



NOTES:

1. SEWER LINES SHALL MEET ALL CONDITIONS IDENTIFIED IN R309-600-13(3)
2. ALL SEWER LINES IN ZONES 1 AND 2 SHALL BE CONSTRUCTED IN ACCORDANCE WITH R309-515-4. SEE SUMMARY BELOW

R309-515-4 SUMMARY:

- (A) SEWER LINES SHALL BE CONSTRUCTED TO REMAIN WATERTIGHT. THE LINES SHALL BE DEFLECTION TESTED IN ACCORDANCE WITH THE DIVISION OF WATER QUALITY RULE R317-3. THE LINES SHALL BE VIDEO INSPECTED FOR ANY DEFECT FOLLOWING COMPLETION OF CONSTRUCTION AND BEFORE BEING PLACED IN SERVICE. THE SEWER PIPE MATERIAL SHALL BE:
  - (i) HIGH DENSITY POLYETHYLENE (HDPE) PIPE WITH A PE3408 OR PE4710 RATING FROM THE PLASTIC PIPE INSTITUTE AND HAVE A DIMENSION RATIO (DR) OF 17 OR LESS, AND ALL JOINTS SHALL BE FUSION WELDED, OR
  - (ii) POLYVINYL CHLORIDE (PVC) PIPE MEETING AWWA SPECIFICATION C900 OR C905 AND HAVE A DR OF 18 OR LESS. PVC PIPE SHALL BE EITHER RESTRAINED GASKETED JOINTS OR SHALL BE FUSION WELDED. SOLVENT CEMENT JOINTS SHALL NOT BE ACCEPTABLE. THE PVC PIPE SHALL BE CLEARLY IDENTIFIED WHEN INSTALLED, BY MARKING TAPE OR OTHER MEANS AS A SANITARY SEWER LINE, OR
  - (iii) DUCTILE IRON PIPE WITH CERAMIC EPOXY LINING, POLYETHYLENE ENCASEMENT, RESTRAINED JOINTS, AND A MINIMUM PRESSURE CLASS OF 200.
- (B) PROCEDURES FOR LEAKAGE TESTS SHALL BE SPECIFIED AND COMPLY WITH DIVISION OF WATER QUALITY RULE R317-3 REQUIREMENTS.
- (C) LATERAL TO MAIN CONNECTION SHALL BE FUSION WELDED, SHOP FABRICATED, OR SADDLED WITH A MECHANICAL CLAMPING WATERTIGHT DEVICE DESIGNED FOR THE SPECIFIC PIPE.
- (D) INLET AND OUTLET SEWER PIPES SHALL BE JOINED TO A MANHOLE WITH A GASKETED FLEXIBLE WATERTIGHT CONNECTION.
- (E) THE SEWER PIPE SHALL BE LAID WITH NO GREATER THAN 2 PERCENT DEFLECTION AT ANY JOINT.
- (F) BACKFILL SHALL BE COMPACTED TO NOT LESS THAN 95 PERCENT OF MAXIMUM LABORATORY DENSITY AS DETERMINED IN ACCORDANCE WITH ASTM STANDARD D-690;
- (G) SEWER MANHOLES SHALL MEET THE FOLLOWING REQUIREMENTS:
  - (i) THE MANHOLES SHALL BE CONSTRUCTED OF REINFORCED CONCRETE;
  - (ii) MANHOLE BASE AND WALLS, UP TO A POINT AT LEAST 12 INCHES ABOVE THE TOP OF THE UPPER MOST SEWER PIPE ENTERING THE MANHOLE, SHALL BE FABRICATED IN A SINGLE CONCRETE POUR WITHOUT JOINTS; AND
  - (iii) THE MANHOLES SHALL BE AIR PRESSURE TESTED AFTER INSTALLATION.
- (H) IN UNPROTECTED AQUIFERS, AN IMPERMEABLE CUTOFF WALL SHALL BE CONSTRUCTED IN ALL SEWER TRENCHES ON THE UP-GRADIENT EDGE OF ZONE TWO. IN PROTECTED AQUIFERS, AN IMPERMEABLE CUTOFF WALL SHALL BE CONSTRUCTED IN ALL SEWER TRENCHES ON THE UP-GRADIENT EDGE OF ZONE ONE.

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3			
2			
1	12/31/15	TSC	UPDATE PER SWDC
REV.	DATE	BY	DESCRIPTION



SUMMIT WATER  
DISTRIBUTION CO.

SEWER LINE CONSTRUCTION  
WITHIN WELL PROTECTION  
ZONES 1 AND 2

STD. DWG. NO.

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