

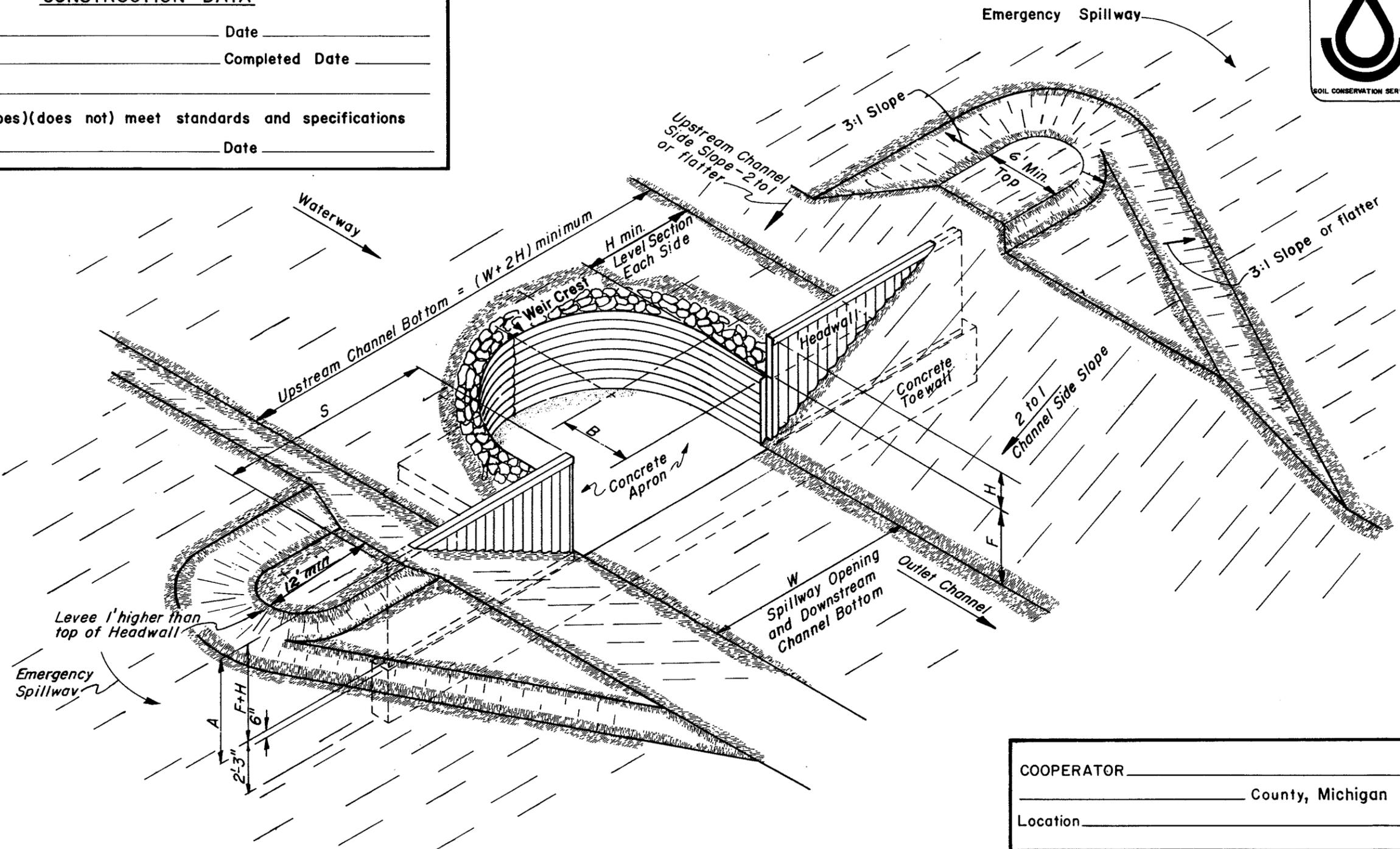
CONSTRUCTION DATA

Layout by _____ Date _____

Contractor _____ Completed Date _____

Practice (does)(does not) meet standards and specifications

Checked by _____ Date _____



COOPERATOR _____
 _____ County, Michigan
 Location _____

STANDARD STRUCTURE SIZES			
F	1.9'	3.0'	4.0'
H	1.8'	1.9'	2.1'
A	4.2'	5.4'	6.6'
S	8.7'	11.3'	13.4'

Adapted from Indiana
 Drwg. 5,0-32,722-P
 Sheets 1 thru 3 of 3

Not to Scale

REVISED 4-84

ELEVATIONS	
Top of Levee	_____
Top of Headwall	_____
Emergency Spillway	_____
Weir Crest	_____
Concrete Apron	_____
BENCH MARK	
Elevation	_____
Description:	_____

STRUCTURE DIMENSIONS	
F	_____
H	_____
W	_____
B	_____
L	_____
A	_____
S	_____

FABRICATED CORRUGATED
 ALUMINUM TOEWALL DROP SPILLWAY
 GENERAL LAYOUT

U. S. DEPARTMENT OF AGRICULTURE
 SOIL CONSERVATION SERVICE

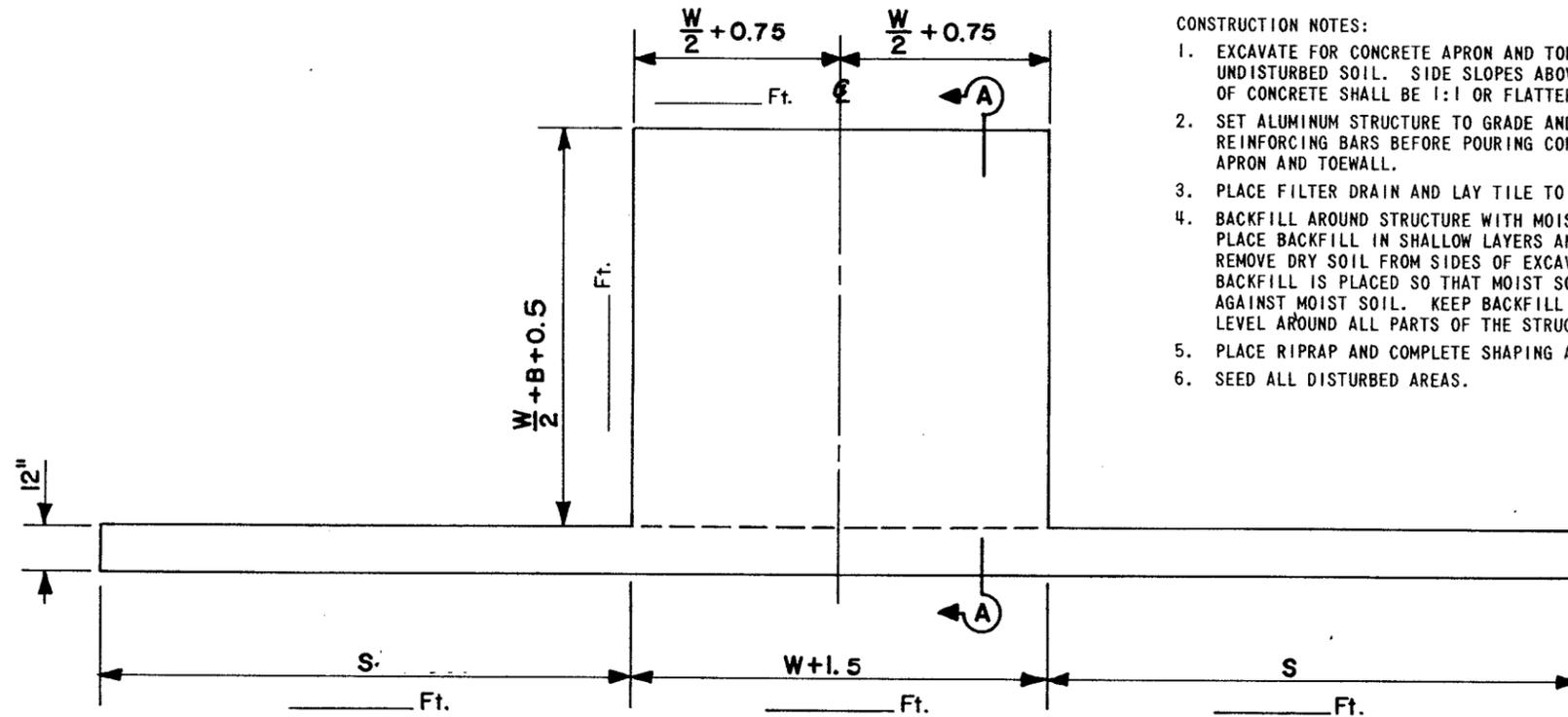
Designed _____	Date _____	Approved by _____ Title State Cons. Eng.
Drawn _____		
Adapted _____		Title _____
Checked _____		Sheet No. _____ of _____ Drawing No. _____

QUANTITIES

Structure _____ each
 Concrete (CT+CA) _____ cu.yds.
 Reinforcing Bars #5's (5/8" ϕ) _____ lin.ft.
 or #4's (1/2" ϕ) _____ lin.ft.
 Filter Drain (0.04 x L) _____ cu.yds.
 Riprap (0.03 x L cu.yds.) _____
 Site Preparation _____
 Excavation and Backfill _____
 Drain Tile Outlet _____ each

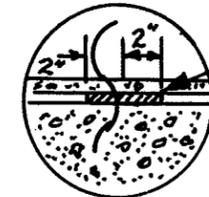
CONSTRUCTION NOTES:

1. EXCAVATE FOR CONCRETE APRON AND TOEWALL IN UNDISTURBED SOIL. SIDE SLOPES ABOVE THE TOP OF CONCRETE SHALL BE 1:1 OR FLATTER.
2. SET ALUMINUM STRUCTURE TO GRADE AND PLACE REINFORCING BARS BEFORE POURING CONCRETE FOR APRON AND TOEWALL.
3. PLACE FILTER DRAIN AND LAY TILE TO OUTLET STUB.
4. BACKFILL AROUND STRUCTURE WITH MOIST SOIL. PLACE BACKFILL IN SHALLOW LAYERS AND TAMP WELL. REMOVE DRY SOIL FROM SIDES OF EXCAVATIONS AS BACKFILL IS PLACED SO THAT MOIST SOIL IS TAMPED AGAINST MOIST SOIL. KEEP BACKFILL APPROXIMATELY LEVEL AROUND ALL PARTS OF THE STRUCTURE.
5. PLACE RIPRAP AND COMPLETE SHAPING AND GRADING.
6. SEED ALL DISTURBED AREAS.

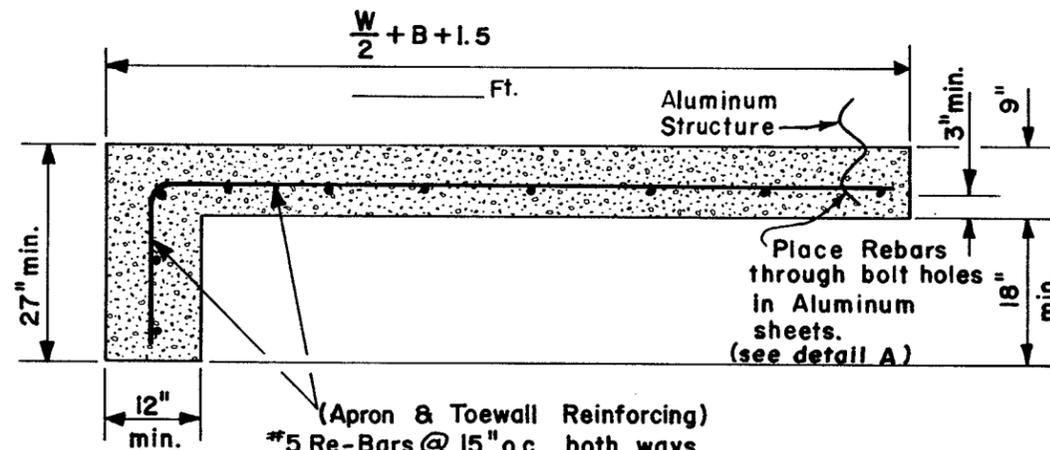


TOP VIEW - CONCRETE SLAB ONLY

WRAP EACH REBAR WITH PLASTIC TAPE TO PREVENT CONTACT WITH ALUMINUM (Min. wrap thickness shall be 1/16")



DETAIL A



(Apron & Toewall Reinforcing)
 #5 Re-Bars @ 15" o.c. both ways,
 or #4 Re-Bars @ 12" o.c. both ways.

SECTION A-A

Note: Concrete shall have a minimum compressive strength at 28 days equal to 3 000 psi. (6 bag mix)

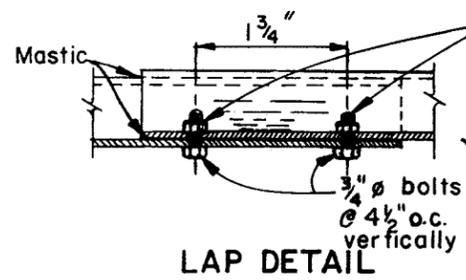
COOPERATOR _____
 _____ County, Michigan

FABRICATED CORRUGATED ALUMINUM TOEWALL DROP SPILLWAY CONCRETE APRON DETAIL

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

Designed.....	Date.....	Approved by.....
Drawn.....		Title.....
Adapted.....		Title.....
Checked.....		Sheet No.
		Drawing No.
		of

REVISED 4-84

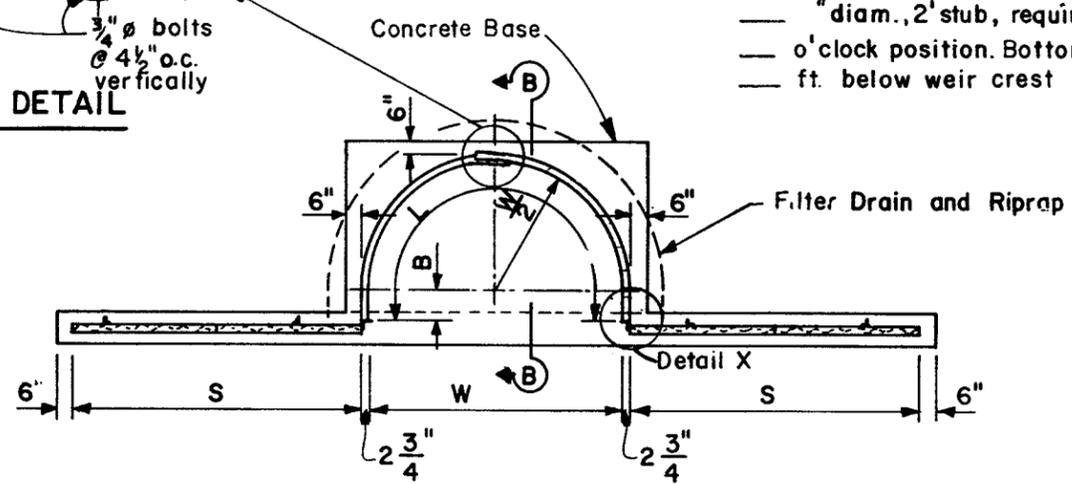


LAP DETAIL

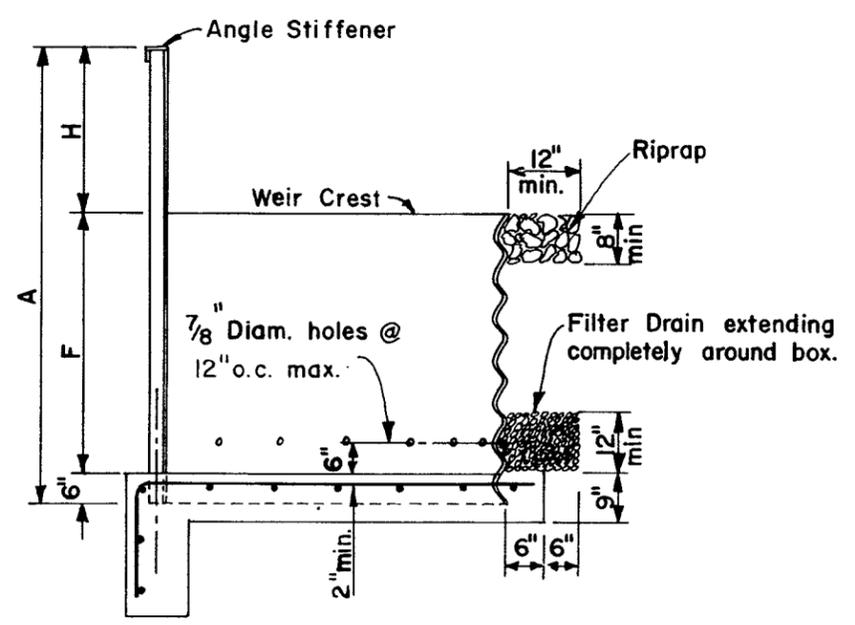
Location of field bolting will vary to fit sheets furnished

TILE OUTLET STUB

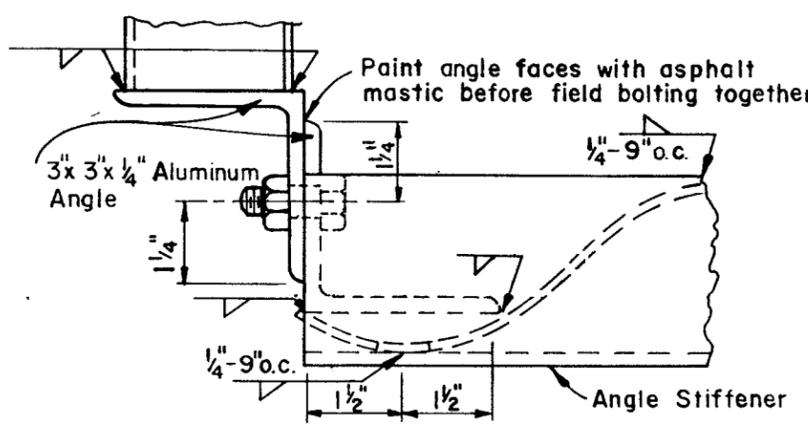
Aluminum pipe shall be shop welded to structure for drain tile outlet when specified below:
 — 2" diam., 2' stub, required at
 — 6 o'clock position. Bottom invert
 — 1.5 ft. below weir crest



TOP VIEW



SECTION B-B

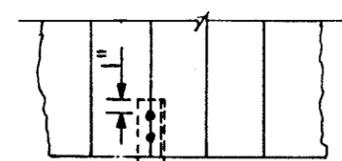


DETAIL X

Paint angle faces with asphalt mastic before field bolting together

NOTES:

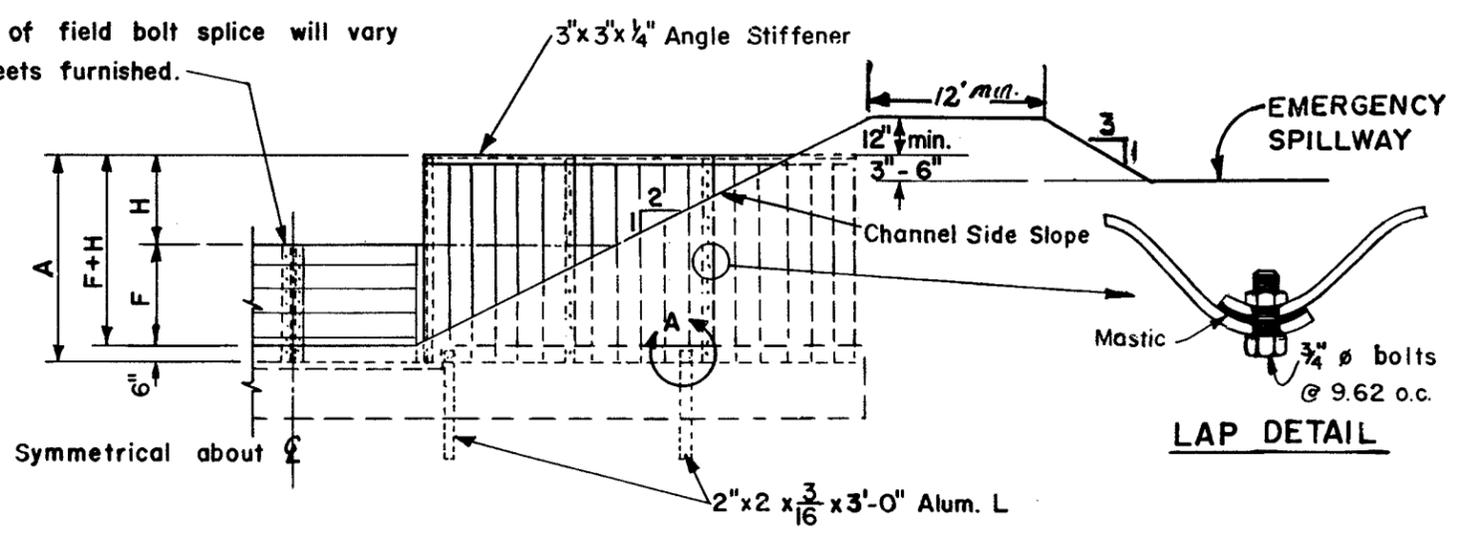
1. ALUMINUM SHEETS SHALL BE STRUCTURAL PLATE (2.5" X 9.0" CORRUGATIONS) 0.100" THICKNESS.
2. APPLY ASPHALTIC MASTIC BETWEEN ALUMINUM SHEETS BEFORE BOLTING TOGETHER.
3. FILTER DRAIN SHALL CONSIST OF SAND, GRAVEL, OR CONCRETE AGGREGATE MIXTURE WITH 50 TO 80% PASSING A NO. 4 SIEVE, MAXIMUM SIZE OF 3" AND NOT MORE THAN 5% PASSING A NO. 200 SIEVE.
4. RIPRAP MAY CONSIST OF WELL-GRADED ROCK, MAXIMUM SIZE 6", OR 8" CONCRETE BLOCK SET WITH CORE OPENINGS UP AND FILLED WITH SOIL.



DETAIL A

(4) 2"x2"x 3/16" x 3'-0" Alum. L extended down to 9" below cut-off wall trench to support structure until concrete sets. (Optional)

Location of field bolt splice will vary to fit sheets furnished.



HALF DOWNSTREAM VIEW

LAP DETAIL

REV. 4-84

COOPERATOR _____	
_____ County, Michigan	
FABRICATED CORRUGATED ALUMINUM TOEWALL DROP SPILLWAY STRUCTURE DETAILS	
U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	
Designed _____	Date _____ Approved by _____
Drawn _____	Title _____
Adapted _____	Title _____
Checked _____	Sheet No. _____ Drawing No. _____
	of _____