

PROJECT #: 25573

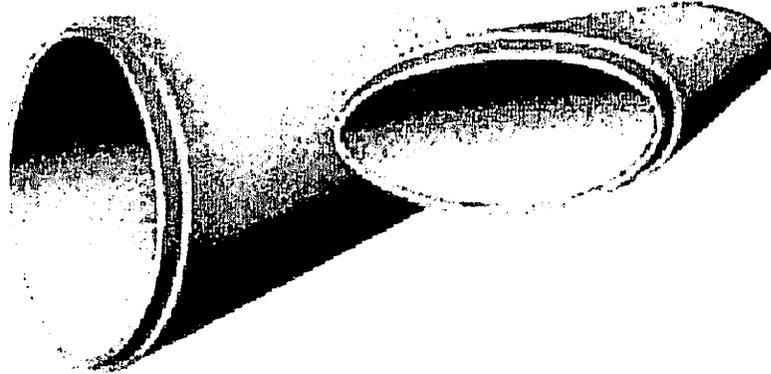
DATE: 12/7/2025

COTTEN ENGINEERING LLC

CIVIL ENGINEERING, PLANNING AND MANAGEMENT CONSULTANTS
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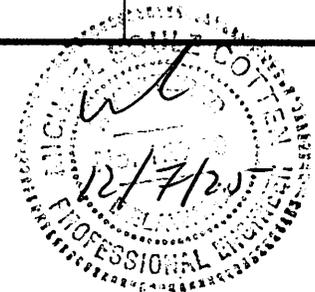
TAX MAP#: 230-13.00-140.00

NOTE: CONTACT SYSTEM DESIGNER IF SITE CONDITIONS CHANGE.



ASTM 507 -- REINFORCED CONCRETE ELLIPTICAL CULVERT, STORM DRAIN AND SEWER PIPE

EQUIVALENT ROUND SIZE (INCHES)	HEIGHT INSIDE (INCHES)	WIDTH INSIDE (INCHES)	WALL THICKNESS (INCHES)	WATERWAY AREA (SQ. FT.)	WEIGHT POUNDS PER FOOT
18	x 14	23	2 ³ / ₄	1.8	211
24	19	30	3 ¹ / ₄	3.3	319
30	24	38	3 ³ / ₄	5.1	452
36	29	45	4 ¹ / ₂	7.4	625
42	34	53	5	10.2	853
48	38	60	5 ¹ / ₂	12.9	1,061
54	43	68	6	16.6	1,235
60	48	76	6 ¹ / ₂	20.5	1,475
72	58	91	7 ¹ / ₂	29.5	2,040
84	68	106	8 ¹ / ₂	40.1	2,680



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Standard Detail & Specifications

Riprap Outlet Protection - 1

Construction Notes:

1. The subgrade for the riprap shall be prepared to the required lines and grades as shown on the plan. Any fill required in the subgrade shall be compacted to a density of approximately that of the surrounding undisturbed material.
2. The riprap shall conform to the grading limits as shown on the plan.
3. Filter cloth shall be protected from punching, cutting or tearing. Any damage other than an occasional small hole shall be repaired by placing another piece of cloth over the damaged area. All connecting joints should overlap a minimum of 1 ft. If the damage is extensive, replace the entire filter cloth.
4. Stone for the riprap or gabion outlets may be placed by equipment. Riprap shall be placed in a manner to prevent damage to the filter cloth. Hand placement will be required to the extent necessary to prevent damage to the conduits, structures, etc.



Source:

Adapted from
MD Stds. & Specs. for ESC

Symbol:



Detail No.

DE-ESC-3.3.10.1
Sheet 2 of 2

Date: 12/03

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TAX MAP #: 230-13.00-140.00

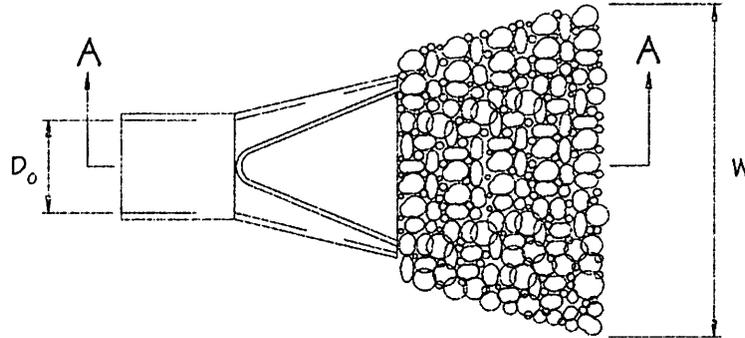
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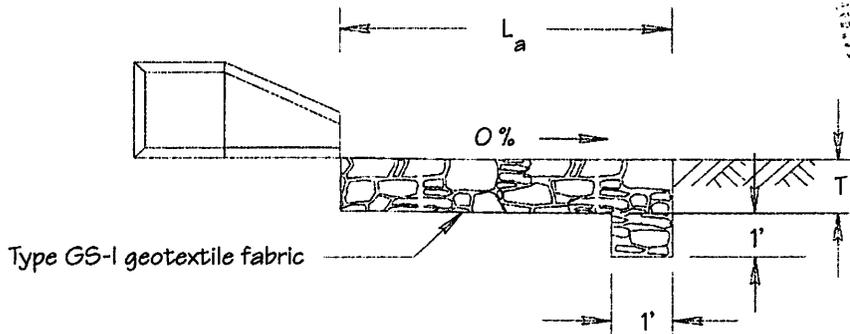
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Standard Detail & Specifications

Riprap Outlet Protection - 1



Plan



NOTE: Key into exist. grd

DATA

- Pipe diameter (D_o)
- Apron length (L_a)
- Apron width (W)
- Riprap size (R No.)
- Riprap thickness (T)

Section A-A

$$T_w < 0.5 D_o$$

Source:

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Symbol:

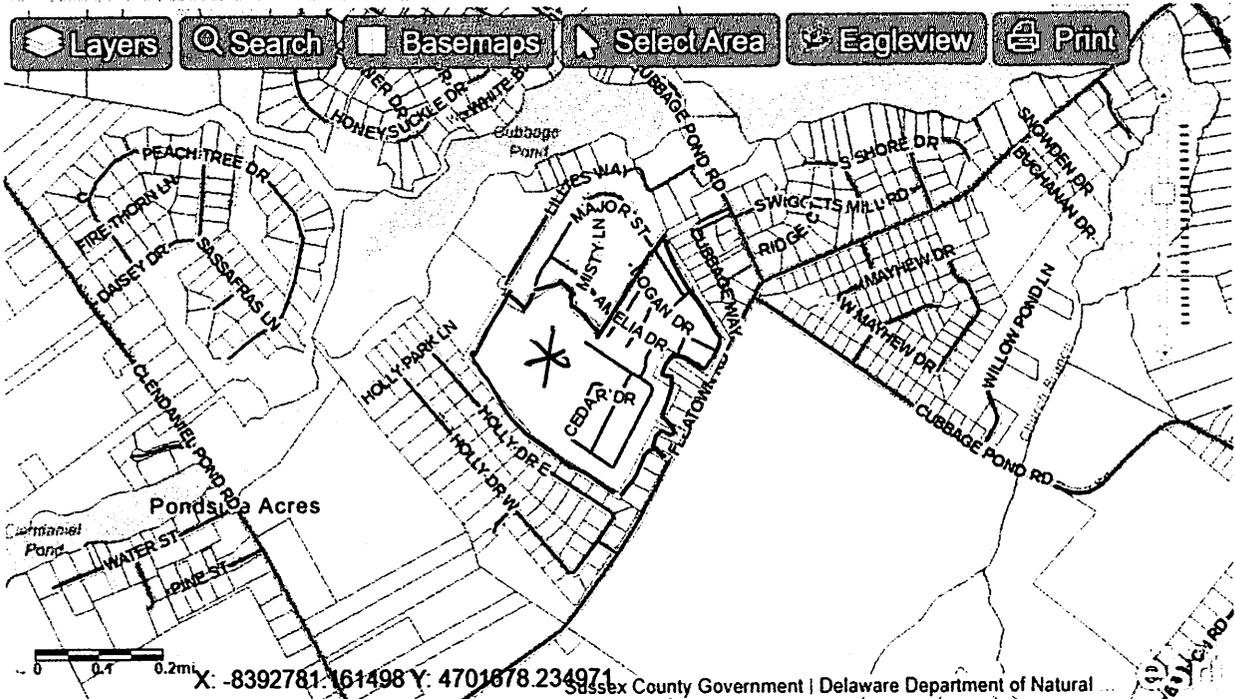
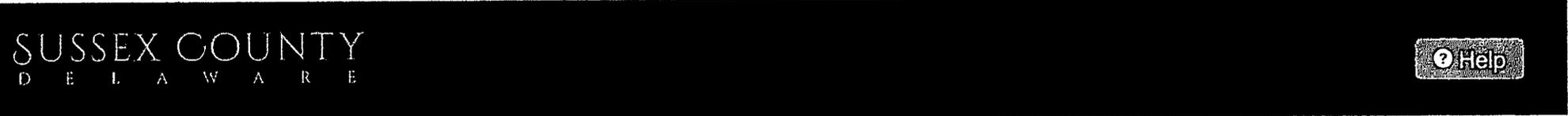


Detail No.

DE-ESC-3.3.10.1

Sheet 1 of 2

Date: 12/03



Eagleview Search Results

Selected Features: Parcels (150)

1) 230-13.00-140.00 Zoom	
BOOK	0
PAGE	0
FULLNAME	CEDAR VILLAGE LLC
MAILINGADDRESS	PO BOX 631
CITY	REHOBOTH BEACH
STATE	DE
DESCRIPTION	GIS TIEBACK
▶ 2) 230-13.00-140.00-11367	Zoom
▶ 3) 230-13.00-140.00-12861	Zoom
▶ 4) 230-13.00-140.00-13295	Zoom
▶ 5) 230-13.00-140.00-13296	Zoom

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Selected Features (1 - 5 of 150)

Clear Selected