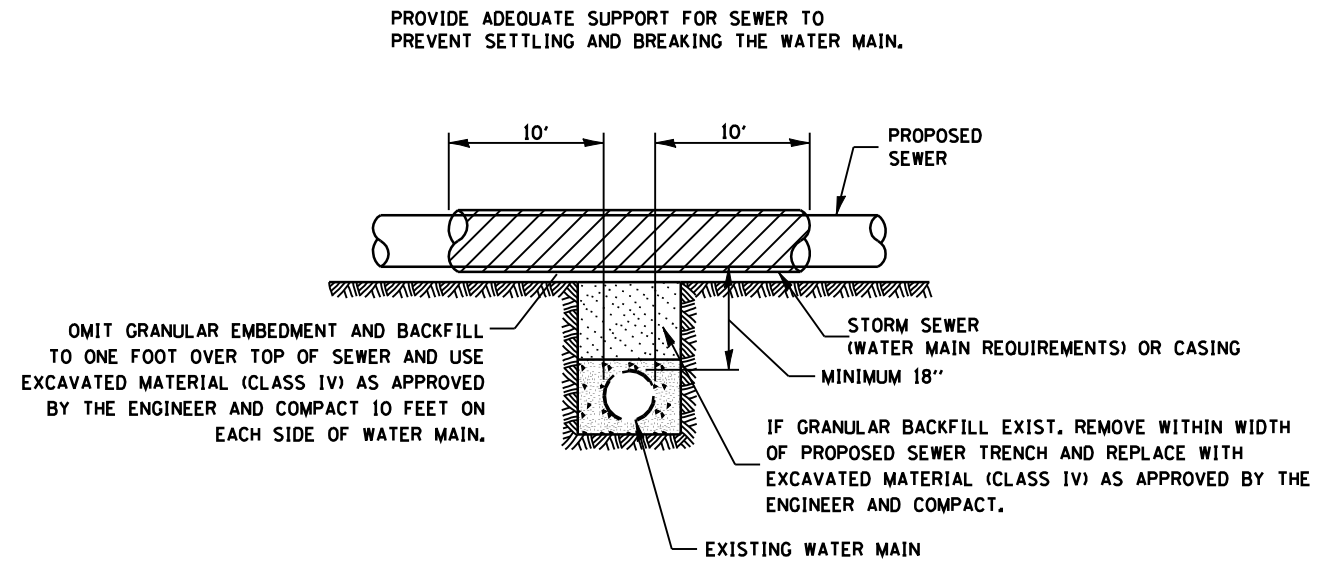


ELEVATION - ECCENTRIC

ELEVATION - CONCENTRIC

**AT GRADE CROSSING OF
SANITARY AND STORM SEWER**

CASING SHALL BE CAST IRON WITH AN INSIDE DIAMETER 2" LARGER IN DIAMETER THAN ENCASED PIPE OUTSIDE DIAMETER WITH BOTH ENDS OF CASING SEALED

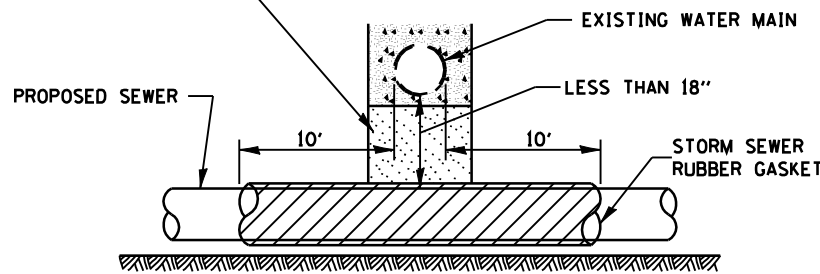


CASING SHALL BE OF WATERMAIN MATERIAL WITH AN INSIDE DIAMETER 2" LARGER IN DIAMETER THAN ENCASED PIPE OUTSIDE DIAMETER WITH BOTH ENDS OF CASING SEALED

**PROPOSED SEWER LINE WITH MINIMUM
18" VERTICAL SEPARATION ABOVE
EXISTING WATERMAIN**

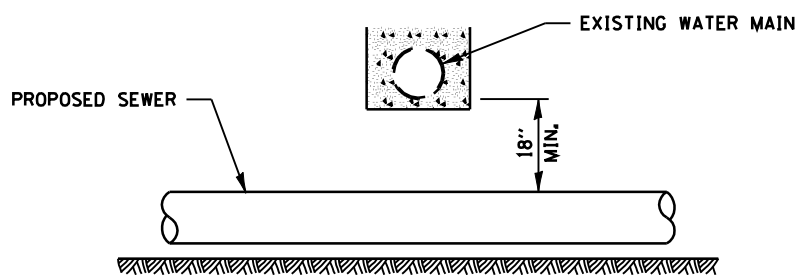
POINT LOADS SHALL NOT BE ALLOWED BETWEEN SEWER OR SEWER CASING AND WATER MAIN
PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH

OMIT GRANULAR EMBEDMENT AND BACKFILL TO ONE FOOT OVER TOP OF SEWER AND USE EXCAVATED MATERIAL (CLASS IV) AS APPROVED BY THE ENGINEER AND COMPACT 10 FEET ON EACH SIDE OF WATER MAIN.



PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH

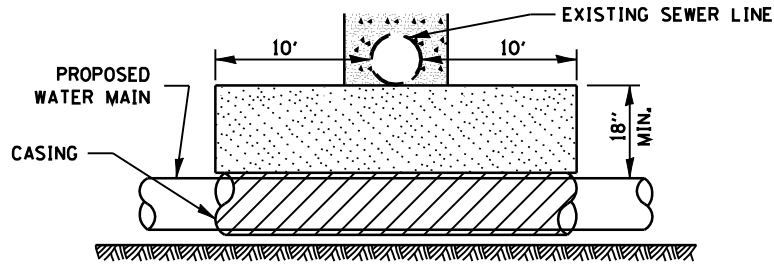
MAINTAIN 18" MINIMUM VERTICAL SEPARATION FOR 10' HORIZONTALLY



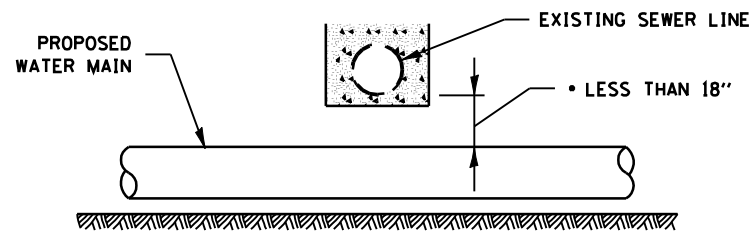
**PROPOSED SEWER LINE
BELOW EXISTING WATER MAIN**

PROVIDE ADEQUATE SUPPORT FOR EXISTING SEWER LINE TO PREVENT DAMAGE DUE TO SETTLEMENT.
IF GRANULAR BACK FILL EXISTS, REMOVE WITHIN WIDTH OF EXISTING SEWER TRENCH AND REPLACE WITH EXCAVATED MATERIAL (CLASS IV) AS APPROVED BY THE ENGINEER AND COMPACT.

OMIT GRANULAR EMBEDMENT AND BACKFILL TO ONE FOOT OVER TOP OF WATER MAIN AND USE EXCAVATED MATERIAL (CLASS IV) AS APPROVED BY THE ENGINEER AND COMPACT FOR 10' EITHERSIDE OF SEWER LINE.



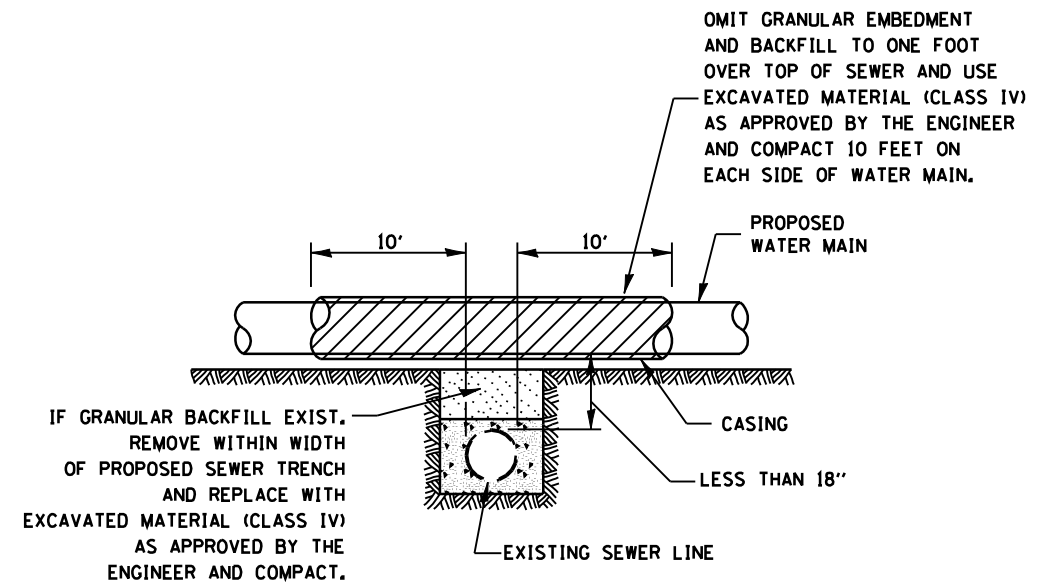
CASING SHALL BE OF WATER MAIN MATERIAL WITH AN INSIDE DIAMETER 2" LARGER IN DIAMETER THAN ENCASED PIPE OUTSIDE DIAMETER WITH BOTH ENDS OF CASING SEALED



• NOT ALLOWED
MUST MAINTAIN 18" VERTICAL SEPARATION

**PROPOSED WATER MAIN
BELOW EXISTING SEWER LINE**

POINT LOADS SHALL NOT BE ALLOWED BETWEEN WATER MAIN CASING AND SEWER



CASING SHALL BE OF WATERMAIN MATERIAL WITH AN INSIDE DIAMETER 2" LARGER IN DIAMETER THAN ENCASED PIPE OUTSIDE DIAMETER WITH BOTH ENDS OF CASING SEALED

**PROPOSED WATER MAIN
ABOVE EXISTING SEWER LINE**