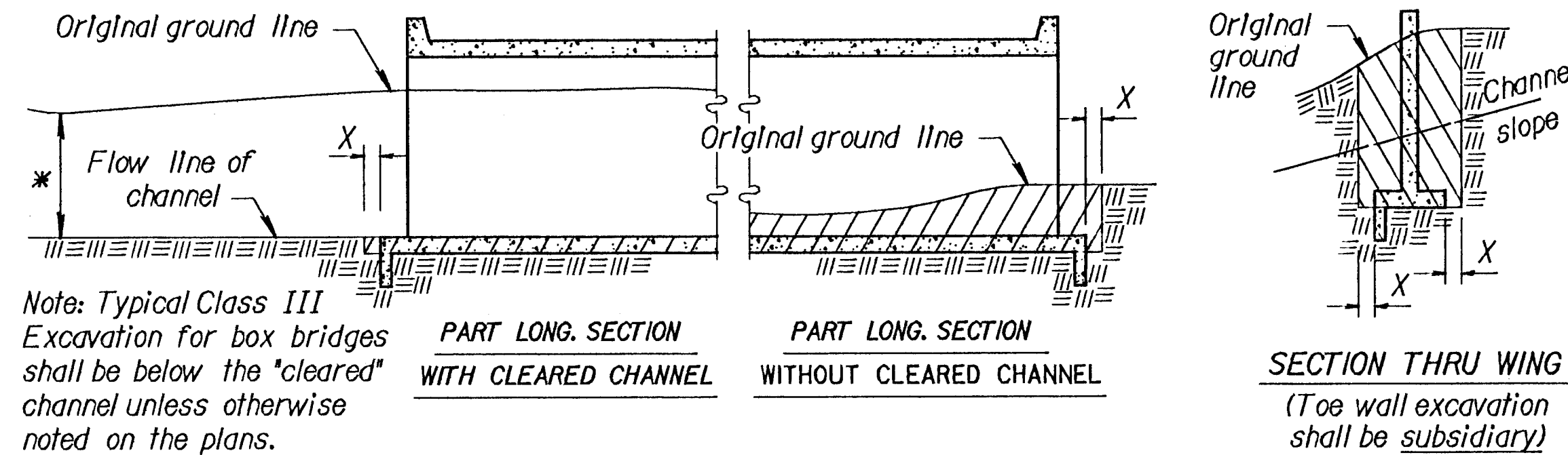
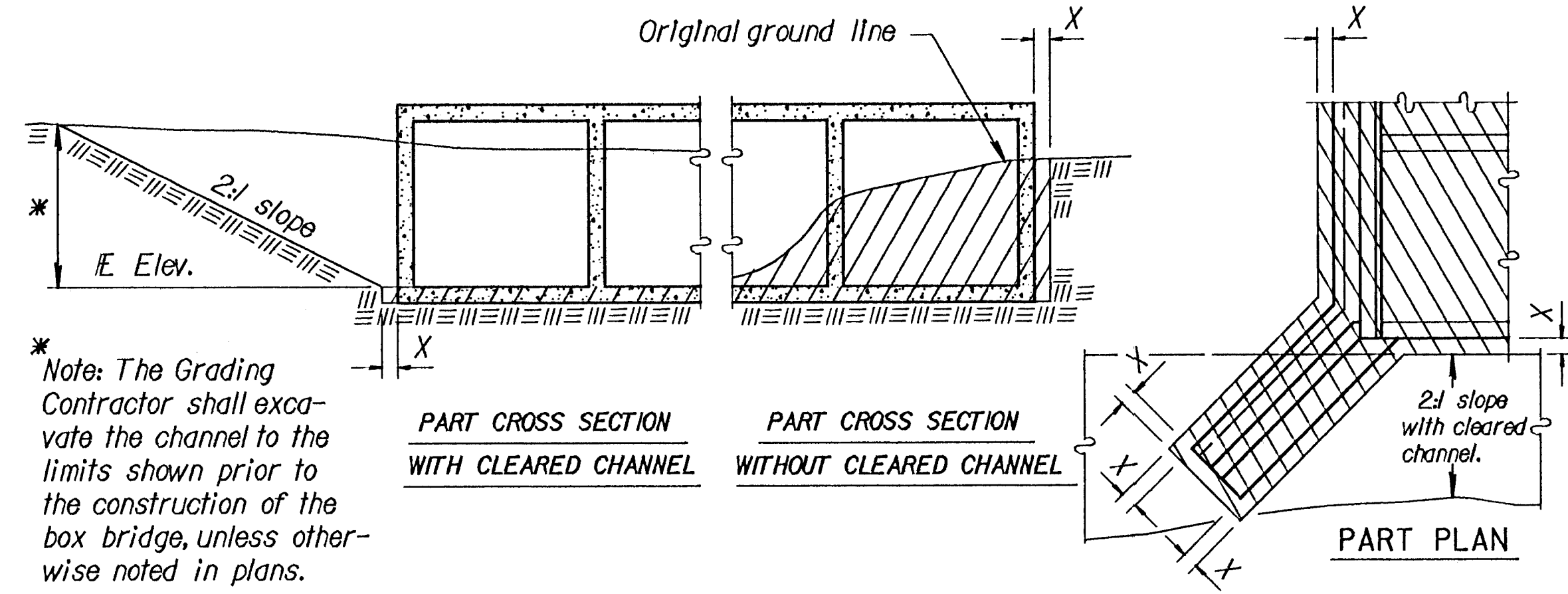
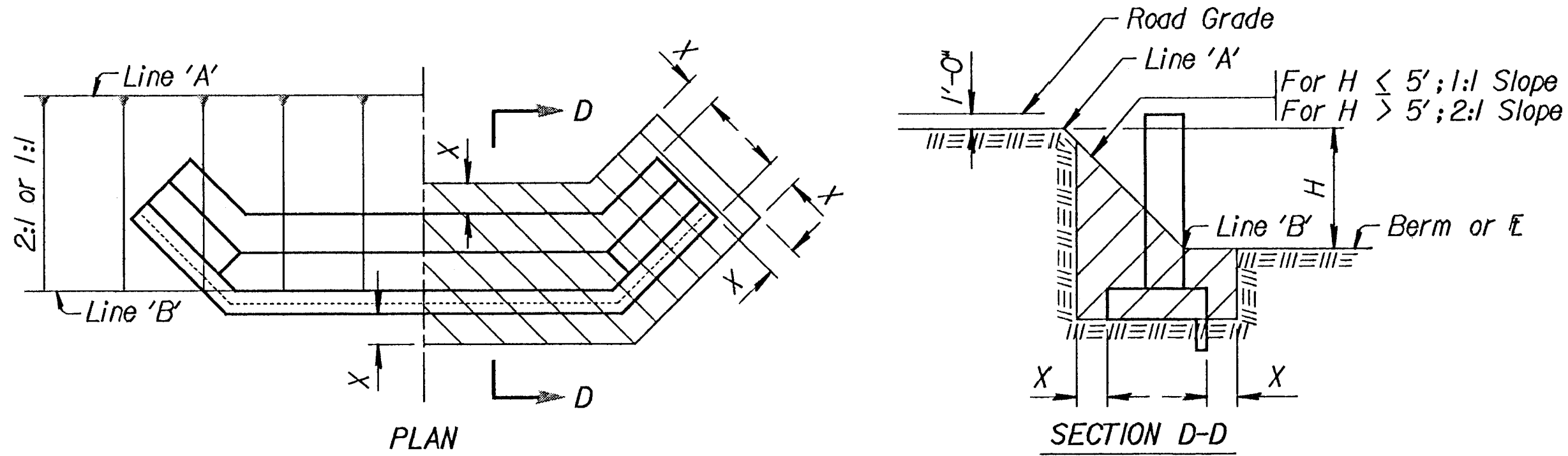


FHWA REGION NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	54-87 K-4445-01	1996	47	73



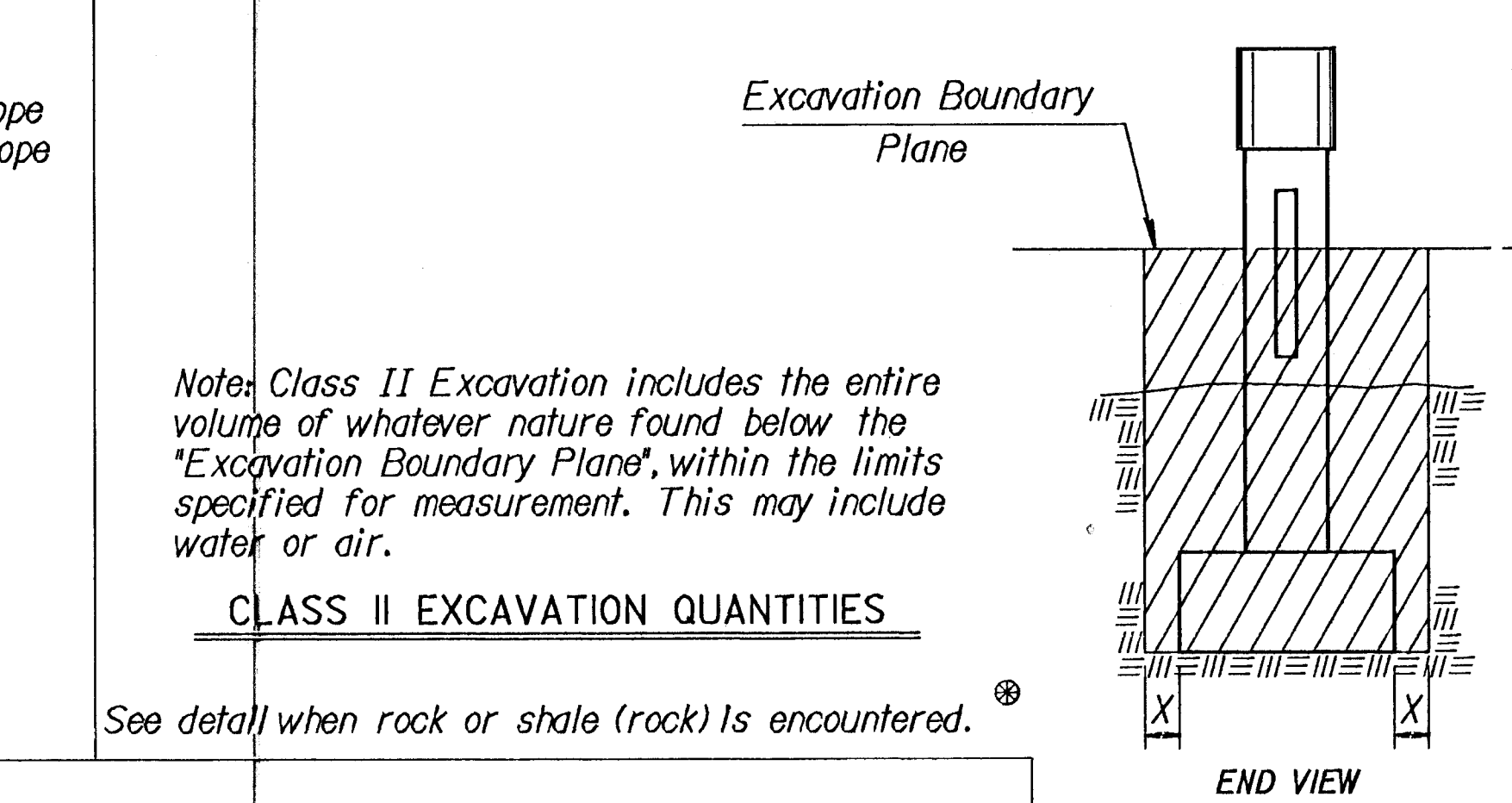
EXCAVATION DETAILS FOR REINFORCED CONCRETE BOX CULVERT

Note: Excavation for culverts less than bridge length shall not be paid for as Class III Excavation but shall be subsidiary to Class AAA Concrete.



EXCAVATION DETAILS FOR ABUTMENTS WITH FLARED WINGWALLS

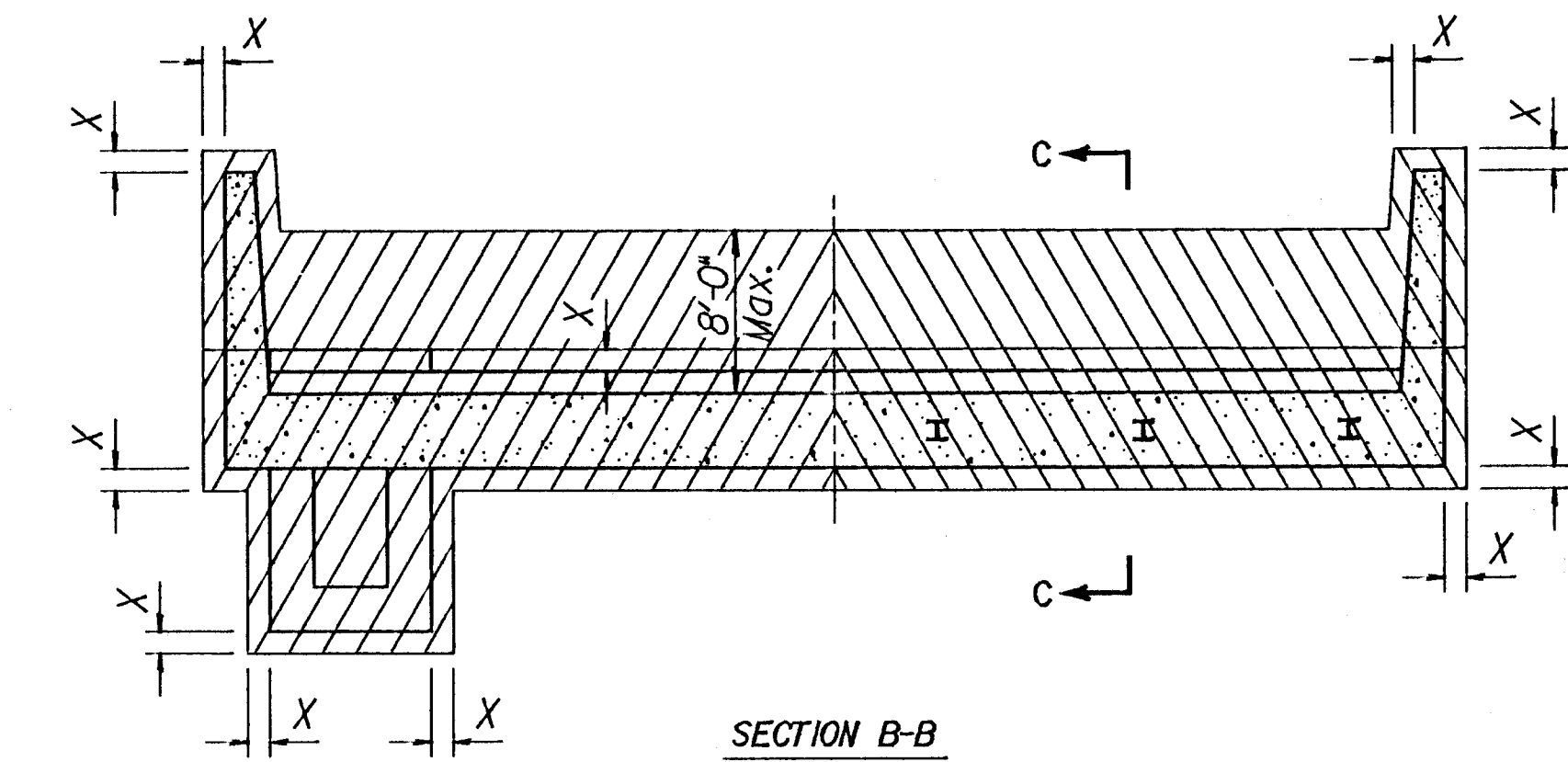
See detail when rock or shale (rock) is encountered.



Note: Class II Excavation includes the entire volume of whatever nature found below the "Excavation Boundary Plane", within the limits specified for measurement. This may include water or air.

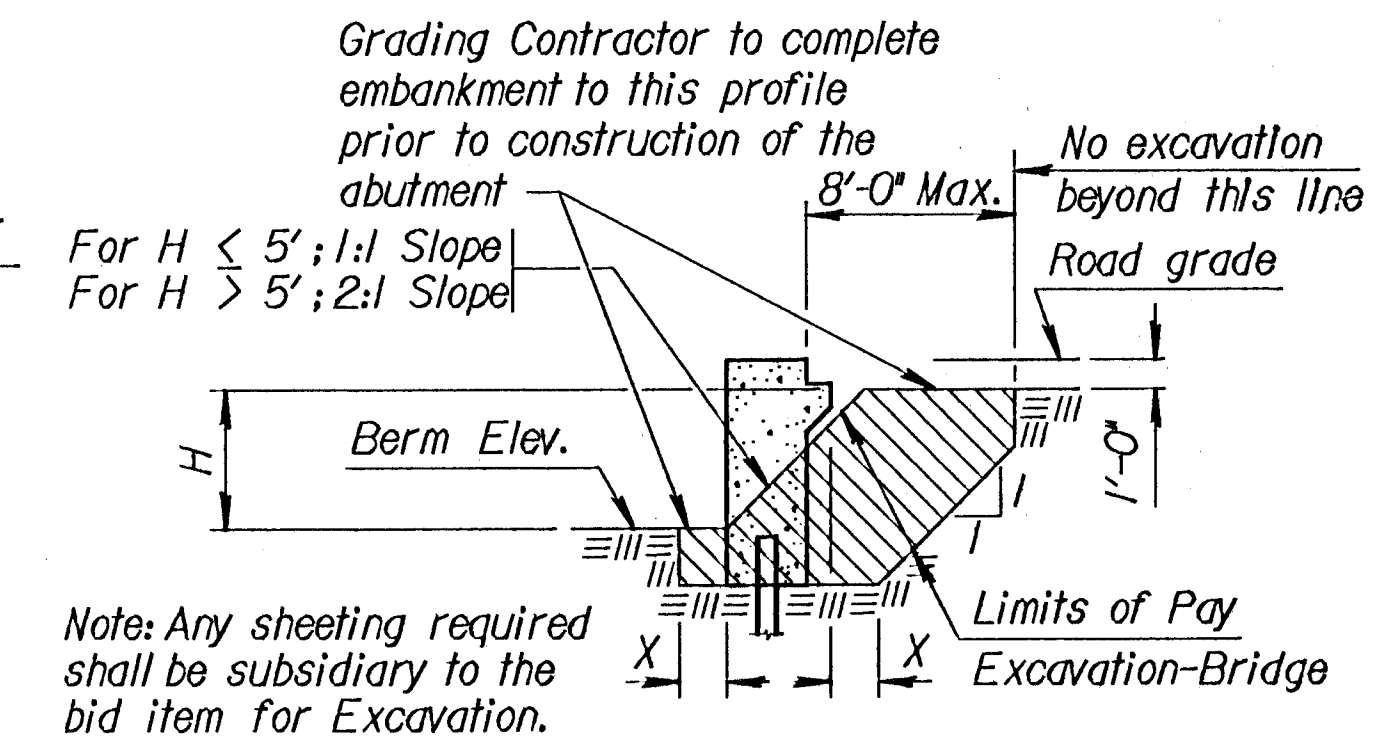
CLASS II EXCAVATION QUANTITIES

See detail when rock or shale (rock) is encountered.



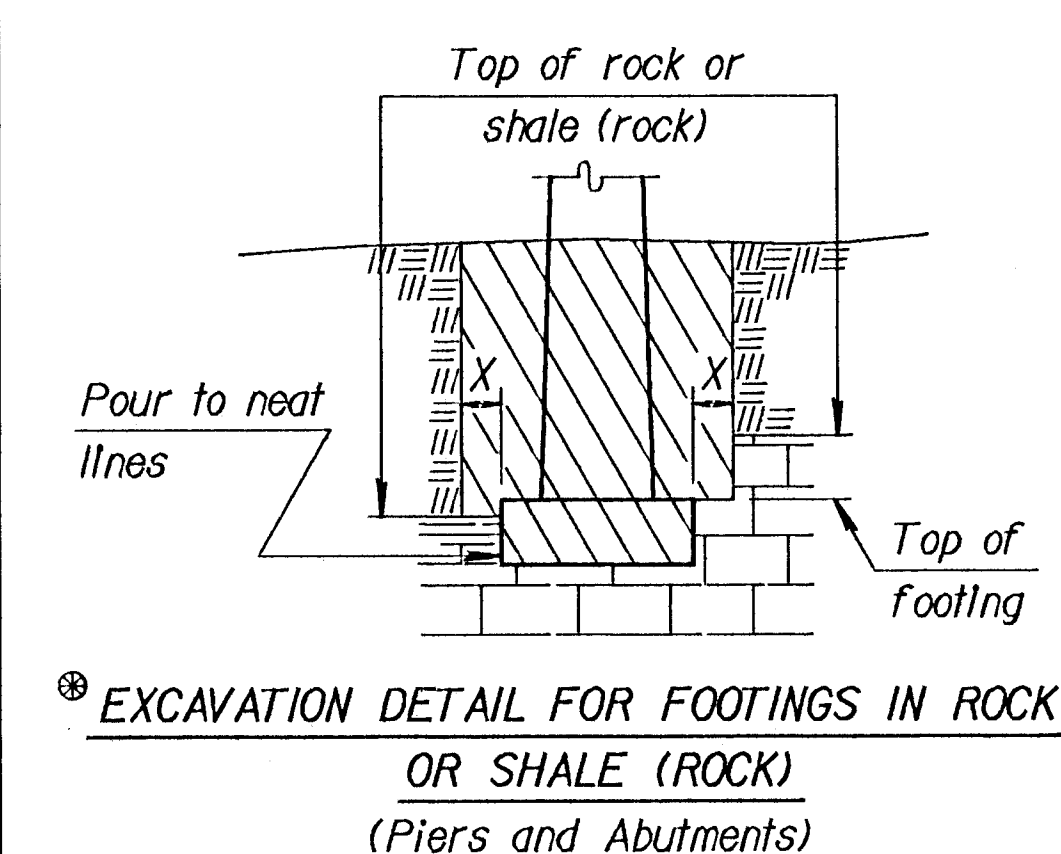
HALF FRONT ELEVATION PEDESTAL TYPE ABUTMENT

Note: Bridge Contractor shall finish the embankment and berms after the construction of the abutment and dispose of any excess material as approved by the Engineer.

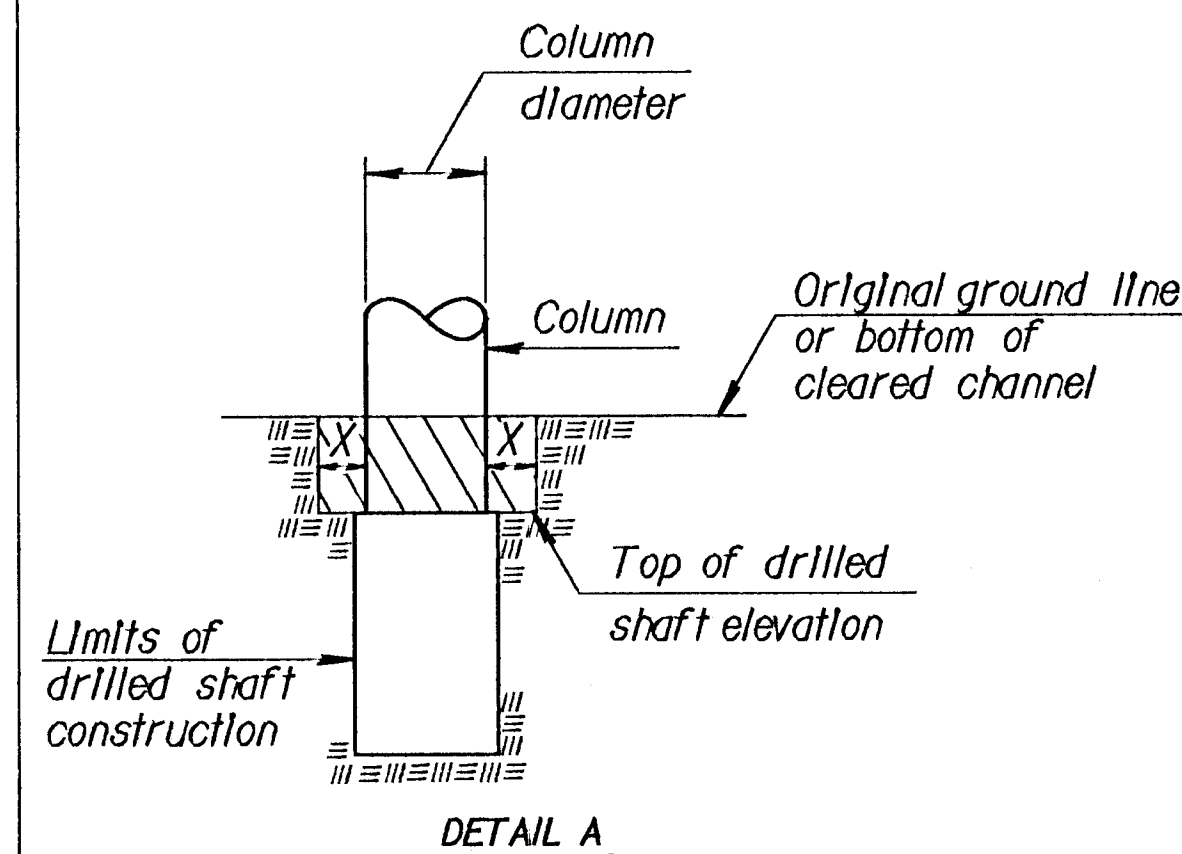


EXCAVATION DETAILS FOR TYPICAL ABUTMENTS

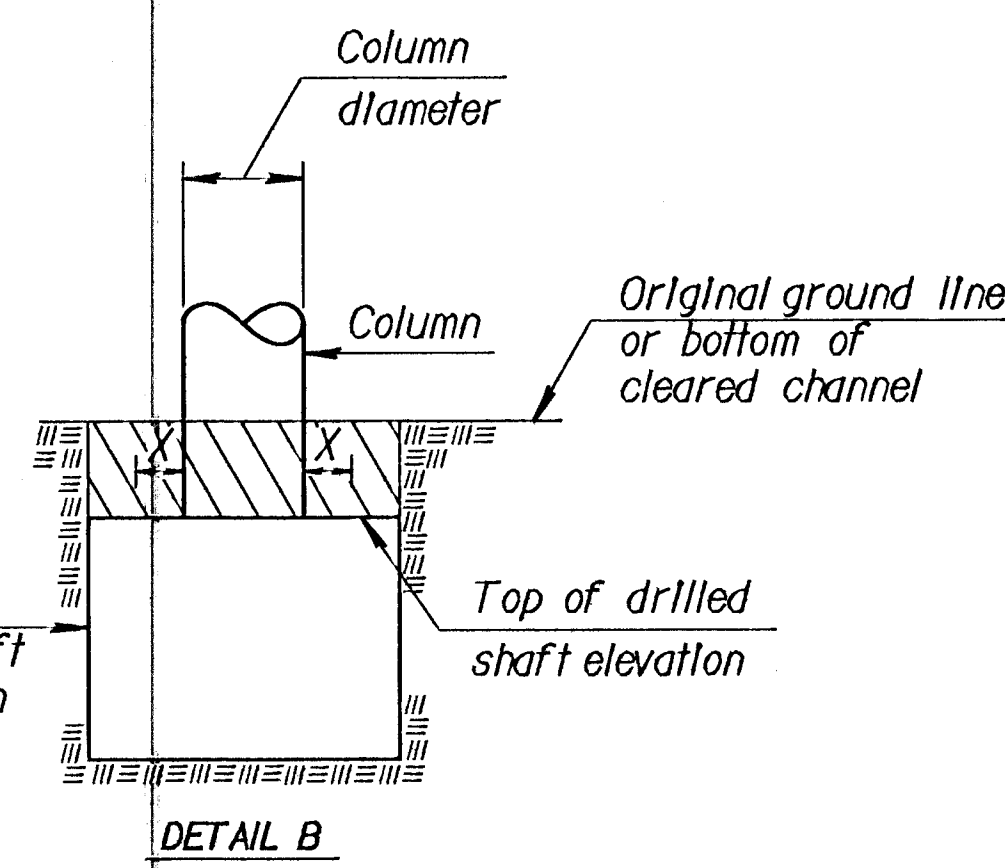
See detail when rock or shale (rock) is encountered.



Note: Excavation below top of rock, hard shale or below top of footing, whichever is lower, shall be to neat lines of the concrete construction.



Limits of drilled shaft construction



Note: Whenever the limits of the drilled shaft construction are greater than the Column Diameter + 2X, the limits of Class I, II or III Excavation shall be the limits of the drilled shaft construction. (See Detail B)

DRILLED SHAFT DETAILS

Note: All bridge excavation shall be computed on the basis of the cross-hatch areas and boundary lines indicated on this sheet and the Excavation Boundary Plane on the Construction Layout.

Sides of trenches in hard or compacted soil including embankments shall be shored, sheeted, braced or otherwise supported when the trench is more than 5 feet in depth and 8 feet or more in length. In lieu of the shoring, the sides of the trench above the 5 foot level may be sloped to preclude collapse. The slope for average soils shall be 1:1. If the angle of repose of the soil is less, flatter slopes shall be required.

Dimension "X" shall be 2'-0" unless indicated otherwise on the general plans.
Dimension "Y" shall be 1'-6" unless indicated otherwise on the general plans.

NO.	DATE	REVISIONS	BY	APP'D
5	8-12-95	Correct Section BB at abutment	LRR	KFH
4	1-30-95	Drilled Shaft Excavation	LRR	KFH
3	7-26-94	Change limits at abutment	LRR	KFH
2	1-26-93	Add Class 2 & Flared Wing det.	LRR	KFH
1	4-6-90	Change limits at abutments	LRR	KFH

KANSAS DEPARTMENT OF TRANSPORTATION

BRIDGE EXCAVATION

DESIGNED	BR100	9-8-95	APP'D	KENNETH F. HURST
DETAIL CK.	DETAIL CK.	LRR	QUAN. CK.	CADD CK.