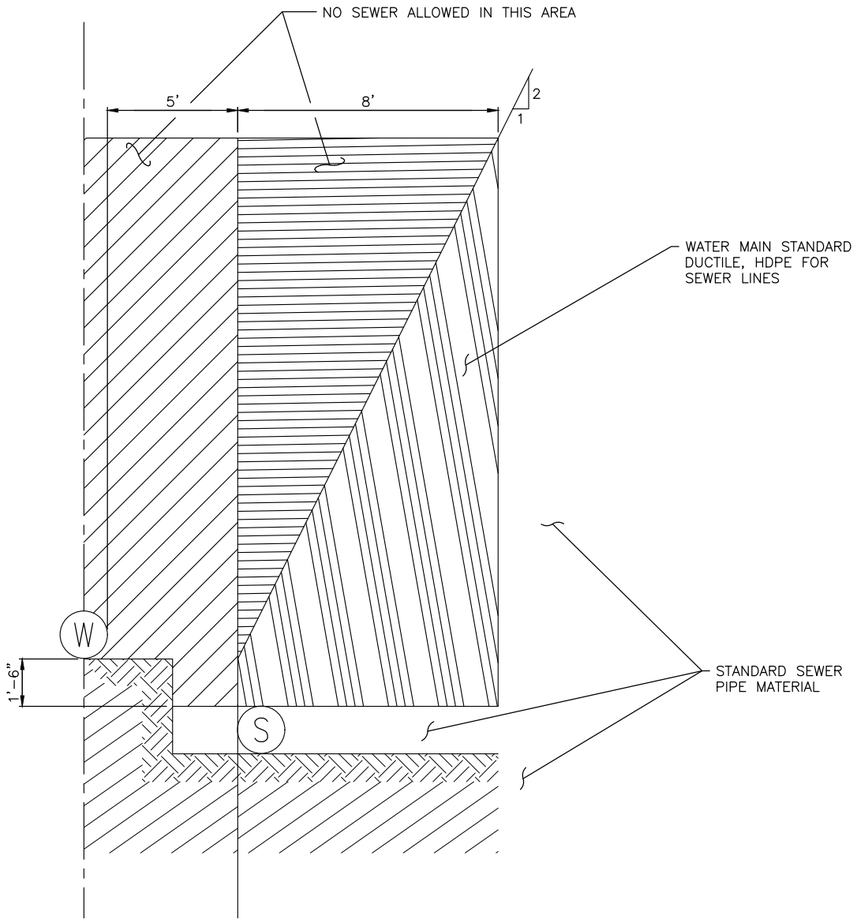

PARALLEL CONSTRUCTION

WATER MAIN STANDARD PIPE MATERIAL

AWWA STANDARD			
TYPE OF PIPE	PIPE	JOINT	FITTINGS
DUCTILE IRON	C 1.52	C 111	C 110
CONCRETE CYLINDER	C 303		

NOTES:

1. HORIZONTAL SEPARATION (PARALLEL) – A MINIMUM HORIZONTAL SEPARATION OF TEN (10) FEET BETWEEN GRAVITY SANITARY SEWERS AND ANY POTABLE WATER LINES SHALL BE MAINTAINED, WHENEVER POSSIBLE. THE DISTANCE SHALL BE MEASURED FROM EDGE TO EDGE.

2. UNUSUAL CONDITIONS (PARALLEL) – WHEN LOCAL CONDITIONS PREVENT A HORIZONTAL SEPARATION AS DESCRIBED ABOVE, A GRAVITY SEWER LINE MAY BE LAID CLOSER THAN TEN (10) FEET TO A WATER LINE PROVIDED:

   A)IT IS LAID IN A SEPARATE TRENCH; OR IT IS LAID IN THE SAME TRENCH WITH THE WATER LINE THAT IS LOCATED AT ONE SIDE ON A BENCH OF UNDISTURBED EARTH; AND

   B)IN EITHER CASE, THE ELEVATION OF THE CROWN OF THE GRAVITY SEWER MUST BE AT LEAST 18 INCHES BELOW THE INVERT OF THE WATER LINE. WHEN THIS VERTICAL SEPARATION CANNOT BE OBTAINED, THE GRAVITY SEWER SHALL BE CONSTRUCTED OF MATERIALS AND JOINTS THAT ARE 8 EQUIVALENT TO WATER MAIN STANDARDS OF CONSTRUCTION AND SHALL BE PRESSURE TESTED TO ASSURE WATER TIGHTNESS PRIOR TO BACKFILLING.

3. VERTICAL SEPARATION (PERPENDICULAR) – SEWER LINES CROSSING WATER LINES SHALL BE LAID BELOW THE WATER LINES TO PROVIDE A SEPARATION OF AT LEAST 18 INCHES BETWEEN THE INVERT OF THE WATER LINE AND THE CROWN OF THE SEWER LINE, WHENEVER POSSIBLE.

4. UNUSUAL CONDITIONS (PERPENDICULAR) – WHEN LOCAL CONDITIONS PREVENT A VERTICAL SEPARATION AS DESCRIBED ABOVE, THE FOLLOWING CONSTRUCTION SHALL BE USED:

   A)GRAVITY SEWERS PASSING OVER OR UNDER WATER LINES SHALL BE:
   I. CONSTRUCTED OF MATERIAL DESCRIBED ON THIS PAGE. THE ONE SEGMENT OF THE MAXIMUM STANDARD LENGTH OF PIPE (BUT NO LESS THAN 18 FEET LONG) SHALL BE USED WITH THE PIPES CENTERED TO MAXIMIZE JOINT SEPARATION; OR
   II. CONSTRUCTED OF STANDARD GRAVITY SEWER MATERIAL ENCASED IN CONCRETE OR IN A 1/4" THICK CONTINUOUS STEEL CASING WITH ALL VOIDS PRESSURE–GROUTED WITH SAND–CEMENT GROUT.
   III. THE LENGTH OF THE SEWER PIPE, IN BOTH I. AND II. ABOVE, SHALL BE CENTERED AT THE POINT OF CROSSING SO THAT THE JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER LINE. THE SEWER PIPE SHALL BE THE LONGEST STANDARD LENGTH AVAILABLE FROM THE MANUFACTURER.

   B)WATER LINES PASSING UNDER GRAVITY SEWERS, IN ADDITION, SHALL BE PROTECTED BY PROVIDING:
   I. A VERTICAL SEPARATION OF AT LEAST 18 INCHES BETWEEN THE INVERT OF THE SEWER AND THE CROWN OF THE WATER LINE;
   II. ADEQUATE STRUCTURAL SUPPORT FOR THE SEWERS TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING ON AND BREAKING OF THE WATER LINES; AND
   III. THE LENGTH OF THE SEWER PIPE SHALL BE CENTERED AT THE POINT OF CROSSING SO THAT THE JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER LINE. THE SEWER PIPE SHALL BE THE LONGEST STANDARD LENGTH AVAILABLE FROM THE MANUFACTURER.

   C)PRESSURE SEWERS SHALL ONLY BE CONSTRUCTED UNDER WATER LINES WITH DUCTILE IRON PIPE OR STANDARD SEWER PIPE IN A STEEL CASING FOR A DISTANCE OF AT LEAST TEN (10) FEET ON EACH SIDE OF THE CROSSING.

STANDARD DETAIL
WATER AND SEWER
SPACING & CLEARANCE

City of Wenatchee

REVISIONS	INITIAL	DATE DRAWN	CHECKED	DATE APPROVED	STANDARD SPECIFICATIONS
01/01/2022	AJS	12/04/2020			
03/31/2023	JTB				

SCALE: AS SHOWN | DESIGNED | DRAWN: CAW | APPROVED BY

DETAIL NO.
S–210

PAGE
1 OF 1