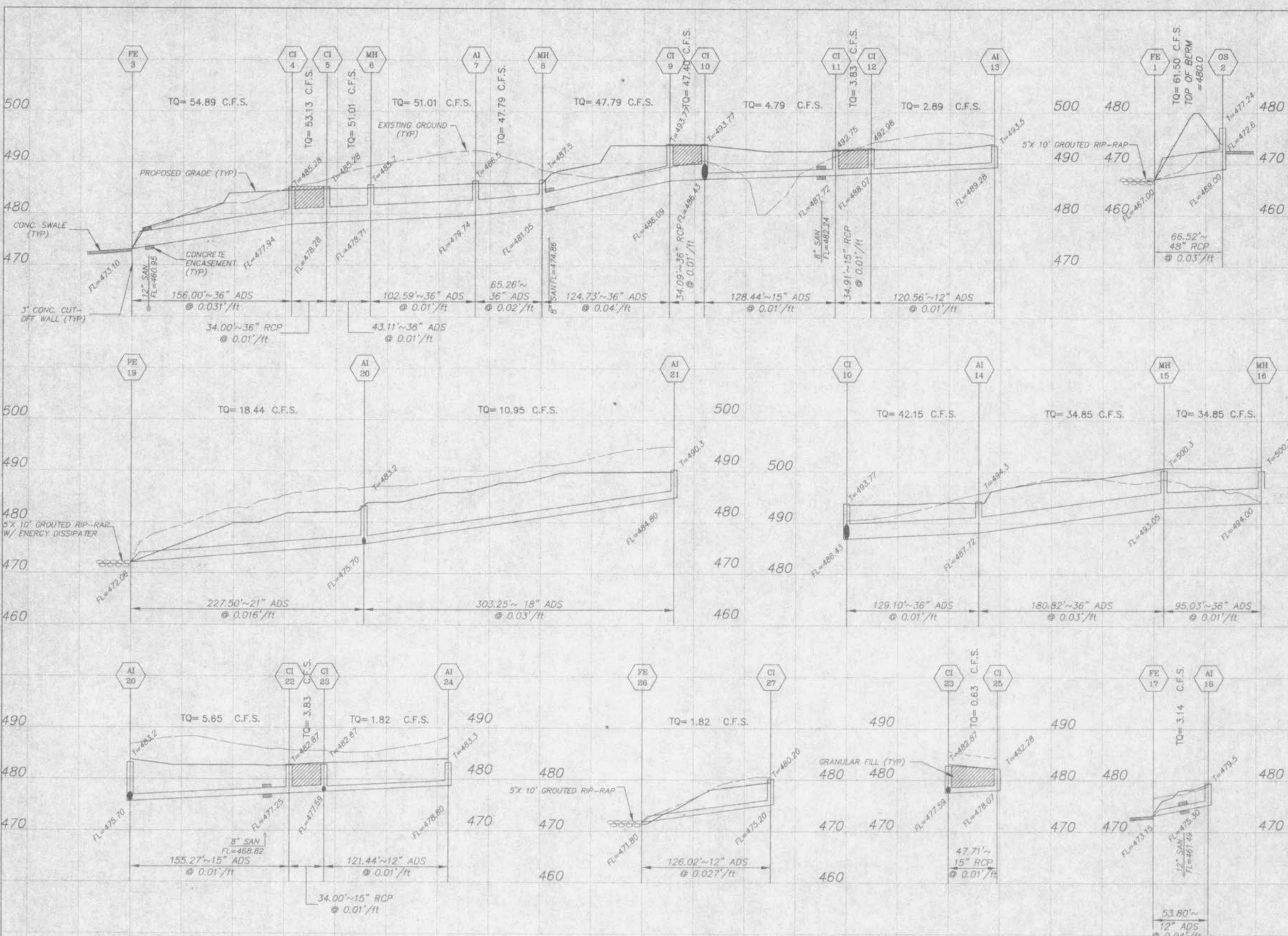


**PARKSIDE VILLAS  
STORM PROFILES  
96-257R2 4/10/98**

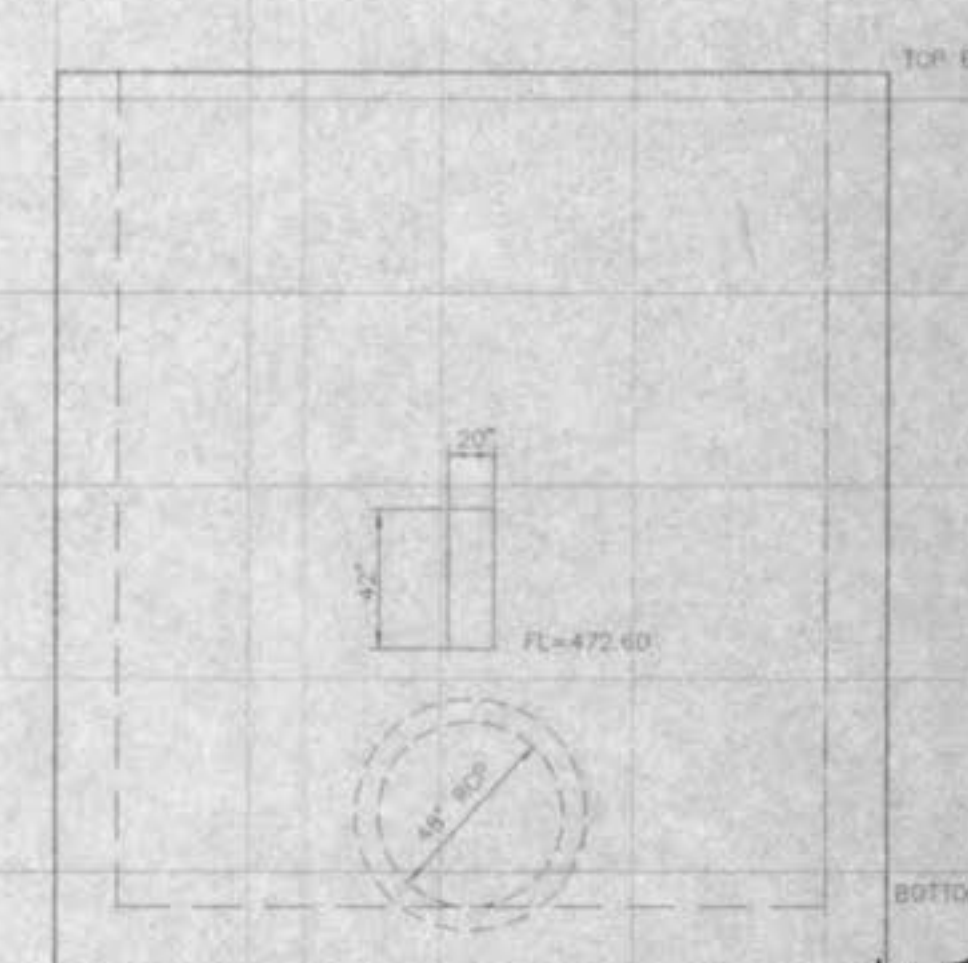
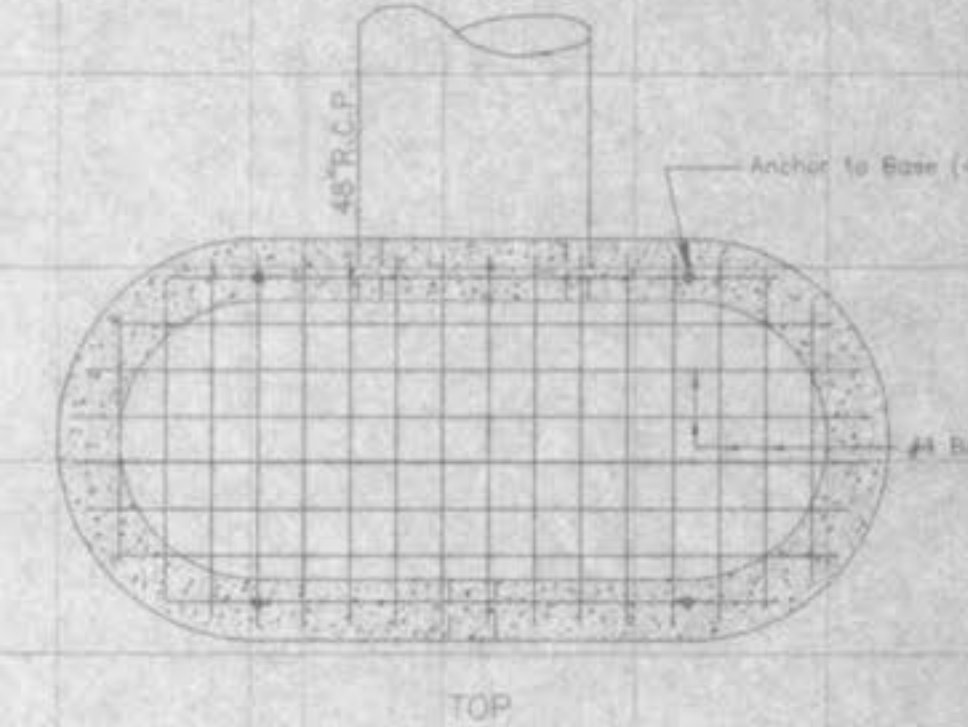
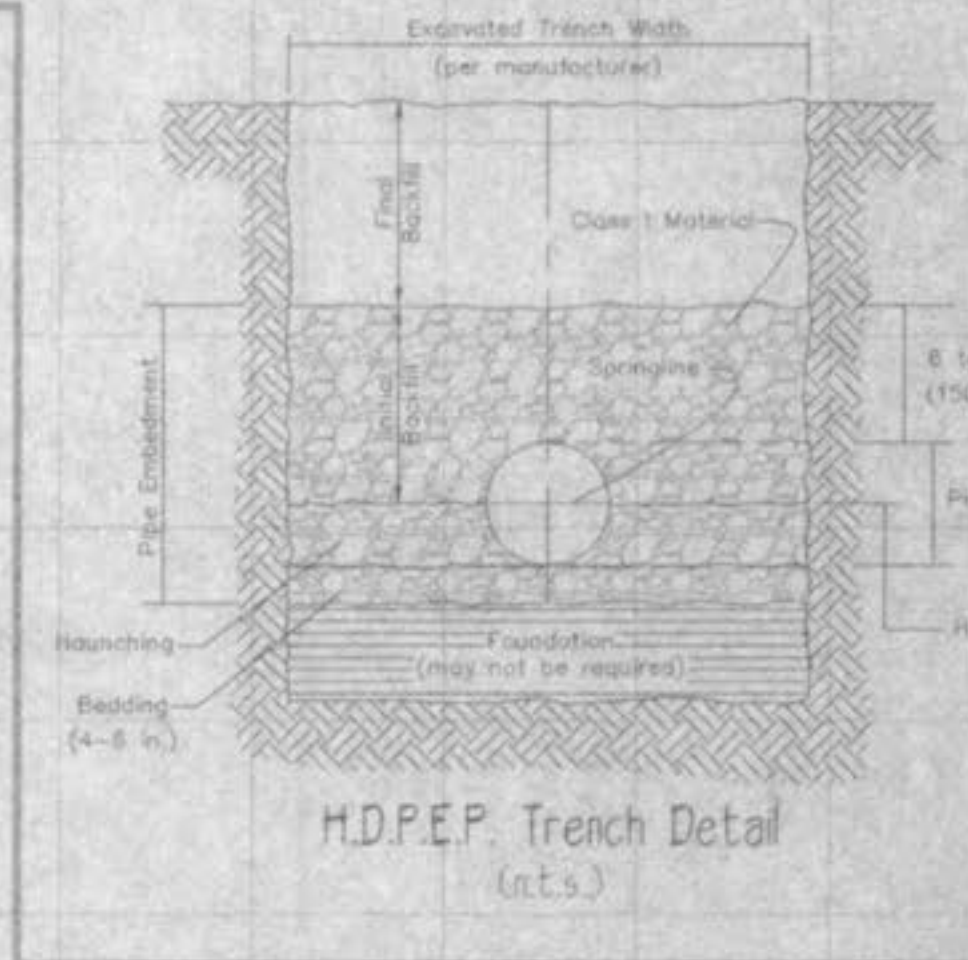
rev UNP per city of Dallas  
rev 2/98 alternative to RCP

DATE: \_\_\_\_\_  
BY: \_\_\_\_\_  
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- NOTES:**
- In typical conditions, the minimum trench width by 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 plus 1.25 plus 12 inches, whichever is greater. High speed trenchers may require satisfactory installation of pipe in narrow trenches. Poor in situ 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 bedding 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. (Figure 7)
  - Flexible pipe should never be installed in a concrete grade, or done for rigid pipe in a Class A installation. This type of installation could create concentrated forces at the ends of the grade when the pipe has deformed.
  - The use of High Density Polyethylene Corrugated Pipe, A.D.S. N-12 or equal will be permitted as an acceptable alternative to Reinforced Concrete Pipe. Pipe shall meet A.S.T.M. D-2321 and AASHTO M-294-921. Concrete Flared End Sections and Intel 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, HDPE pipe or A.D.S. N-12 pipe shall be installed with D-rings rubber type gaskets per M.S.D. Standard Construction or Manufacturer Specifications.
  - Class I material shall meet or exceed requirements specified in ASTM D-2321.



**NOTE:**  
AN EQUIVALENT TO A.D.S. SHALL BE ACCEPTABLE WHENEVER A.D.S. IS PERMITTED.

**NOTE:**  
ALL STORM SEWERS SHALL HAVE POSITIVE DRAINAGE THROUGH MANHOLES. NO FLAT BASE STRUCTURES ARE ALLOWED.

**NOTE:**  
IF THE STORM AND SANITARY SEWERS ARE PARALLEL AND IN THE SAME TRENCH OR OVERDUG, THE UPPER PIPE SHALL BE PLACED ON A SHELF AND THE LOWER PIPE SHALL BE BEDDED IN COMPACTED GRANULAR FILL TO THE FLOW LINE OF THE UPPER PIPE.

The underground utilities shown herein were plotted from available information and do not necessarily reflect the actual existence, nonexistence, size, type, number, or location of these or other utilities. The general contractor shall be responsible for verifying the actual location of all underground utilities, shown or not shown, and said utilities shall be located in the field prior to any grading, excavation, or construction of improvements. These provisions shall in no way absolve any party from complying with the Underground Facility Safety and Damage Prevention Act, Chapter 313, RSMc.

All FE to be RCP  
File Copy  
Revised  
**APPROVED**  
6/17/98  
Jean C. Hill