

## SECTION 506

### SEWER LATERAL MARKING

506.1. General. When new lateral sewer pipes are installed and connected to an underground facility within the public right-of-way, or if such lateral is fully replaced by excavation within the public right-of-way, the Contractor shall be required to place tracer wire and an access point within a protective enclosure or cleanout for gravity sewer laterals. For sewer laterals operating under pressure or vacuum, the contractor shall be required to place an access point within a protective enclosure and shall not be required to place a cleanout. All protective enclosures and cleanouts shall be extended to grade and installed so that it is easily accessible. An underground facility owner shall not be liable to any party for damages or injuries resulting from an excavation if they are in compliance with this section. This section shall apply to all installations of sewer laterals without regard to their status as underground facilities.

#### 506.2. Material

- a. Tracer Wire - A green-coated number 12 AWG copper clad steel tracer wire shall be installed the entire length of proposed sewer laterals as per the Standard Detail 12A & 13. Tracer wire shall be terminated at each end in a two-way cleanout. The tracer wire shall be accessible from the surface and a minimum of 2 ft. of excess/slack wire is required in all tracer wire access cleanouts after meeting final elevation.
- b. Access Cleanout - The tracer wire access cleanouts shall be constructed as per the Standard Detail 12A. Access cleanouts shall be appropriately identified with "sewer" cast into the cap and be color coded per APWA standards. Tracer wires shall be coiled around the cleanout with test stations installed and existing wires connected.
- c. Grounding - Tracer wire must be properly grounded at all dead ends/stubs. Grounding of tracer wire shall be achieved by use of a grounding anode specifically manufactured for this purpose. The anode shall be ½ lb bare zinc or magnesium. The 1.315" diameter anodes shall be connected to the green no. 12 AWG copper clad steel (ccs) wire and buried at the same elevation as the utility.

#### 506.3. Installation

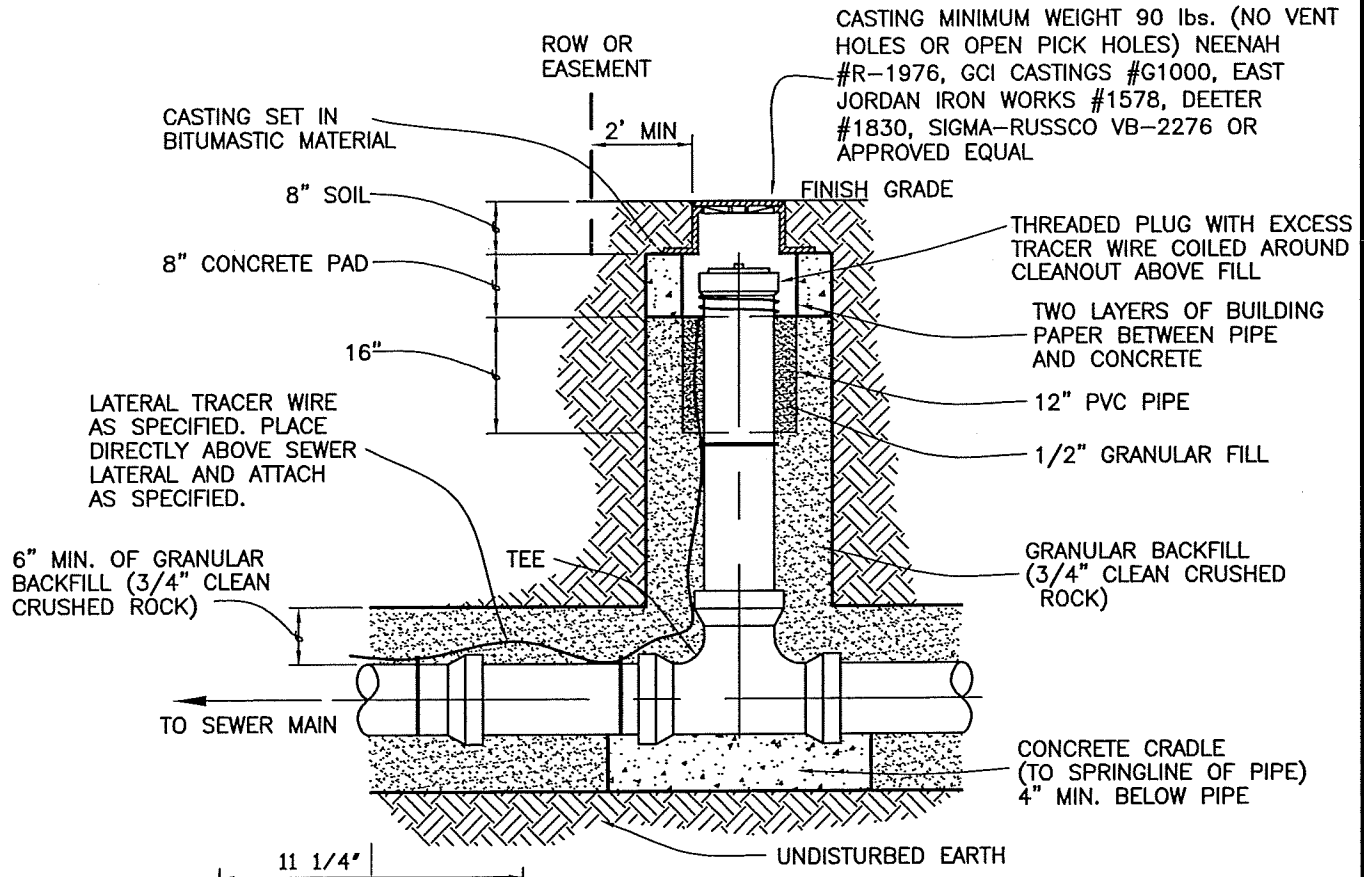
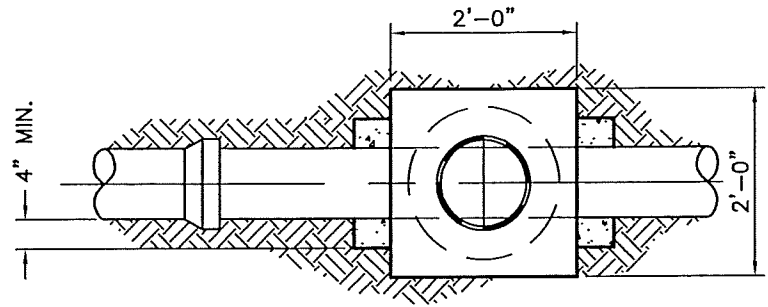
- a. The No. 12 insulated wire shall be placed along the top of the sewer lateral and taped in place with electrical tape at base of riser, sewer main, and 6' intervals in between. For ductile iron pipe the locator wire shall be placed outside the polyethylene encasement. Caution must be exercised in the initial backfilling not to move or damage the locator wire.
- b. Permanent access points shall be provided through access cleanouts or other approved methods located directly above the utility and set to grade.

1. Service Laterals on public property - Tracer wire must terminate at an approved grade level/in-ground tracer wire access cleanout, located a minimum of 2' outside public right-of-way or easement, and out of the roadway.
2. Service Laterals for new construction – Tracer wire must terminate at an approved tracer wire access cleanout extended 2' above the proposed final grade, located a minimum of 2' outside public right-of-way or easement.
3. Service Lateral extensions under future streets – Tracer wire must terminate at an approved tracer wire access cleanout extended 2' above the proposed final grade, located a minimum of 10' past the property line.

c. Tracer wire systems must be installed as a single continuous wire, except where using approved connectors. No looping or coiling of wire is allowed. Where splices become necessary outside of access cleanouts, the splices shall be made using corrosion proof/filled wire connectors.

d. All tracer wire shall be tested for continuity prior to approval of the lateral by the City. Tracer wire installation shall be performed in such a manner that allows proper access for connection of line tracing equipment, proper locating of wire without loss or deterioration of low frequency (512Hz) signal for distances in excess of 1,000 linear feet, and without distortion of signal caused by multiple wires being installed in close proximity to one another.

e. Any damage occurring during installation of the tracer wire must be immediately repaired by removing the damaged wire, and installing a new section of wire with approved connectors. Taping and/or spray coating shall not be allowed.



CASTING MINIMUM WEIGHT 90 lbs. (NO VENT HOLES OR OPEN PICK HOLES) NEENAH #R-1976, GCI CASTINGS #G1000, EAST JORDAN IRON WORKS #1578, DEETER #1830, SIGMA-RUSSCO VB-2276 OR APPROVED EQUAL

LATERAL TRACER WIRE AS SPECIFIED. PLACE DIRECTLY ABOVE SEWER LATERAL AND ATTACH AS SPECIFIED.

6" MIN. OF GRANULAR BACKFILL (3/4" CLEAN CRUSHED ROCK)

THREADED PLUG WITH EXCESS TRACER WIRE COILED AROUND CLEANOUT ABOVE FILL

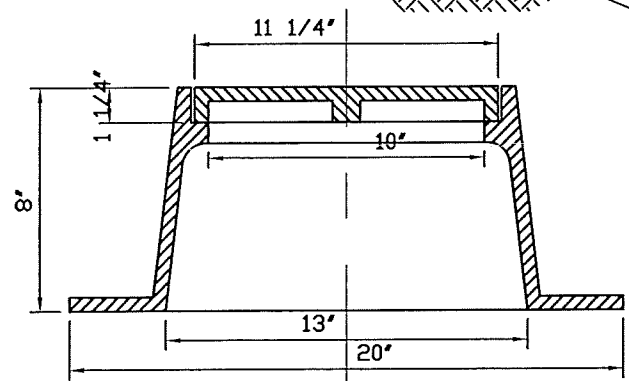
TWO LAYERS OF BUILDING PAPER BETWEEN PIPE AND CONCRETE

12" PVC PIPE

1/2" GRANULAR FILL

GRANULAR BACKFILL (3/4" CLEAN CRUSHED ROCK)

CONCRETE CRADLE (TO SPRINGLINE OF PIPE) 4" MIN. BELOW PIPE



FRAME & LID

NOTES:

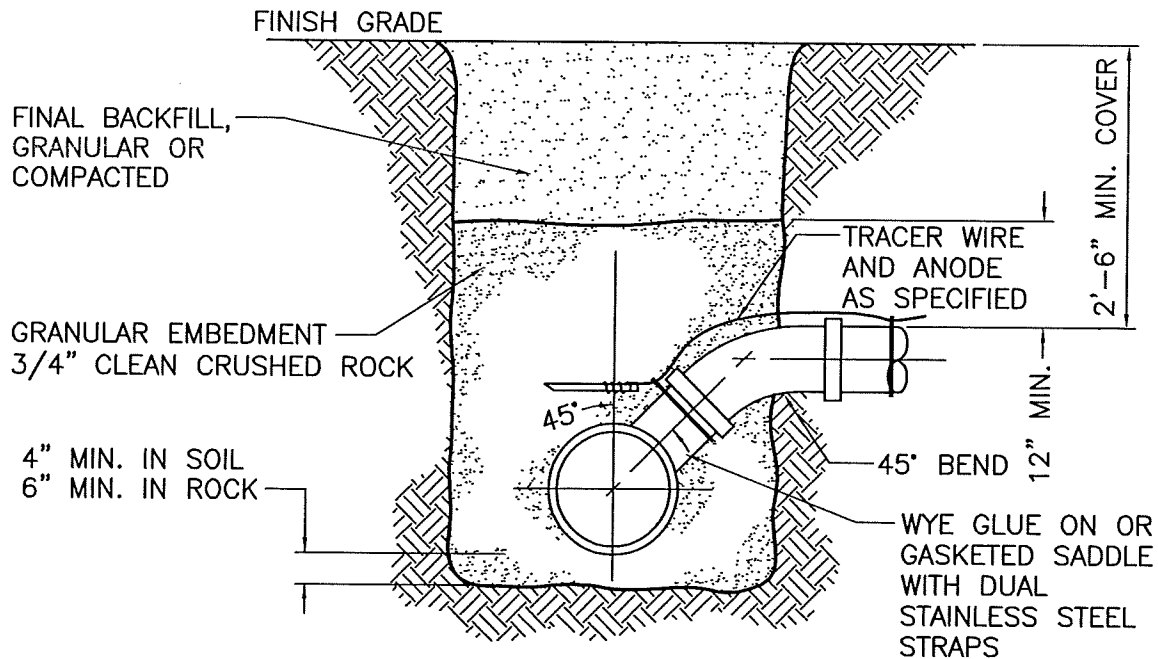
1. TRACER WIRE ACCESS CLEANOUTS FOR NEW CONSTRUCTION SHALL EXTEND 2' ABOVE THE PROPOSED FINAL GRADE.
2. TRACER WIRE ACCESS CLEANOUTS UNDER FUTURE STREETS SHALL BE LOCATED A MINIMUM OF 10' PAST THE PROPERTY LINE.

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|           | 12/8/15 |
| Approved  | Date    |
| Revisions |         |
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# STANDARD TRACER WIRE ACCESS CLEANOUT

12A



NOTES:

1. VCP PIPES SHALL NOT BE TAPPED. REPLACE SECTION OF VCP WITH PVC AND FITTING.

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# STANDARD SERVICE CONNECTION