

Sanitary Sewer Construction Notes

1. All sewer work shall conform with the latest revision of the Standard Specifications of Construction of the Superstition Mountains Community Facilities District No. 1 (District). All sewer work outside of buildings shall be constructed, inspected and approved to the satisfaction of the District.
2. District will not participate in the cost of construction or utility relocation.
3. Sewer construction cannot begin until the contractor has obtained a connection permit from the District, telephone (480) 983-2212 ext. 223 or 230. For work in the public right-of-way and/or public utility easement, an Encroachment Permit is required from the City of Apache Junction.
4. District Inspector shall be notified 48 hours before sewer system construction begins. Telephone (480) 982-3053 or (480) 688-5584.
5. District inspections are required as follows:
 - after the pipeline trench has been dug and 3/8" fractured stone chip bedding has been placed and hand graded;
 - during the time that the installation of the service wye fitting is being made to the sewer main line,
 - after the sewer pipe has been laid to grade and 3/8" fractured stone chips have been placed and compacted to the spring line of the pipe;
 - after 3/8" fractured stone chips have been placed and compacted to 12" over the top of the pipe;
 - after placement and compaction to 90% of the AB Base backfill material (MAG Sec. 702) from 12" over top of pipe to within 2 feet from the surface,
 - after placement of final 2 feet of backfill to surface grade consisting of 1/2 sack CLSM (MAG Sec.728) or with District approval, AB Base backfill material (MAG Sec. 702) compacted to 100%.
 - after placement of a manhole base;
 - after a manhole has been constructed;
 - after any sand, lint or grease trap has been set in place;
 - during all acceptance testing of the sewer system;
 - following construction of the sewer system and final grading/surfacing of the lot is completed.

The final inspection is to ensure proper installation and integrity of the building cleanouts, and the proper installation and functioning of the disconnect cleanout including the riser, flush brass cap and the installation of the valve box cover at the finished surface grade. The District Inspector will not approve any building connection until the disconnect cleanout riser, flush brass cap and valve box cover have been properly installed and tested.

6. The construction contractor will be liable for all costs associated with exposing any construction buried prior to inspection by the District Inspector.
7. Sewer mains shall be constructed of PVC SDR-35 pipe. Six-inch diameter pipelines shall be laid to a minimum slope of 0.64% and eight-inch pipelines to a minimum slope of 0.42%.

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8. If the sewer plan includes manholes, pre-cast five-foot (5') diameter manholes are required to be constructed in general conformance to MAG standard details 420 through 427. Manhole covers shall exhibit the District's logo.
9. Any grease, sand or lint trap shall be 1,500 gallons minimum in size and constructed per SMCDFD Detail No. SM430.
10. Building service lines/laterals to individual units shall be 4-inches diameter. Three-inch diameter pipe is not allowed. [With District approval, a main stem service line from the sewer main to the property may be designed and installed as 6" diameter pipe with minimum slope of 0.64%.] Service lines/laterals shall be constructed of PVC SDR-35 or Schedule 40 pipe laid to a minimum pipeline slope of 1.00%. ABS plastic pipe is not allowed by the District for building service lines/laterals. Building service line connections to sewer mains shall be made with a service wye fitting per SMCDFD Detail No. SM442. Saddle type fittings are not allowed. For 90 degree turns, two (2) 45 degree fittings must be used, with a cleanout placed at the upstream end of each straight pipeline segment.
11. Bedding (4") and backfill to 12 inches over the top of the pipe for sewer mains and all building service lines/laterals shall be 3/8" fractured stone chips (MAG Section 716 – Low Volume). No other material is allowed for this purpose. **IMPORTANT!** Placement of bedding and material to the spring line of the pipe is the most important factor affecting pipe performance and deflection. Proper placement of the stone chips eliminates voids and insures proper pipe support. After placement of the chips to the spring line it is required to have a workman walk down the length of the pipe and, using a shovel, make slicing strokes into the chips on both sides of the pipe to ensure there are no voids left in the material.
12. Backfill from 12" over top of the pipe to final surface for work NOT under or within 2 feet of pavement, curb, gutter, sidewalk or existing or proposed pavement, shall be A.B. Base (MAG Section 702) material compacted to 90% in 2 ft. maximum lifts using a hydraulic compaction wheel, self-propelled drum vibrator or mechanical tamper per SMCDFD Detail No. SM200, Type C.
13. Backfill from 12" over top of pipe under or within 2 feet of pavement, curb, gutter, sidewalk or existing or proposed pavement, shall consist of A.B. Base (MAG Section 702) material to within 2 feet of surface, compacted to 90% in 2 ft. maximum lifts using a hydraulic compaction wheel, self-propelled drum vibrator or mechanical tamper, followed by placement from 2 feet below surface to the surface with ½ sack CLSM (MAG Section 728) AKA ½ sack slurry mix, per SMCDFD Detail No. SM200 Type B1. In lieu of ½ sack CLSM and with prior approval from the District, A.B. Base (MAG Section 702) material may be used, compacted to 100% in 12" maximum lifts using a hydraulic compaction wheel, self-propelled drum vibrator or mechanical tamper per SMCDFD Detail No. SM200, Type B.
14. The building service pipeline to each separately owned building (single unit or multiple unit building) shall have a disconnect cleanout installed at the building property line, preferably within the P.U.E. A disconnect cleanout is not required whenever the building service line ties into a sewer main within a manhole. The disconnect cleanout shall be a 4-inch diameter PVC Elder Valve Tee fitting laid to the minimum service line slope of 1.00%. The riser pipe shall be of 4" PVC SDR-35 pipe. The top of the riser pipe shall be cleanly cut at 90 degrees perpendicular to the line of the pipe and completed with a PVC threaded female fitting and flush brass cap 6" below the final grade surface. The cleanout cap shall be enclosed and protected within a ductile iron valve box at the finished surface grade. See

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SMCFD Detail No. SM440. The District supplies both the elder valve fitting and the valve box as part of the connection permit process.

15. Building sewer laterals are required to be water tested to the specifications of the U.P.C., 1994 Edition, Section 712.
16. The entire length of sewer mains shall be tested for deflection using a 5% mandrel.
17. Entire length of sewer mains shall be low-pressure air-tested per “Standard Test Method for Installation of Acceptance of Plastic Gravity Sewer Lines Using Low-Pressure Air” published by the American Society for Testing and Materials (ASTM designation F 1417-92).
18. Installed manholes shall be tested using the “Standard Test Method for Concrete Sewer Manholes by Negative Air Pressure (Vacuum) Test” published by the American Society for Testing and Materials (ASTM designation C 1244-93).
19. After all infrastructure construction is completed, including paving, the sewer system shall be cleaned to District’s satisfaction, at no cost to District.
20. Entirety of the interior of the sewer system mains may be inspected by the District using a video camera. Results of this inspection will be recorded to demonstrate compliance with sewer uniform slope test requirements per Arizona Administrative Code R18-9-E301.D.2.k. The discovery of any flaws in the materials, pipe slope, construction of the pipeline, manholes and/or installation of cleanouts, at the District’s sole discretion, must be fixed at no cost to the District before the District will give final written approval of the construction.