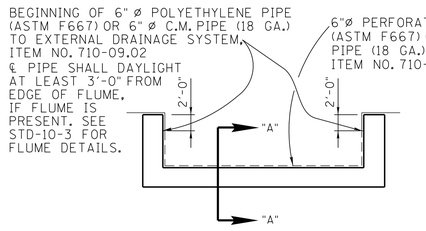
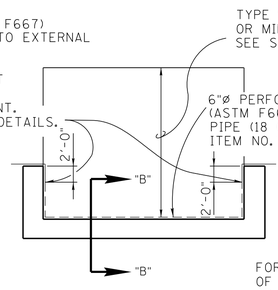
STD 10 1.DGN



PLAN A

STUB ABUTMENTS
(AGGREGATE BEHIND ABUTMENT NOT SHOWN FOR CLARITY)

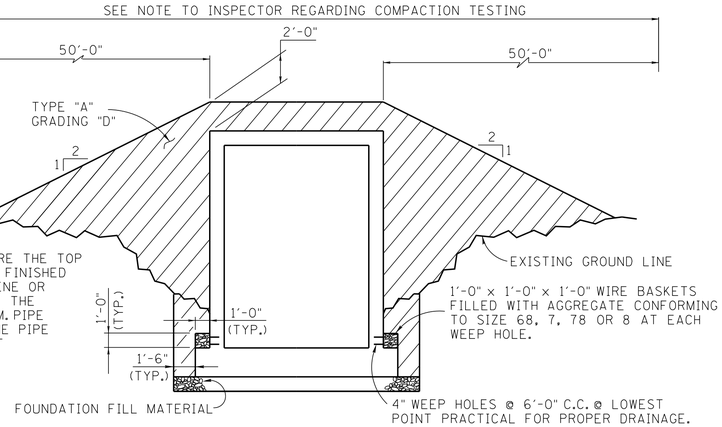
FOR BRIDGES IN SUPERELEVATIONS WHERE THE TOP OF ONE WINGWALL IS HIGHER THAN THE FINISHED GRADE LINE, OMIT THE 6" ø POLYETHYLENE OR C.M. PIPE ON THE HIGH SIDE AND START THE 6" ø PERFORATED POLYETHYLENE OR C.M. PIPE AT THE END OF THE WINGWALL WITH THE PIPE MAINTAINING AT LEAST A ⅛" PER FOOT SLOPE TO THE END OF THE PIPE.



PLAN B

CLOSED ABUTMENTS

FOR BRIDGES IN SUPERELEVATIONS WHERE THE TOP OF ONE WINGWALL IS HIGHER THAN THE FINISHED GRADE LINE, OMIT THE 6" ø POLYETHYLENE OR C.M. PIPE ON THE HIGH SIDE AND START THE 6" ø PERFORATED POLYETHYLENE OR C.M. PIPE AT THE END OF THE WINGWALL WITH THE PIPE MAINTAINING AT LEAST A ⅛" PER FOOT SLOPE TO THE END OF THE PIPE.



BOX CULVERT OR BRIDGE

NOTE: TYPE "A" GRADING "D" LIMITS ARE TYPICAL FOR BOX CULVERT OR BRIDGE AND WINGWALLS. TYPE "A" GRADING "D" MATERIALS SHALL BE PAID FOR UNDER ROADWAY ITEM NO. 303-01.01. (SEE ROADWAY PLANS.) BOX CULVERT/BRIDGE SHOWN. SLAB CULVERT/BRIDGE SIMILAR.

PROJECT NO.	YEAR	SHEET NO.
	2020	

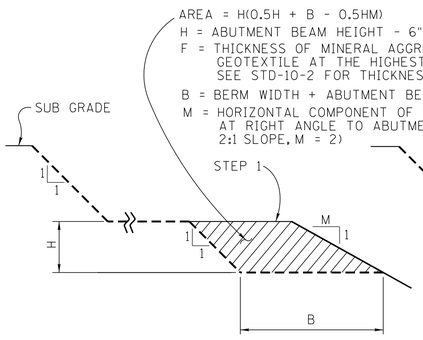
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	03-01-22	TAK	GENERAL REVISIONS
2	06-05-23	ALP	GENERAL REVISIONS

NOTES

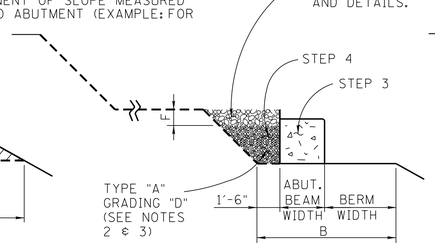
1. BACKFILLING: UNLESS OTHERWISE SPECIFIED OR DIRECTED, THE CONTRACTOR SHALL BACKFILL BEHIND ABUTMENTS AND RETAINING WALLS OF BOX/SLAB BRIDGES AND CULVERTS AS SOON AS THE FOLLOWING CONDITIONS ARE MET:
   A. CONCRETE SURFACES AGAINST WHICH BACKFILL WILL BE PLACED HAVE BEEN GIVEN A CLASS 1 FINISH AS SPECIFIED IN SECTION 604.21.
   B. REPRESENTATIVE SPECIMENS OF THE CONCRETE IN THE STRUCTURE SHALL ATTAIN A COMPRESSIVE STRENGTH OF AT LEAST 3000 PSI.
   C. THE CONCRETE SHALL HAVE BEEN PLACED A MINIMUM OF 7 DAYS, NOT COUNTING THE DAYS OF TWENTY-FOUR HOURS EACH IN WHICH THE TEMPERATURE FALLS BELOW FORTY DEGREES FAHRENHEIT, OR 21 CALENDAR DAYS WHICHEVER OCCURS FIRST.

   THE PLACEMENT OF BACKFILL AND EMBANKMENT SHALL BE IN ACCORDANCE WITH SECTION 204.11 AND SECTION 205.04, RESPECTIVELY, AND AS SPECIFIED ON THE PLANS.
2. TYPE "A" GRADING "D" MATERIAL SHALL BE PAID FOR UNDER ITEM NO. 303-01.02, GRANULAR BACKFILL (BRIDGES) OR ITEM NO. 303-01.03, GRANULAR BACKFILL (RETAINING WALLS) UNLESS NOTED OTHERWISE.
3. IN LIEU OF THE TYPE "A" GRADING "D" MATERIAL SHOWN, TYPE "B" GRADING "C" OR "D" MAY BE USED.
4. LOCATE PIPE AT LOWEST POINT PRACTICAL FOR PROPER DRAINAGE WITH SLOPE PARALLEL TO ABUTMENT BEAM, ABUTMENT WALL, OR RETAINING WALL (⅛" PER FOOT MINIMUM). INSTALL PIPE AND 1'-0" OF COVER AS SOON AS POSSIBLE AFTER FORMING WALL.



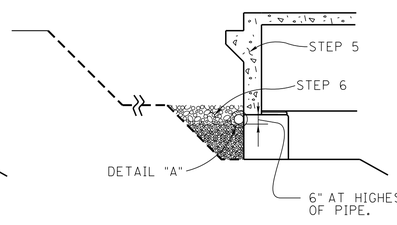
STEP 1: PLACE AND COMPACT END FILL.

STEP 2: EXCAVATE HATCHED AREA AS SHOWN FOR STUB ABUTMENTS. FOR CLOSED ABUTMENTS, EXCAVATE AS REQUIRED IN ACCORDANCE WITH SECTION "B"-"B". EXCAVATION SHALL BE PAID AS DRY EXCAVATION (BRIDGES). PLACE GEOTEXTILE (SEE STD-10-2).



STEP 3: POUR ABUTMENT BEAM (STUB ABUTMENTS) OR ABUTMENT FOOTING AND WALL (CLOSED ABUTMENTS)

STEP 4: PLACE BACKFILL MATERIAL BEHIND ABUTMENT BEAM (STUB ABUTMENTS) OR ABUTMENT FOOTING AND WALL (CLOSED ABUTMENTS). SEE NOTE 1.

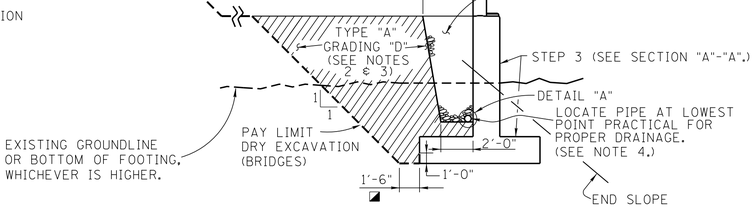


STEP 5: POUR ENDWALL.

STEP 6: PLACE BACKFILL MATERIAL IN ACCORDANCE WITH STD-10-2. SEE NOTE 1.

CONSTRUCTION STEPS FOR STUB ABUTMENTS AND CLOSED ABUTMENTS

SECTION "A"-"A"

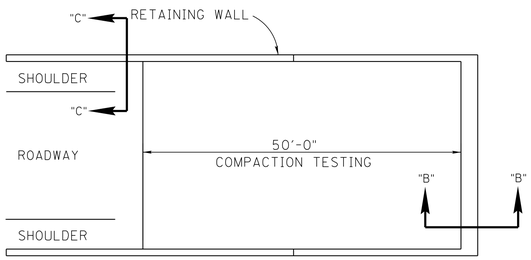


SECTION "B"-"B"

CLOSED ABUTMENTS

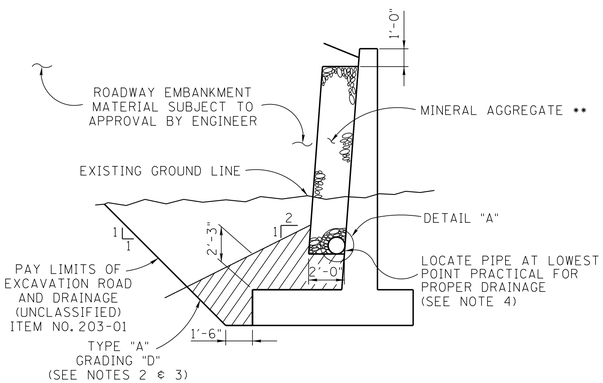
◪ DENOTES: THIS DIMENSION IS SHOWN AS MEASURED FROM THE HEEL OF THE ABUTMENT WALL FOOTING, BUT IT SHALL ALSO BE TAKEN AS MEASURED FROM THE HEEL OF THE WINGWALL FOOTING AS APPLICABLE.

THE TOP OF THE PIPE SHALL BE FLUSH WITH THE BOTTOM OF THE ENDWALL AT THE HIGHEST POINT OF THE PIPE, REGARDLESS OF THE "F" DIMENSION.

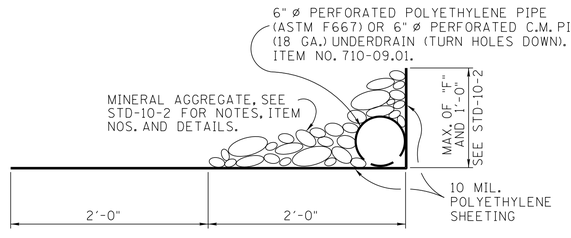


PLAN OF APPROACH ROADWAY AND ABUTMENT

NOTE TO INSPECTOR: SEE MATERIALS AND TESTS SAMPLING AND TESTING SCHEDULE FOR FREQUENCY OF COMPACTION TESTING OF EMBANKMENT AND BACKFILL MATERIAL. ALSO SEE NOTE 1.



RETAINING WALL SECTION "C"-"C"



DETAIL "A"

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

1
2

MISCELLANEOUS ABUTMENT AND DRAINAGE DETAILS 2020

DESIGNED BY TDOT STRUCTURES DATE
DRAWN BY GARY YOUNG DATE
SUPERVISED BY TED KNIAZEWYCZ DATE
CHECKED BY TED KNIAZEWYCZ DATE

CORRECT Ted A Kniazewycz
ENGINEER OF STRUCTURES

STD-10-1