NOTES:
1. All reinforcing steel shall meet AASHTO M170 requirements.
2. All oval, rectangular, and special shaped reinforcement shall be assembled and securely fastened in cage fashion so as to maintain reinforcement in exact shape and correct position within the form.
3. Laying length of pipe 12" to 60" (ends) not less than 4 feel 14" to 108" (ends) not over 5 foot.
4. Joints shall be sealed with rubber gaskets or with sealer approved by the engineer whenever pipe are specified for storm drain or sanitary sewers.
5. For Class IV and Class V reinforced concrete pipe and end section sizes which do not have reinforcement specified by AASHTO M170, shop drawings and design calculations shall be prepared and seal by a Professional Engineer and submitted for the Engineer's review.

Joints for Reinforced Concrete Pipe

CIRCULAR PIPE

TONGUE & GROOVE JOINT

BELL & SPIGOT JOINT

CONCRETE PIPE PLUG

NOTES (Traversable End Section):
1. Manufactured in accordance with applicable portions of ASTM C76/AASHTO M170.
2. Reinforcement per Class III RCP with double portions of ASTM C76/AASHTO M170.
3. Reinforcement per Class III RCP with double portions of ASTM C76/AASHTO M170.
4. Joints shall be sealed with rubber gaskets or with sealer approved by the engineer whenever pipe are specified for storm drain or sanitary sewers.
5. For Class IV and Class V reinforced concrete pipe and end section sizes which do not have reinforcement specified by AASHTO M170, shop drawings and design calculations shall be prepared and seal by a Professional Engineer and submitted for the Engineer's review.

Reinforced Concrete Pipe - Flared End Section
Reinforcement to be equivalent to Class II RCP

Reinforced Concrete Pipe - Traversable End Section
Reinforcement to be equivalent to Class III RCP

See standard drawing D-714-22 for details of concrete pipe ties (tie bolts).

This document was originally issued and sealed by Jon Ketterling, Registration Number PE-4684, on 11/21/16 and the original document is stored at the North Dakota Department of Transportation.