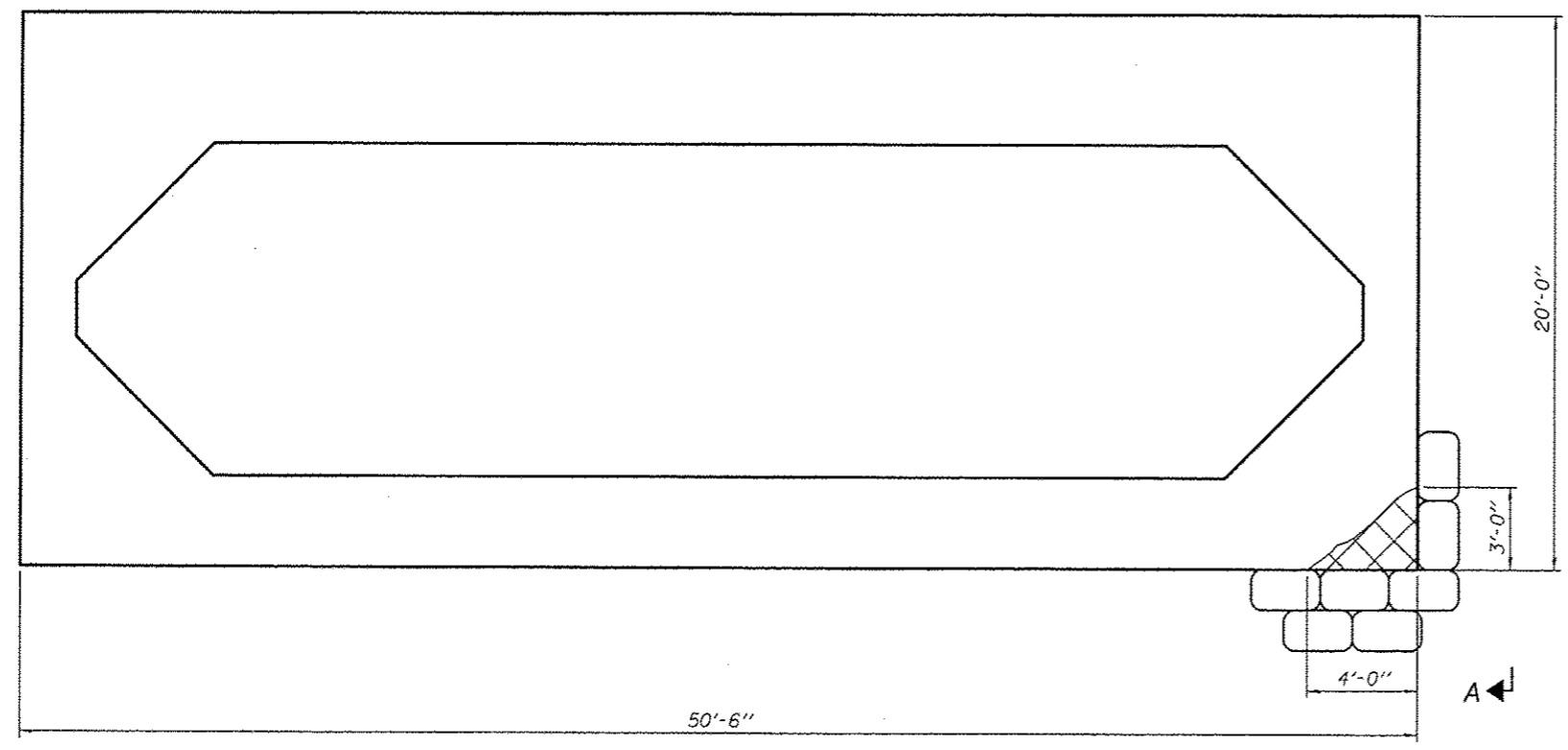
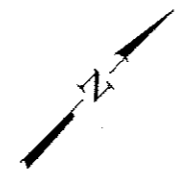
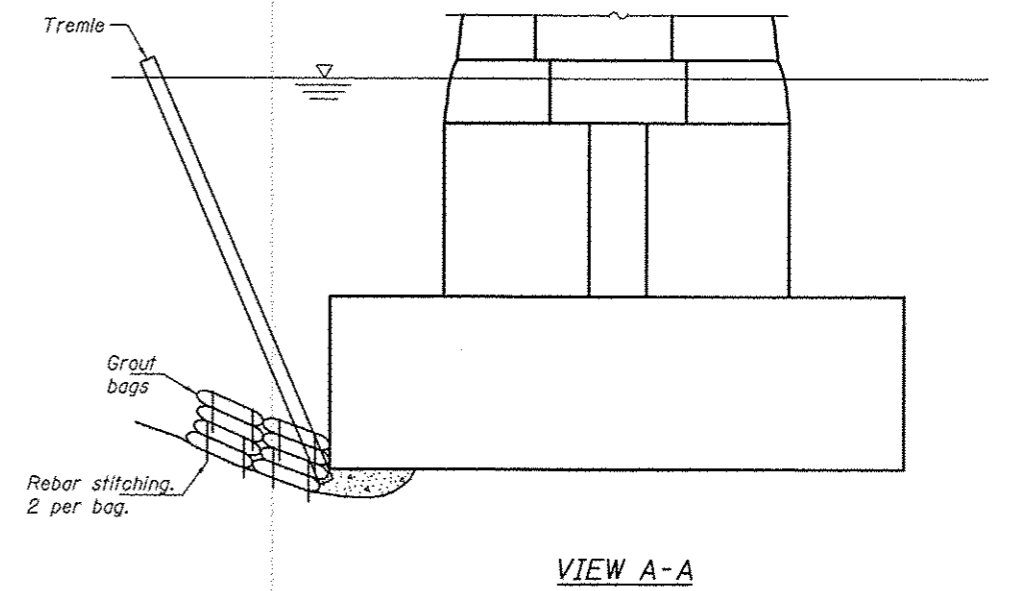


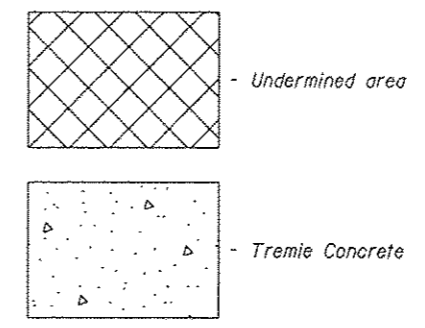
Notes:  
 Remove unstable material along bottom of undermined area prior to bag placement and filling with grout.  
 Stack grout bags along face of pier in front of undermined area. Bags stacked in successive rows and tiers shall be staggered.  
 Once vent/fill pipes have been installed and bags are filled, pump grout into the undermined area until material appears in the top of adjacent vent pipes. Cut or remove the vent/fill pipes flush with the top of the bags after pumping operation is complete.  
 Adequate venting of water to be displaced in the undermined area is important. The water must be able to escape when displaced by grout pumped into the cavity. A max. 4ft spacing of vent/fill pipes is recommended.  
 Keep nozzle buried in the grout during pumping to reduce the amount of mixing of the grout and water to be displaced.  
 All bags shall be 1ft max. thick, 3ft max. wide and 4ft max. long.



PLAN PIER 16



VIEW A-A



BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Substructure Repairs (Grout Bags)	L.S.	1

DESIGNED VHV	EXAMINED <i>Timothy A. Angh</i>	DATE - SEPTEMBER 19, 2012
CHECKED DAB	ACTING ENGINEER OF STRUCTURAL SERVICES	
DRAWN baliva	PASSED <i>Carl King</i>	
CHECKED VHV DAB	ACTING ENGINEER OF BRIDGES AND STRUCTURES	

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

PIER 16 SCOUR COUNTERMEASURES  
 SN 081-0011

SHEET NO. 6 OF 6 SHEETS

F.A. R.T.E. BO	SECTION (61-1B1M-3)	COUNTY ROCK ISLAND	TOTAL SHEETS 9	SHEET NO. 9
CONTRACT NO. 64E33			ILLINOIS FED. AID PROJECT	