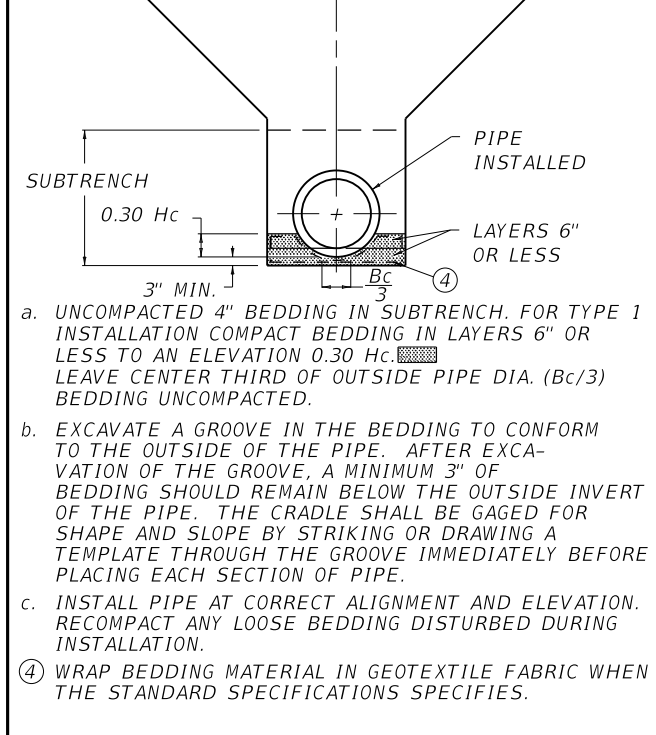
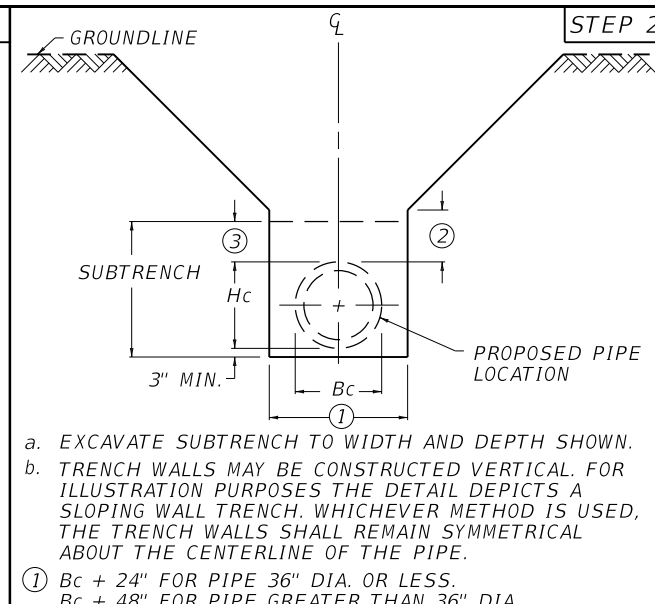


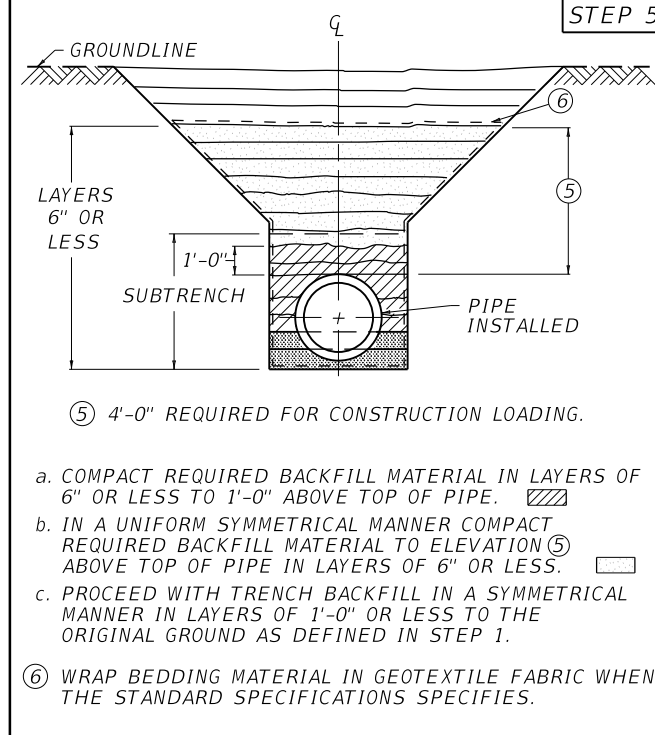
- a. TRENCH CONDITION IS WHEN GROUNDLINE ELEVATION IS GREATER THAN H_c ABOVE TOP OF PROPOSED PIPE.
- b. GROUNDLINE MAY BE (a) EXISTING OR ORIGINAL
(b) EXCAVATED SURFACE OR
(c) EMBANKMENT SURFACE.



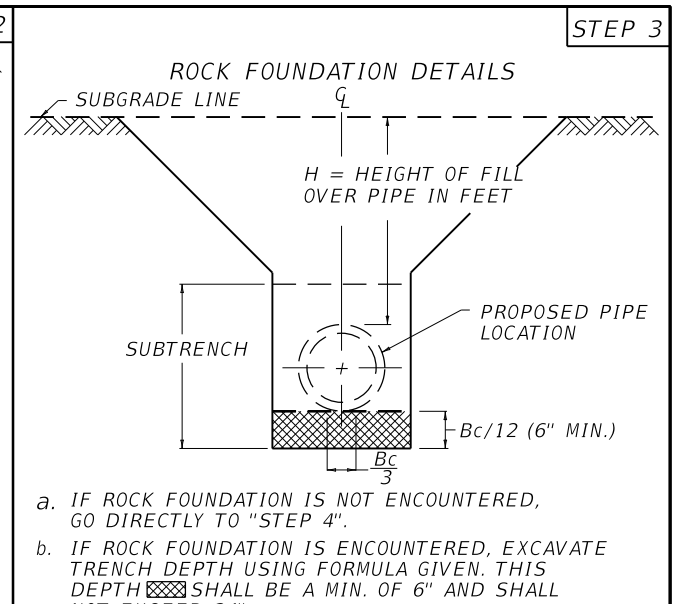
- a. UNCOMPACTED 4" BEDDING IN SUBTRENCH. FOR TYPE 1 INSTALLATION COMPACT BEDDING IN LAYERS 6" OR LESS TO AN ELEVATION $0.30 H_c$. LEAVE CENTER THIRD OF OUTSIDE PIPE DIA. ($B_c/3$) BEDDING UNCOMPACTED.
- b. EXCAVATE A GROOVE IN THE BEDDING TO CONFORM TO THE OUTSIDE OF THE PIPE. AFTER EXCAVATION OF THE GROOVE, A MINIMUM 3" OF BEDDING SHOULD REMAIN BELOW THE OUTSIDE INVERT OF THE PIPE. THE CRADLE SHALL BE GAGED FOR SHAPE AND SLOPE BY STRIKING OR DRAWING A TEMPLATE THROUGH THE GROOVE IMMEDIATELY BEFORE PLACING EACH SECTION OF PIPE.
- c. INSTALL PIPE AT CORRECT ALIGNMENT AND ELEVATION. RECOMPACT ANY LOOSE BEDDING DISTURBED DURING INSTALLATION.
- ④ WRAP BEDDING MATERIAL IN GEOTEXTILE FABRIC WHEN THE STANDARD SPECIFICATIONS SPECIFIES.



- a. EXCAVATE SUBTRENCH TO WIDTH AND DEPTH SHOWN. TRENCH WALLS MAY BE CONSTRUCTED VERTICAL. FOR ILLUSTRATION PURPOSES THE DETAIL DEPICTS A SLOPING WALL TRENCH. WHICHEVER METHOD IS USED, THE TRENCH WALLS SHALL REMAIN SYMMETRICAL ABOUT THE CENTERLINE OF THE PIPE.
- ① $B_c + 24"$ FOR PIPE 36" DIA. OR LESS.
 $B_c + 48"$ FOR PIPE GREATER THAN 36" DIA.
- ② SLOPING OF TRENCH WALLS MAY BEGIN AT ANY ELEVATION GREATER THAN 1'-0" ABOVE TOP OF PIPE. THE SUBTRENCH SHALL ALWAYS BE REQUIRED.
- ③ 1'-0" MINIMUM TO H_c MAXIMUM.



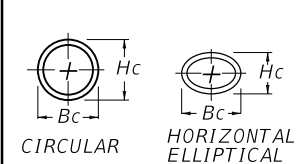
- a. COMPACT REQUIRED BACKFILL MATERIAL IN LAYERS OF 6" OR LESS TO 1'-0" ABOVE TOP OF PIPE.
- b. IN A UNIFORM SYMMETRICAL MANNER COMPACT REQUIRED BACKFILL MATERIAL TO ELEVATION ⑤ ABOVE TOP OF PIPE IN LAYERS OF 6" OR LESS.
- c. PROCEED WITH TRENCH BACKFILL IN A SYMMETRICAL MANNER IN LAYERS OF 1'-0" OR LESS TO THE ORIGINAL GROUND AS DEFINED IN STEP 1.
- ⑤ 4'-0" REQUIRED FOR CONSTRUCTION LOADING.
- a. COMPACT REQUIRED BACKFILL MATERIAL IN LAYERS OF 6" OR LESS TO 1'-0" ABOVE TOP OF PIPE.
- b. IN A UNIFORM SYMMETRICAL MANNER COMPACT REQUIRED BACKFILL MATERIAL TO ELEVATION ⑤ ABOVE TOP OF PIPE IN LAYERS OF 6" OR LESS.
- c. PROCEED WITH TRENCH BACKFILL IN A SYMMETRICAL MANNER IN LAYERS OF 1'-0" OR LESS TO THE ORIGINAL GROUND AS DEFINED IN STEP 1.
- ⑥ WRAP BEDDING MATERIAL IN GEOTEXTILE FABRIC WHEN THE STANDARD SPECIFICATIONS SPECIFIES.



- a. IF ROCK FOUNDATION IS NOT ENCOUNTERED, GO DIRECTLY TO "STEP 4".
- b. IF ROCK FOUNDATION IS ENCOUNTERED, EXCAVATE TRENCH DEPTH USING FORMULA GIVEN. THIS DEPTH SHALL BE A MIN. OF 6" AND SHALL NOT EXCEED 24".
- c. BACKFILL WITH COMPACTED BEDDING MATERIAL IN LAYERS OF 6" OR LESS LEAVING $B_c/3$ UNCOMPACTED IN THE FINAL LAYER.

MAX. COVER HEIGHT			2' OF COVER OR LESS	
CLASS	TYPE 1	TYPE 4	CLASS	PIPE DIA.
III	25'	9'	V	12"-15"-18"
IV	38'	15'	IV	21"-24"
V	57'	23'	III	27" & LARGER

- ~ NOTES ~
- 10' MAXIMUM COVER HEIGHT FOR HORIZONTAL ELLIPTICAL CLASS HE III PIPE.
 - COVER HEIGHTS EXCEEDING THOSE SHOWN IN TABLES REQUIRE SPECIAL DESIGNS.
 - FOR TYPE 4 INSTALLATION PLACE EMBANKMENT MATERIAL ACCORDING TO SECTION 701.03.06A OF CURRENT SPEC. BOOK.
 - FOR TYPE 1 INSTALLATION, WHEN THE TOP OF THE PIPE IS NOT WITHIN ONE PIPE DIAMETER OF THE SUBGRADE, INSTALL ACCORDING TO SECTION 701.03.06A OF THE CURRENT SPEC. BOOK.
- USE WITH CUR. STD. DWG. RDI-021



~ PIPE SHAPES ~

KENTUCKY
DEPARTMENT OF HIGHWAYS

PIPE BEDDING
TRENCH CONDITION
REINFORCED CONC. PIPE

STANDARD DRAWING NO. RDI-026-01

SUBMITTED *[Signature]* DATE 12-01-15
ORIGINATOR/DATE OF DESIGN

APPROVED *[Signature]* DATE 12-01-15
STATE HIGHWAY ENGINEER