

<b>METROPOLITAN UTILITIES DISTRICT</b>	<b>Construction Standard</b>	No:	<b>8.5.1</b>
Prepared by: Rich Baird	<b>Application of Tapes, Wraps and Patches for Natural Gas Pipelines</b>	Page:	1 of 6
Approved by: James Bartels		<u>Supersedes:</u>	5-2-24
		Effective:	7-29-25
<b>The latest revisions can be found at the end of this document</b>			

## **GENERAL**

The District’s Engineering Department shall approve cold applied tape and primer and petrolatum tape and primer systems. These components are evaluated and approved based on system performance of individual components. The tapes can be used on, but not limited to, steel, ductile iron and cast-iron pipe.

*Note: These systems should not be mixed. Use approved tapes with corresponding approved primers.*

### **Approved Materials for Buried Pipe & Components**

- Polyguard 634 Tape with Polyguard 600 Primer (summer usage)
- Polyken 932 Tape with Polyken 1027 Primer (winter usage)
- Polyken 934 Tape with Polyken 1027 Primer (summer usage)
- Protectowrap 320 Tape with Protectowrap 1170 Primer (summer usage)
- Trenton Wax-Tape #2 Self-firming Anticorrosion Wrap with either Trenton Wax-Tape Primer or Trenton Temcoat Anticorrosion Priming Paste (Temcoat 3000 Primer) (summer/winter usage)
- Trenton Wax-Tape #1 Non-firming Anticorrosion Wrap with either Trenton Wax-Tape Primer or Trenton Temcoat Anticorrosion Priming Paste (Temcoat 3000 Primer)
- ScarGuard Abrasion Resistant Overlay (ARO) (when used, must be used with an anticorrosion wrap, coating or tape)
- Trenton MCO 110 Outerwrap “hard shell” protection Abrasion Resistant Overlay (ARO) (when used, must be used with an anticorrosion wrap, coating or tape)
- Trenton Patch-Pad Exothermic Weld Protector (summer/winter usage)

### **Approved Materials for Vault and Aboveground Pipe & Components**

- Trenton Wax-Tape #2 Self-firming Anticorrosion Wrap with either Trenton Wax-Tape Primer or Trenton Temcoat Anticorrosion Priming Paste (Temcoat 3000 Primer)
- Trenton MCO 110 Outerwrap “hard shell” protection Abrasion Resistant Overlay (ARO) (when used, must be used with an anticorrosion wrap, coating or tape)
- Trenton Patch-Pad Exothermic Weld Protector

## **PROCEDURE - TAPES**

***WARNING:*** Hot wrap that was installed on District gas mains prior to 1980 may cause a rash or irritation to certain individuals. A face shield, gloves, and long sleeves may be required by those that are affected. Also, caution must be taken to keep the material from crumbling or turning to powder (friable state). Do not use power actuated tools when removing the old coating.

1. Clean the pipe surface to be wrapped of all dirt, rust and other foreign material. If needed, use a wire brush and rags. If using cold applied tape and primer, the pipe must be dry.

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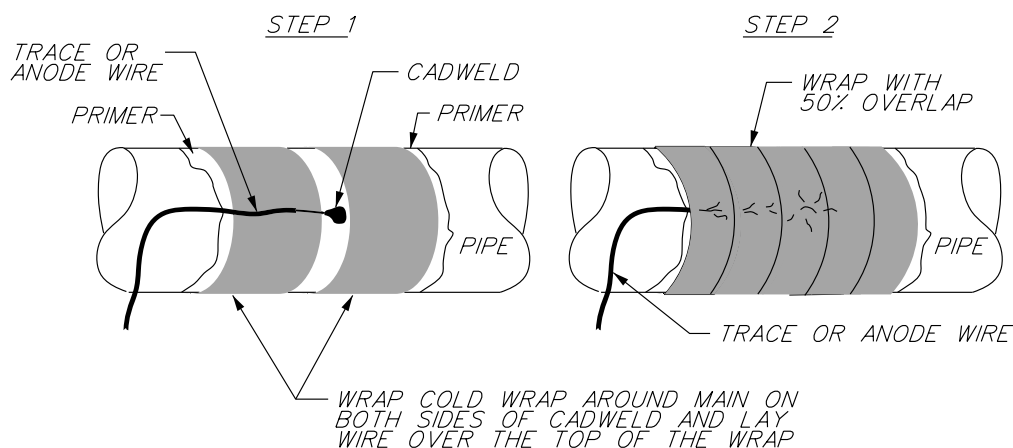
- If applicable, remove any kraft paper on the pipe back 2" from the end of the existing coating.
- Cold Applied Tapes:** Apply primer to the bare surface and at least 2" back on each end of the existing coating. Make sure primer extends past wrap that is to be applied. After primer becomes tack-free, remove the backing separator from the tape for about 6". With the film-covered side of the tape up, begin to wrap with a 50% overlap. Remove and discard the backing separator from the tape as you wrap. Use only enough pull on the tape to conform it properly to irregular surfaces of the pipe and/or fittings. If excessive pull is used, wrinkles and excessive stretching of the tape will be evident.

**Petrolatum Tapes (Wax-Tape):** Apply primer to the bare surface and at least 2" back on each end of the existing coating. Make sure primer extends past wrap that is to be applied. If the surface is wet, cold or rusty, rub and press on primer firmly to displace the moisture and to ensure adhesion. Apply enough primer around irregular surfaces to prevent air pockets after the tape is installed. Begin to wrap with a 1" overlap. Press and mold the tape into conformity, ensuring there are no air pockets or voids and the tape is in intimate contact with the surface. **NOTE:** For winter use, petrolatum tapes should be kept in the truck cab to maintain pliability.

- When the end of the wrap is reached, release all pull on the tape and cut the tape. Smooth the end into place over the previous lap.
- Press and smooth out lap seams to ensure a firm contact and seal.

The following illustrations show examples of how a wire that is cad-weld bonded to a gas main should be primed and wrapped, how nicks and scratches should be primed and wrapped, how a welded joint should be primed and wrapped and how a typical harnessed coupling should be primed and wrapped.

FIG 1 - COLD WRAPPING TRACE OR ANODE WIRE, WRAP METHOD



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FIG 2 - COLD WRAPPING TRACE OR ANODE WIRE, PATCH METHOD

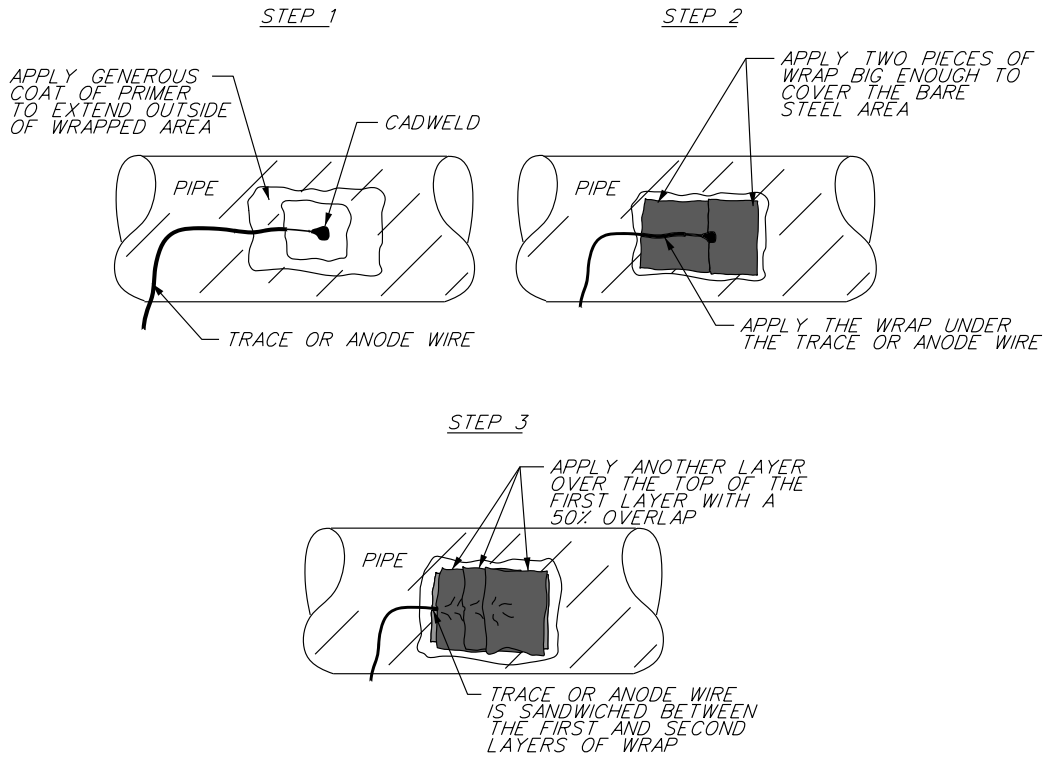
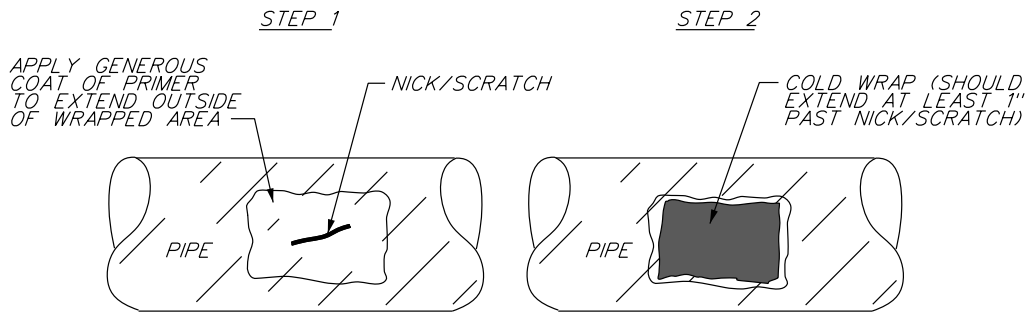


FIG 3 - COLD WRAPPING NICKS OR SCRATCHES



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FIG 4 - COLD WRAPPING A WELDED JOINT

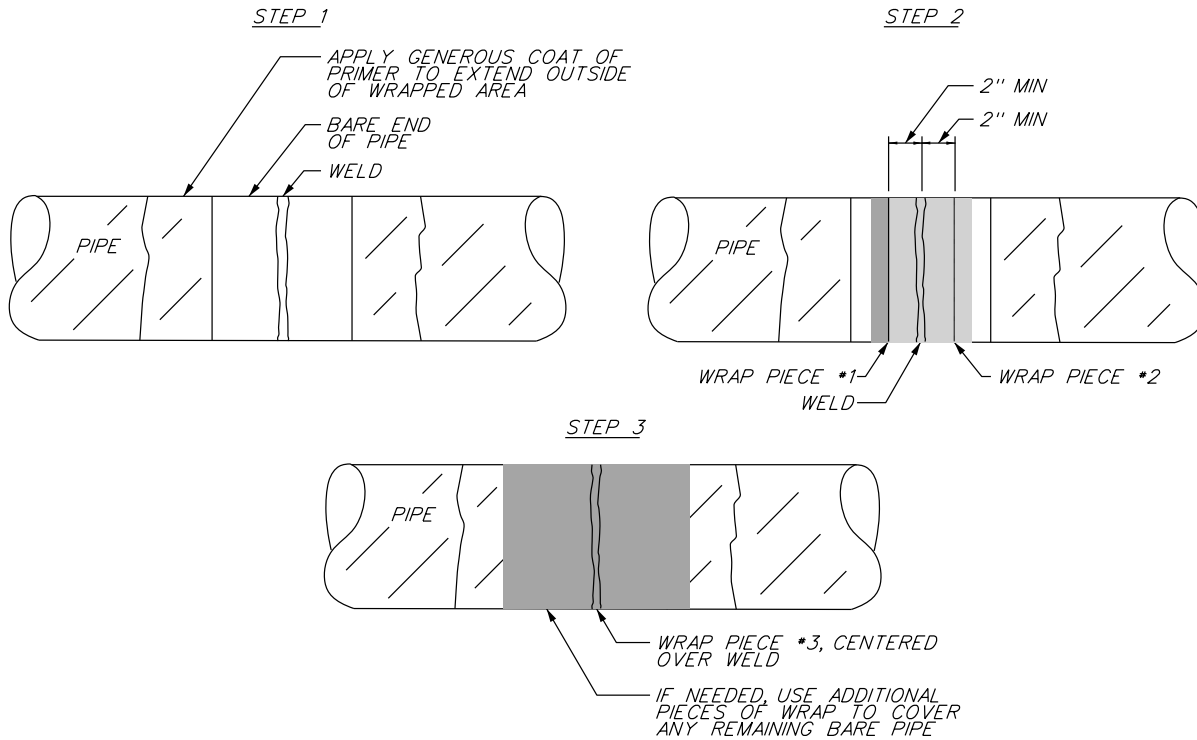
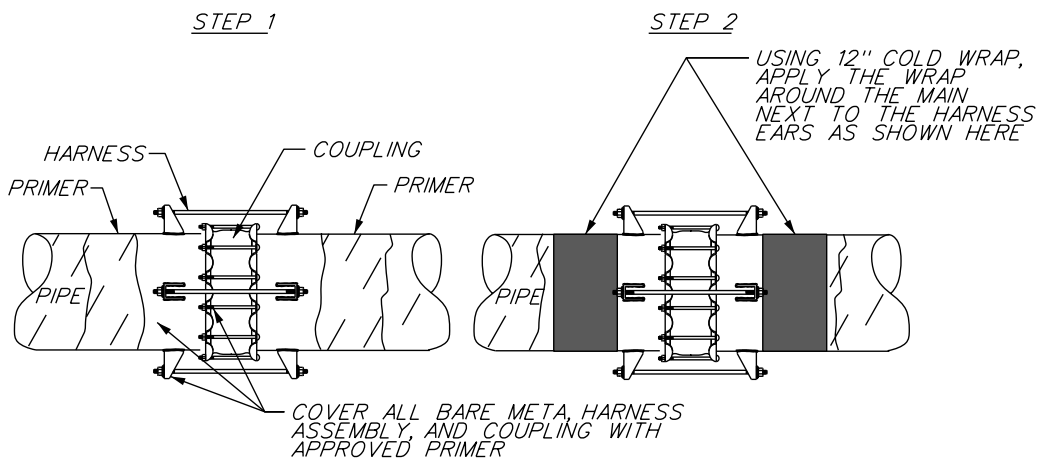
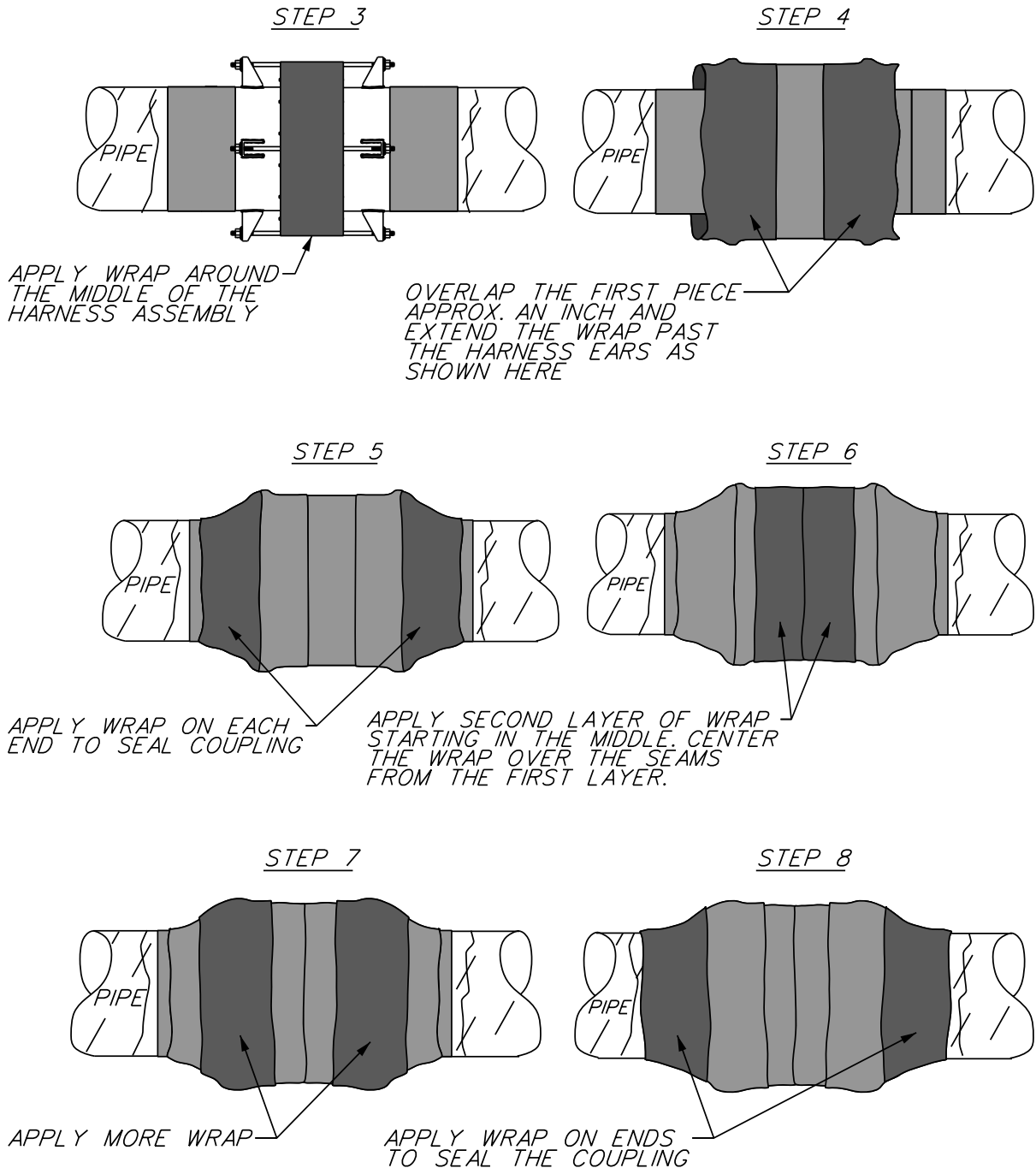


FIG 5 - COLD WRAPPING COUPLING AND HARNESS



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### **PROCEDURE – PATCH-PAD EXOTHERMIC WELD PROTECTOR**

Surface should be clean and dry at the time of application. Apply adhesive/sticky face of pad to the surface to be covered and press to conform. Ensure that the edges of the pad are in contact with the metal surface.

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[Fig 6](#) & [7](#) show examples of how the Patch-Pad Exothermic Weld Protector shall be used on a wire that is cad-weld bonded to a main or on nicks or scratches.

FIG 6 - APPLYING PATCH-PAD EXOTHERMIC WELD PROTECTOR TO TRACE OR ANODE WIRE

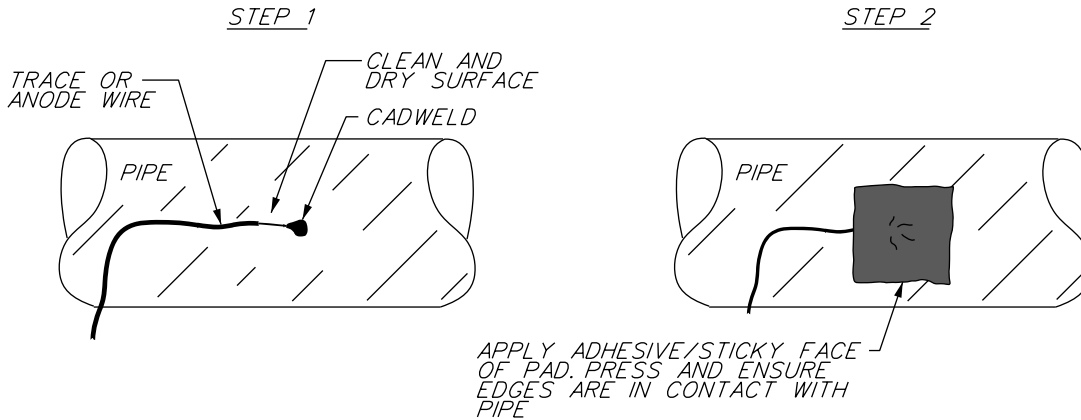
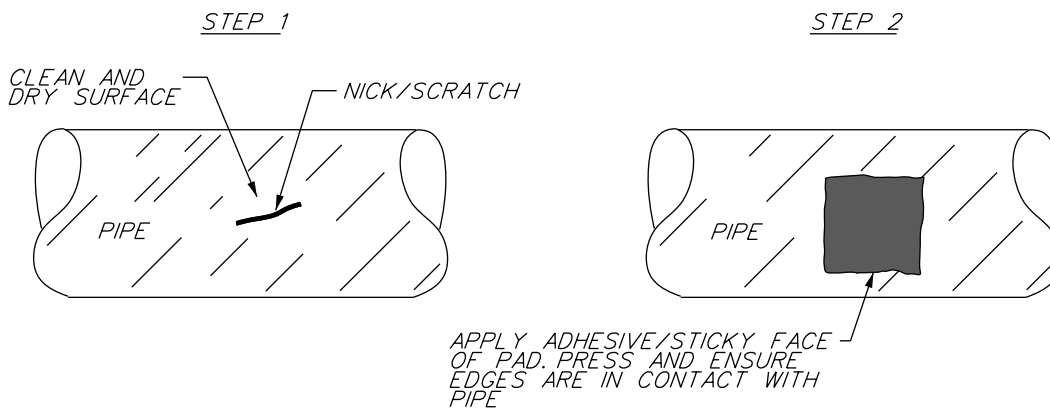


FIG 7 - PATCH-PAD EXOTHERMIC WELD PROTECTOR USE ON NICKS OR SCRATCHES



## Revision

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

Pages affected: **#1** \_\_\_\_\_

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