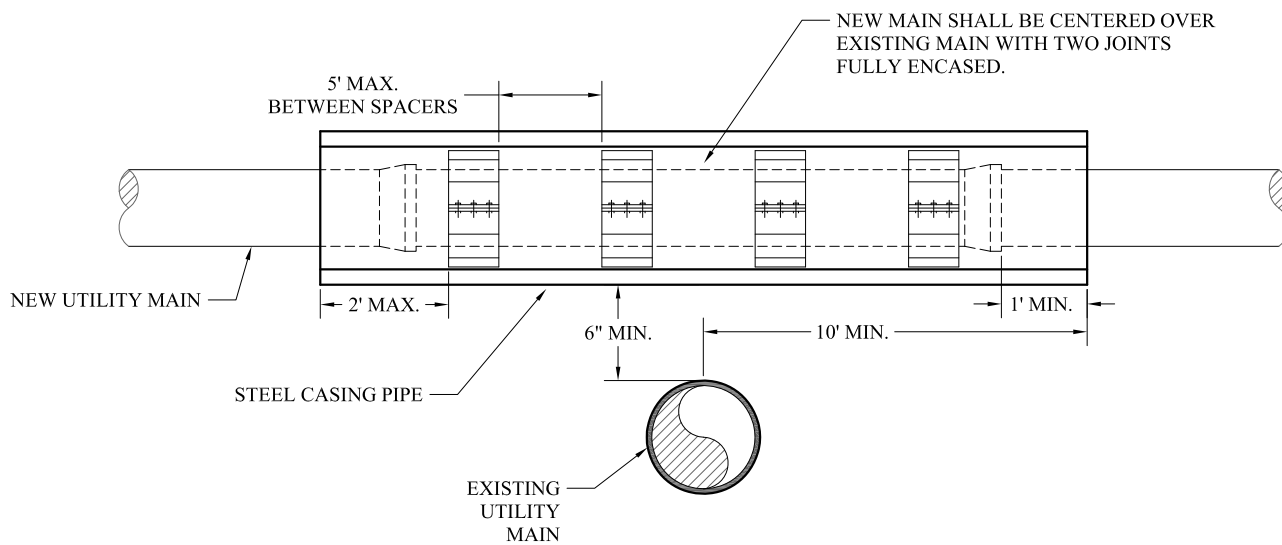


# UTILITY CROSSING WATER AND SEWER MAINS



**NOTES:**

1. ALL WATER-SEWER CROSSING SITUATIONS WHERE A NEW MAIN WILL CROSS WITHIN 2' VERTICALLY OF AN EXISTING MAIN SHALL BE ENCASED AS SHOWN ABOVE.
2. CASING PIPE SHALL BE A MINIMUM 20' LENGTH OF DUCTILE IRON, STEEL OR C-900 PVC PIPE WITH GASKETED OR WELDED JOINTS AND BE TWO NOMINAL PIPE SIZES LARGER THAN THE CARRIER PIPE.
3. EACH END OF CASING SHALL BE SEALED WITH WATERTIGHT NON-SHRINK GROUT OR A MANUFACTURED WATERTIGHT SEAL.
4. HDPE CASING SPACERS SHALL BE PLACED AT MAXIMUM 5' INTERVALS AND WITHIN 2' FROM EACH BELL AND END OF CASING.
5. CROSSING SITUATIONS NOT COVERED BY THIS DETAIL SHALL BE ACCOMPLISHED IN ACCORDANCE WITH COSA DESIGN STANDARDS AND TCEQ CHAPTERS 217 AND 290.