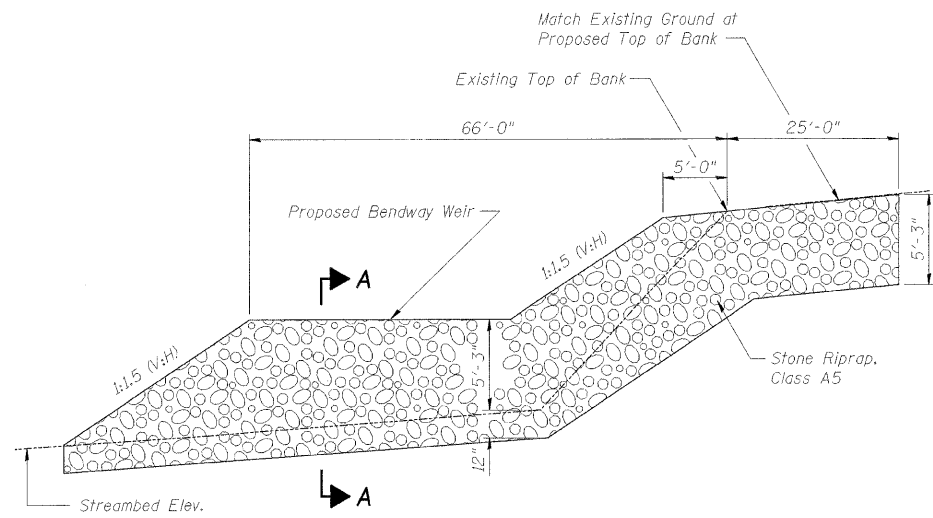
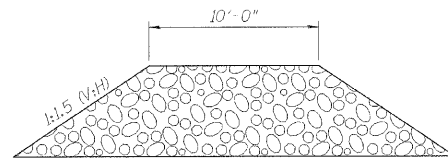


DATE	SECTION	COUNTY	SHEET	TOTAL SHEETS
5/15/14	04-00343-00-BR	WINNEBAGO	92	49
FED. ROAD DIST. NO. 7		BILLINGS	FED. AID PROJECT-BRM-5099(15)	

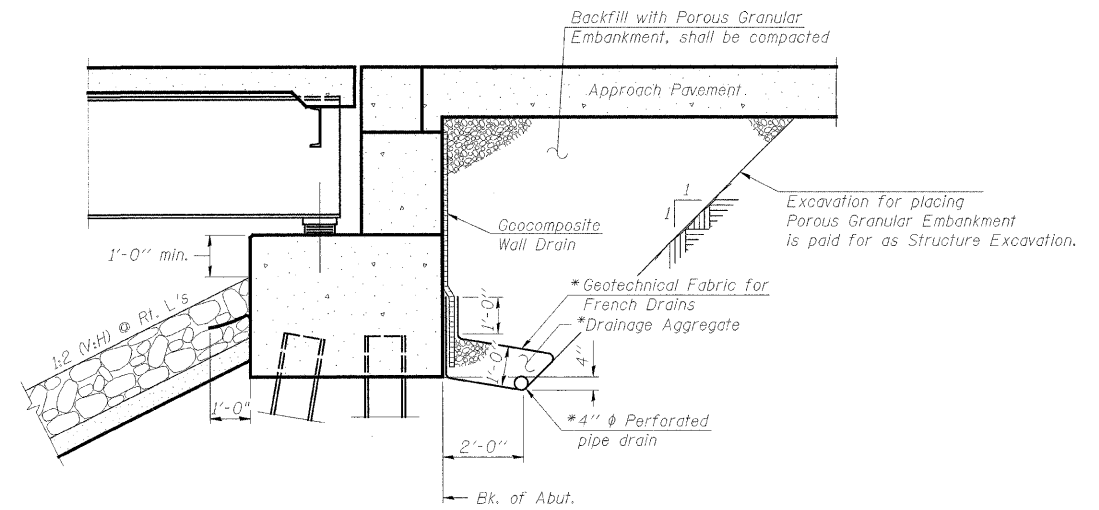
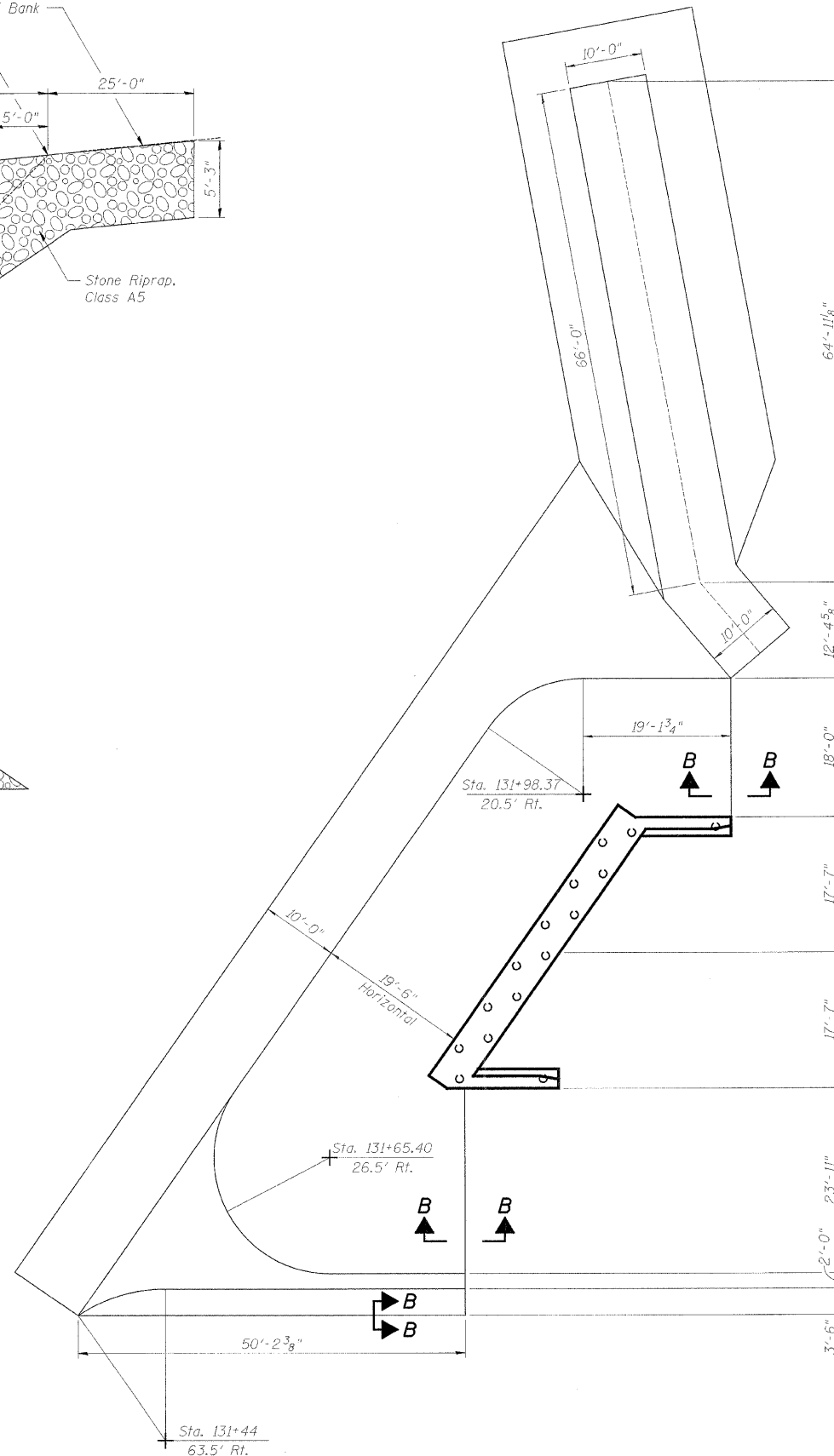
Structural Sheet 2B of 21B



**TYPICAL SECTION
SOUTH BANK RIPRAP**
(Dimensions at Rt. Angles)



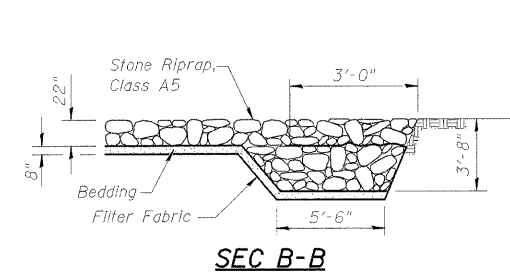
SECTION A-A
(Dimensions at Rt. Angles)



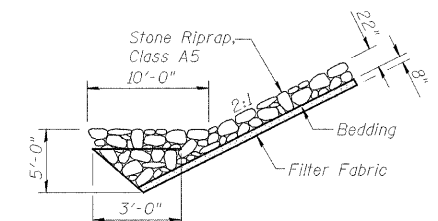
**SECTION THRU PILE SUPPORTED
STUB ABUTMENT**
(Horiz. dim. @ Rt. L's)

* Included in the cost of Pipe Underdrains for Structures.

Note:
All drainage system components shall extend parallel to the abutment back wall until they intersect the wingwalls or 2'-0" from the end of the wingwalls when the wings are parallel to the abutment. The pipe shall extend under the wingwall, if necessary, until intersecting the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).



SEC B-B



STONE RIPRAP ANCHOR DETAIL

BILL OF MATERIAL

Item	Unit	Total
Stone Rip Rap Class A5	Sq. Yd.	1,244
Filter Fabric for use with Rip Rap	Sq. Yd.	1,244

**SLOPEWALL LAYOUT
BELTLINE ROAD OVER KISHWAUKEE RIVER
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 129+89 (S.N. 101-0171)**