

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	87 N-0361-01	2011	113	169

**MKEC**  
ENGINEERING  
CONSULTANTS, INC.  
411 N. WEBB ROAD  
WICHITA, K.S. 67206  
316-684-9600

Weight of Individual Pieces	Minimum Percent Larger Than
500 lbs.	0%
250 lbs.	50%
125 lbs.	75%
10 lbs.	90%

LIGHT STONE RIP-RAP GRADATION REQUIREMENTS

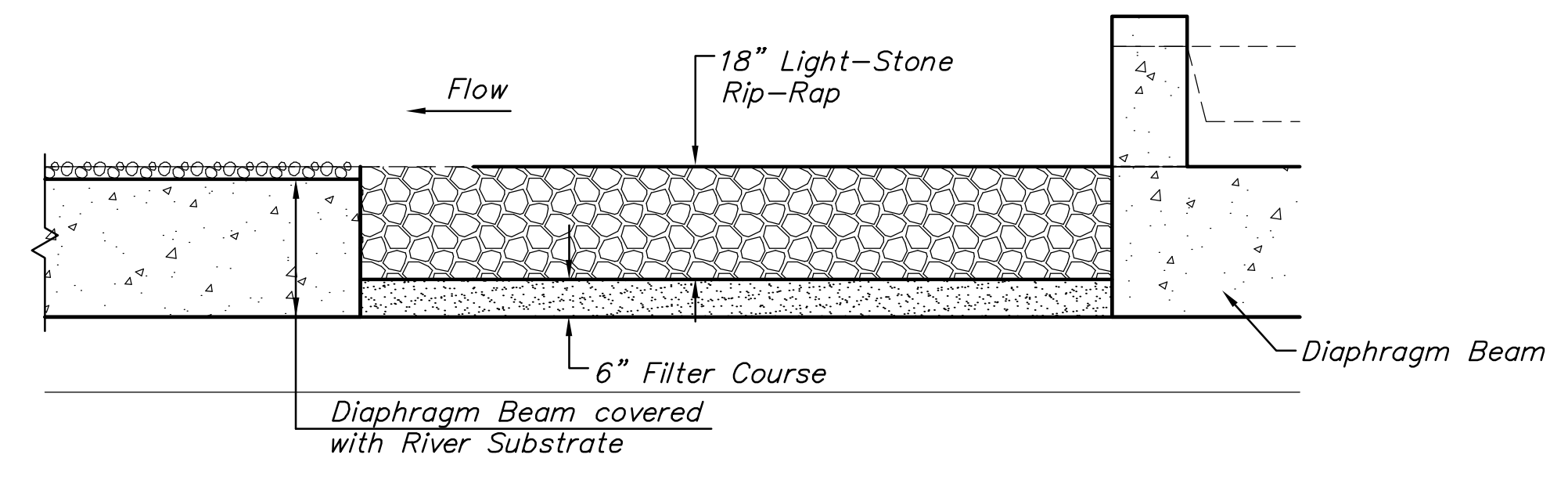
Seive Size	Percent Retained
4"	0-5%
2"	10-40%
1"	25-60%
3/8"	55-85%
#4	70-95%

FILTER COURSE GRADATION REQUIREMENTS

Seive Size	Percent Retained
3"	0-5%
2 1/2"	10-25%
1 1/2"	30-70%
3/4"	95%
#3	100%

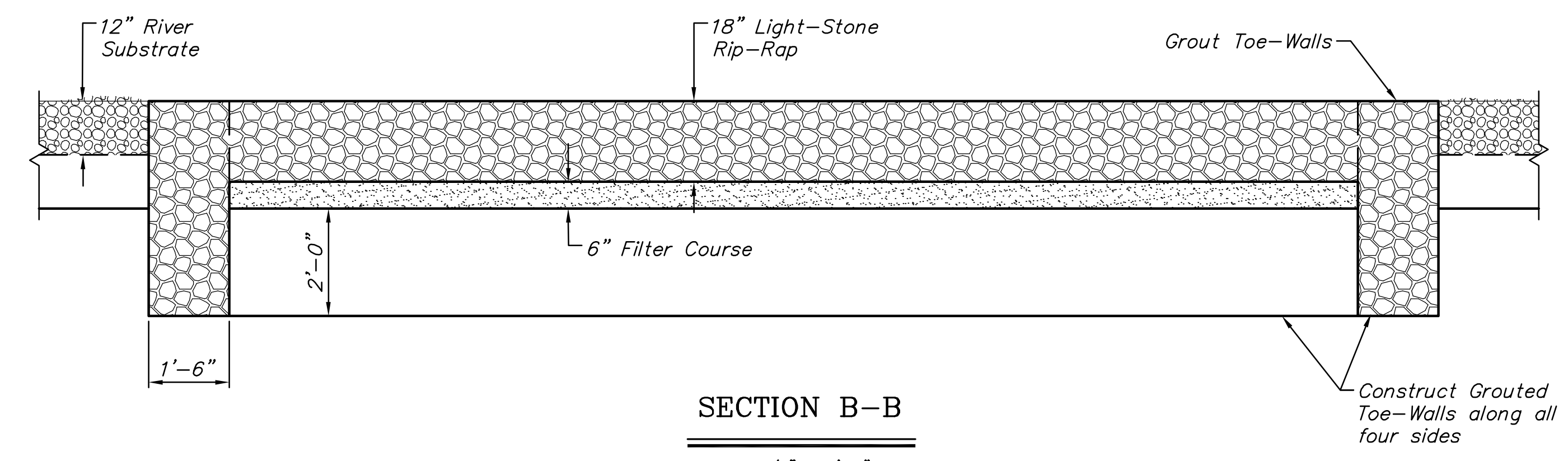
RIVER SUBSTRATE GRADATION REQUIREMENTS

\* Natural river material may be used provided the gradation is met.



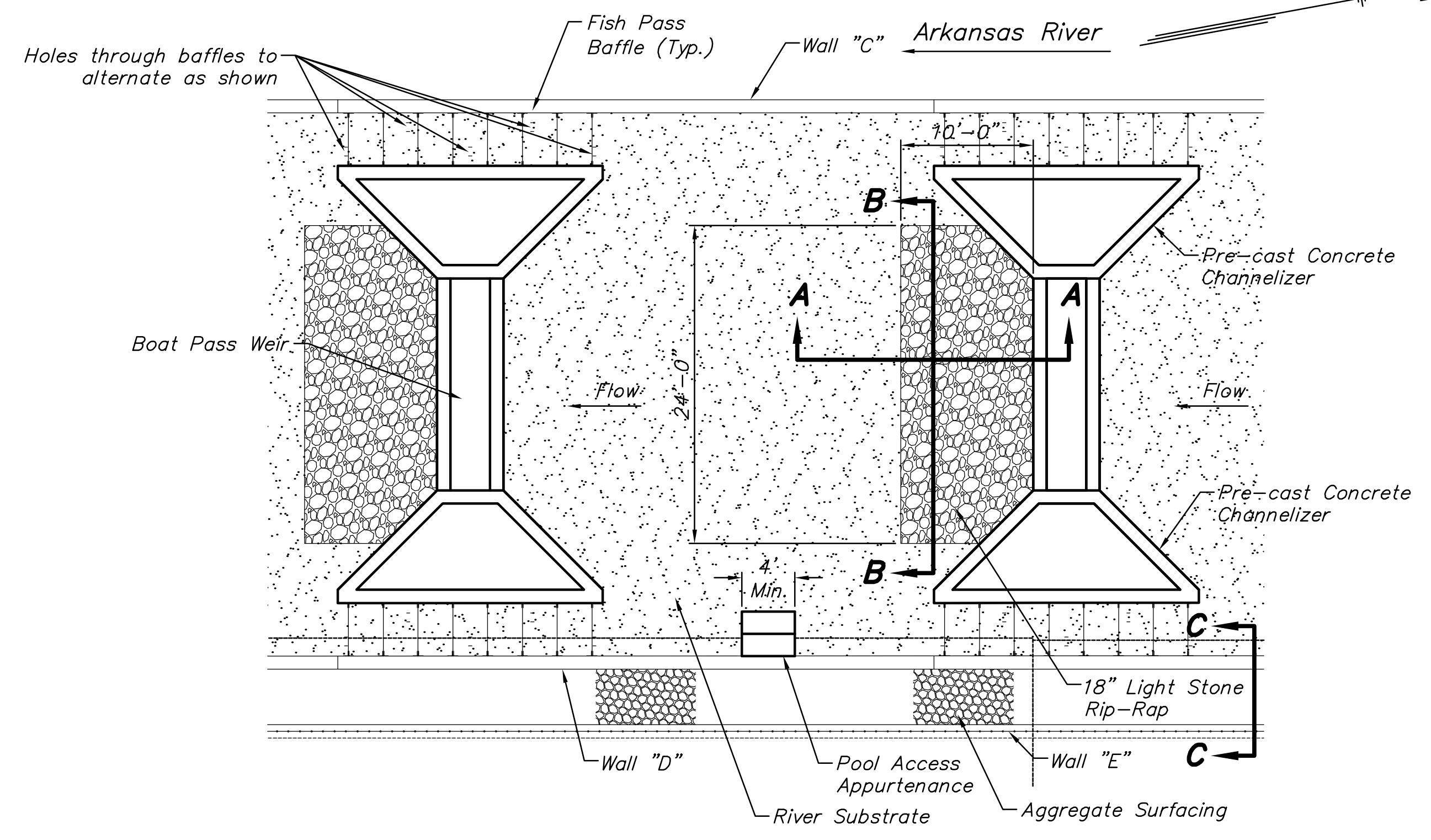
SECTION A-A

SCALE: 1/2" = 1'-0"



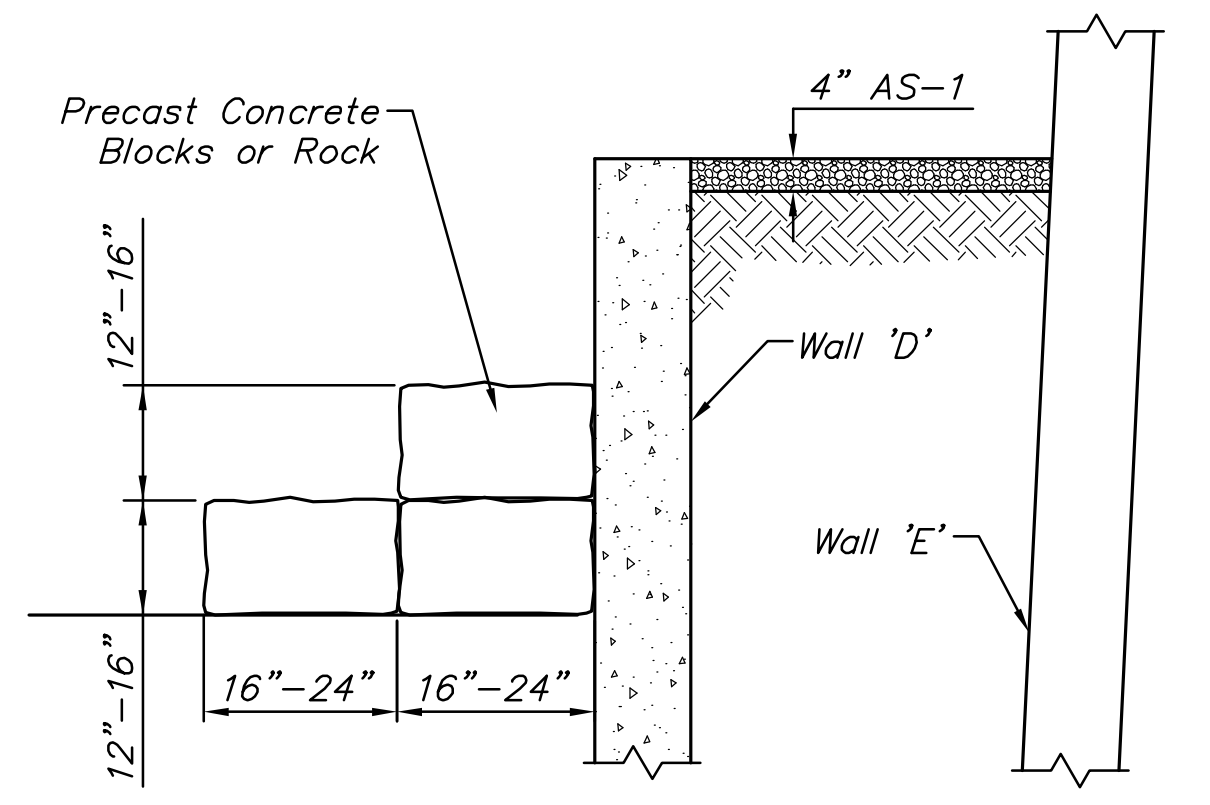
SECTION B-B

SCALE: 1/2" = 1'-0"

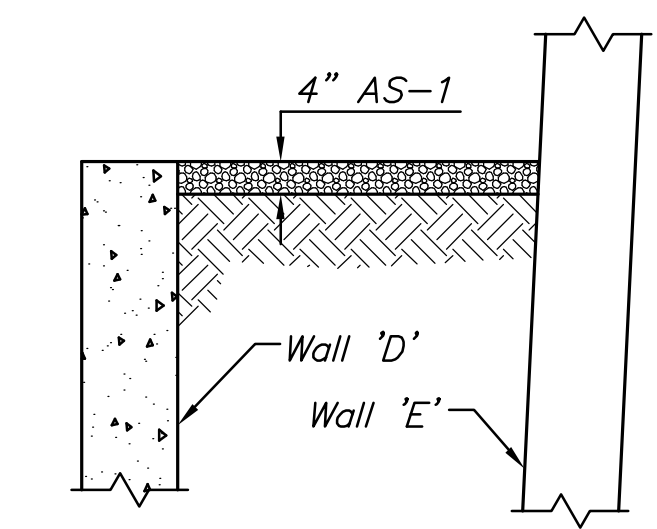


FISH/BOAT PASS SUBSTRATE PLAN

SCALE: 1/2" = 1'-0"



POOL ACCESS APPURTENANCE DETAIL



SECTION C-C

SCALE: 1/2" = 1'-0"

**LINCOLN STREET BRIDGE AND  
DAM IMPROVEMENTS OVER  
ARKANSAS RIVER**

**BOAT/FISH  
PASS DETAILS**

SHEET TITLE  
472-84883  
PROJECT NUMBER

DESIGN BY: JAG  
DRAWN BY: DPG  
CHECKED BY:

ISSUED: 1/24/2011  
REVISED:

SHEET NO.  
113 of 169

PLOTTED: Tuesday, January 25, 2011 8:58 AM

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