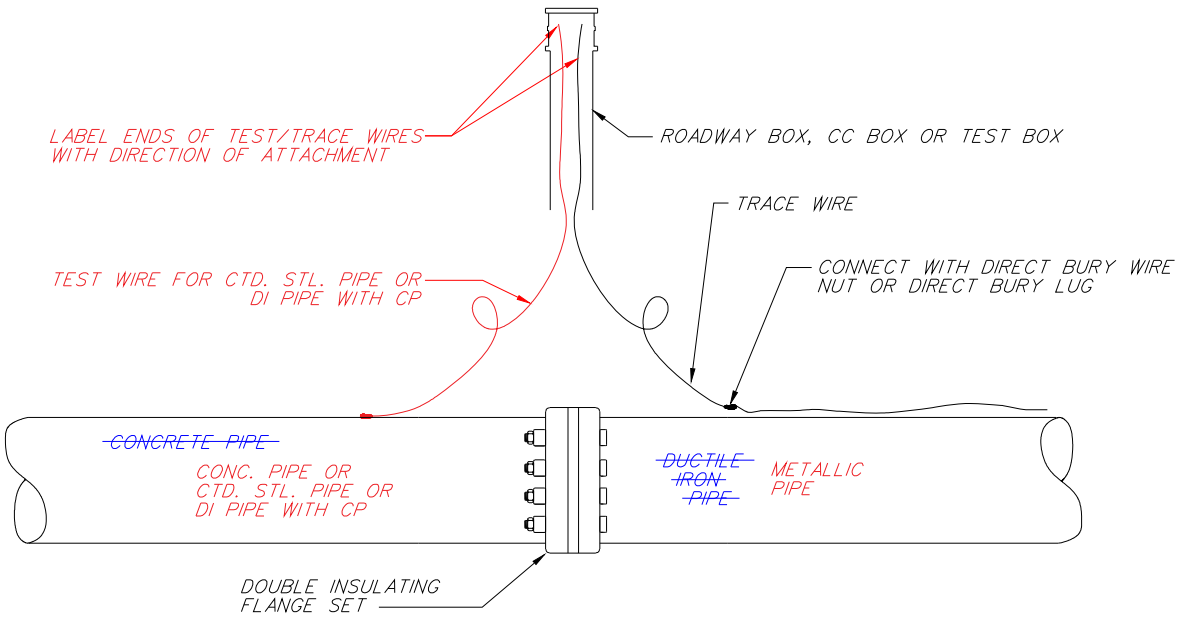

Fig. 2

** ~~Added Text~~
*** ~~Added Drawing~~