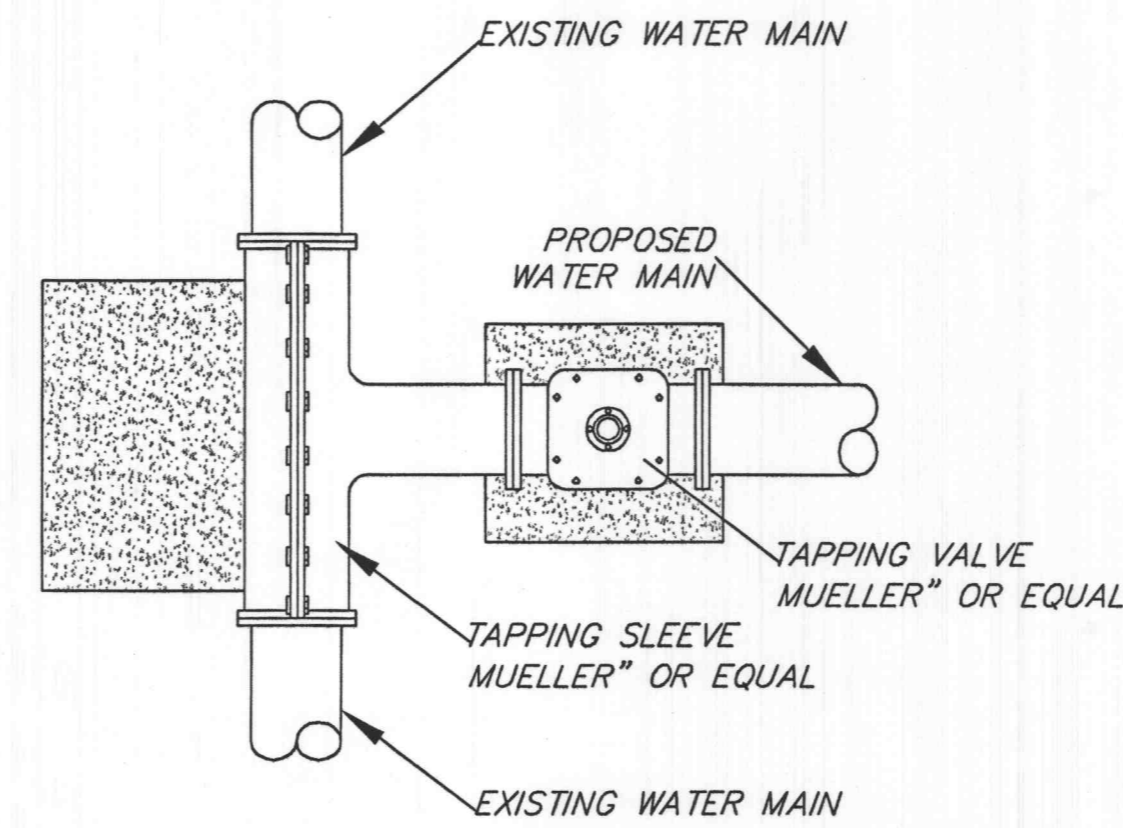
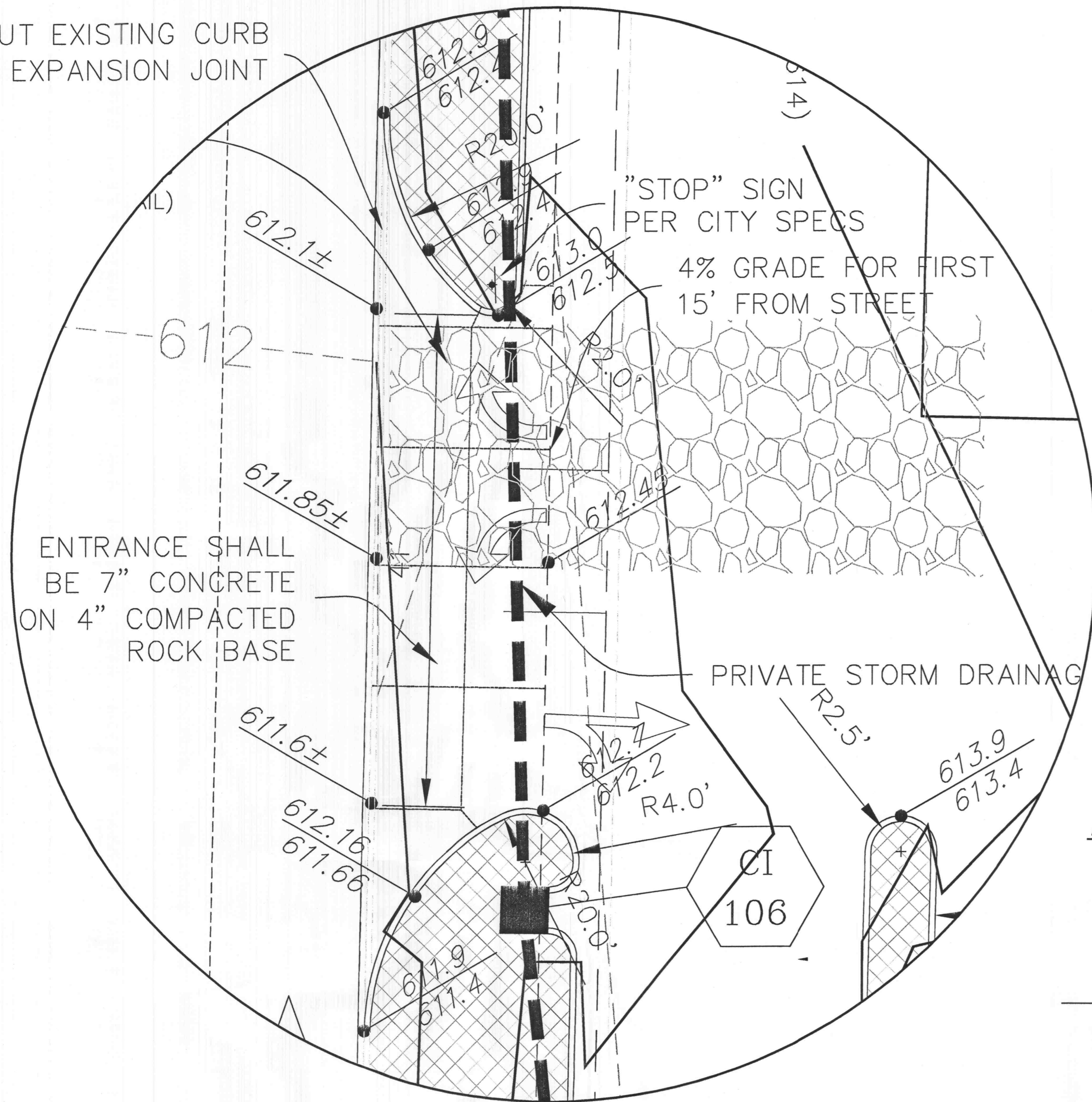
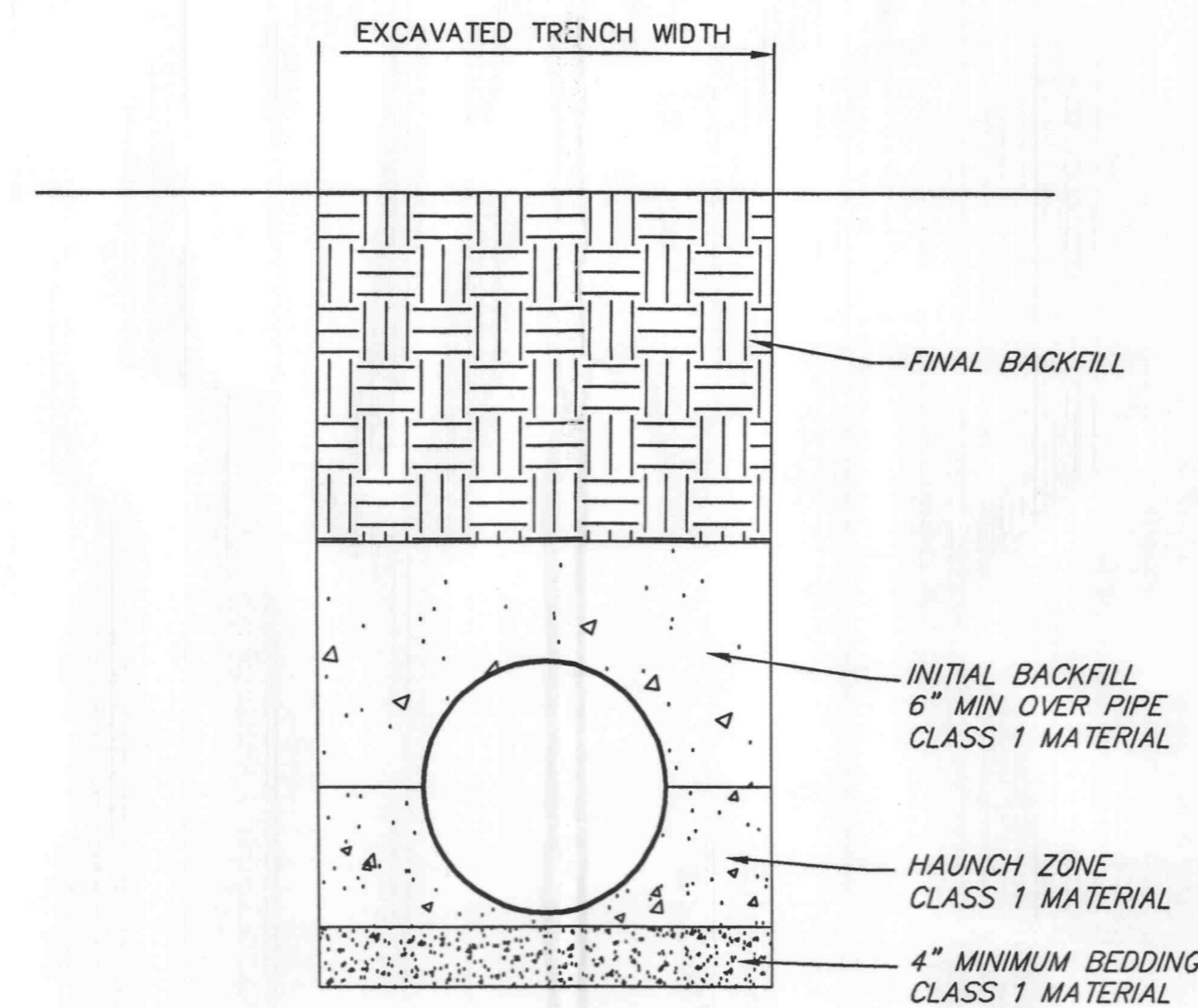


SAWCUT EXISTING CURB
1/2" EXPANSION JOINT



PROPOSED MAIN CONNECTION TO AN EXISTING MAIN

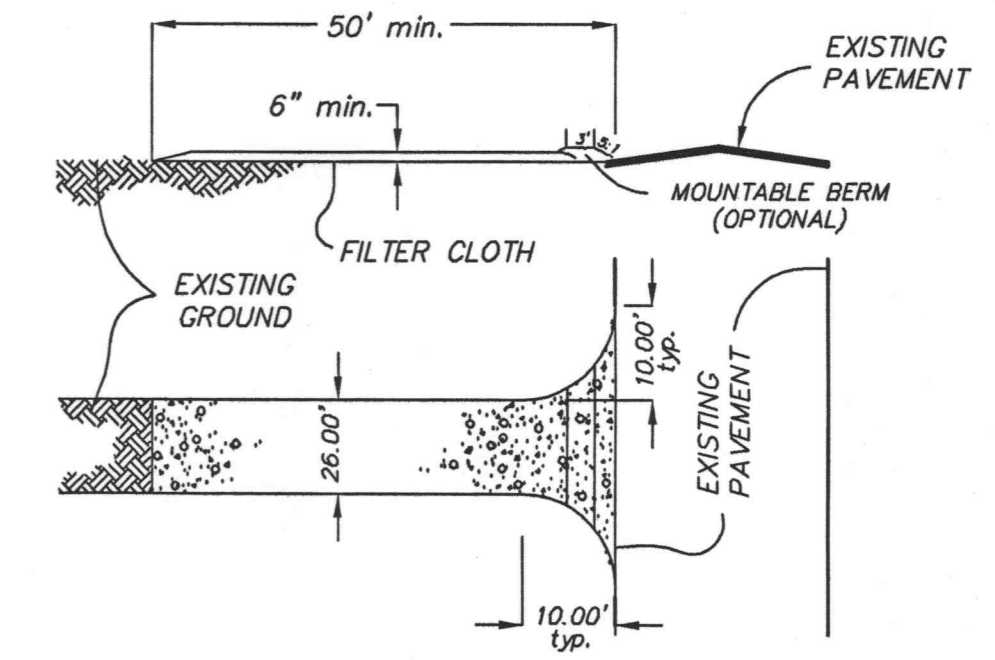
NOT TO SCALE



- The use of High Density Polyethylene Corrugated pipe A.D.S. N12 or Equal will be permitted as an acceptable alternative to reinforced concrete pipe except under roadways. Pipe shall meet A.S.T.M. D-2321 and AASHTO M-294-921. Concrete flared end sections and inlet structures shall be required. Pipe must have smooth interior wall and is not to be used inside the Public Right-of-Way.
- All concrete pipe or HDPE pipe shall be installed with o-ring rubber type gaskets per M.S.D. Standard Construction Specifications or Manufacturer.
- In typical conditions the minimum trench width is determined by the size of the pipe and the ability to get compaction equipment between the pipe and the trench walls. The minimum trench width should not be less than the outside diameter plus 16 inches or the pipe outside diameter times 1.25 plus 12 inches; whichever is greater. High speed trenchers may enable satisfactory installation of pipe in narrower trenches. Poor insitu soil conditions such as peat, muck, running sands, or expansive clays will require substantially wider backfill as well as deeper foundation and bedding. Trench width and foundation depth should be based on a thorough site investigation.
- Backfill in the area up to the springline should be carefully placed and compacted to achieve a minimum E value of 1,000 psi as detailed in ASTM D2321. A minimum of 12" of backfill should be placed and compacted above the crown of the pipe. It is typical for trenches to be backfilled entirely with Type I or Type II materials when under pavement.
- Flexible pipe should never be installed in a concrete cradle, as done for rigid pipe in a Class A installation. This type of installation could create concentrated forces at the ends of the cradle when the pipe has deformed.
- Encasement for HDPE will be required for all storm sewer lines when crossing more than three feet above sanitary lines.

H.D.P.E. PIPE DETAIL

NOT TO SCALE



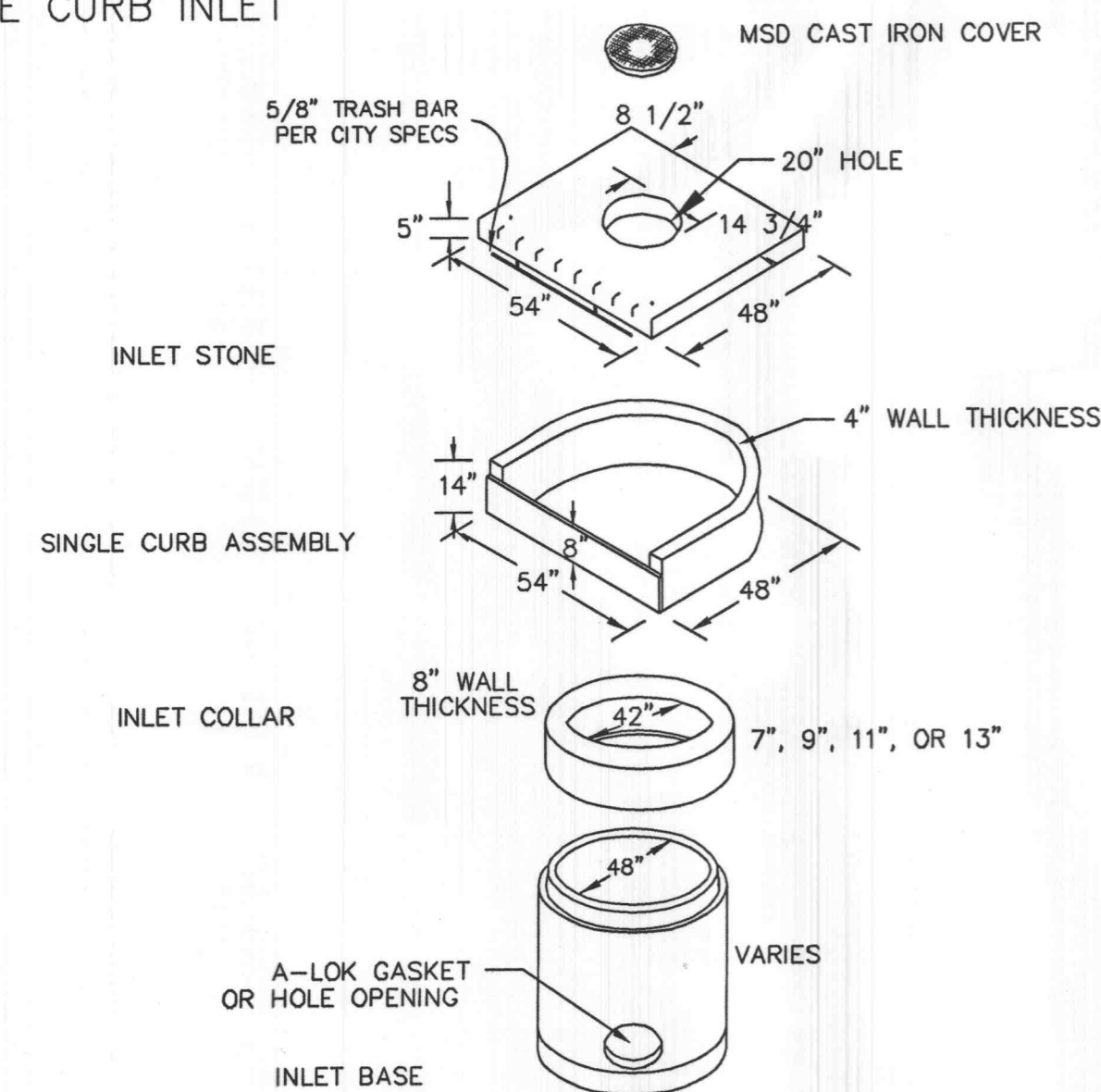
CONSTRUCTION SPECIFICATIONS

- Stone Size: Use 2" stone or reclaimed or recycled concrete equivalent.
- Length: As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
- Thickness: Not less than six (6) inches.
- Width: twenty six (26) foot minimum, but not less than the full width at points where ingress or egress occurs.
- Filter Cloth: Will be placed over the entire area prior to placing of the stone. Filter will not be required on a single family residence lot.
- Surface Water: All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with a 5:1 slope will be permitted.
- Maintenance: The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto a public right-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto the public right-of-way must be removed immediately.
- Washing: Wheels shall be cleaned to remove sediment prior to entrance onto the public right-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
- Periodic inspection and needed maintenance shall be provided after each rain.

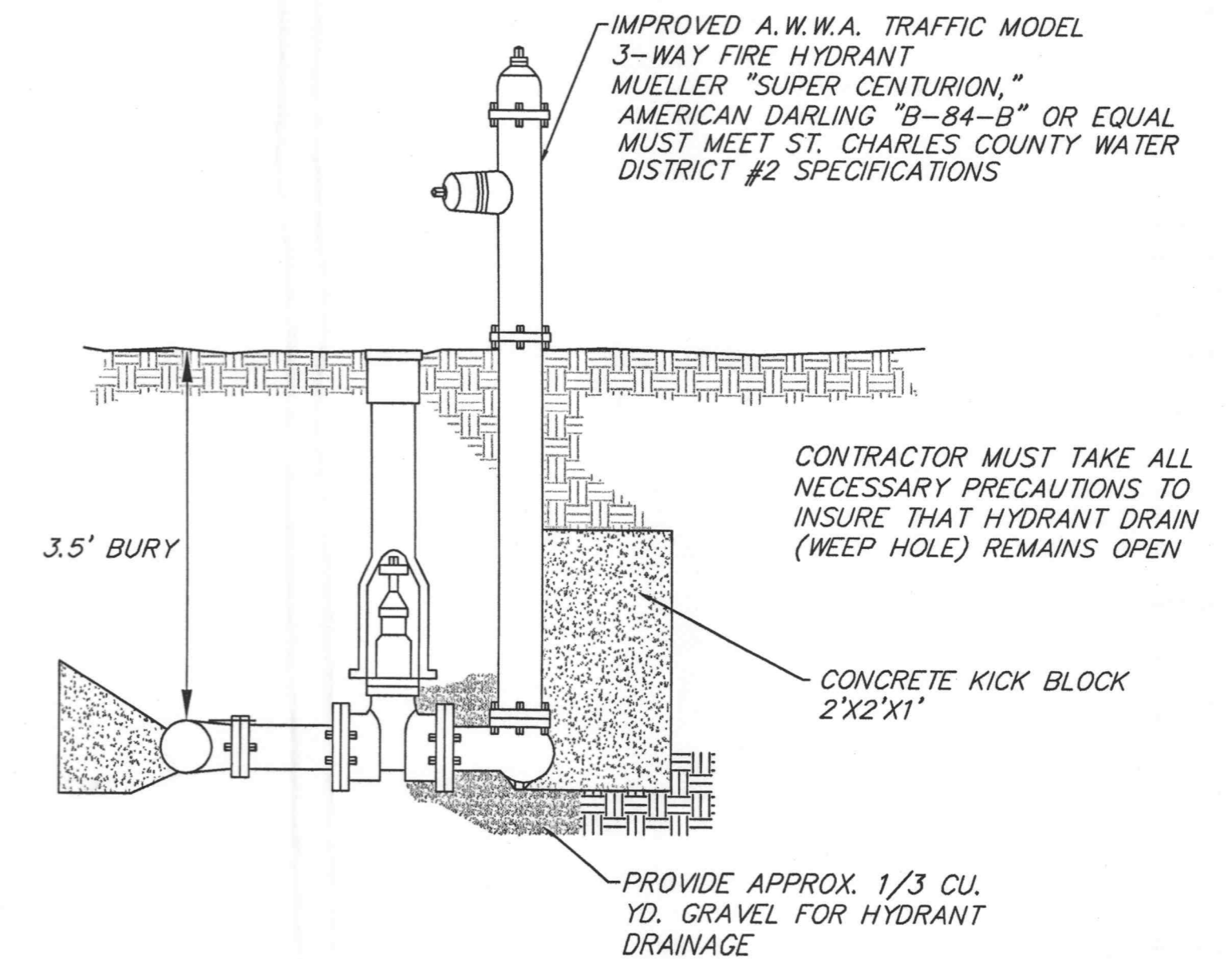
STABILIZED CONSTRUCTION ENTRANCE

N.T.S.

SINGLE CURB INLET



INVERT TO SPRING LINE OF PIPE TO BE PLACED IN FIELD.
ALL STRUCTURES WITH A TOTAL HEIGHT OF 4.5' OR GREATER MUST HAVE STEPS @ 16" SPACING FROM INVERT TO TOP OF STRUCTURE.
BRICK SHALL NOT BE USED IN THE CONSTRUCTION OF STORM SEWER STRUCTURES.



FIRE HYDRANT INSTALLATION DETAIL

NOT TO SCALE