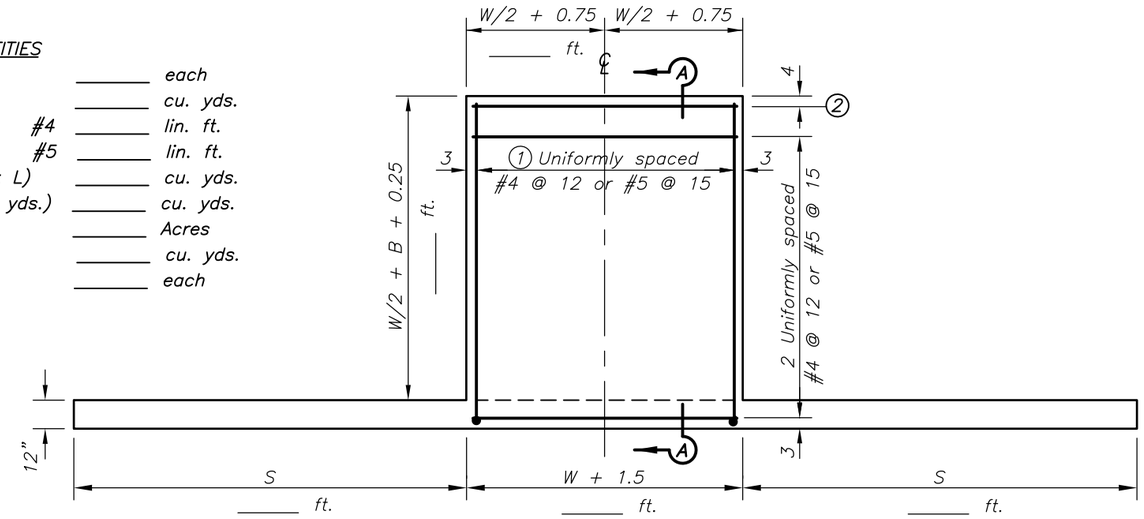
29N330

QUANTITIES

Structure	_____	each
Concrete (CT + CA)	_____	cu. yds.
Reinforcing bars #4	_____	lin. ft.
#5	_____	lin. ft.
Drain fill (0.04 x L)	_____	cu. yds.
Riprap (0.03 x L cu. yds.)	_____	cu. yds.
Site preparation	_____	Acres
Excavation and Backfill	_____	cu. yds.
Drain Tile Outlet	_____	each



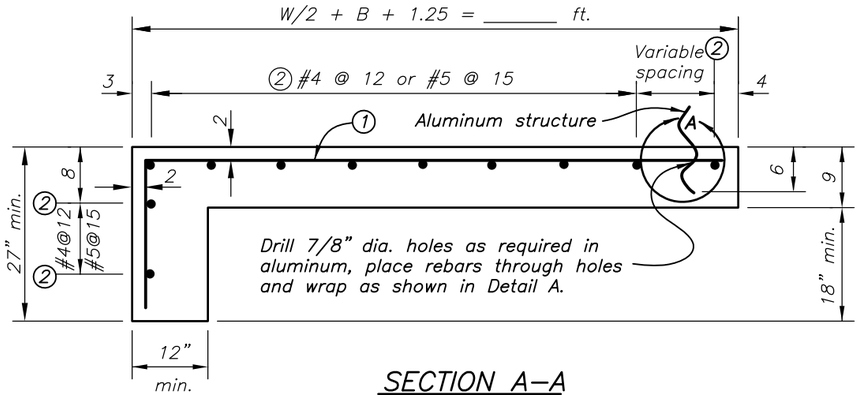
TOP VIEW—CONCRETE SLAB ONLY

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. Minimum steel cover 2" from top and 3" bottom of slab.
4. Place drain fill and lay tile to outlet stub.
5. 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.
6. Place riprap and complete shaping and grading.
7. Seed all disturbed areas.

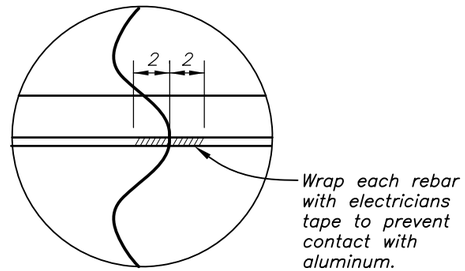
NOTES:

1. For additional details see Missouri Construction Specification 410—A, Grade Stabilization Structure.
2. Aluminum sheets shall be structural plate (2.5" x 9.0" corrugations) 0.100" thickness.
3. Apply asphalt mastic between aluminum sheets before bolting together.
4. Drain fill shall consist of gravel or concrete aggregate mixture with 30 to 60% passing a 1/2 inch sieve, maximum size of 3" and not more than 5% passing a no. 8 sieve. A geotextile shall be wrapped around drainfill to separate gravel from soil material. Geotextile shall be a filter fabric that will provide a filter to prevent migration of soil particles but still permeable as shown in Construction Specification 753, Geotextile.
5. Riprap may consist of well—graded rock, D_{50} size 9 inch, maximum size 15". %%uOr%%u 8" concrete block set with core openings up and filled with soil or gravel.
6. Bolts to be 3/4" Ø with nuts and lock washers. Bolts, nuts and lock washers to be aluminum alloy or galvanized steel.
7. That portion of aluminum sheets set in concrete shall be given a heavy coat of bituminous mastic or equivalent prior to pouring concrete.



SECTION A—A

Not to scale



DETAIL A

REINFORCED STEEL SCHEDULE					
MARK	QUANTITY	SIZE	BAR LENGTH	TYPE	TOTAL
1					
2					

* The use of #5 (1), will require some of the 15" spacings to be adjusted up to 1" plus or minus to achieve uniform spacing of rebars.

Adapted from Michigan Standard Drawing 305

Revised 4/01

Date
Designed
Drawn
Checked
Approved

FABRICATED CORRUGATED ALUMINUM TOEWALL DROP SPILLWAY CONCRETE AND STEEL DETAILS

United States Department of Agriculture Natural Resources Conservation Service NRCS

File Name

Drawing Name 29—N—330

Sheet of

DRAFT

NOT FOR CONSTRUCTION

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