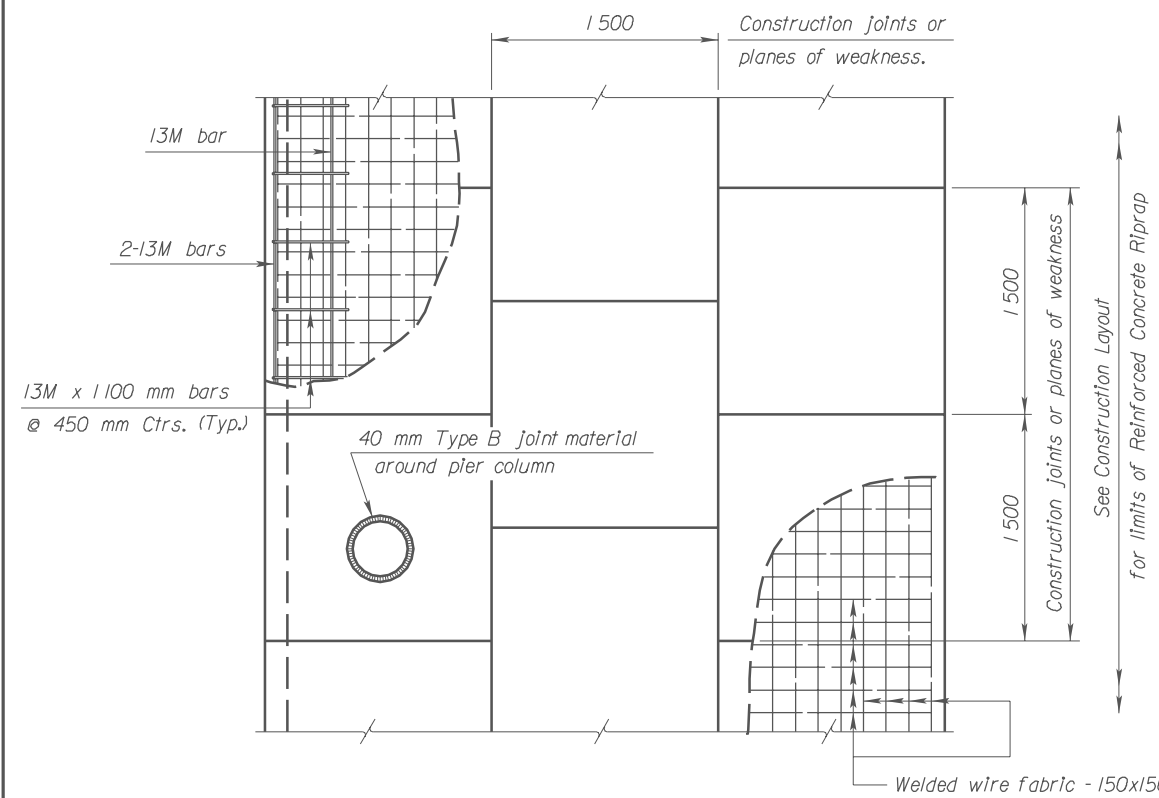
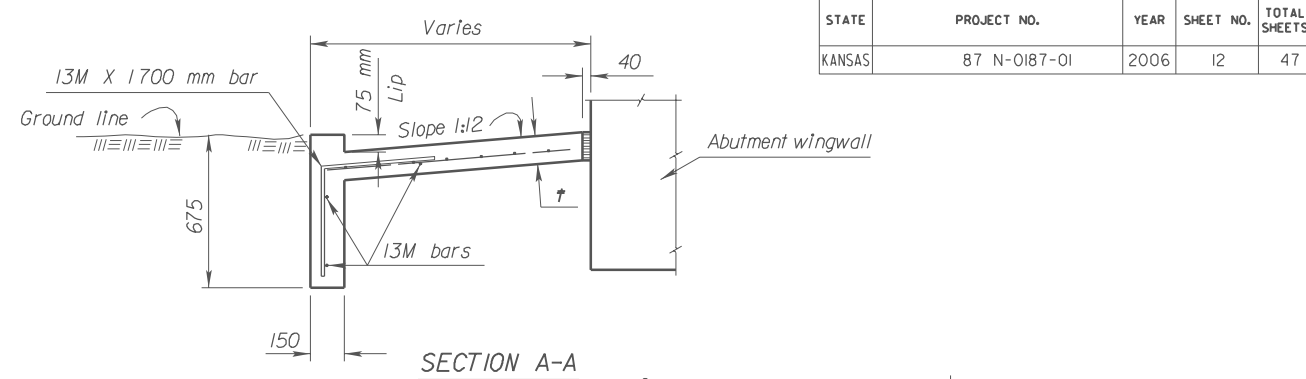


STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	87 N-0187-01	2006	12	47

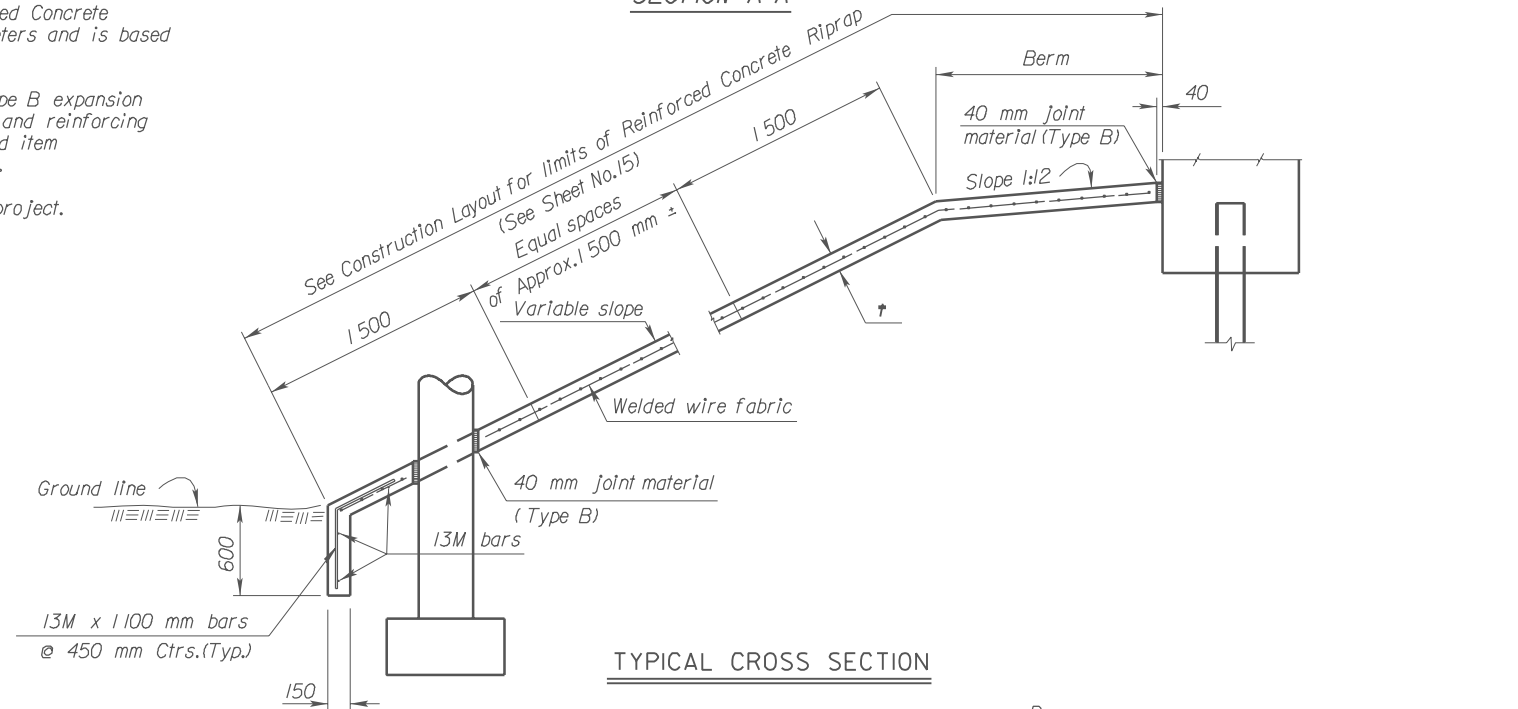


**PLAN**  
(Showing Joint Layout)

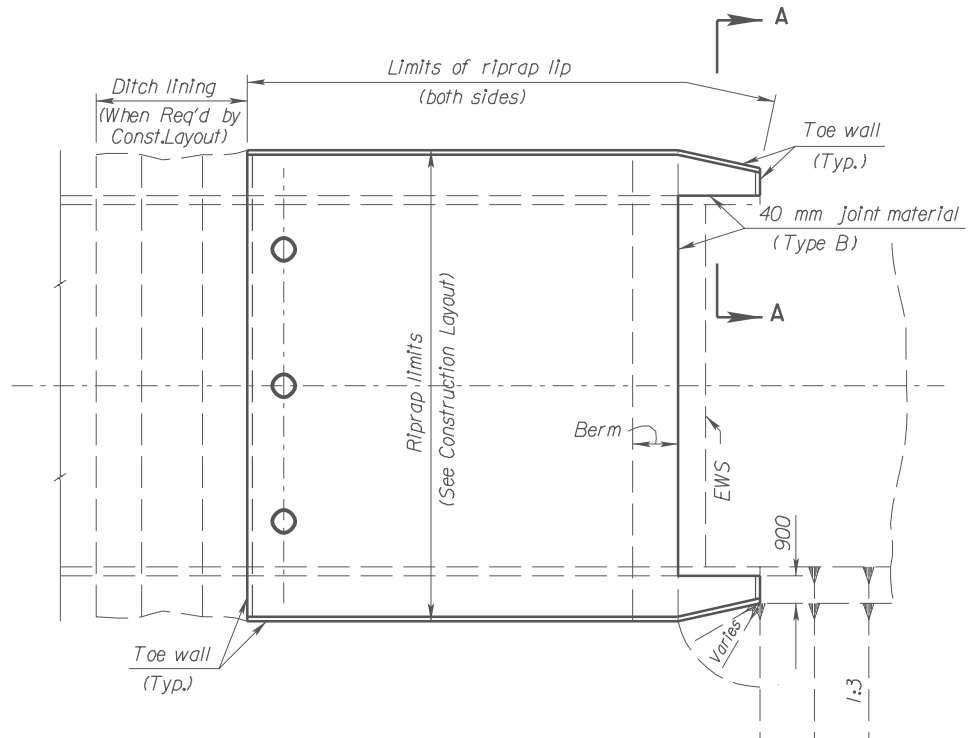
Notes:  
 Use Grade 21 concrete for the riprap.  
 Use 150x150-MW10xMW10 welded wire fabric conforming to the requirements of ASTM A185M.  
 Use reinforcing steel conforming to the requirements of ASTM A615M-96, Grade 420.  
 Place 40 mm Type B expansion material in the joints caused by any intersection of the riprap with the abutment, wings, or columns.  
 Measurement of the "Reinforced Concrete Riprap" shall be in square meters and is based on the outside surface area.  
 The toe walls, 75 mm lip, Type B expansion material, welded wire fabric, and reinforcing steel are *subsidiary* to the bid item "Reinforced Concrete Riprap".  
 Do not construct lip on this project.



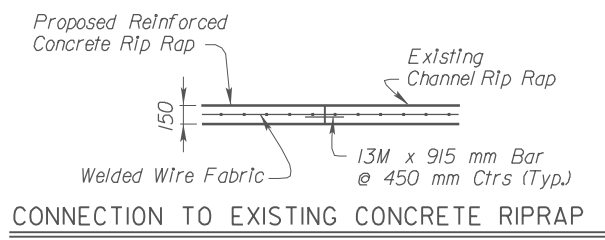
**SECTION A-A**



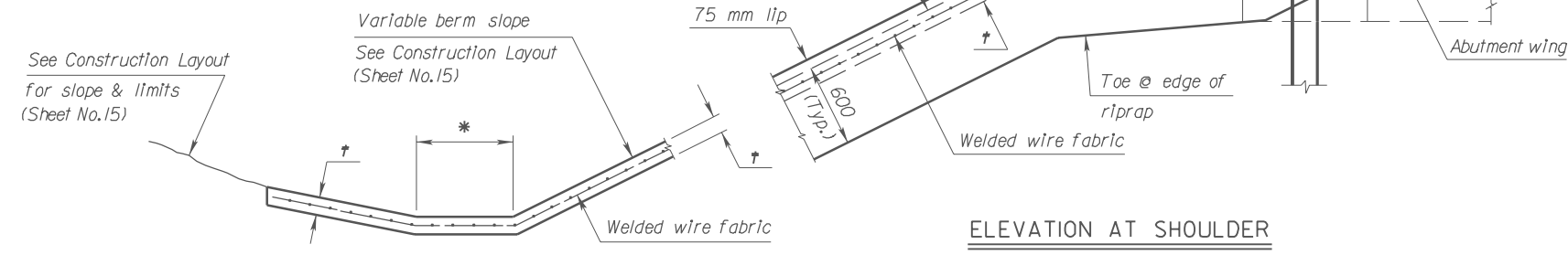
**TYPICAL CROSS SECTION**



**TYPICAL PLAN**



**CONNECTION TO EXISTING CONCRETE RIPRAP**



**ELEVATION AT SHOULDER**

\* See Construction Layout (Sheet No.15) for this dimension (300 mm Min.).

† = 150 mm

**DITCH BOTTOM**  
(When Required by Construction Layout sheet)

Std. Base File: br130si.dgn  
 Plotted By: examples  
 File: g:\CIVIL\198169\0569\306\Nri 30si.dgn  
 Plot Date: 7/27/2006

NO.	DATE	REVISIONS	BY	APP'D
3	3-22-05	Concrete Grade Change	RAM	KFH
2	6-23-97	Change re steel grade	LRR	KFH
1	3-27-96	ASTM A615M-96 Changes	LRR	KFH

KANSAS DEPARTMENT OF TRANSPORTATION				
REINFORCED CONCRETE RIPRAP				
BRI30-SI				
DESIGNED	APP'D	QUANTITIES	CADD	
DESIGN CK.	DETAIL CK.	LRR QUAN. CK.	CADD CK.	12