



## **ELK GROVE VILLAGE SEWER SYSTEM SPECIFICATIONS**

1. The Metropolitan Water Reclamation District (M.W.R.D.) Local Sewer Section Field Office (708) 588-4055 and the Elk Grove Village Community Development Department (847) 357-4220 shall be notified at least two (2) working days prior to the commencement of any sewer work.
2. Sewers shall be constructed of one or more of the following materials as specified on the plans:
  - a. Polyvinylchloride plastic gravity sewer pipe (PVC) SDR-26 (ASTM D-3034 or water quality ASTM D-2241 with ASTM D-3139 joints)
  - b. Ductile Iron Pipe Class 52 (ANSI A21.51 with ANSI A21.11 joints)
  - c. Reinforced concrete pipe (ASTM C-76 with ASTM C-443 joints) of the class shown on plans. **(Not approved for sanitary sewers).**
3. Sewers shall be constructed on a bedding comprised of ¼” to 1” size aggregate with a minimum thickness of 4 inches.
  - a. PVC pipe shall be backfilled with aggregate (CA-7, CA-11 or CA-13) to a minimum of 12 inches over the top of pipe.
  - b. Ductile iron and RCP shall be backfilled with aggregate to the top of pipe.
  - c. Crushed aggregate (CA-6 or CA-7) shall be used for backfilling all trenches under or within two (2) feet of existing or proposed curbs, sidewalks, pavement or buildings.
  - d. Aggregate shall be compacted in 12 inch lifts in accordance with Method 1, Article 550.07 of the Standard Specifications (I.D.O.T.).
4. When connecting to an existing sewer main by means other than existing wye, tee or manhole, the following method shall be used:

With a pipe cutter, neatly and accurately cut out the desired length of pipe for insertion of the proper fitting, using LMK Technologies Non-Shear Mission Rubber Coupling for connecting new pipe to CIPP.
5. “Band-Seal” or similar flexible type couplings shall be used to connect sewer pipes of different material or different size. When existing sewer is lined, LMK Technologies Non-Shear Mission Rubber Coupling for connecting new pipe to CIPP shall be utilized.

6. Sanitary and storm sewer manholes shall be precast structures with the diameter dependent on the pipe size. The concrete bottom shall be cast integral with the lowest barrel section unless noted otherwise on plan.
7. All manholes shall be equipped with steps.
8. All manholes shall have a maximum of two (2) adjusting rings and a maximum adjustment of eight (8) inches.
9. All manhole sections and adjusting rings shall be securely sealed to each other and to the frame and cover using resilient flexible non-hardening preformed bituminous mastic (Ram-Nek or approved equal) or Butyl Rubber Joint Sealer (easy stick or approved equal).
10. The following Type 1 Frames and Closed Lids shall be used on all manholes:
  - a. Neenah Foundry #R-1713 with Type "B" Lid or approved equal.
  - b. Sanitary covers shall have a 1 inch concealed pick hole and a rubber self-sealing gasket.
  - c. Sanitary manholes shall have the word "SANITARY" imprinted on the cover.
  - d. Storm manholes shall have the word "STORM" imprinted on the cover.
11. All sanitary sewer manholes and sanitary inspection manholes shall have an external chimney seal installed between the frame and cone section (see Village detail). If conditions prohibit installation, an internal chimney seal will be allowed with Village permission.
12. All sanitary manholes shall precast "rubber boots" conforming to ASTM C-923 for all pipe connections (see MWRD detail).
13. Catch basins shall be precast structures with the bottom cast integral with the lowest barrel section and the diameter dependent on the pipe size. Catch basins shall have a minimum 24 inch sump.
14. Inlets shall be Type A precast with an integral concrete bottom and a minimum depth of sixteen (16) inches.
15. Catch basins and inlets shall have an IDOT Type 1 Frame and Open Grate, Neenah Foundry R-2504 with Type "D" Grate or approved equal.
16. All floor drains and floor drain sump pump connections shall discharge into the sanitary sewer.

17. All downspouts and footing drains **shall** discharge into the storm sewer **for all Commercial areas.**
18. All downspouts and footing drains should discharge into the storm sewer or on to the ground for all Industrial areas.
19. All sanitary sewers shall be subject to the following testing **BEFORE** being placed in service:
  - a. Infiltration test per M.W.R.D. Standards.
  - b. Low pressure air test shall follow the procedure set forth in Section 31, paragraph 31 – 1.13C of the Standard Specifications for Water and Sewer Main Construction in Illinois.
  - c. All PVC pipe shall be subject to a deflection test per Section 31, paragraph 31 – 1.13D of the Standard Specifications for Water and Sewer Main Construction in Illinois.
  - d. **Testing must be done in the presence of the Village and M.W.R.D. inspectors.**
20. All sanitary sewers eight (8) inches or larger shall be televised upon completion. All sanitary sewer services eight (8) inches or larger and having a minimum of two (2) manholes shall also be televised upon completion. A copy of the video (digital format) shall be furnished to the Village for their records within thirty (30) days after the sewer is televised.
21. Damaged parkway lawn areas shall be restored with **4 inches of topsoil and sod.**