

CONSTRUCTION DATA

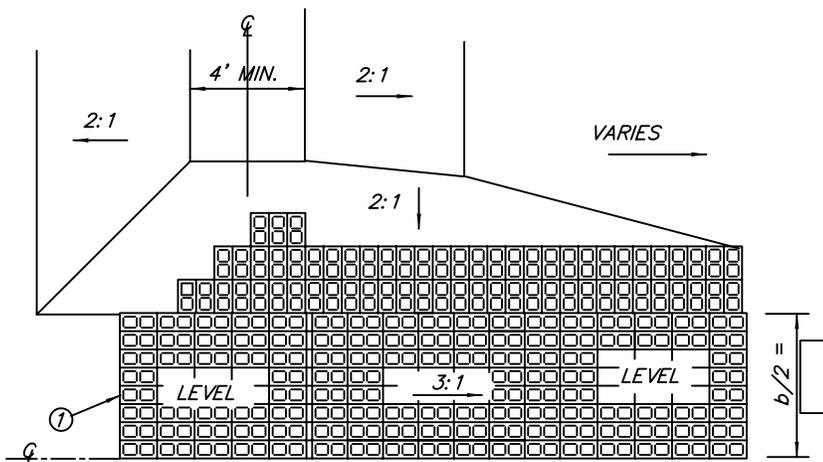
LAYOUT BY \_\_\_\_\_ DATE \_\_\_\_\_

CONTRACTOR \_\_\_\_\_ COMPLETED DATE \_\_\_\_\_

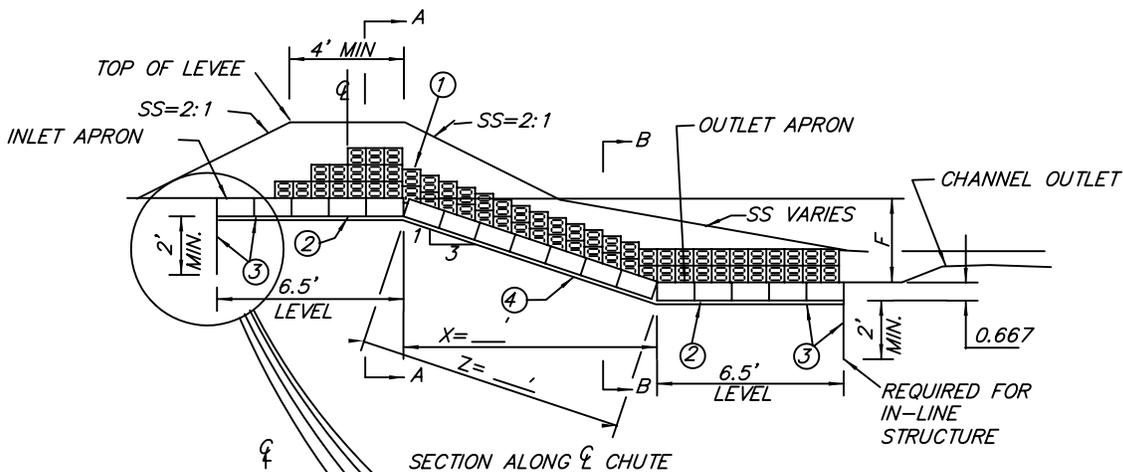
PRACTICE (DOES)(DOES NOT) MEET STANDARDS AND SPECIFICATIONS.

CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_

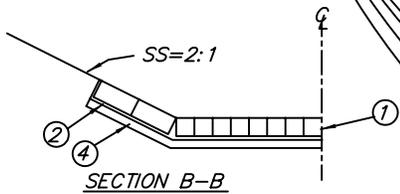
PROVIDE AN EMERGENCY SPILLWAY,  
ONE ON EACH SIDE IF FEASIBLE,  
1.3' TO 1.5' BELOW TOP OF LEVEE.



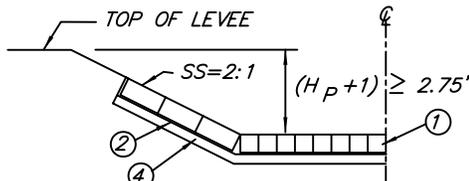
HALF PLAN



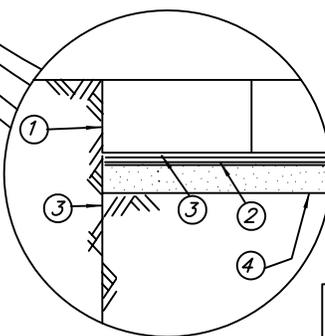
SECTION ALONG C CHUTE



SECTION B-B



SECTION A-A



NOT TO SCALE

LEGEND

- ① CONCRETE BLOCKS
- ② FILTER FABRIC
- ③ PLASTIC SHEETING
- ④ BEDDING 1" TO 3" THICK

COOPERATOR \_\_\_\_\_  
\_\_\_\_\_ COUNTY SWCD, INDIANA  
LOCATION \_\_\_\_\_

ELEVATIONS	
TOP OF LEVEE	_____
EMERGENCY SPILLWAY	_____
INLET APRON	_____
OUTLET APRON	_____
CHANNEL OUTLET	_____

STRUCTURE DIMENSIONS	
Q=	_____ CFS
H <sub>p</sub> =	_____ FT
F=	_____ FT
b=	_____ FT

CONCRETE BLOCK CHUTE  
(SHEET 1 OF 3)  
GENERAL LAYOUT

U. S. DEPARTMENT OF AGRICULTURE  
NATURAL RESOURCES CONSERVATION SERVICE

BENCH MARK	
ELEVATION	_____
DESCRIPTION	_____
_____	_____
_____	_____

Designed _____	Approved By _____
Drawn _____	Title _____
Traced _____	Title _____
Checked _____	Sheet No. _____
	Drawing No. _____
	of _____

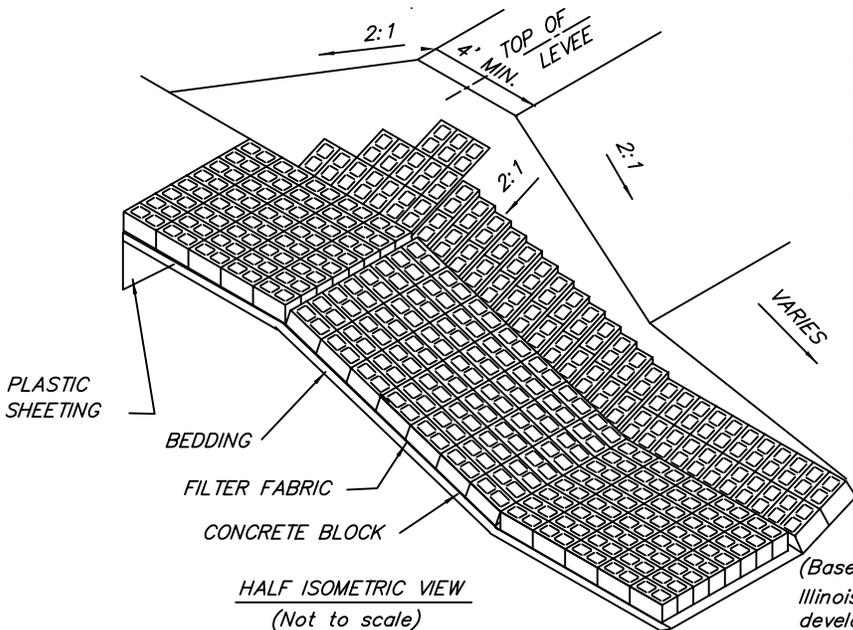
CONSTRUCTION NOTES

- 1- Site preparation:
  - A- Remove all vegetation, roots and topsoil from chute site.
  - B- Excavate and/or place compacted fill to chute slope and side slope subgrade approximate 0.8 ft. below finished grade. Compacted fill shall be denser than adjacent undisturbed material.
- 2- Excavate cutoff trench:
  - A- Cutoff trench shall be excavated upstream of inlet apron to 24 inches minimum below stone/sand bedding grade. Excavate similar cutoff trench downstream of outlet apron for in-line structure.
  - B- Cutoff trenches shall extend to full width of block placement (2.3 feet outside bottom width "b" on each side).
- 3- Place polyvinyl sheet in cutoff trenches:
  - A- Plastic sheeting shall be 6 mil minimum thickness.
  - B- Place plastic to bottom of trench and backfill.
  - C- Fold plastic above trench (24 inches minimum) away from structure.
- 4- Bedding:
 

Place 1 to 3 inches thickness of stone/sand, such as IDOH no. 23, 24, or 15 over entire chute bottom and side slope to grade required.
- 5- Place filter fabric:
  - A- Filter fabric shall be nonwoven, needlepunched (not heat bonded), with openings between 0.15 mm and 0.42 mm (U.S. Standard Sieve Size between #40 and #100), tensile strength 120 lbs. minimum, bursting strength 210 lbs. minimum, puncture resistance 40 lbs. minimum, and be ultraviolet resistant.
  - B- Place filter fabric over and outside of entire stone/sand bedding and anchor with pins or staples in accordance with manufacturer's recommendations. Use minimum lap of 24 inches if filter fabric is installed in more than one piece.
  - C- Place fabric in trench outside of stone/sand bedding and anchor with earth.
  - D- Do not place stone/sand or earth on fabric under block.
- 6- Fold plastic cutoff material over filter fabric.
- 7- Place concrete blocks starting at downstream end of sloping section and proceed upstream and downstream.
  - A- Concrete blocks shall be nominal 8"x8"x16", in good condition and free of excess mortar.
  - B- Concrete blocks shall be placed with small end of holes up.
  - C- Concrete blocks in floor shall be placed with length parallel to direction of flow.
  - D- Concrete blocks in side slopes shall be placed with length perpendicular (90 degrees) to direction of flow.
  - E- Concrete blocks shall not be driven on by any machinery during or after placement.
- 8- Finish operations:
  - A- Fill holes in concrete blocks with soil. Seed with same mixture used on disturbed areas.
  - B- Lime, fertilize, seed and mulch all disturbed areas.

QUANTITIES

Concrete blocks \_\_\_\_\_ Each  
 Bedding \_\_\_\_\_ Tons  
 Plastic sheeting \_\_\_\_\_ Sq. Yds.  
 (4.0 feet wide X \_\_\_\_\_ lin. ft. long)  
 Filter fabric \_\_\_\_\_ Sq. Yds.  
 (Add additional for laps and edges)  
 Revegetation \_\_\_\_\_ Acres



COOPERATOR _____	
COUNTY SWCD, INDIANA	
LOCATION _____	
CONCRETE BLOCK CHUTE (SHEET 2 OF 3)	
<b>U. S. DEPARTMENT OF AGRICULTURE</b> <b>NATURAL RESOURCES CONSERVATION SERVICE</b>	
Designed _____	Approved By _____
Drawn _____	Title _____
Traced _____	Title _____
Checked _____	Sheet _____ Drawing No. _____
	No. _____
	of _____

GENERAL

Construction operations shall be carried out in such a manner and sequence that erosion and air and water pollution will be minimized and held within acceptable limits. Construction methods that enhance wildlife habitat will be used where practical.

The completed job shall present an appearance of good workmanship and shall conform to the lines, grades, and elevations shown on the drawings or as staked in the field.

All operations shall be carried out in a safe and skillful manner. Safety and health regulations shall be observed and appropriate safety measures used.

SITE PREPARATION

All trees, stumps, brush, and similar materials are to be removed from the construction area and disposed of in a manner consistent with environmental concerns and proper functioning of the spillway.

EXCAVATION

To the extent needed, all suitable materials removed from the specified excavation shall be used in the construction of the earth fill areas of the structure. All spoil deposited adjacent to the structure and in the adjacent area shall have a positive grade to drain toward the structure.

MOISTURE CONTROL

The minimum moisture content of the fill material and foundation shall be such that when kneaded in the hand the fill material will form a ball which does not readily separate. The maximum moisture content is when conditions are too wet for efficient use of the hauling and compacting equipment.

MAINTENANCE RECOMMENDATIONS:

A maintenance program shall be established by the land user to maintain capacity and vegetative cover. Items to consider are as follows:

- 1-Do not graze seeded areas during establishment and when soil conditions are to wet.
- 2- Protect structure from damage by farm equipment and vehicles.
- 3-Maintain structure inlet and outlet areas free of any obstructions.
- 4-Repair structure as soon as possible after damage is noted.
- 5- Reestablish vegetative cover immediately where erosion has removed established seeding.
- 6-Maintain effective erosion control of the contributing watershed to prevent siltation and the resulting loss of capacity.

CONSTRUCTION TOLERANCES

Depth at centerline: Grade to 0.1 foot below  
Width: 10% wider not to exceed 1.0 foot  
Top of levee: Grade or above.  
Side slopes: ±0.1 ft./ft.

FINISH AND CLEANUP

The structure area and the designated spoil areas will be finished in a relatively smooth condition ready for seeding. All rocks 3 inches in diameter or larger and roots shall be removed from the surface areas.

VEGETATIVE ESTABLISHMENT

Excess water shall be directed away until vegetation is established, if possible. Any protective works shall be removed and the disturbed areas shall be seeded for permanent grass.

Apply lime to raise the ph to \_\_\_\_\_ at rate of \_\_\_\_\_ tons per acre.

Fertilize according to soil tests or at a minimum rate of 500 pounds of 12-12-12 fertilizer (or its equivalent) per acre as soon as the structure has been constructed if within the seeding dates.

Work the fertilizer and lime into the soil to a depth of 2 - 3 inches with a harrow or disk. Seeding will be done at the following rates:

Seed: \_\_\_\_\_ Rate: \_\_\_\_\_ lbs./acre  
\_\_\_\_\_ Rate: \_\_\_\_\_ lbs./acre

When construction is completed between May 11 and August 9, a temporary cover crop should be established using the following seeding:

Seed: \_\_\_\_\_ Rate: \_\_\_\_\_ lbs./acre

Dormant seeding may be done between December 10 and February 28. Liming, fertilizing, seedbed preparation and mulching may be done ahead of the dormant seeding, with the seed being broadcast on top of the mulch.

Apply mulch at the rate of \_\_\_\_\_ tons of straw per acre.

COOPERATOR \_\_\_\_\_  
\_\_\_\_\_ COUNTY SWCD, INDIANA  
LOCATION \_\_\_\_\_

CONCRETE BLOCK CHUTE  
(SHEET 3 OF 3)  
SPECIFICATIONS



U. S. DEPARTMENT OF AGRICULTURE  
NATURAL RESOURCES CONSERVATION SERVICE

Designed _____	Approved By _____
Drawn _____	Title _____
Traced _____	Title _____
Checked _____	Sheet _____ Drawing No. _____
	No _____
	of _____

Revised 10/89