F.H.W.A REGION	STATE	PROJECT	
5	OHIO		

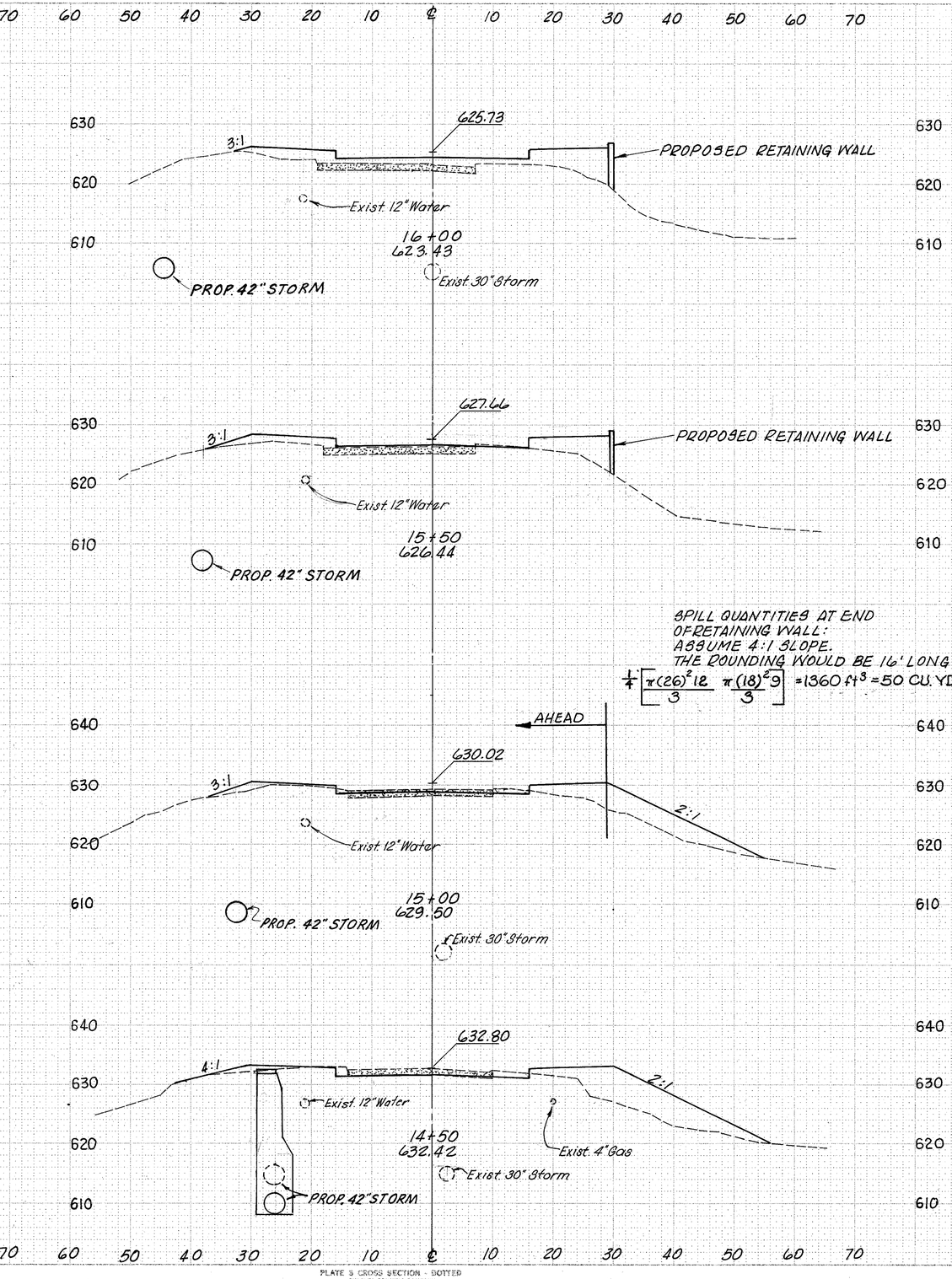
20
86

LAKE COUNTY
LAK-20-17.14

SUB-SUMMARIES
SEEDING 1509
EXCAVATION 40
EMBANKMENT 1076

SEEDING	
LIN. FT.	SQ. YDS.
45	
	264
50	
278	
50	
91	
AHEAD	
BACK	
520	
96	
	447

LEGEND
PAVEMENT REMOVED



SPILL QUANTITIES AT END OF RETAINING WALL:
ASSUME 4:1 SLOPE.
THE ROUNDING WOULD BE 16' LONG
$\frac{1}{4}\left[\frac{\pi(26)^2 12}{3} \; \frac{\pi(18)^2 9}{3}\right]$ = 1360 ft³ = 50 CU. YD. × 2 = 100 C.Y.

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
0	150		
		3	236
3	105		
			100
		6	306
3	60		
3	135		
		12	265
10	151		
		19	169
10	32		

STA. 14+00

U.S. 20 CROSS SECTIONS STA. 14+50 TO STA. 16+00

U.S. 20 OVER GRAND RIVER

20

BRUNING 37772

PLATE 3 CROSS SECTION - DOTTED
CHARLES BRUNING COMPANY
MADE IN U.S.A.