

Quantity Calculations
 Made By JEM Date 6-70
 Checked By IM Date 6-72

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

126
390

CUYAHOGA COUNTY
 CUY 480-21.40

SPILL QUANTITY FOR AREA "F"

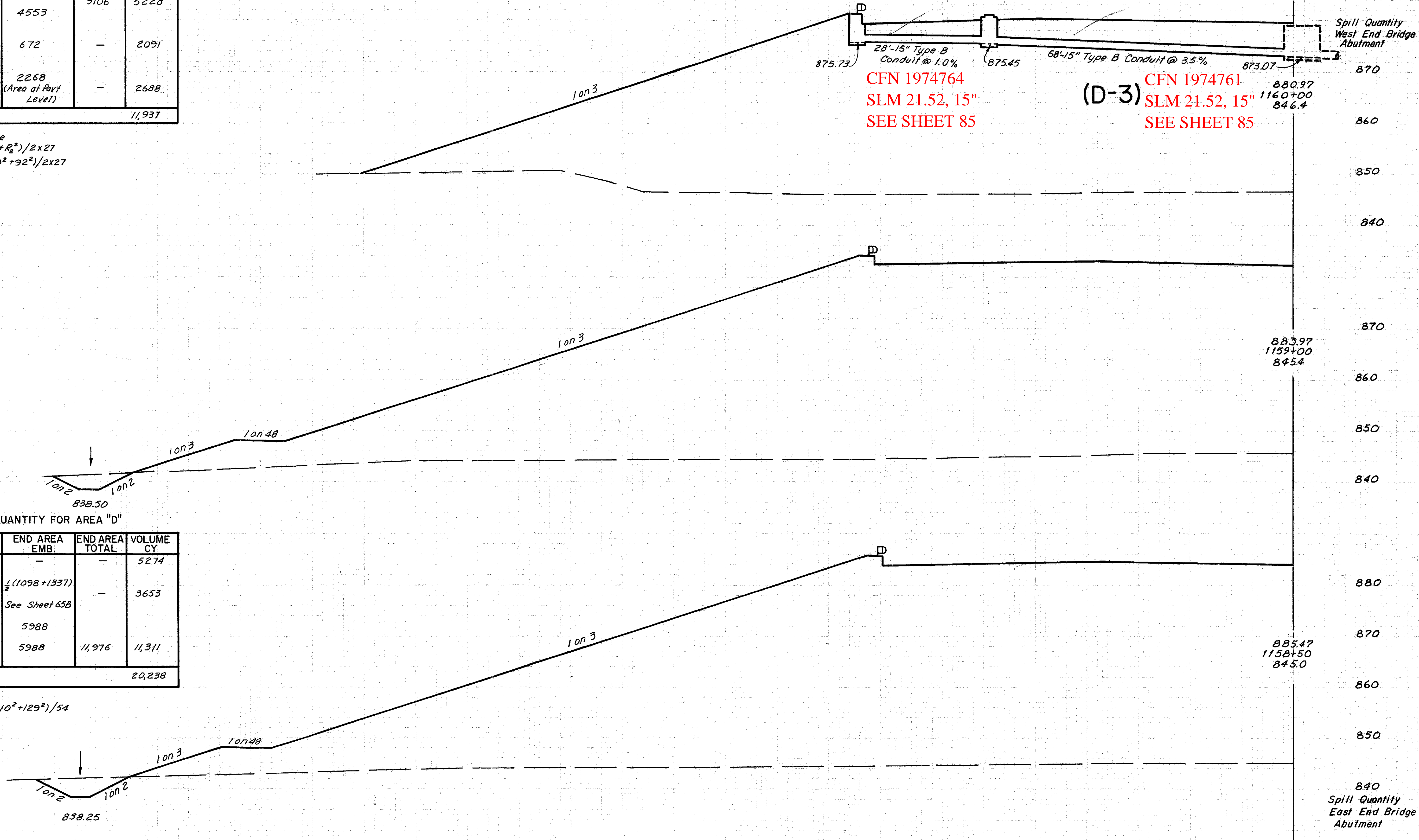
STA.	DIST.	END AREA EMB.	END AREA TOTAL	VOLUME CY
Cone	-	-	-	1930
1160+00	31	4553	9106	5228
1160+31		4553		
1160+57 (84' Wide)	47	672	-	2091
1161+04				
1160+31	32' (Ave. Ht.)	2268 (Area at Part Level)	-	2688
1160+74				
Total				11,937

Volume of Cone
 $V = \frac{1}{4} \times \frac{1}{3} \times \pi \times H (R_1^2 + R_2^2) / 2 \times 27$
 $= \frac{1}{4} \times \frac{1}{3} \times \pi \times 33 (60^2 + 92^2) / 2 \times 27$
 $= 1929.86$

Std. No. 2-A-6
 Paved Shoulder Inlet
 Sta. 10+09.5, 9.66' Lt.
 N.G. = 880.23

Std. No. 6 C.B. as per plan
 Sta. 1160+20, 59.5' Lt.
 N.G. = 880.50

Std. No. I-3B Median Inlet
 Sta. 1160+50, 1.5' Rt.
 T/C 87208



EARTHWORK			
END AREA		VOLUME	
EXC.	EMB.	EXC.	EMB.
			0
	4553		11937
			50
			18854
			27
	5628		8454
			27
			5628
			44
	5988		8450
			44
			5988
			202
			20238

SPILL QUANTITY FOR AREA "D"

STA.	DIST.	END AREA EMB.	END AREA TOTAL	VOLUME CY
Cone	-	-	-	5274
1157+26 (81' Wide)	73	$\frac{1}{2}(1098+1337)$	-	3653
1157+99		See Sheet 65B		
1157+99	51	5988		
1158+50		5988	11,976	11,311
Total				20,238

Volume of Cone
 $V = \frac{1}{4} \times \frac{1}{3} \times \pi \times 40.5 (110^2 + 129^2) / 54$
 $= 5274.34$

J.M.C.
 J.E.M.
 3/8/78
 3/8/78
 6-72

All Earthwork Quantities
 in Participation Limit III