



PUBLIC WORKS
Engineering

DATE: October 01, 2025

TO: PAUL ZACHARY,
PUBLIC WORKS DEPUTY
DIRECTOR

FROM: ^{HAS} H. SOMDECERFF,
PUBLIC WORKS DESIGN
MANAGER

The Specification Review Committee recommends and asks the Public Works Deputy Director to approve the following:

1. Approve Modification to Standard Detail 304 - Trench & Bedding Detail (NON-PAVED AREAS)- Rigid Pipe.
Summary of change: Detail has been redesigned for applicability to all rigid pipe used in water, sewer, and stormwater lines.

Please call Marqua Jimmerson at (918) 596-7355 If you have any questions.

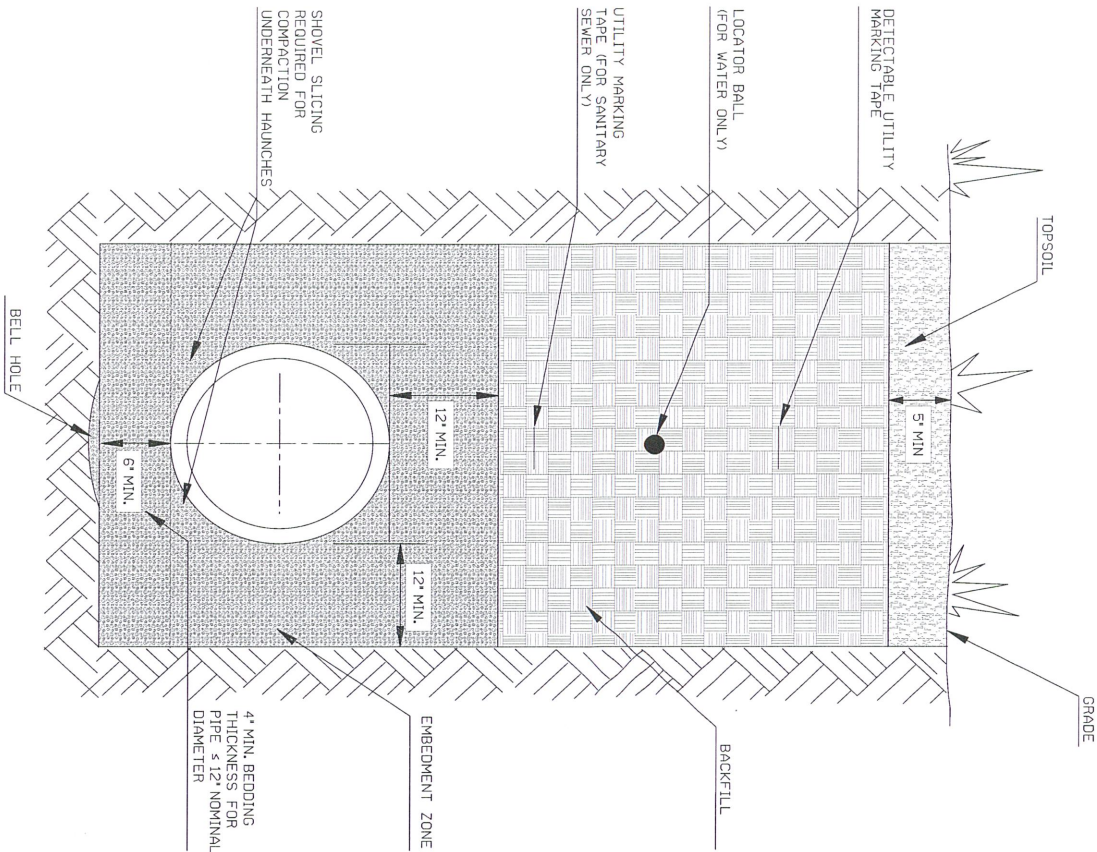
Thank you,

APPROVED:


Paul Zachary, Deputy Director

10.07.25
Date

Cc: Public Works Engineering Services Specification Review Committee



PIPE SIZE (NOM. DIA.)	STANDARD TRENCH WIDTH
< 24"	OD + 2'-0"
≥ 24" < 48"	OD + 3'-0"
≥ 48"	OD + 4'-0"

NOTE: THE STANDARD TRENCH WIDTHS IN THIS TABLE SHALL BE USED TO ESTIMATE EXCAVATION AND BACKFILL QUANTITIES.

GENERAL NOTES:

- RIGID PIPE INCLUDES:
 - PRESTRESSED CONCRETE CYLINDER PIPE (PCCP) - ANSI/AWWAC301/C304
 - REINFORCED CONCRETE PIPE (RCP) - ASTM C76
 - VITRIFIED CLAY PIPE (VCP) - ASTM C700
- EMBEDMENT ZONE MATERIAL SHALL BE COMPACTED SAND OR OTHER BEDDING MATERIAL APPROVED BY ENGINEER, PLACED IN 12-INCH MAX LOOSE LIFTS AND FREE FROM ORGANIC MATTER, TRASH, AND OTHER DELETERIOUS MATERIALS. SHOVEL SLICING IS REQUIRED FOR COMPACTION UNDERNEATH PIPE HAUNCHES.
- BACKFILL SHALL BE SUITABLE NATIVE MATERIAL OR IMPORTED MATERIAL APPROVED BY ENGINEER, PLACED IN 12-INCH MAX LOOSE LIFTS COMPACTED TO 90% STANDARD PROCTOR DENSITY AS DETERMINED BY ASTM D698 AND AASHTO T99, AND FREE FROM ORGANIC MATTER, TRASH, AND OTHER DELETERIOUS MATERIALS. ROCKS LARGER THAN 3 INCHES SHALL NOT BE ALLOWED WITHIN 15 INCHES BELOW FINISHED GRADE OR WITHIN 18 INCHES ABOVE THE PIPE CROWN.
- TOPSOIL TO BE SEGREGATED AND RESTORED TO A 5-INCH MINIMUM PLATE-COMPACTED DEPTH AND FREE OF BRUSH, ROCK, SHALE, AND OTHER DELETERIOUS MATERIALS.
- SOD TO BE CUT IN AND LEVEL WITH SURROUNDING GRADE.
- UPPER DETECTABLE UTILITY MARKER TAPE TO BE INSTALLED AT A MAXIMUM 10-INCH DEPTH BELOW GRADE AND IMPRINTED WITH "CAUTION - (SEWER/ WATER) PIPE BELOW", MARKER TAPE COLOR TO BE BLUE FOR WATER, AND GREEN FOR SANITARY SEWER OR STORM SEWER.
- FOR WATER LINES ONLY: LOCATOR BALLS TO BE INSTALLED PER CITY OF TULSA STANDARD NO. 322.
- FOR SANITARY SEWER ONLY: LOWER UTILITY MARKING TAPE TO BE INSTALLED 12 INCHES MINIMUM TO 18 INCHES MAXIMUM ABOVE THE CROWN OF PIPE.
- FOR INSTALLATIONS UNDER PAVEMENT, SEE CITY OF TULSA STANDARD NO. 713.
- WHERE A WATER TABLE GRADE IS REQUIRED TO PREVENT SOIL MIGRATION AND/OR STABILIZE PIPE FOUNDATION, SEE CITY OF TULSA STANDARD NO. 367.
- SAND SHALL BE COMPACTED TO AT LEAST 90% OF ITS MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698 AND AASHTO T99.
- WHEN SPECIFIED, ODOT TYPE 'A' AGGREGATE BASE SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY AS DETERMINED BY ASTM D698 AND AASHTO T99.
- WHEN USED, CLEAN CRUSHED STONE SHALL BE COMPACTED TO 80% RELATIVE DENSITY AS DETERMINED BY ASTM D4253 AND ASTM D4254.

TRENCH & BEDDING DETAIL
(NON-PAVED AREAS)-RIGID PIPE

CITY OF TULSA

DRAWN BY: D.J.N.

CHECKED BY: *tyr*

DATE: AUGUST 2025

APPROVED

NOT TO SCALE

STANDARD NO. 304