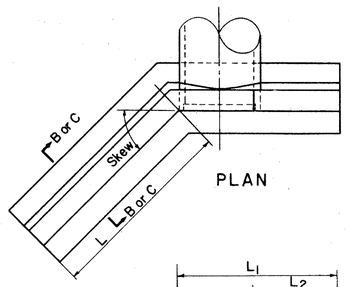
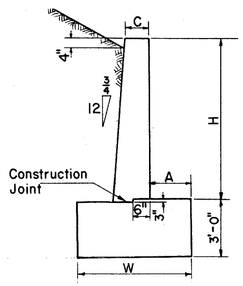
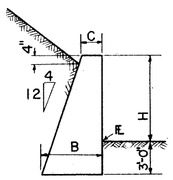
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

187
212

LAKE COUNTY
LAK-44-7.22





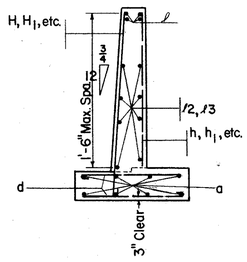


HEADWALL DIMENSIONS

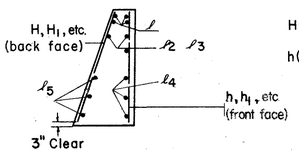
STRUCTURE NO.	STATION	PIPE SIZE	H	L	L_1	L_2	W	A	B	C	D
LAK-44-0826	91 + 88 LT.	36"	4'-0"	5'-4"	7'-10"	4'-6"	3'-6"	1'-0"		1'-6"	3'-3"
LAK-44-0826	91 + 88 RT.	36"		SAME	AS	LEFT	SIDE				
	105+ 92 LT.	21"	2'-6"	4'-0"	5'-0"	3'-0"			2'-11"	1'-0"	2'-1"
LAK-44-0867	113+ 64 LT.	48"	5'-3"	7'-0"	9'-9"	5'-4"	4'-6"	1'-5"		1'-6"	3'-10"
LAK-44-0867	113+ 64 RT.	48"	5'-3"	8'-0"	10'-0"	5'-7"	4'-6"	1'-5"		1'-6"	4'-1"
LAK-44-0903	132+ 82 LT.	30"	3'-6"	5'-0"	6'-6"	3'-9"			3'-2"	1'-0"	2'-8"
LAK-44-0903	132+ 82 RT.	30"		SAME	AS	LEFT	SIDE				

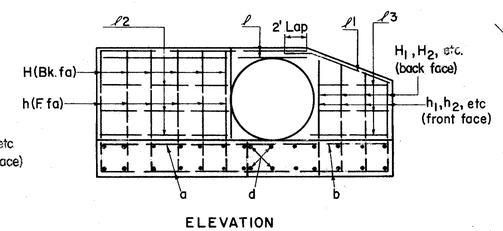
REINFORCING STEEL LIST AND ESTIMATED QUANTITIES

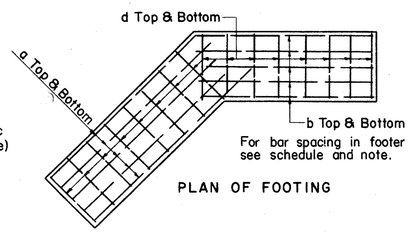
STRUCTURE NO.	STATION	PIPE SIZE	SKEW	MARK a	NO.	MARK b	NO.	MARK d	NO.	MARK ℓ	NO.	MARK ℓ_1	NO.	MARK ℓ_2	NO.	MARK ℓ_3	NO.	MARK ℓ_4	NO.	MARK ℓ_5	NO.	MARK H	NO.	MARK H_1	NO.	MARK H_2	NO.	MARK H_3	NO.	MARK H_4	NO.	MARK h	NO.	MARK h_1	NO.	MARK h_2	NO.	MARK h_3	NO.	MARK h_4	NO.	REINFORCING STEEL LBS.	CLASS "C" CONCRETE CU. YDS.	STRUCTURE DETAILS SHEET NO.
LAK-44-0826	91 + 88 LT.	36"	13°R.F.	5'-5"	8	8'-0"	8	3'-9"	20	8'-4"	4	6'-4"	2	5'-0"	4	3'-10"	6					7'-4"	4	7'-4"	1	6'-11"	1	6'-7"	1			3'-8"	4	3'-8"	1	3'-3"	1	2'-11"	1			360	7.6	
LAK-44-0826	91 + 88 RT.	36"	13°R.F.	5'-5"	8	8'-0"	8	3'-9"	20	8'-4"	4	6'-4"	2	5'-0"	4	3'-10"	6					7'-4"	4	7'-4"	1	6'-11"	1	6'-7"	1			3'-8"	4	3'-8"	1	3'-3"	1	2'-11"	1			360	7.6	
	105 + 92 LT.	21"	17°30'							5'-10"	4	4'-10"	2	3'-8"	2	2'-8"	2	8'-8"	3	9'-1"	3	5'-1"	3	5'-1"	1	4'-10"	1	4'-8"	1			5'-1"	3	5'-1"	1	4'-10"	1	4'-8"	1			165	3.5	
LAK-44-0867	113 + 64 LT.	48"	10°R.F.	7'-1"	8	9'-9"	8	4'-9"	24	11'-3"	4	7'-2"	2	6'-8"	6	5'-0"	6					8'-5"	5	8'-5"	1	8'-2"	1	7'-8"	1	7'-2"	1	4'-11"	5	4'-11"	1	4'-6"	1	4'-0"	1	3'-6"	1			515	12.3	
LAK-44-0867	113 + 64 RT.	48"	10°R.F.	8'-2"	8	10'-0"	8	4'-9"	26	12'-3"	4	7'-5"	2	7'-8"	6	5'-3"	6					8'-5"	5	8'-5"	1	8'-2"	1	7'-9"	1	7'-5"	1	4'-11"	5	4'-11"	1	4'-6"	1	4'-1"	1	3'-9"	1			550	13.4	
LAK-44-0903	132 + 82 LT.	30"	14°R.F.							7'-5"	4	5'-7"	2	4'-8"	4	3'-2"	6	11'-2"	3	11'-8"	3	6'-1"	4	6'-0"	1	5'-8"	1	5'-3"	1			6'-1"	4	6'-0"	1	5'-8"	1	5'-3"	1			240	5.3	
LAK-44-0903	132 + 82 RT.	30"	14°R.F.							7'-5"	4	5'-7"	2	4'-8"	4	3'-2"	6	11'-2"	3	11'-8"	3	6'-1"	4	6'-0"	1	5'-8"	1	5'-3"	1			6'-1"	4	6'-0"	1	5'-8"	1	5'-3"	1			240	5.3	

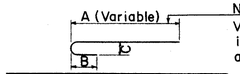


NOTE:
The number of a & b bars shown above shall be equally spaced across the footer.









NOTE:
Variable length as shown is length of H_1 bar shown above less $7\frac{3}{16}$".

MARK	SIZE	A #	B	C
ALL H BARS	5/8"		4 3/4"	4 1/4"
d	5/8		4 3/4"	4 1/4"

Varies

NOTE:
For additional information see Std. Constr. Dwgs. Hdwl. A, B & C.
Mark ℓ, ℓ4 & ℓ5 bars to be bent in field.

NOTE:
Quantities shown are for one Hdwl.
Vertical Bars spaced @ 2'-0" c-c. Max.
Horizontal Bars spaced @ 1'-6" c-c Max.

Reinforcing shall have 2" clearance unless otherwise indicated.

All bars shall be $\frac{cm}{gs}$ round

TYPE "B" HEADWALL DETAIL