

# CONSTRUCTION SEQUENCE

- Excavate to finished grade of required section and slope.
- Dig trenches on upstream end and downstream toe.
- Hand rake grade to prepare seedbed. If seedbed is difficult to rake, topsoil may be added. Do not use herbicide contaminated topsoil. Remove all rocks, clods, and clumps larger than 1 inch diameter. Spread fertilizer and lime. Rake into seedbed. Fertilize according to soil tests or at a minimum rate of 2 lbs. of 12-12-12 fertilizer (or its equivalent) per 100 sq.ft.
- Place geotextile in bottom of lined outlet. Extend geotextile into trenches for anchorage at upstream and downstream ends as shown. Staple geotextile at 1 to 2 ft. intervals across the entrance apron.
- Place 1/2 to 1 inch of topsoil over the geotextile.
- Seed onto the geotextile/topsoil at the following rates:

Seed	Lbs./100 sq.ft.
Perennial Rye	0.25
Tall Fescue	0.5
Smooth Brome	0.5
Creeping Red Fescue	0.5

Note: Seed may be embedded into the Erosion Control Blanket from the factory. This is acceptable as long as the seeding rates and species are similar to the above table.

- Place Erosion Control Blanket (ECB) over the seed. Note: Straw mulch and Erosion Control Netting (ECN) may be used in place of the Erosion Control Blanket. The ECB or ECN shall extend into the trenches as shown.
  - Staple geotextile and ECB or ECN at 2 ft. intervals starting at the centerline of the channel and working out toward each side. Additional staples shall be placed where the material does not contact the soil.
    - Longitudinal overlap shall consist of 2 staggered rows of staples 6" apart. The staples in each row shall be placed 12" o.c.
    - Shingle laps shall consist of 2 staggered rows of staples 4" apart. The staples in each row shall be placed 6" o.c.
- Refer to the Staple Pattern Detail. If manufacturer literature shows staples at closer intervals, then that criteria shall be used.
- Fill upstream trench with soil and compact. Fill material shall be placed in 4" lifts and compacted to a density equivalent to that of the surrounding native soil. Fill downstream trench with riprap. Note: Riprap may be used in the upstream trench in place of compacted fill.
  - At the upstream end, wrap the ECB or ECN over the top of the compacted trench. It should overlap itself at the beginning of the inlet channel at least 6 inches. Staple at 1 ft. intervals across the entrance apron.

## MATERIAL REQUIREMENTS

- Geotextile:** The geotextile material shall be 3.5 to 6.0 oz/sq.yd. Minimum requirements for the geotextile shall be in accordance with Construction Specification IA-95 and shall be non-woven, Class III.
- Erosion Control Blanket (ECB):** The erosion control blanket shall use straw, wood excelsior, or straw/coconut mulch at the rate of approximately 0.5 lb/sq.yd. Grass seed may be embedded in the ECB as long as the seeding rates and species are similar to those in the above table.
- Erosion Control Netting (ECN) and Straw Mulch:** The netting shall be extruded oriented polypropylene netting. The mesh openings shall be 1/2 inch to 1 inch in each direction. The weight shall be approximately 3 lbs. per 1,000 sq.ft. Straw mulch shall be spread 1 to 2 inches thick before the netting is placed.
- Riprap:** The riprap shall meet the requirements of Construction Specification IA-61, Loose Rock Riprap.
- U-staples are to have a 1" crown and be 11 gauge or heavier wire. Manufacturers may have an alternative fastener type compatible with their product. Staples shall have a minimum length of 6".

### RIPRAP GRADATION

(D<sub>50</sub> = 8 inches)

SIZE (INCHES)	(POUNDS)	% SMALLER BY WEIGHT
14	200	100
12	130	40-80
8	40	25-50
3	2	5-10

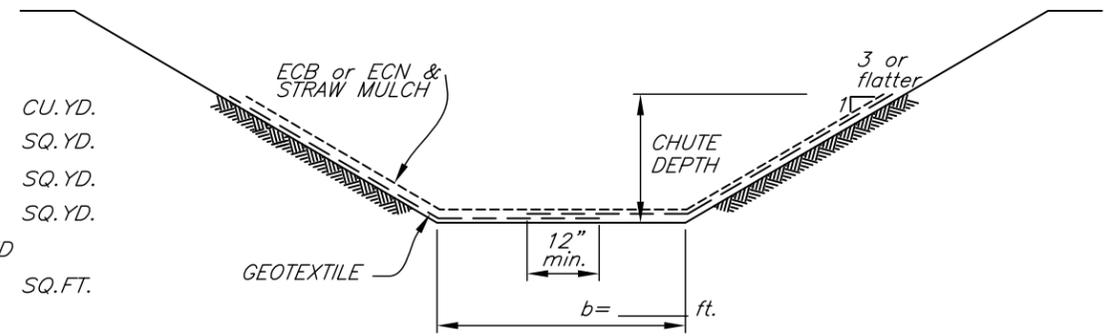
NOT TO SCALE

STANDARD DWG. IA-1402A

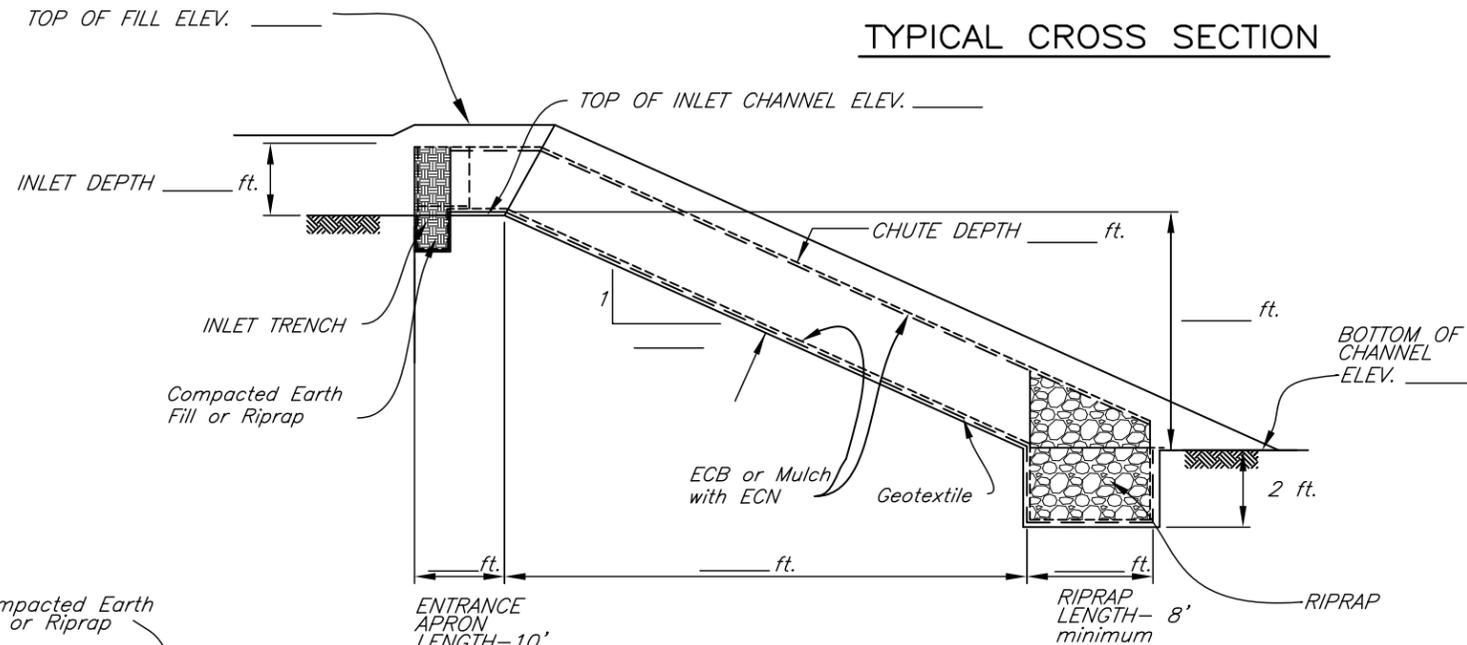
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## ESTIMATE OF QUANTITIES

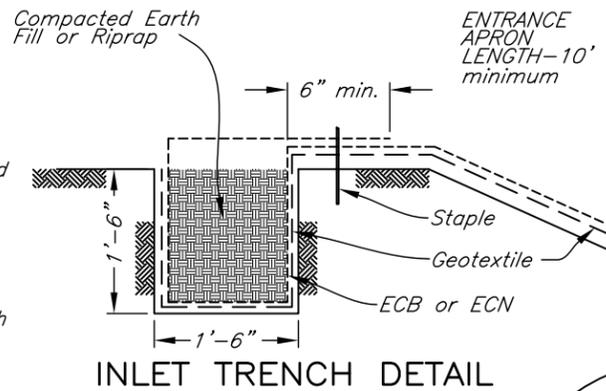
RIPRAP (D <sub>50</sub> = 8 in.)	_____	CU.YD.
GEOTEXTILE	_____	SQ.YD.
EROSION CONTROL BLANKET	_____	SQ.YD.
EROSION CONTROL NETTING	_____	SQ.YD.
STAPLES OR STAKES	AS NEEDED	
SEEDING AND MULCHING	_____	SQ.FT.



## TYPICAL CROSS SECTION



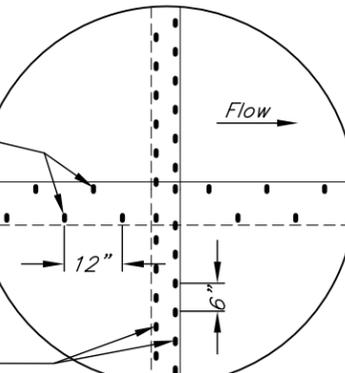
## SECTION ON CENTERLINE



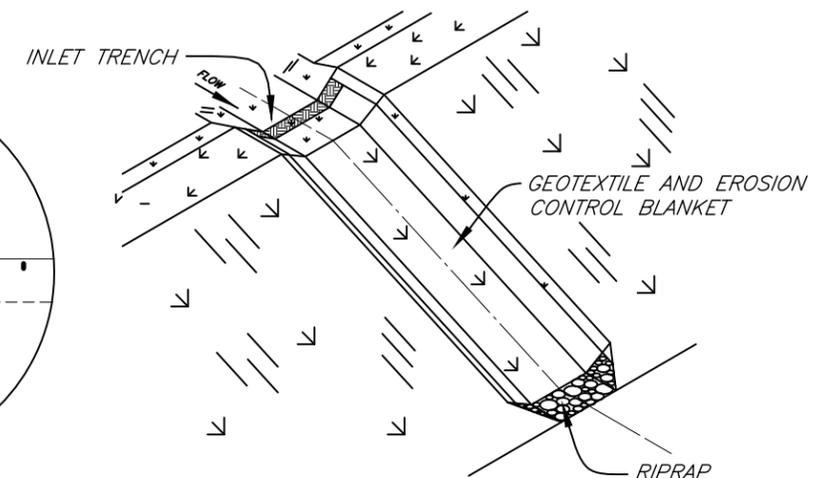
## INLET TRENCH DETAIL

longitudinal overlap:  
12" min. fabric overlap,  
2 staggered rows,  
6" apart, 12" O.C.

shingle lap:  
6" min. fabric overlap,  
2 staggered rows,  
4" apart, 6" O.C.



## STAPLE PATTERN DETAIL



## ISOMETRIC VIEW

Date \_\_\_\_\_  
Designed \_\_\_\_\_  
Drawn J. Gibbs  
Checked \_\_\_\_\_  
Approved \_\_\_\_\_

GEOTEXTILE REINFORCED  
VEGETATED OUTLET  
Geotextile with an Erosion Control Blanket



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