

NBU Wastewater Notes

1. The point of delivery for an NBU owned and maintained wastewater line is typically the cleanout, property line, or edge of easement or as determined by NBU.
2. The contractor shall maintain service to the existing wastewater system at all times during construction.
3. All new wastewater mains and fittings shall be minimum 8-inch diameter (ASTM D-3034 SDR-26 PVC).
4. All residential wastewater service laterals shall be extended four (4) feet into the Public Utility Easement and a cleanout installed at the ROW line per NBU Standard Details. Services to lots will extend four (4) feet past the underground electric conduit if electric is installed in the front easement.
5. All sewer cleanouts that lead to NBU mains shall be installed with a protective utility shroud and pivoting marker pole during time of construction.
6. Pipe bedding of wastewater lines shall be compliant with NBU specification No. 120, "Utility Trenching and Backfill".
7. Wastewater mains shall have a minimum of 48 inches of cover to finished grade and wastewater laterals must have a minimum of 36 inches of cover to finished grade. Concrete encasement will be required if minimum cover cannot be met.
8. All gravity wastewater pipes shall have gasketed, compression or fused joints per 30 TAC §217.53 (c) (2).
9. For wastewater lines less than 24 inches in diameter, select initial backfill material shall be placed in two lifts.
 - a. The first lift shall be spread uniformly and simultaneously on each side and under the shoulders of the pipe to the mid-point or spring line of the pipe.
 - b. The second lift shall be placed to a depth as shown on the pipe backfill detail. For pipes larger than 24-inch, 12-inch maximum lifts shall be used.
10. All manholes shall be water-tight, either monolithic, cast-in-place concrete structures or prefabricated manholes specifically approved by NBU. Polymer concrete is required for manholes on mains 18-inch diameter and larger, at force main discharge points, or at drop manholes with high corrosion potential.
11. Manholes shall have bolted water-tight rings and covers. In non-paved areas, a manhole marker assembly shall be installed on the manhole cover.
12. Manhole vents shall be installed at intervals no greater than 1500 feet.
13. All manholes shall be constructed so that the top of the ring is six inches (6") above surrounding ground in non-paved areas. In paved areas, the manhole ring shall be flush with pavement.
14. All new manholes, unless approved by NBU, shall have covers with 32-inch openings.
15. Wastewater pipe connections to pre-cast manholes will be compression joints or mechanical "boot type" joint as approved by NBU.
16. Existing manholes shall be lined, coated, or replaced with a corrosion resistant material if a new connection is made by a main or lateral.
17. Wastewater mains shall be tested from manhole to manhole.
18. In areas where a new wastewater manhole is to be constructed over an existing wastewater system, it shall be the contractor's responsibility to test

the existing manholes before construction. After the proposed manhole(s) has been built, the contractor shall re-test the existing system to the satisfaction of the construction inspector, no separate pay.

19. NBU Inspector to be present for all wastewater lines to be installed at depths of 15 feet or greater from final grade.
20. Where the minimum 9-foot separation distance between wastewater lines and water lines / mains cannot be maintained, the installation of wastewater lines shall be in strict accordance with TCEQ requirements. The wastewater line shall be constructed of ASTM D2241 PVC or AWWA C900 PVC with pressure rating of 150 psi and shall be in accordance with 30 TAC §217.53 (d) (3) (A) (i).
21. Contractor shall coordinate with the assigned water/wastewater inspector for completion of the Field Acceptance Checklist. No testing will be performed prior to 30 days from complete installation. All testing and acceptance shall conform to NBU Specifications be completed in the following order:
 - a. Pipe Deflection Test (Mandrel Test)
 - b. Pipe Low Pressure Air Test
 - c. Manhole Vacuum Test
 - d. Manhole Protective Coating Test
 - e. CCTV Inspection (within 72 hours of cleaning and flushing)
22. TCEQ and EPA require erosion and sedimentation control for construction of wastewater collection systems. Developer or authorized representative shall provide erosion and sedimentation control as notes on the project's plan and profile sheets. All temporary erosion and sedimentation controls shall be removed by the Contractor at final acceptance of the project by NBU Water Systems.