MATERIAL LIST

1. INSULATING FLANGE KIT COATING, SEE NOTE 7 ON SHEET 2
2. NEMA G-10 FULL FACE INSULATING GASKET, SEE NOTE 1 AND 2 ON SHEET 2
3. NEMA G10 INSULATING SLEEVE
4. NEMA G10 INSULATING WASHER (TYP)
5. ALL THREAD STUD OR BOLT
6. PROVIDE IDENTICAL PIPE COATING TO THE BACK OF FLANGE, SEE NOTE 4 ON SHEET 2
7. CEMENT-MORTAR COATING OR ARMOR COAT
8. SHOP APPLIED TAPE WRAP COATING
9. STEEL FLANGE, SEE NOTE 1 (TYP) ON SHEET 2
10. EXTRA STEEL WASHER REQUIRED ON BOTH SIDES FOR PIPE ØS 36" AND GREATER, SEE NOTE 3 ON SHEET 2
11. STEEL WASHER (TYP)
12. HEAVY HEX NUT (TYP)
13. STEEL PIPE CYLINDER
14. ELASTOMERIC SEALANT OR EPOXY GROUT, SEE NOTE 6 ON SHEET 2
15. FINISHED PIPE ID

* SEE NOTES ON SHEET 2
NOTES FOR INSULATING FLANGE KIT PIPE LINING AND COATING

1. OVERRSZE THE BOLT HOLES FOR BOTH THE MATING STEEL FLANGES AND THE INSULATING GASKET RETAINER PER AWWA C207, SECTION 4.2.3 TO FACILITATE THE INSULATING FLANGE KIT SLEEVE INSTALLATION.

2. INSIDE DIAMETER OF INSULATING GASKET SHALL MATCH INSIDE DIAMETER OF STEEL CYLINDER.

3. FOR NOMINAL PIPE DIAMETERS 36" AND LARGER, ASTM F436 HARDENED STEEL WASHERS ARE REQUIRED. AN EXTRA STEEL WASHER SHALL BE INSTALLED TO SANDWICH THE G-10 WASHER ON EACH SIDE OF THE FLANGE.

4. THE PIPE COATING ON EACH SIDE OF THE INSULATING FLANGE SHALL BE OF THE SAME TYPE, THICKNESS, AND QUALITY UP TO THE BACKSIDE OF THE RESPECTIVE FLANGE. FOR THE CASE OF A BURIED INSULATED FLANGE THAT CONNECTS A DIELECTRICALLY COATED STEEL PIPE TO A CONCRETE (CEMENT-MORTAR) COATED STEEL PIPE, A DIELECTRIC COATING SHALL NOT BE APPLIED TO THE SIDE OF THE INSULATED FLANGE COMMON WITH THE CONCRETE (CEMENT-MORTAR) COATED STEEL PIPE. IN THIS SITUATION, THE PIPE ON ONE SIDE OF THE INSULATING FLANGE SHALL HAVE A DIELECTRIC COATING ON THE OTHER SIDE SHALL HAVE A CEMENT-MORTAR COATING.

5. THE PIPE LINING SHALL BE THE OF SAME TYPE, THICKNESS, AND QUALITY AS THE ADJOINING PIPE SECTION.

6. FILL THE INTERNAL GROOVE BETWEEN THE TWO INSULATING FLANGE FACES WITH AN ELASTOMERIC SEALANT OR AN EPOXY MODIFIED GROUT THAT IS COMPATIBLE WITH THE HOST PIPE LINING. THE ELASTOMERIC SEALANT SHALL BE A NON-SAG, POLYURETHANE-BASED, SEALANT THAT IS NSF APPROVED FOR POTABLE WATER CONTACT. THE ELASTOMERIC SEALANT SHALL BE "SIKAFLEX 2C NS," OR APPROVED EQUAL.

7. BURIED INSULATING FLANGES SHALL BE WAX-TAPE PER AWWA C217. THE WAX-TAPE SHALL OVERLAP THE SHOP APPLIED COATING BY A MINIMUM OF 3 INCHES. FLANGES EXPOSED TO THE ATMOSPHERE SHALL BE COATED WITH A MINIMUM 20 MIL DFT EPOXY PAINT.

8. THE INSULATING FLANGE KIT SHALL BE INSPECTED, TESTED, AND APPROVED BY THE CITY'S CORROSION SECTION PRIOR TO THE APPLICATION OF WAX TAPE AND BURIAL.

9. SEE SHEET 3 FOR AN INSULATING MECHANICAL COUPLING AND SHEET 4 FOR A MONOLITHIC ISOLATION JOINT.

REVIEWED BY

APPROVED DATE

ORIGINAL BM A. Oskoui 12/03
NOTES BM A. Oskoui 12/06
UPDATED RA J. Nagelvoort 05/12
UPDATED J. Nagelvoort 09/18
UPDATED J. Nagelvoort 10/19
MATERIALS LIST

1. PIPE STEEL CYLINDER
2. NEMA G-10 INSULATING WASHER
3. NEMA G-10 INSULATING SLEEVE
4. STEEL WASHER
5. HEAVY HEX NUT
6. THREADED RESTRAINING ROD
7. INSULATING J BOOT
8. MECHANICAL SLEEVE COUPLING
9. ZIP TIE OR DUCT TAPE
10. EXTRA STEEL WASHER, SEE NOTE 4

NOTES FOR INSULATING MECHANICAL SLEEVE COUPLING

1. TWO INSULATING BOOTS ARE REQUIRED.
2. OVERSIZE BACK THRUST RING HOLES 1/4-INCH LARGER THAN THE NOMINAL RESTRAINING ROD STUD DIAMETER TO ALLOW FOR EASIER ALIGNMENT AND PROPER CLEARANCE FOR THE INSULATING SLEEVE TO BE INSERTED OVER THE RODS AND THROUGH THE BACKING PLATE WITHOUT CRACKING.
3. USE ZIP TIES OR DUCT TAPE TO KEEP THE INSULATING SLEEVE PROPERLY SITUATED THROUGH THE BACK THRUST RING AND STACKED WASHER ASSEMBLY. IF NUT/STEEL WASHER/NEMA G-10 WASHER ASSEMBLIES ARE USED FOR THIS PURPOSE, PROVIDE ADEQUATE SPACE BETWEEN THE RING STIFFENER TO ACCOMODATE THE WASHER DIAMETERS.
4. FOR NOMINAL PIPE DIAMETERS 36" AND LARGER, ASTM F436 HARDENED STEEL WASHERS ARE REQUIRED. AN EXTRA STEEL WASHER SHALL BE INSTALLED TO SANDWICH THE NEMA G-10 WASHER.
5. THE PIPE LINING SHALL BE OF THE SAME TYPE, THICKNESS, AND QUALITY AS THE ADJOINING PIPE SECTION.
7. WAX-TAPE BURIED INSULATING MECHANICAL SLEEVE COUPLINGS PER AWWA C217. OVERLAP THE SHOP APPLIED COATING WITH WAX-TAPE BY A MINIMUM OF 3 INCHES.
8. THE MECHANICAL SLEEVE COUPLING SHALL BE INSPECTED, TESTED, AND APPROVED BY THE CITY’S CORROSION SECTION PRIOR TO THE APPLICATION OF WAX TAPE AND BURIAL.
NOTES FOR MONOLITHIC ISOLATION JOINT

1. THE PIPE COATING ON EACH SIDE OF THE MONOLITHIC ISOLATION JOINT SHALL BE OF THE SAME TYPE, THICKNESS, AND QUALITY UP TO THE HOLDBACK OF THE RESPECTIVE PIPE. FOR THE CASE OF A BURIED INSULATOR THAT CONNECTS A DIELECTRICALLY COATED STEEL PIPE TO A CONCRETE (CEMENT-MORTAR) COATED STEEL PIPE, A DIELECTRIC COATING SHALL NOT BE APPLIED TO THE SIDE OF THE INSULATOR COMMON WITH THE CONCRETE (CEMENT-MORTAR) COATED STEEL PIPE. IN THIS SITUATION, THE PIPE ON ONE SIDE OF THE INSULATOR SHALL HAVE A DIELECTRIC COATING ON THE OTHER SIDE SHALL HAVE A CEMENT-MORTAR COATING.

2. THE PIPE LINING SHALL BE EPOXY LINED PER PROJECT SPECIFICATIONS.

3. THE MONOLITHIC INSULATOR SHALL BE INSPECTED, TESTED, AND APPROVED BY THE CITY'S CORROSION SECTION PRIOR TO THE APPLICATION OF WAX TAPE AND BURIAL.