

Block	Lot	Owner	Address	City	State	Zip
236	6.18	Clark Edward, LLC	113 East 9th Street	Ocean City	NJ	08226
236	6.19	Clark Edward, LLC	113 East 9th Street	Ocean City	NJ	08226

- GENERAL NOTES**
- Applicant/Owner: Clark Edward, LLC  
c/o Clark Edward  
111 East 9th Street  
Ocean City, NJ 08226  
Phone (609) 335-1544
  - The project site is known as Block 236 Lots 6.18 & 6.19, as shown on the Tax Plate #26 of the Township of Dennis Tax Maps. These lots are to be consolidated.
  - The project site is located in the (OVC) Ocean View Center Zoning District.
  - The project site consists of an area of 3.216± Acres & is currently vacant.
  - It is the intent of the applicant to construct a 100' x 250' building with 20 contractor office/storage units. Each unit will have a 183 SF office & a restroom.
  - The proposed units shall be serviced by a proposed on-site septic system & well.
  - All concrete curb, sidewalk, pavement disturbed in kind within road rights-of-way are to be repaired in kind.
  - All traffic signs, other signs, mailboxes, poles and/or safety devices that will be removed during construction are to be reinstalled at the proper location.
  - Stormwater calculations are submitted under separate cover. Calculations were prepared by Engineering Design Associates and dated January 2025.
  - The proposed application will require approvals from the following agencies:
    - Dennis Township Land Use Board
    - Cape May County Planning Board
    - DelAtlantic Soil Conservation District
    - Cape May County Health Department

**SURVEY INFORMATION**

Outbound and topographic survey information taken from plan entitled "Plan of Survey", Block 236, Lots 6.18 & 6.19, Township of Dennis, Cape May County, New Jersey prepared by Cape Land Surveying, George Swensen, N.J.P.L.S. #43415 & dated 11/10/2025.

**CONTRACTOR NOTES**

This set of plans has been prepared for purposes of municipal and agency review and approval. This set of plans shall not be utilized as construction documents until all conditions of approval have been satisfied on the drawings and each drawing has been revised to indicate " Issued for Construction."

Contractor shall check and verify all existing utilities, grades, site dimensions and existing conditions before proceeding with construction. Any discrepancies or unusual conditions are to be reported to design engineer/project staff immediately for adjustments or directions.

All construction to be performed in accordance with NJDOT Standard Specifications and supplementary specifications for this project.

These drawings do not include the necessary components for construction safety; however, all construction must be done in compliance with the Occupational Safety and Health Act of 1970 and all rules and regulations appurtenant to this project.

**ZONING INFORMATION**  
(OVC) OCEAN VIEW CENTER ZONING DISTRICT

Description	Required	Proposed	Variance
<i>Principal Building</i>			
Lot Area (min.)	1 AC	3,216 AC	NO
Lot Width (min.)	150'	300'	NO
Lot Depth (min.)	200'	485.9'	NO
Front Yard Setback (max.)	0'-8"	40.0'	YES
Rear Yard Setback (min.)	55'	101.3'	NO
Side Yard Setback (min.)	30'	96.0', 104.0'	NO
Building Coverage (max.)	35%	17.85%	NO
Impervious Coverage (max.)	60%	43.86%	NO
Building Height (max.)	30'	<30'	NO
First Floor Ceiling Height (min.)	10'	>10'	NO
Building Length (max.)	100'	100'	NO
<i>Parking Requirements</i>			
Front Yard Setback (min.)	30'	40.0'	NO
Rear Yard Setback (min.)	10'	53.1'	NO
Side Yard Setback (min.)	10'	38.0', 46.0'	NO
Number of Spaces			
Storage - 1,190 SF per unit (1 space/1,000 SF)	24	24	NO
Office - 183 SF per unit (1 space/200 SF)	19	22	NO
Parking Space	9' x 18'	9' x 18'	NO
Drive Aisle (min.)	25'	40'	NO
<i>Sign Requirements</i>			
Freestanding Sign	Not Permitted	1	YES
Sign Area (max. each side)	-	32 SF	-
Sign Height (max.)	-	12'	-
Sign Setback (min.)	-	10'	-
<i>Variations Requested</i>			
- Section 185-23 (B) to permit contractor office & storage in the OVC Zone.			
- Section 185-23 (D) to permit a front yard setback of 40', where 8' maximum is permitted.			
- Section 185-43 (C) to permit a freestanding sign.			
<i>Waivers Requested</i>			
- Section 185-38 (A)(2) to waive curbing for parking area.			
- Section 185-40 (B) to waive the location & type of enclosure for trash enclosure.			
- Section 185-41 (J) to waive the buffer & clearing requirements.			
- Section 185-41 (K) to waive the submission of an Environmental Assessment & Environmental Assessment Checklist.			

PROPERTY OWNERS LIST WITHIN 200'

GENERAL NOTES

CONTRACTOR NOTES

ZONING INFORMATION

**COVER SHEET**  
BLOCK 236, LOTS 6.18 & 6.19  
TOWNSHIP OF DENNIS  
CAPE MAY COUNTY, NEW JERSEY

**JOSEPH H. MAFFEI**  
PROFESSIONAL ENGINEER  
N.J.P.E. LIC. #37894

IF THIS PLAN OR DOCUMENT DOES NOT CONTAIN A RAISED SEAL IMPRESSION BEARING THE NAME AND REGISTRATION NUMBER OF THE ABOVE SIGNED PROFESSIONAL, IT MAY NOT BE AN AUTHORIZED COPY OF THE ORIGINAL DOCUMENT AND MAY HAVE BEEN ALTERED. REPRODUCTION OR FURTHER DISSEMINATION OF THE CONTENTS IN WHOLE OR IN PART REQUIRES PERMISSION IN WRITING FROM ENGINEERING DESIGN ASSOCIATES, P.A.

REVISION	DATE	BY

**EDA**  
Engineers - Landscape Architects - Planners

DATE: 1/12/2026	DRAWN BY: MAJ
SCALE: AS NOTED	CHECKED BY: JHM
PROJECT #: 10793	SHEET: 1 OF 11

# SITE PLAN FOR CLARK EDWARD, LLC

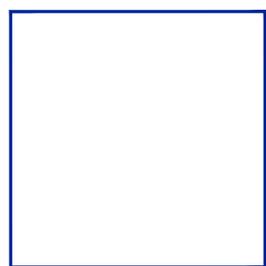
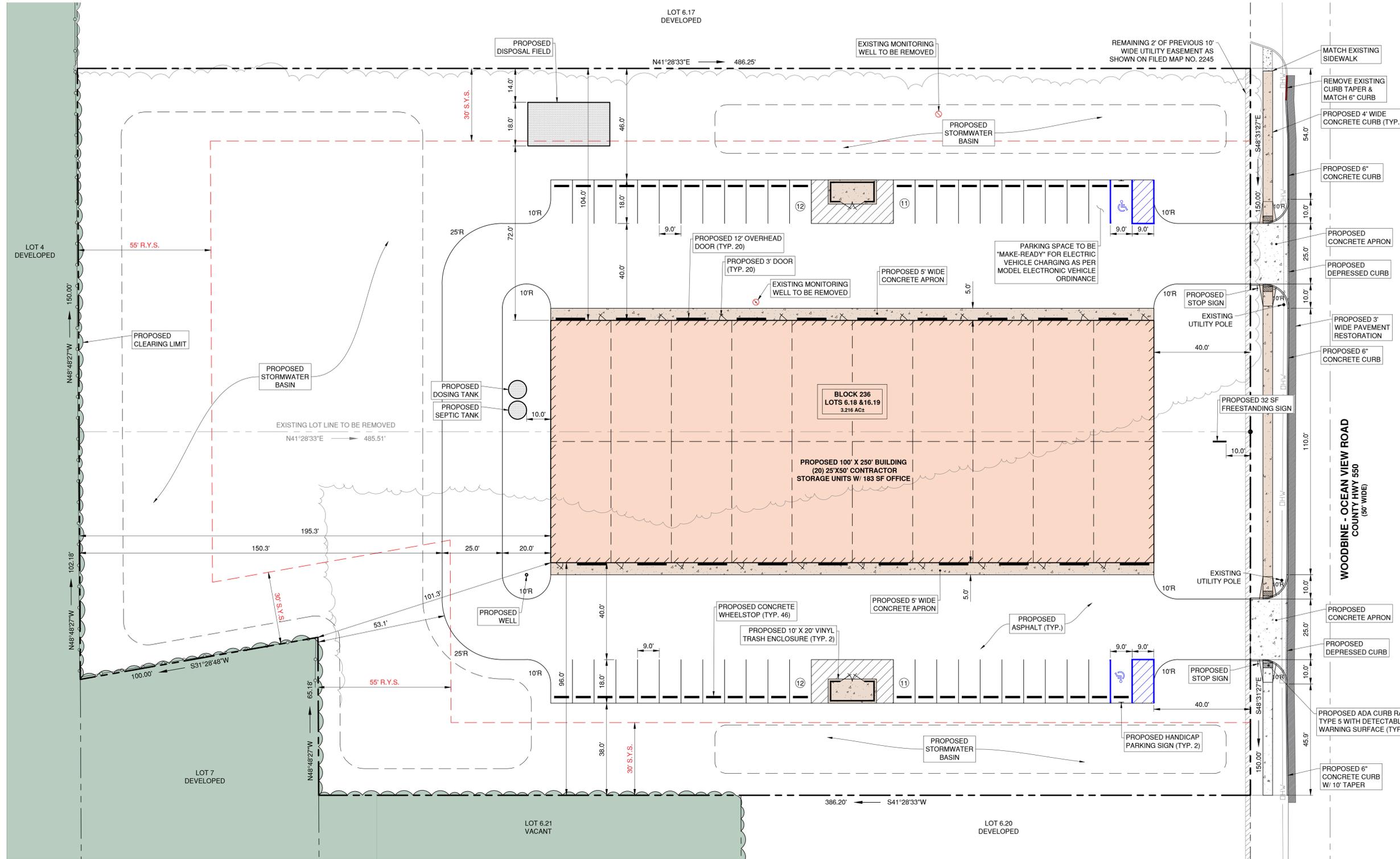
## BLOCK 236, LOTS 6.18 & 6.19 TOWNSHIP OF DENNIS CAPE MAY COUNTY, NEW JERSEY

**SCHEDULE OF SHEETS**

	SHEET NUMBER	ORIGINAL DATE	LAST REVISION DATE
COVER SHEET	1 OF 11	1/12/2026	-
SITE PLAN	2 OF 11	1/12/2026	-
GRADING & DRAINAGE PLAN	3 OF 11	1/12/2026	-
LIGHTING & LANDSCAPING PLAN	4 OF 11	1/12/2026	-
SOIL EROSION & SEDIMENT CONTROL PLAN	5 OF 11	1/12/2026	-
ENGINEERING DETAILS	6 OF 11	1/12/2026	-
ENGINEERING DETAILS	7 OF 11	1/12/2026	-
ENGINEERING DETAILS	8 OF 11	1/12/2026	-
ENGINEERING DETAILS	9 OF 11	1/12/2026	-
ENGINEERING DETAILS	10 OF 11	1/12/2026	-
SOIL EROSION & SEDIMENT CONTROL DETAILS	11 OF 11	1/12/2026	-

**TOWNSHIP OF DENNIS APPROVAL BLOCK**

Chairman	Date
Secretary	Date
Engineer	Date



**EDA** Engineering Design Associates, P.A.  
 Environmental Planners, Landscape Architects  
 CAMBRIDGE PROFESSIONAL OFFICES  
 500 Cambridge Street, Cambridge, MA 02142  
 (609) 390-0332 • Fax (609) 390-9204 • www.engineeringdesign.com • CERTIFICATE OF AUTHORIZATION# 24062970030

**SITE PLAN**  
 BLOCK 236, LOTS 6.18 & 6.19  
 TOWNSHIP OF DENNIS  
 CAPE MAY COUNTY, NEW JERSEY

**JOSEPH H. MAFFEI**  
 PROFESSIONAL ENGINEER  
 N.J.P.E. LIC. #37894

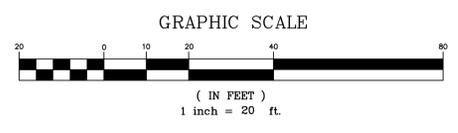
IF THIS PLAN OR DOCUMENT DOES NOT CONTAIN A RAISED SEAL IMPRESSION BEARING THE NAME AND REGISTRATION NUMBER OF THE ABOVE SIGNED PROFESSIONAL, IT MAY NOT BE AN AUTHORIZED COPY OF THE ORIGINAL DOCUMENT AND MAY HAVE BEEN ALTERED. REPRODUCTION OR FURTHER DISSEMINATION OF THE CONTENTS IN WHOLE OR IN PART REQUIRES PERMISSION IN WRITING FROM ENGINEERING DESIGN ASSOCIATES, P.A.

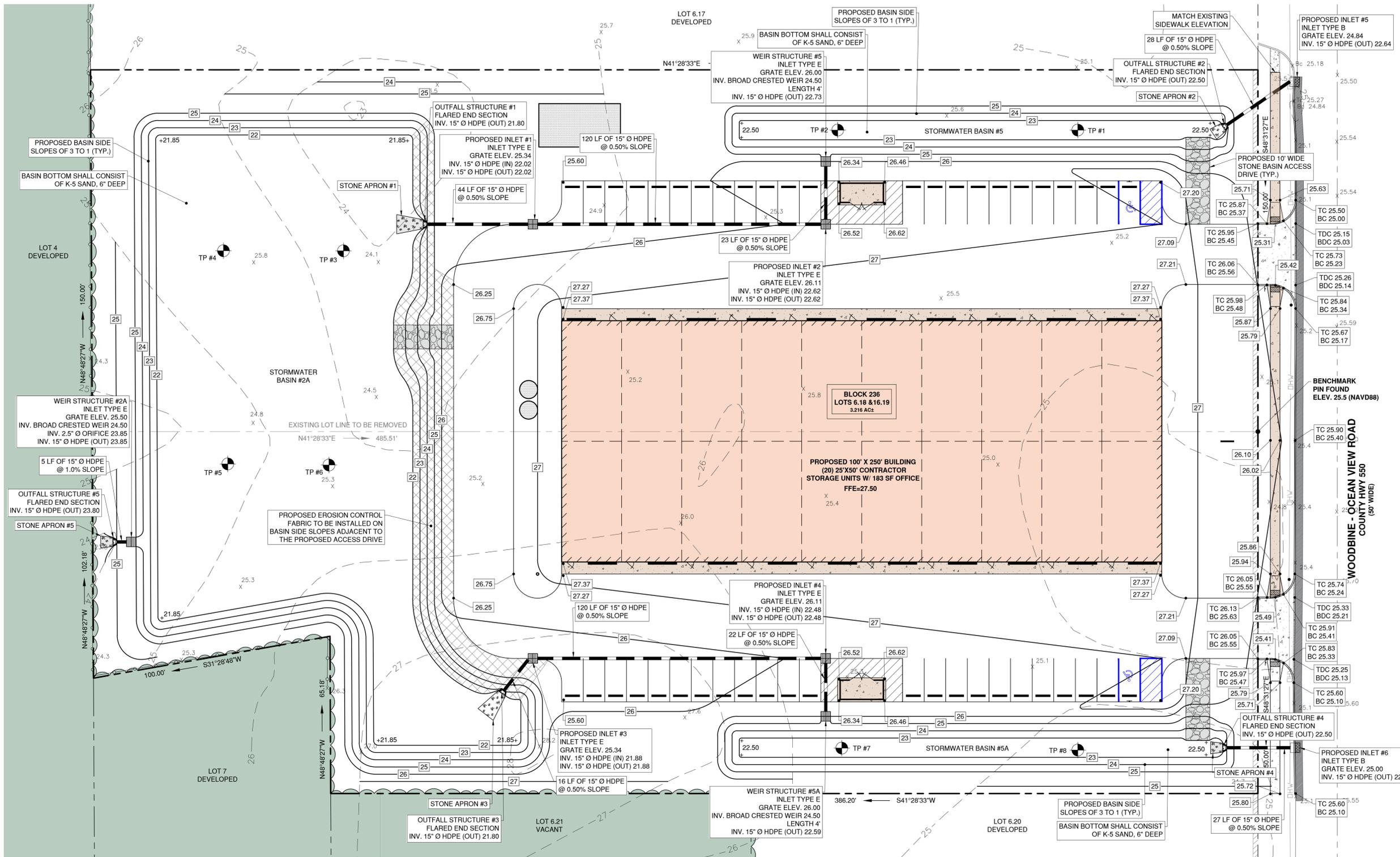
REVISION	DATE	BY



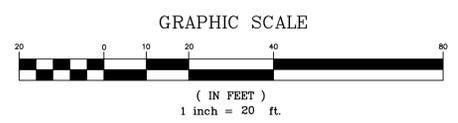
DATE: 1/12/2026	DRAWN BY: MAJ
SCALE: AS NOTED	CHECKED BY: JHM
PROJECT #: 10793	SHEET: 2 OF 11

# SITE PLAN





# GRADING & DRAINAGE PLAN



**EDA** Engineering Design Associates, P.A.  
 Environmental Planners, Landscape Architects  
 CAMBRIDGE PROFESSIONAL OFFICES  
 500 WOODBINE RD., SUITE 200  
 CAPE MAY COUNTY, NJ 08204  
 (609) 390-0332 • Fax (609) 390-9204 • www.engineeringdesign.com • CERTIFICATE OF AUTHORIZATION# 24062970030

**GRADING & DRAINAGE PLAN**  
 BLOCK 236, LOTS 6.18 & 6.19  
 TOWNSHIP OF DENNIS  
 CAPE MAY COUNTY, NEW JERSEY

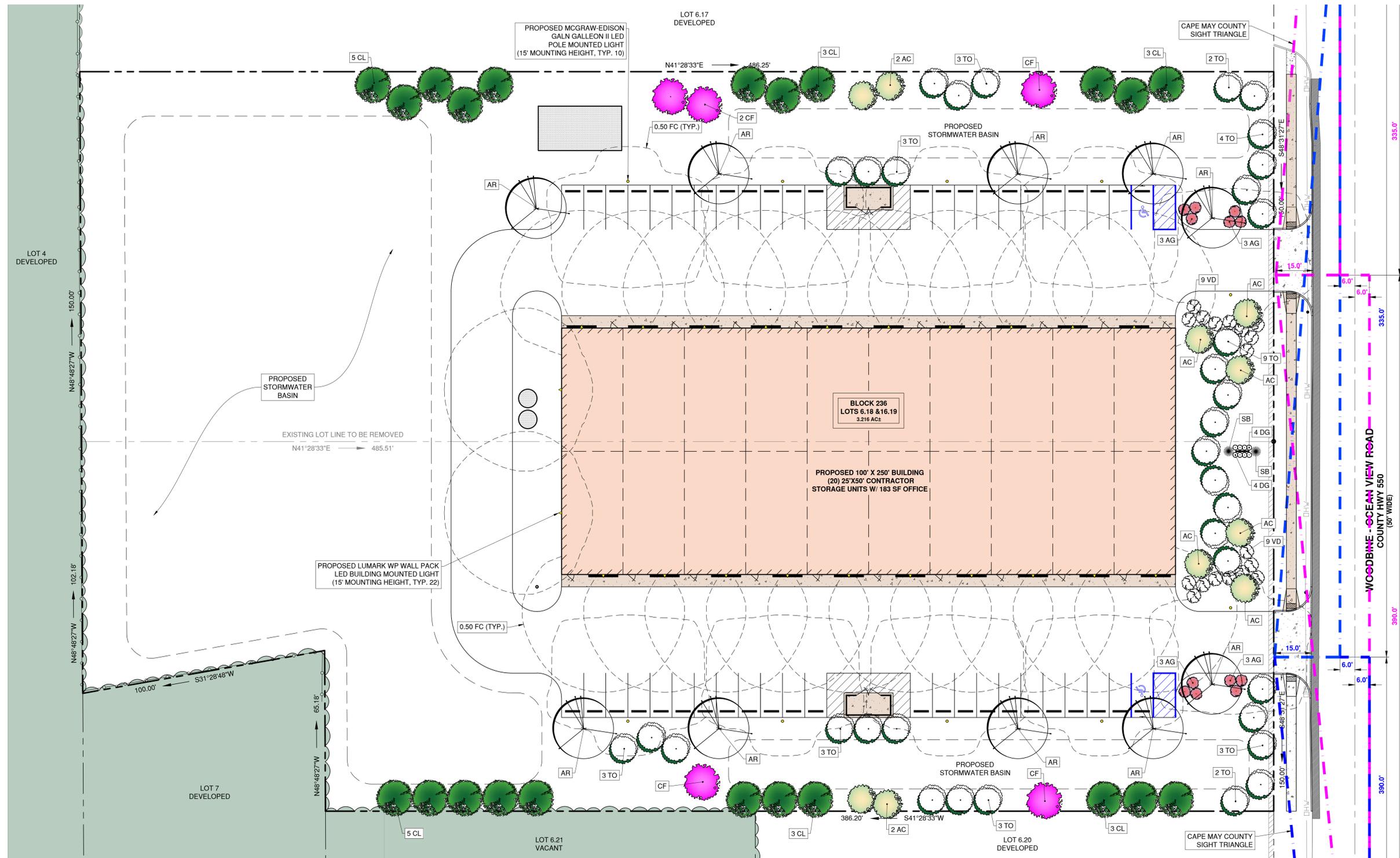
**JOSEPH H. MAFFEI**  
 PROFESSIONAL ENGINEER  
 N.J.P.E. LIC. #37894

IF THIS PLAN OR DOCUMENT DOES NOT CONTAIN A RAISED SEAL IMPRESSION BEARING THE NAME AND REGISTRATION NUMBER OF THE ABOVE SIGNED PROFESSIONAL, IT MAY NOT BE AN AUTHORIZED COPY OF THE ORIGINAL DOCUMENT AND MAY HAVE BEEN ALTERED. REPRODUCTION OR FURTHER DISSEMINATION OF THE CONTENTS IN WHOLE OR IN PART REQUIRES PERMISSION IN WRITING FROM ENGINEERING DESIGN ASSOCIATES, P.A.

REVISION	DATE	BY

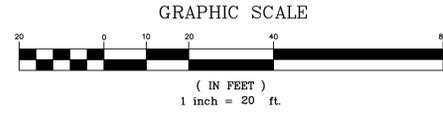


DATE: 1/12/2026	DRAWN BY: MAJ
SCALE: AS NOTED	CHECKED BY: JHM
PROJECT #: 10793	SHEET: 3 OF 11



**PLANT SCHEDULE**

ABB.	BOTANICAL NAME	COMMON NAME	QTY	SIZE	COMMENTS
<b>SHRUBS</b>					
AG	Abelia X Grandiflora Canyon Creek	Canyon Creek Abelia	12	18" - 24"	#3 Can.
DG	Deutzia Gracilis Chardonnay Pearls	Chardonnay Pearls Deutzia	8	15" - 18"	#3 Can.
SB	Spiraea X Bumaldo Anthony Waterer	Anthony Waterer Spiraea	2	18" - 24"	#3 Can.
VD	Viburnum Dentatum Blue Muffin	Arrowwood Viburnum	18	18" - 24"	#3 Can.
<b>CONIFEROUS TREES</b>					
CL	Cupressocyparis Leylandii	Leyland Cypress	23	7' - 8'	B & B
TO	Thuja Occidentalis Green Giant	Green Giant Arborvitae	35	5' - 6'	B & B
<b>SHADE TREES</b>					
AR	Acer Rubrum October Glory	October Glory Red Maple	10	2 1/2' - 3' Cal.	B & B
<b>ORNAMENTAL TREES</b>					
AC	Amelanchier Canadensis	Shadblow Serviceberry	10	7' - 8'	B & B
CF	Cornus Florida Rubra	Pink Dogwood	5	7' - 8'	B & B



# LIGHTING & LANDSCAPING PLAN

**EDA** Engineering Design Associates, P.A.  
 Environmental Planners, Landscape Architects  
 CAMBRIDGE PROFESSIONAL OFFICES  
 600 WOODBINE ROAD, SUITE 200  
 CAMDEN, NJ 08105  
 (609) 390-0332 • Fax (609) 390-9204 • www.engineeringdesign.com • CERTIFICATE OF AUTHORIZATION# 240A2370300

**LIGHTING & LANDSCAPING PLAN**  
 BLOCK 236, LOTS 6.18 & 6.19  
 TOWNSHIP OF DENNIS  
 CAPE MAY COUNTY, NEW JERSEY

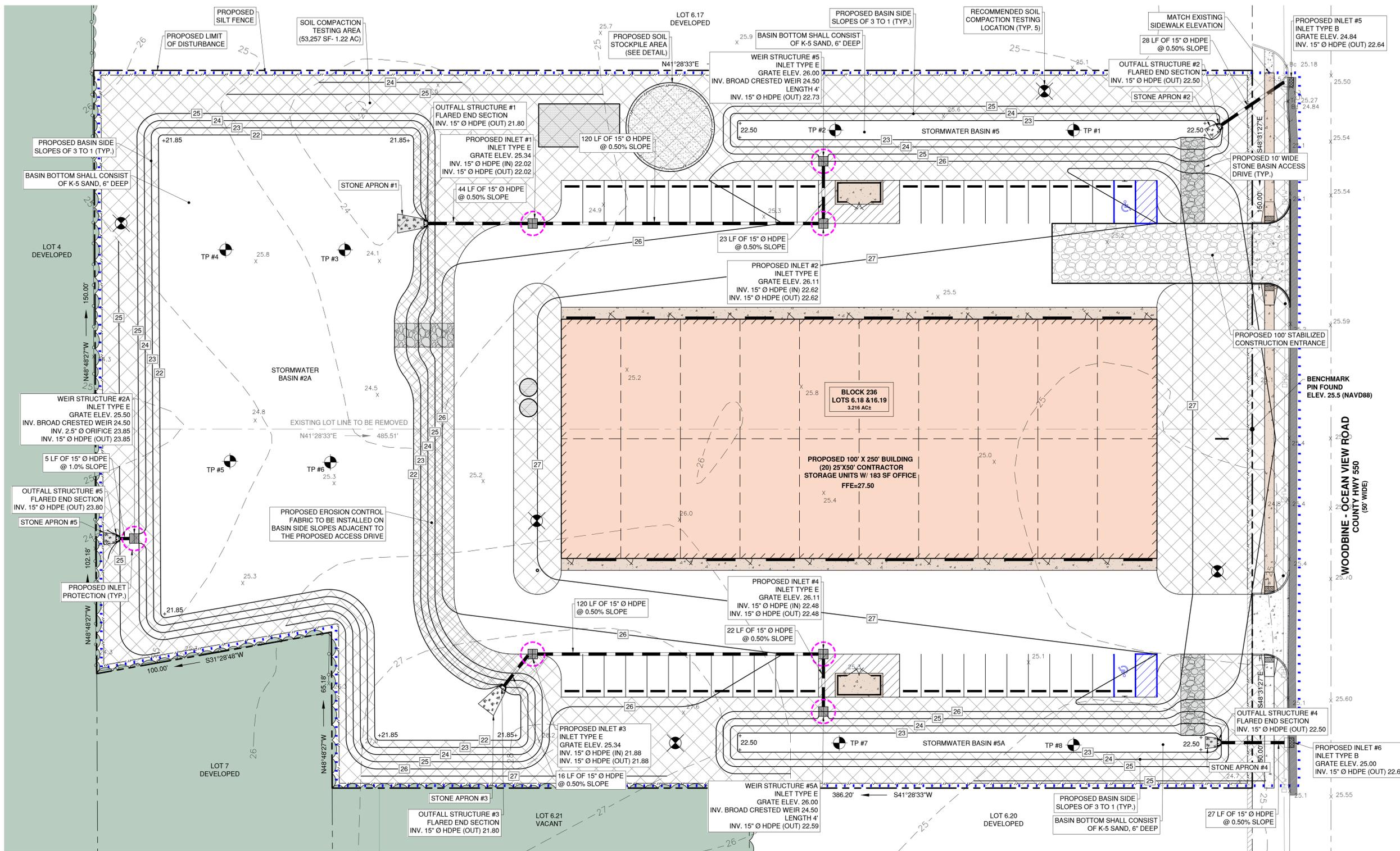
**JOSEPH H. MAFFEI**  
 PROFESSIONAL ENGINEER  
 N.J.P.E. LIC. #37894

IF THIS PLAN OR DOCUMENT DOES NOT CONTAIN A RAISED SEAL IMPRESSION BEARING THE NAME AND REGISTRATION NUMBER OF THE ABOVE SIGNED PROFESSIONAL, IT MAY NOT BE AN AUTHORIZED COPY OF THE ORIGINAL DOCUMENT AND MAY HAVE BEEN ALTERED. REPRODUCTION OR FURTHER DISSEMINATION OF THE CONTENTS IN WHOLE OR IN PART REQUIRES PERMISSION IN WRITING FROM ENGINEERING DESIGN ASSOCIATES, P.A.

REVISION	DATE	BY



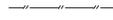
DATE: 1/12/2026	DRAWN BY: MAJ
SCALE: AS NOTED	CHECKED BY: JHM
PROJECT #: 10793	SHEET: 4 OF 11

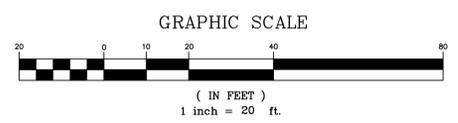


# SOIL EROSION & SEDIMENT CONTROL PLAN

NOTE: SEE SHEETS #9, 10 & 11 FOR SOIL EROSION DETAILS.

**LEGEND:**

-  SOIL COMPACTION TESTING AREA TOTAL 53,257 SF (1.22 Acres)
-  RECOMMENDED SOIL COMPACTION TEST LOCATION
-  APPROXIMATE LIMIT OF DISTURBANCE
-  PROPOSED SILT FENCE



**EDA** Engineering Design Associates, P.A.  
 Environmental Planners, Landscape Architects  
 CAMBRIDGE PROFESSIONAL OFFICES  
 600 W. 10TH STREET, SUITE 200  
 CAMDEN, NJ 08102  
 (609) 390-0332 • Fax (609) 390-9204 • www.engineeringdesign.com • CERTIFICATE OF AUTHORIZATION# 2406297000

**SOIL EROSION & SEDIMENT CONTROL PLAN**  
 BLOCK 236, LOTS 6.18 & 6.19  
 TOWNSHIP OF DENNIS  
 CAPE MAY COUNTY, NEW JERSEY

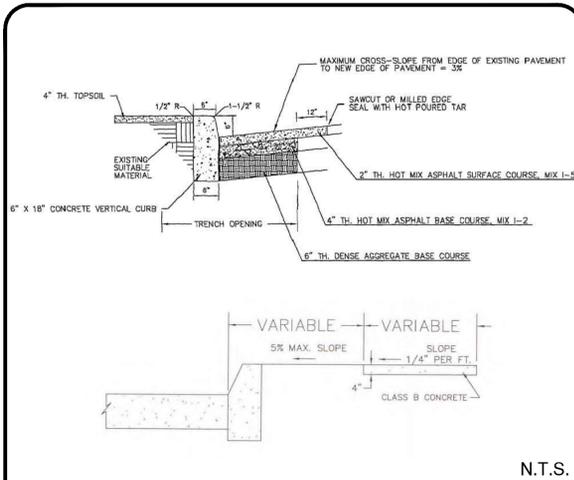
**JOSEPH H. MAFFEI**  
 PROFESSIONAL ENGINEER  
 N.J.P.E. LIC. #37894

IF THIS PLAN OR DOCUMENT DOES NOT CONTAIN A RAISED SEAL IMPRESSION BEARING THE NAME AND REGISTRATION NUMBER OF THE ABOVE SIGNED PROFESSIONAL, IT MAY NOT BE AN AUTHORIZED COPY OF THE ORIGINAL DOCUMENT AND MAY HAVE BEEN ALTERED. REPRODUCTION OR FURTHER DISSEMINATION OF THE CONTENTS IN WHOLE OR IN PART REQUIRES PERMISSION IN WRITING FROM ENGINEERING DESIGN ASSOCIATES, P.A.

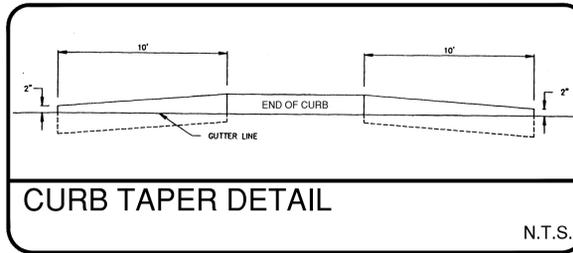
REVISION	DATE	BY



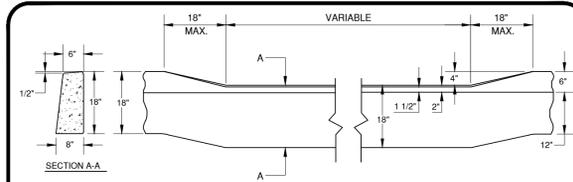
DATE: 1/12/2026	DRAWN BY: MAJ
SCALE: AS NOTED	CHECKED BY: JHM
PROJECT #: 10793	SHEET: 5 OF 11



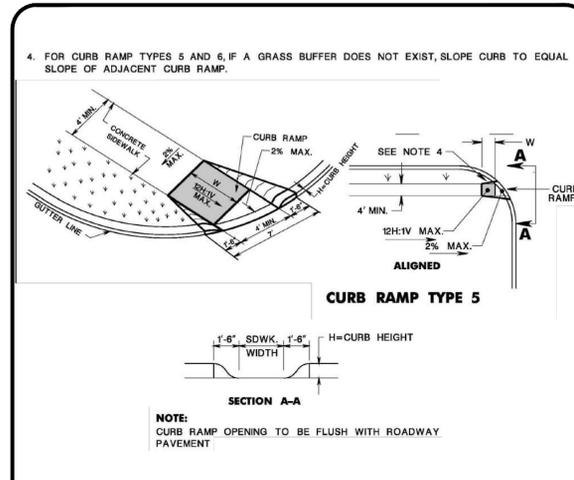
CAPE MAY COUNTY CONCRETE CURB & SIDEWALK DETAIL



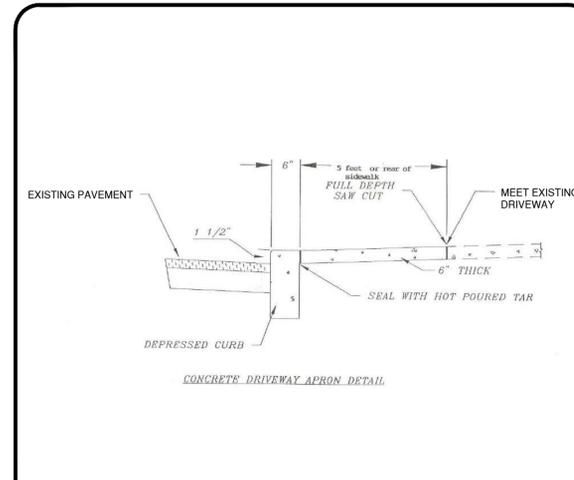
CURB TAPER DETAIL



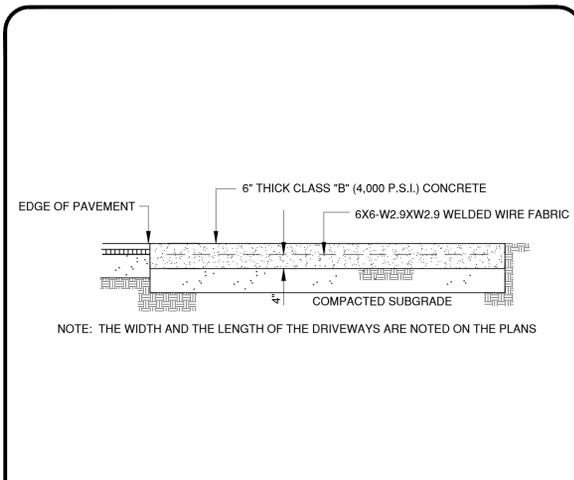
DEPRESSED CURB DETAIL



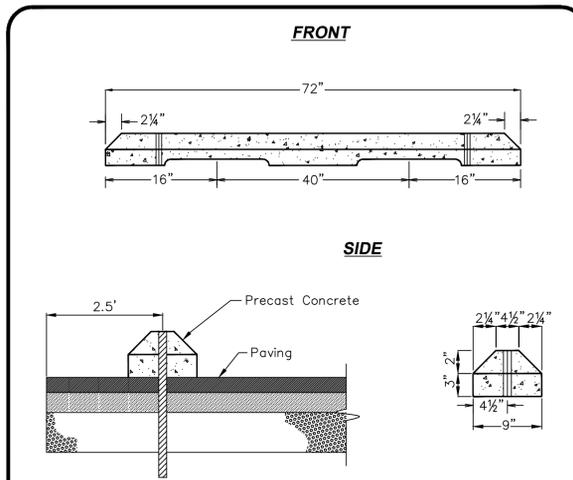
ADA CURB RAMP TYPE 5 DETAIL



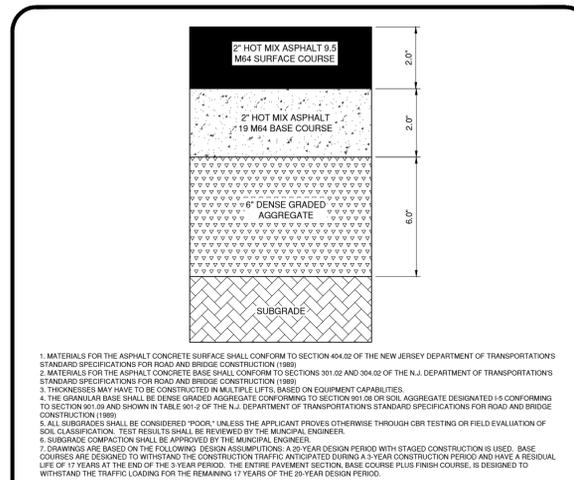
CAPE MAY COUNTY CONCRETE APRON DETAIL (DRVEWAY)



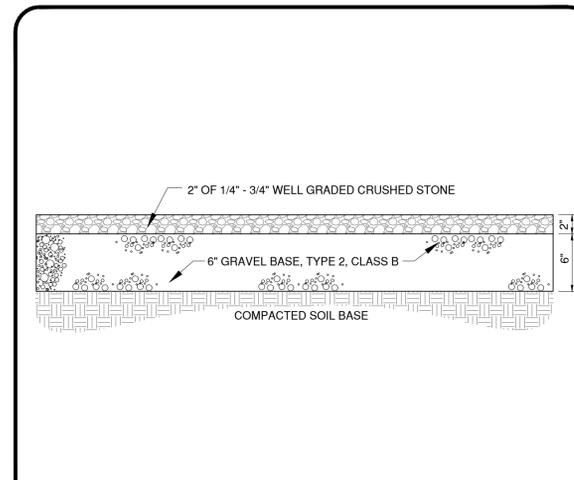
CONCRETE APRON DETAIL (ON SITE)



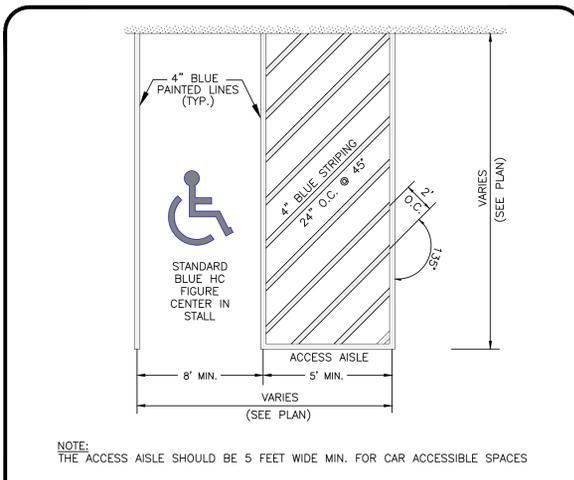
CONCRETE WHEELSTOP DETAIL



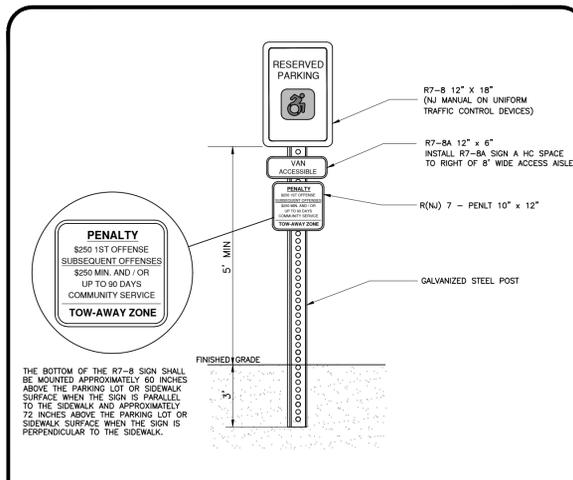
ASPHALT PAVING DETAIL



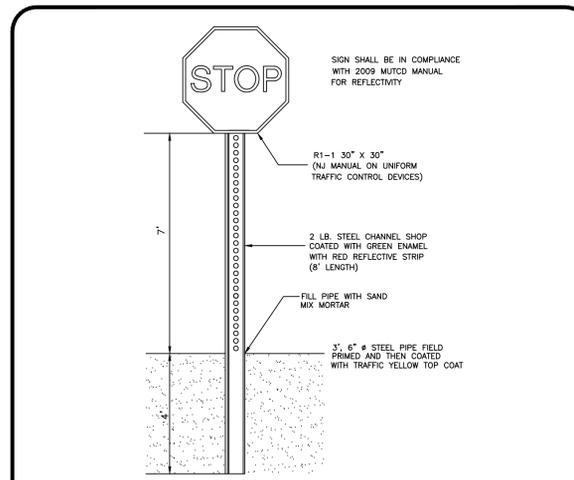
STONE PAVING DETAIL (BASIN ACCESS DRIVE)



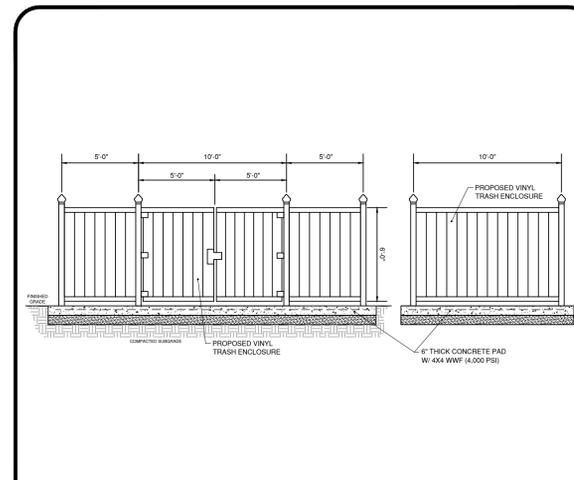
HANDICAP PARKING DETAIL



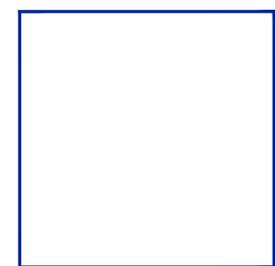
HANDICAP PARKING SIGN DETAIL



STOP SIGN DETAIL



VINYL TRASH ENCLOSURE DETAIL



**EDA** Engineering Design Associates, P.A.  
 Environmental Planners, Landscape Architects  
 CAMBRIDGE PROFESSIONAL OFFICES  
 200 W. 11th Street, Suite 200  
 Cape May, NJ 08204  
 (609) 390-0332 • Fax (609) 390-9204 • www.engineeringdesign.com • CERTIFICATE OF AUTHORIZATION# 2406297000

**ENGINEERING DETAILS**  
 BLOCK 236, LOTS 6.18 & 6.19  
 TOWNSHIP OF DENNIS  
 CAPE MAY COUNTY, NEW JERSEY

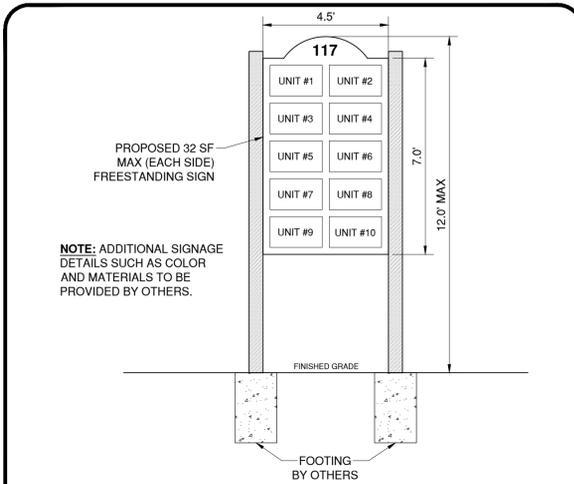
**JOSEPH H. MAFFEI**  
 PROFESSIONAL ENGINEER  
 N.J.P.E. LIC. #37894

IF THIS PLAN OR DOCUMENT DOES NOT CONTAIN A RAISED SEAL IMPRESSION BEARING THE NAME AND REGISTRATION NUMBER OF THE ABOVE SIGNED PROFESSIONAL, IT MAY NOT BE AN AUTHORIZED COPY OF THE ORIGINAL DOCUMENT AND MAY HAVE BEEN ALTERED. REPRODUCTION OR FURTHER DISSEMINATION OF THE CONTENTS IN WHOLE OR IN PART REQUIRES PERMISSION IN WRITING FROM ENGINEERING DESIGN ASSOCIATES, P.A.

REVISION	DATE	BY

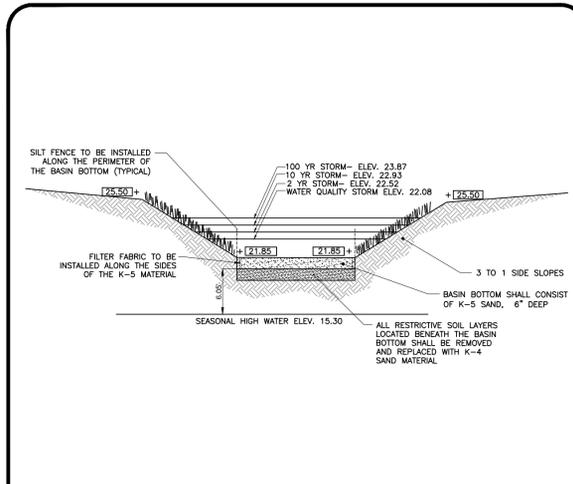


DATE: 1/12/2026	DRAWN BY: MAJ
SCALE: AS NOTED	CHECKED BY: JHM
PROJECT #: 10793	SHEET: 6 OF 11



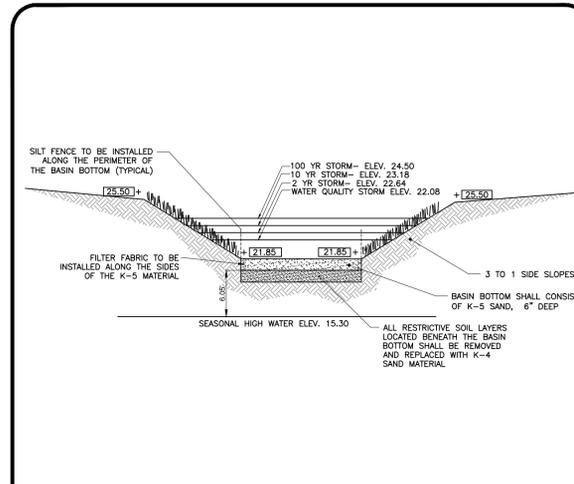
FREESTANDING SIGN DETAIL

N.T.S.



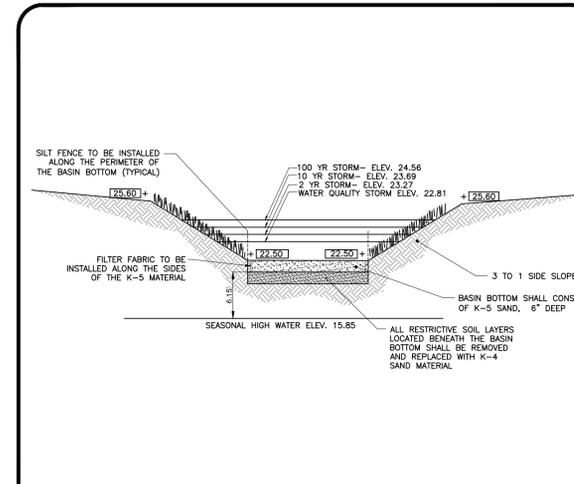
STORMWATER BASIN #2A DETAIL  
CURRENT RAINFALL RATES

N.T.S.



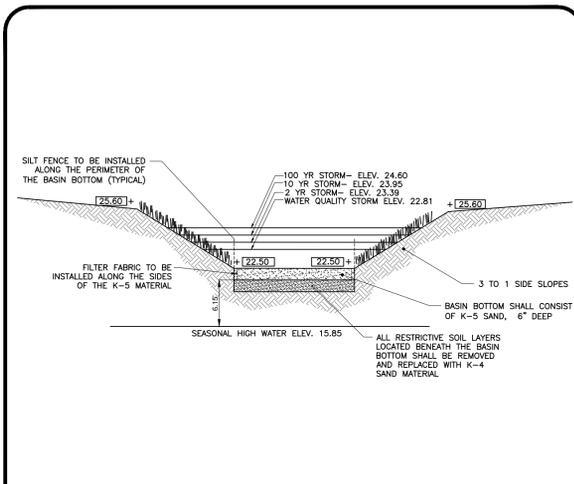
STORMWATER BASIN #2A DETAIL  
FUTURE RAINFALL RATES

N.T.S.



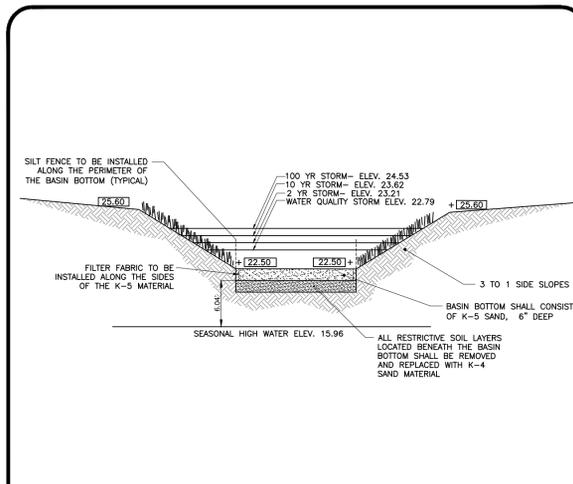
STORMWATER BASIN #5 DETAIL  
CURRENT RAINFALL RATES

N.T.S.



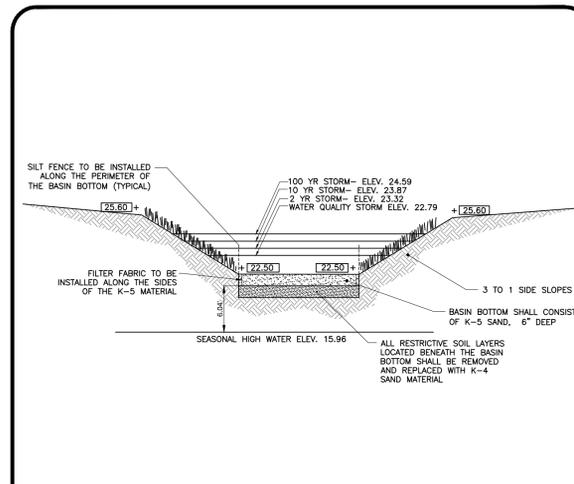
STORMWATER BASIN #5 DETAIL  
FUTURE RAINFALL RATES

N.T.S.



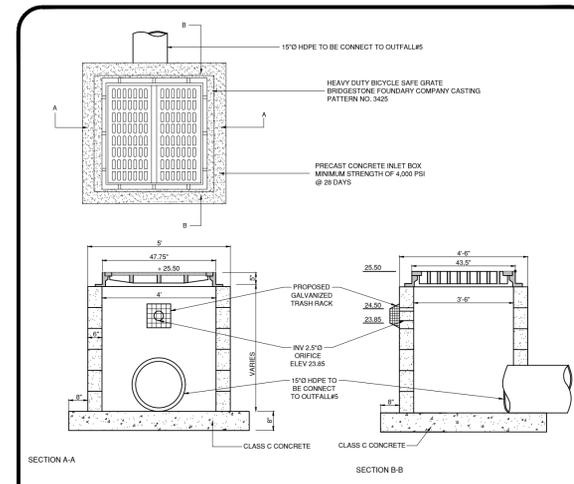
STORMWATER BASIN #5A DETAIL  
CURRENT RAINFALL RATES

N.T.S.



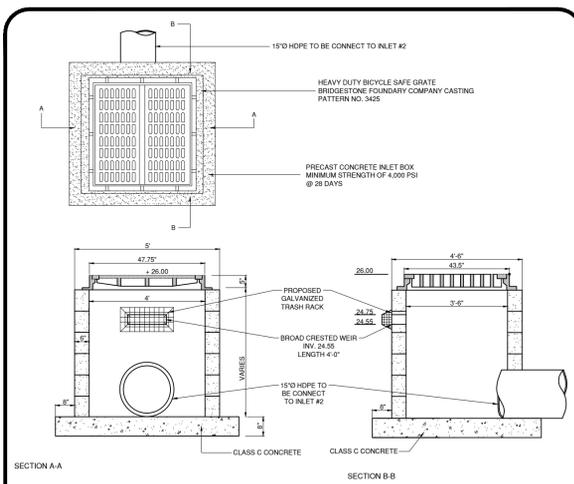
STORMWATER BASIN #5A DETAIL  
FUTURE RAINFALL RATES

N.T.S.



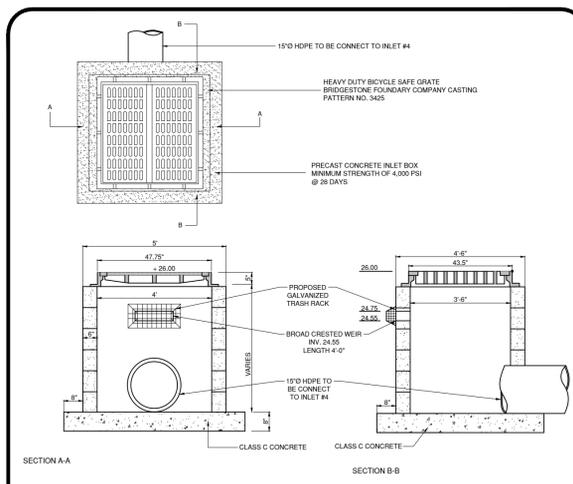
WEIR STRUCTURE - BASIN #2A

N.T.S.



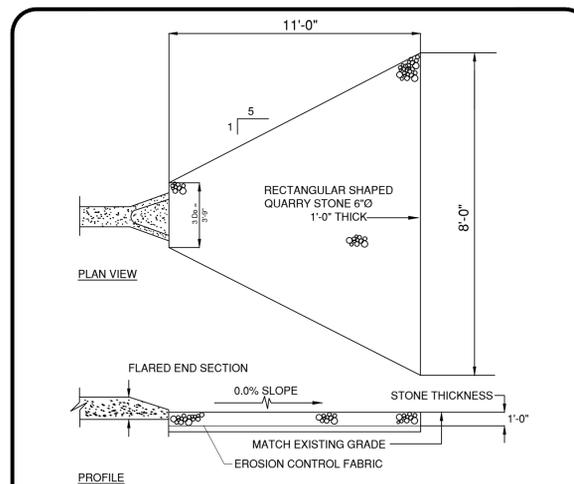
WEIR STRUCTURE - BASIN #5

N.T.S.



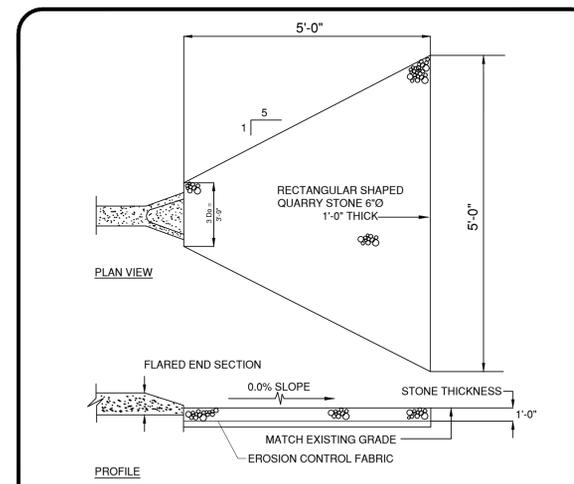
WEIR STRUCTURE - BASIN #5A

N.T.S.



STONE APRON #1 DETAIL

N.T.S.



STONE APRON #2 DETAIL

N.T.S.

**EDA** Engineering Design Associates, P.A.  
 Environmental Planners, Landscape Architects  
 CAMBRIDGE PROFESSIONAL OFFICES  
 600 ROUTE 100, SUITE 200  
 CAPE MAY COUNTY, NEW JERSEY 08204  
 (609) 390-0332 • FAX (609) 390-9204 • www.engineeringdesign.com • CERTIFICATE OF AUTHORIZATION# Z4042797000

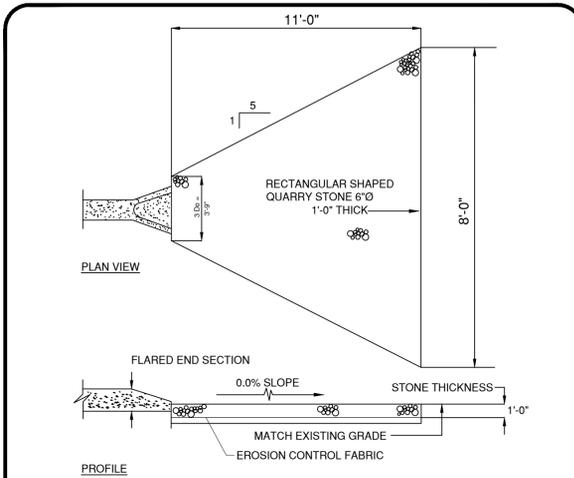
**JOSEPH H. MAFFEI**  
 PROFESSIONAL ENGINEER  
 N.J.P.E. LIC. #37894

IF THIS PLAN OR DOCUMENT DOES NOT CONTAIN A RAISED SEAL IMPRESSION BEARING THE NAME AND REGISTRATION NUMBER OF THE ABOVE SIGNED PROFESSIONAL, IT MAY NOT BE AN AUTHORIZED COPY OF THE ORIGINAL DOCUMENT AND MAY HAVE BEEN ALTERED. REPRODUCTION OR FURTHER DISSEMINATION OF THE CONTENTS IN WHOLE OR IN PART REQUIRES PERMISSION IN WRITING FROM ENGINEERING DESIGN ASSOCIATES, P.A.

REVISION	DATE	BY

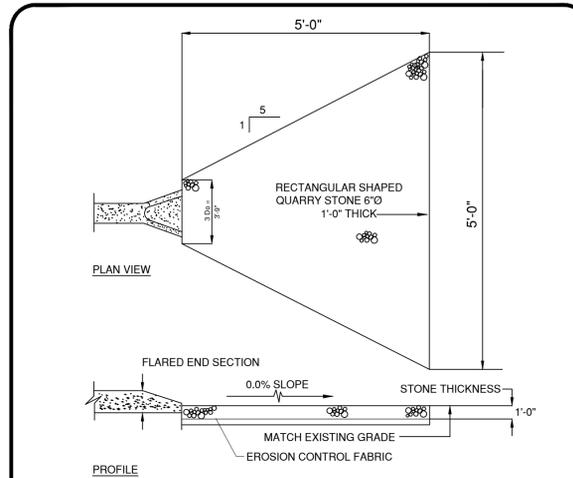


DATE: 1/12/2026	DRAWN BY: MAJ
SCALE: AS NOTED	CHECKED BY: JHM
PROJECT #: 10793	SHEET: 7 OF 11



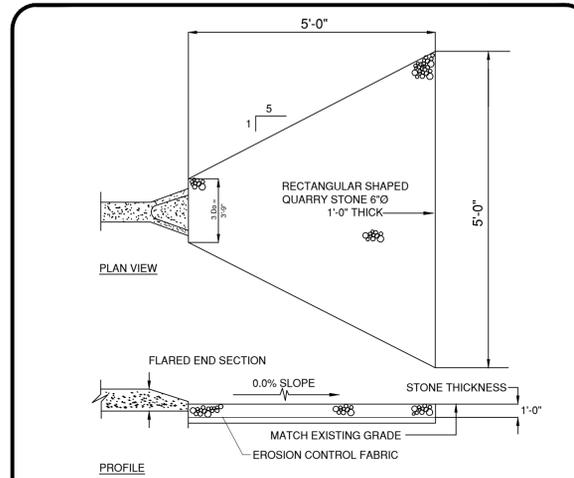
STONE APRON #3 DETAIL

N.T.S.



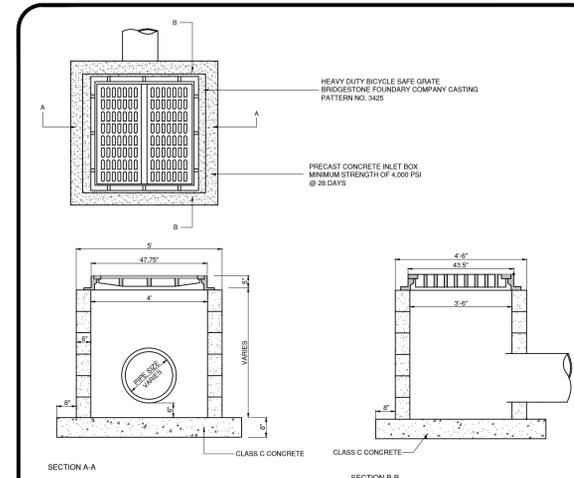
STONE APRON #4 DETAIL

N.T.S.



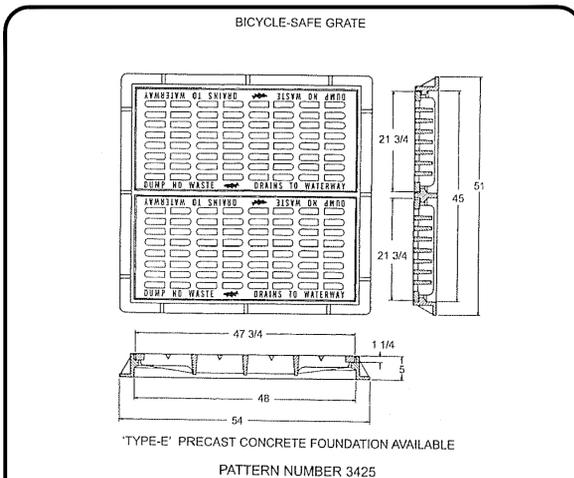
STONE APRON #5 DETAIL

N.T.S.



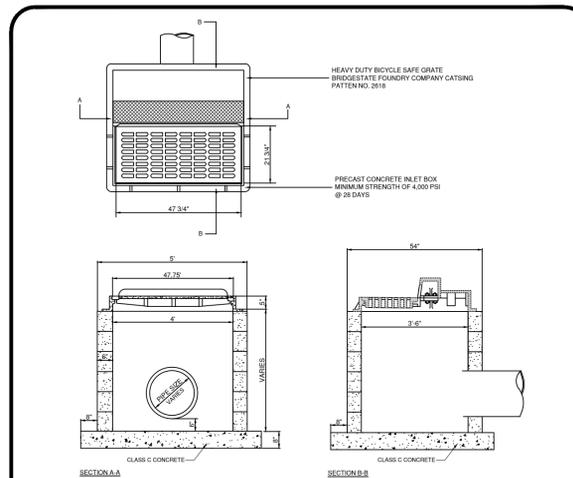
INLET TYPE E DETAIL

N.T.S.



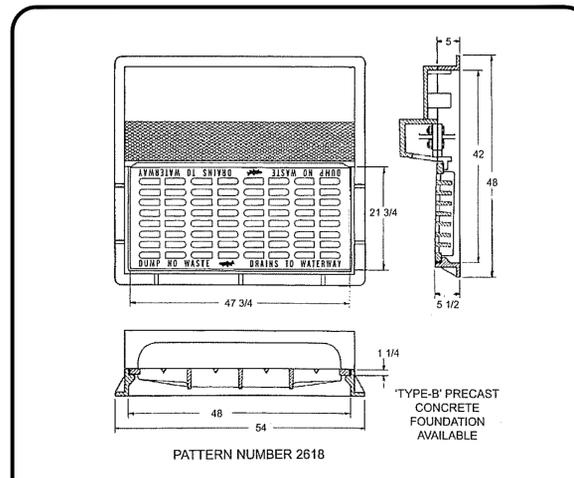
INLET TYPE E GRATE DETAIL

N.T.S.



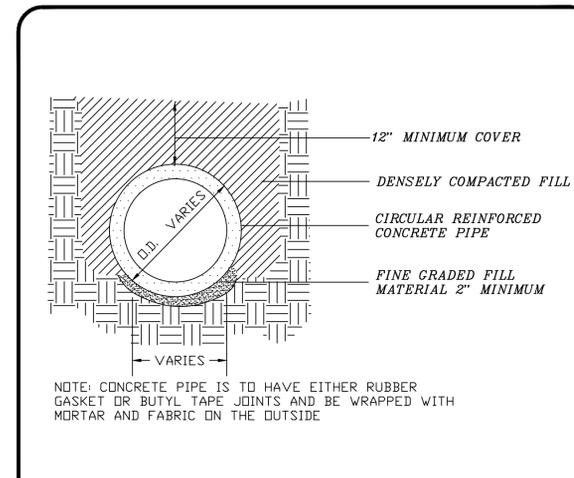
INLET TYPE B DETAIL

N.T.S.



INLET TYPE B GRATE DETAIL

N.T.S.



PIPE BEDDING DETAIL

N.T.S.

TEST PIT #1	
DEPTH	DESCRIPTION
0'-5"	10YR 5/1 Gray, Sandy Loam, Subangular Blocky, Friable
5'-24"	10YR 5/4 Yellowish Brown, Sandy Loam, Subangular Blocky, Friable
24'-39"	10YR 5/4 Yellowish Brown, Sandy Loam, Subangular Blocky, Friable w/ 30% Coarse Fragments
39'-51"	10YR 6/6 Brownish Yellow, Sand, Single Grain, Loose
51'-114"	10YR 7/6 Yellow, Sand, Single Grain, Loose
114'-135"	10YR 7/2 Light Gray, Sand, Single Grain, Loose w/ mottles of 10YR 8/1 White, Common, Medium, Distinct
Depth of Seasonal High Water: 114"	
Depth of Groundwater: >135"	
Date Performed: 1/9/2026	
Performed By: Piotr Jaros	
TEST PIT #2	
DEPTH	DESCRIPTION
0'-3"	10YR 5/1 Gray, Sandy Loam, Subangular Blocky, Friable
3'-35"	10YR 5/6 Yellowish Brown, Sandy Loam, Subangular Blocky, Friable
35'-55"	10YR 6/6 Brownish Yellow, Sand, Single Grain, Loose w/ 40% Coarse Fragments
55'-94"	10YR 7/3 Very Pale Brown, Sand, Single Grain, Loose
94'-133"	10YR 7/2 Light Gray, Sand, Single Grain, Loose w/ mottles of 10YR 8/1 White, Few, Fine & Faint
Depth of Seasonal High Water: 111"	
Depth of Groundwater: >133"	
Date Performed: 1/9/2026	
Performed By: Piotr Jaros	

TEST PIT RESULTS

N.T.S.

TEST PIT #3	
DEPTH	DESCRIPTION
0'-4"	10YR 5/1 Gray, Sandy Loam, Subangular Blocky, Friable
4'-29"	10YR 6/4 Light Yellowish Brown, Sandy Loam, Subangular Blocky, Friable
29'-53"	10YR 5/6 Yellowish Brown, Sand, Single Grain, Loose w/ 30% Coarse Fragments
53'-96"	10YR 6/3 Pale Brown, Sand, Single Grain, Loose
96'-125"	10YR 7/3 Very Pale Brown, Sand, Single Grain, Loose w/ mottles of 10YR 8/1 White, Few, Fine & Faint
125'-136"	10YR 7/1 Light Gray, Sand, Single Grain, Loose w/ mottles of 10YR 6/6 Brownish Yellow, Common, Medium, Distinct
Depth of Seasonal High Water: 110"	
Depth of Groundwater: >136"	
Date Performed: 1/9/2026	
Performed By: Piotr Jaros	
TEST PIT #4	
DEPTH	DESCRIPTION
0'-3"	10YR 5/1 Gray, Sandy Loam, Subangular Blocky, Friable
3'-57"	10YR 5/4 Yellowish Brown, Loamy Sand, Subangular Blocky, Friable
57'-97"	10YR 6/6 Brownish Yellow, Sand, Single Grain, Loose w/ 40% Coarse Fragments
97'-132"	10YR 7/3 Very Pale Brown, Sand, Single Grain, Loose
132'-142"	10YR 7/1 Light Gray, Sand, Single Grain, Loose w/ mottles of 10YR 7/6 Yellow, Fine, Few & Faint
Depth of Seasonal High Water: 132"	
Depth of Groundwater: >145"	
Date Performed: 1/9/2026	
Performed By: Piotr Jaros	

TEST PIT RESULTS

N.T.S.

TEST PIT #5	
DEPTH	DESCRIPTION
0'-4"	10YR 5/1 Gray, Sandy Loam, Subangular Blocky, Friable
4'-35"	10YR 6/4 Light Yellowish Brown, Loamy Sand, Subangular Blocky, Friable
35'-49"	10YR 5/6 Yellowish Brown, Sandy Loam, Subangular Blocky, Friable
49'-78"	10YR 6/8 Brownish Yellow, Brown, Sand, Single Grain, Loose
78'-126"	10YR 7/3 Very Pale Brown, Sand, Single Grain, Loose
126'-136"	10YR 7/1 Light Gray, Sand, Single Grain, Loose w/ mottles of 10YR 7/3 Very Pale Brown, Fine, Few & Faint
Depth of Seasonal High Water: 126"	
Depth of Groundwater: >136"	
Date Performed: 1/9/2026	
Performed By: Piotr Jaros	
TEST PIT #6	
DEPTH	DESCRIPTION
0'-3"	10YR 5/1 Gray, Sandy Loam, Subangular Blocky, Friable
3'-17"	10YR 5/2 Grayish Brown, Sandy Loam, Subangular Blocky, Friable
17'-50"	10YR 6/4 Light Yellowish Brown, Sandy Loam, Subangular Blocky, Friable
50'-100"	10YR 7/4 Very Pale Brown, Sand, Single Grain, Loose
100'-120"	10YR 7/3 Very Pale Brown, Sand, Single Grain, Loose
120'-140"	10YR 7/1 Light Gray, Sand, Single Grain, Loose w/ mottles of 10YR 6/6 Brownish Yellow, Few, Fine & Faint
Depth of Seasonal High Water: 120"	
Depth of Groundwater: >140"	
Date Performed: 1/9/2026	
Performed By: Piotr Jaros	

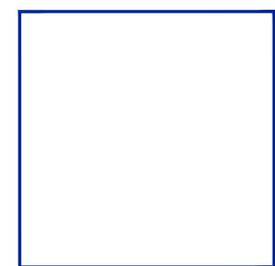
TEST PIT RESULTS

N.T.S.

TEST PIT #7	
DEPTH	DESCRIPTION
0'-11"	10YR 5/1 Gray, Sandy Loam, Subangular Blocky, Friable
11'-34"	10YR 5/6 Yellowish Brown, Sandy Loam, Subangular Blocky, Friable
34'-64"	10YR 6/8 Brownish Yellow, Brown, Sand, Cemented
64'-81"	10YR 7/4 Very Pale Brown, Sand, Single Grain, Loose
81'-108"	10YR 7/3 Very Pale Brown, Sand, Single Grain, Loose
108'-134"	10YR 7/2 Light Gray, Sand, Single Grain, Loose w/ mottles of 10YR 8/1 White, Few, Fine & Faint
Depth of Seasonal High Water: 118"	
Depth of Groundwater: >134"	
Date Performed: 1/9/2026	
Performed By: Piotr Jaros	
TEST PIT #8	
DEPTH	DESCRIPTION
0'-10"	10YR 5/1 Gray, Sandy Loam, Subangular Blocky, Friable
10'-23"	10YR 6/4 Light Yellowish Brown, Sandy Loam, Subangular Blocky, Friable
23'-41"	10YR 6/8 Brownish Yellow, Sandy Loam, Subangular Blocky, Friable
41'-76"	10YR 7/4 Very Pale Brown, Sand, Single Grain, Loose
76'-108"	10YR 7/3 Very Pale Brown, Sand, Single Grain, Loose
108'-128"	10YR 7/1 Light Gray, Sand, Single Grain, Loose w/ mottles of 10YR 6/6 Brownish Yellow, Few, Fine & Faint
Depth of Seasonal High Water: 108"	
Depth of Groundwater: >128"	
Date Performed: 1/9/2026	
Performed By: Piotr Jaros	

TEST PIT RESULTS

N.T.S.



**EDA** Engineering Design Associates, P.A.  
 Environmental Planners, Landscape Architects  
 CAMBRIDGE PROFESSIONAL OFFICES  
 500 Cambridge Center  
 Cambridge, MA 02142  
 (609) 390-0332 • Fax (609) 390-9204 • www.engineeringdesign.com • CERTIFICATE OF AUTHORIZATION# 24062797000

**ENGINEERING DETAILS**  
 BLOCK 236, LOTS 6.18 & 6.19  
 TOWNSHIP OF DENNIS  
 CAPE MAY COUNTY, NEW JERSEY

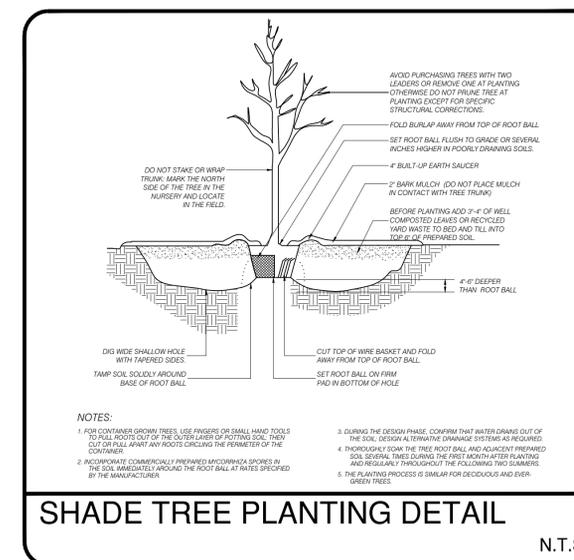
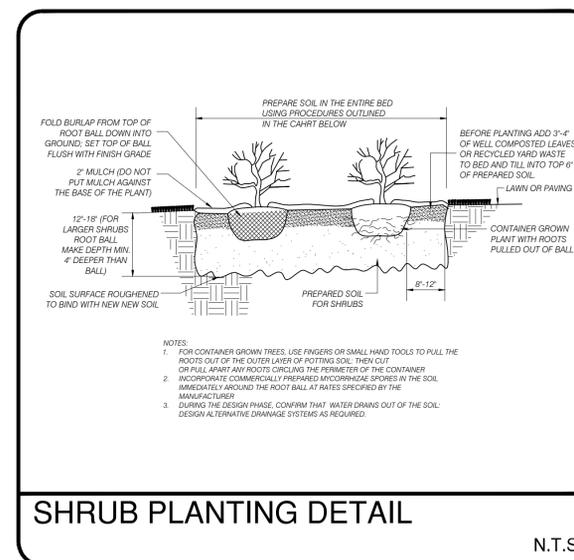
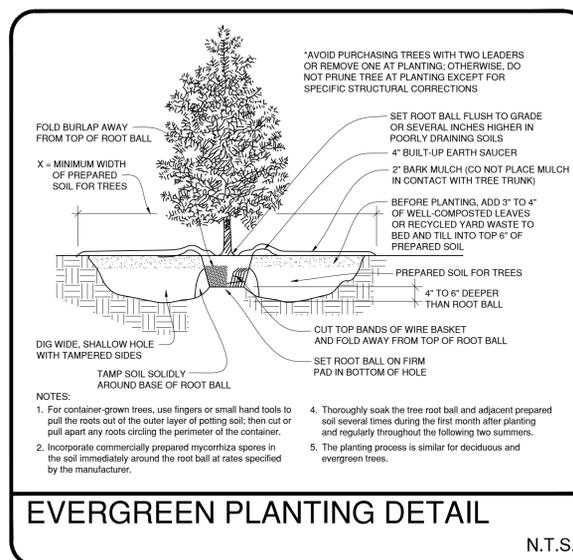
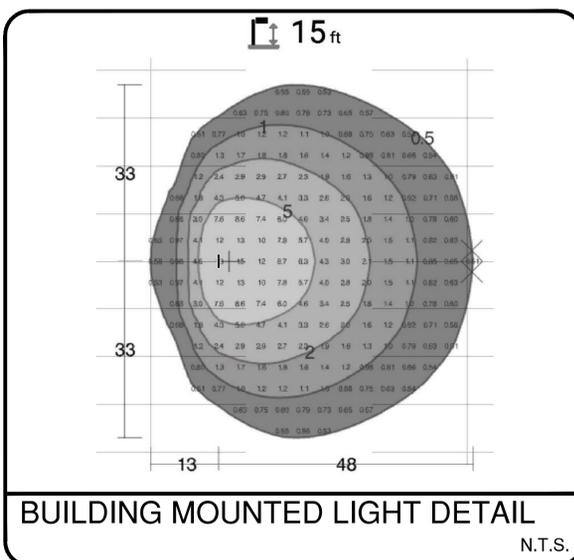
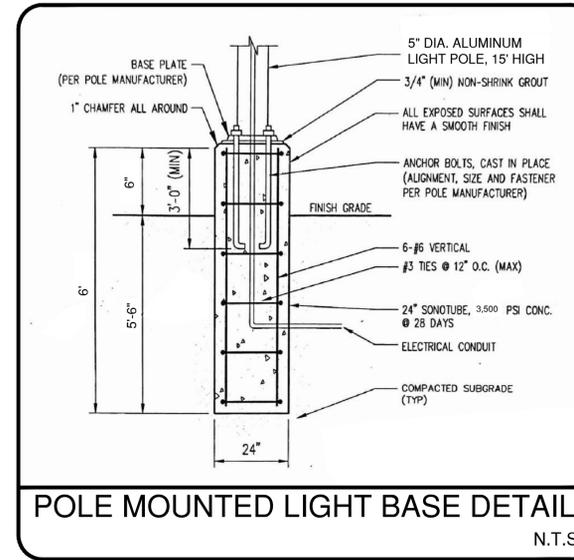
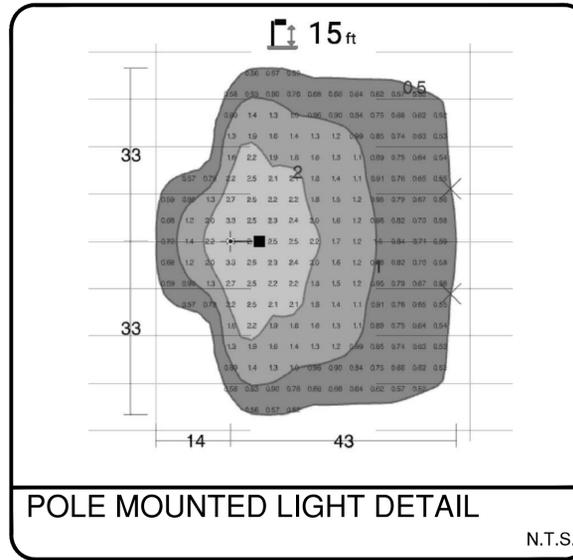
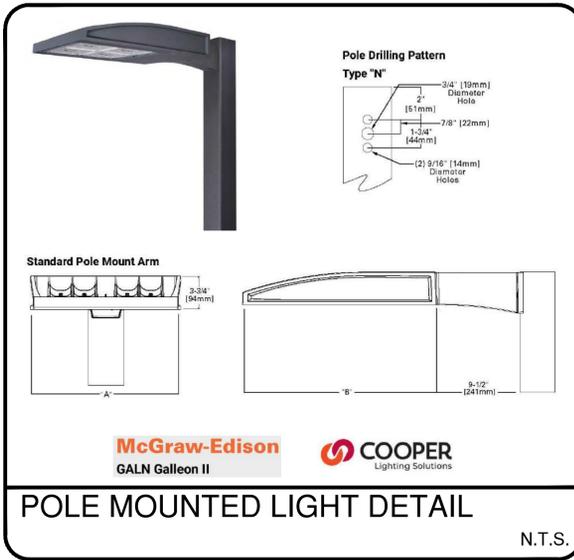
**JOSEPH H. MAFFEI**  
 PROFESSIONAL ENGINEER  
 N.J.P.E. LIC. #37894

IF THIS PLAN OR DOCUMENT DOES NOT CONTAIN A RAISED SEAL IMPRESSION BEARING THE NAME AND REGISTRATION NUMBER OF THE ABOVE SIGNED PROFESSIONAL, IT MAY NOT BE AN AUTHORIZED COPY OF THE ORIGINAL DOCUMENT AND MAY HAVE BEEN ALTERED. REPRODUCTION OR FURTHER DISSEMINATION OF THE CONTENTS IN WHOLE OR IN PART REQUIRES PERMISSION IN WRITING FROM ENGINEERING DESIGN ASSOCIATES, P.A.

REVISION	DATE	BY



DATE: 1/12/2026	DRAWN BY: MAJ
SCALE: AS NOTED	CHECKED BY: JHM
PROJECT #: 10793	SHEET: 8 OF 11



**LANDSCAPING NOTES**

1. DRAWINGS TO BE SCALED FOR PURPOSES OF LOCATING SOIL BERMS, PLANT MATERIAL, PLANTING BEDS, GROUND COVER AREAS AND OTHER SITE AMENITIES SHOWN. DRAWINGS ARE DIAGRAMATIC; PLANT MATERIAL SUBJECT TO FIELD ADJUSTMENT.

2. ALL PLANT MATERIAL TO BE SET IN PREPARED MULCH BEDS. FINAL BED LINES TO BE APPROVED IN THE FIELD BY THE LANDSCAPE ARCHITECT OR HIS REPRESENTATIVE.

3. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL PLANT MATERIAL QUANTITIES. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT. PLAN HOLDS PRECEDENT.

**GRASSES**

AREAS TO BE SEEDDED SHALL CONSIST OF THE FOLLOWING SEED MIXTURES TO INSURE A HIGH QUALITY GRASS.

REBEL II TALL FESCUE - 8 LBS PER 1000 SF  
ECLIPSE KENTUCKY BLUE GRASS - 4 LBS PER 1000 SF

FERTILIZING AND LIMING SHALL BE COMPLETED PRIOR TO SEEDING LAWN AREAS TWICE PER YEAR.

**PLANTING BED**

PLANTING BED TO BE CONSTRUCTED AS SHOWN ON DETAIL. BED TO BE CONSTRUCTED USING THE FOLLOWING SPECIFICATIONS OR AN APPROVED EQUAL.

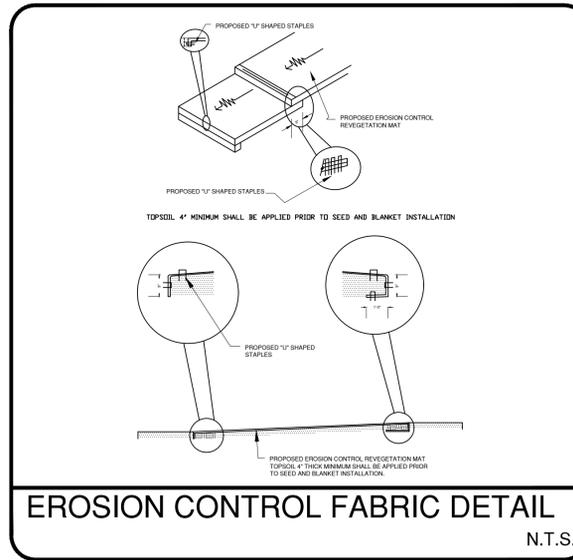
A. MULCH - BEDS TO BE FILLED WITH A 4" LAYER OF LICORICE ROOT MULCH (RIGHT DRESS INC.)

B. WEED BARRIER - MULCH TO BE PLACED OVER TERRA TOP LS WEED CONTROL FABRIC OR 4 MIL. BLACK POLYETHYLENE.

C. EDGING - PLANTING BED TO BE EDGED WITH BLACK DIAMOND POLYETHYLENE BED DIVIDER (VALLEY VIEW SPECIALTIES CO.)

**LANDSCAPING NOTES**

N.T.S.



**Installation Requirements for Soil Stabilization Matting**

**Site Preparation:** Shape and grade the waterway, channel or area to be protected are required by job plans and specifications, including topsoiling. Remove rocks, clods over 1 1/2 inches in diameter, sticks and other material that will prevent contact of the matting with the soil surface.

**Seeding:** Lime, fertilizer and seed in accordance with the applicable seeding standard.

**Do not cullpack.**

**Laying the Matting:** (See Figure A5-1 for general installation guidelines.) The following guidelines may be used for general purpose installation. However, manufacturer's installation instructions must be followed when special materials or techniques are required.

When the matting width is narrower than the channel width, start laying the matting from the top of the channel or slope and unroll downgrade so that one edge of the matting coincides with the channel center. Lay a second strip parallel to the first on the other side of the channel and allow at least a 2-inch overlap. Where one roll of matting ends and another roll begins, the end of the top strip overlaps the trench where the upper end of the lower strip is buried. Overlap the matting at least 4 inches and staple securely.

**Securing the Matting:** Bury the top of the matting in a trench 4 inches or more deep. Tamp the trench full of soil. Reinforce with a row of staples driven through the matting about 4 inches downhill from the trench approximately 10 inches apart. Then staple the overlap in the channel center. These staples should be 3 to 4 feet apart. The outside edges may be stapled similarly at any time after the center has been stapled. Closer stapling along the sides is required where concentrated water may flow into the channel. The edges of wood-shaving matting should be stapled on 12 to 24 centers. Succeeding strips of matting, farther down the channel or slope, are secured in a similar manner.

**Erosion Stops:** At any point, matting may be folded for burying in slit trenches and secured as were the upper ends. This checks water flow and erosion that may begin under the matting. It also gives improved tie-down. The procedure is recommended on the steeper slopes of sandy soil and gentler slopes subject to seepage. Spacings vary from 25 to 100 feet.

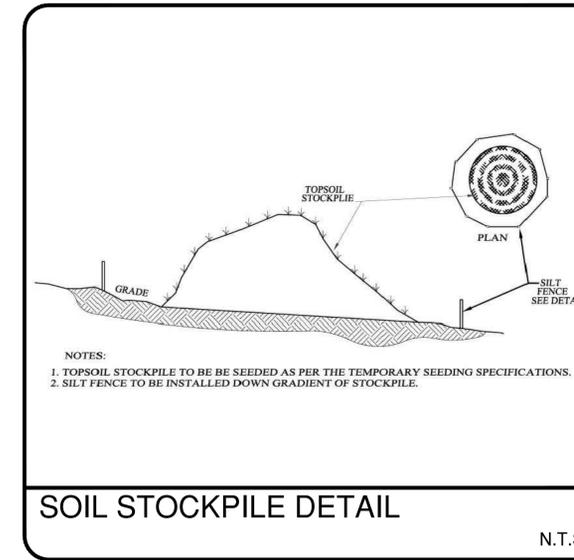
**Diversions:** Where diversions outlet into the waterway, the outlet should be protected with matting used in the same manner as in the main channel. The matting for the outlet is laid first so that matting in the main channel will overlap the outlet strip.

**Matting Soil Contact:** Ensure contact between matting and soil by rolling after laying, stapling and seeding are complete. Perfect contact is vital to keep water flowing over - not under - the matting.

**Inspection:** After job completion, make sure the matting is in contact with the soil at all places and that critical areas are securely stapled down.

**EROSION CONTROL FABRIC NOTES**

N.T.S.



**EDA** Environmental Planning, Landscape Architects  
Cambridge Professional Offices  
www.engineeringdesign.com

**ENGINEERING DETAILS**  
BLOCK 236, LOTS 6.18 & 6.19  
TOWNSHIP OF DENNIS  
CAPE MAY COUNTY, NEW JERSEY

(609) 390-0332 • Fax (609) 390-9204 • www.engineeringdesign.com • CERTIFICATE OF AUTHORIZATION# 24062970300

**JOSEPH H. MAFFEI**  
PROFESSIONAL ENGINEER  
N.J.P.E. LIC. #37894

*Joseph H. Maffei*

IF THIS PLAN OR DOCUMENT DOES NOT CONTAIN A RAISED SEAL IMPRESSION BEARING THE NAME AND REGISTRATION NUMBER OF THE ABOVE SIGNED PROFESSIONAL, IT MAY NOT BE AN AUTHORIZED COPY OF THE ORIGINAL DOCUMENT AND MAY HAVE BEEN ALTERED. REPRODUCTION OR FURTHER DISSEMINATION OF THE CONTENTS IN WHOLE OR IN PART REQUIRES PERMISSION IN WRITING FROM ENGINEERING DESIGN ASSOCIATES, P.A.

REVISION	DATE	BY

**EDA**

DATE: 1/12/2026	DRAWN BY: MAJ
SCALE: AS NOTED	CHECKED BY: JHM
PROJECT #: 10793	SHEET: 9 OF 11

**SOIL EROSION NOTES:**

A REPORT OF COMPLIANCE MUST BE OBTAINED FROM THE DISTRICT PRIOR TO RECEIVING A CERTIFICATE OF OCCUPANCY FROM THE MUNICIPALITY. A REQUEST FOR A DISTRICT INSPECTION FOR THE RELEASE OF A REPORT OF COMPLIANCE MUST BE MADE 5 WORKING DAYS IN ADVANCE. THIS APPLIES TO BOTH COMPLETE (FINAL) AND CONDITIONAL (TEMPORARY) CERTIFICATES. ALL STREETS AND UNITS MUST BE PROPERLY IDENTIFIED. A REPORT OF COMPLIANCE WILL NOT BE RELEASED FOR A UNIT IF IT CAN NOT BE IDENTIFIED. IDENTIFY ALL UNITS AT THE SITE BY BLOCK, LOT AND STREET ADDRESS.

REMOVE ALL SEDIMENT THAT MAY BE SPILLED, DROPPED OR TRACKED OFF THE PROJECT SITE. ALL PAVED RIGHTS OF WAY ADJACENT TO THE PROJECT SITE MUST BE MAINTAINED IN A CLEAN, SWEEP CONDITION THROUGHOUT CONSTRUCTION. IT MAY BE NECESSARY TO INSTALL CRUSHED STONE PAD(S) TO HELP REDUCE OFF SITE TRACKING OF SEDIMENT.

THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORM WATER OUTFALLS OR OFFSITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.

**SOIL EROSION NOTES**

N.T.S.

**TOPSOIL & SOIL DE-COMPACTION REQUIREMENTS**

1. A minimum of 5 inches of topsoil is required on areas to be vegetated to improve the soil medium for plant establishment and maintenance per Chapter 8 of the "Standards for Soil Erosion and Sediment Control in New Jersey" dated July 2017.
2. Subgrade soils shall be free of excessive compaction to a depth of 6 inches to enhance the establishment of permanent vegetative cover per Chapter 19 of the "Standards for Soil Erosion and Sediment Control in New Jersey" dated July 2017.
3. Subsoils are to be proactively de-compacted or soil compaction tested prior to the application of topsoil. Compaction testing method/procedure shall be performed per Chapter 19 by the contractor or other project owner's representative. If the testing indicates subsoil compaction, the subsoil shall be de-compacted to a depth of 6 inches prior to the application of topsoil.
4. If compaction testing is not performed, subsoils shall be scarified/ tilled to a minimum depth of 6 inches as part of the sequence of construction where there is no danger to underground utilities (cables, irrigation systems, etc.). In the alternative, another method as specified by a New Jersey Licensed Professional Engineer maybe substituted subject to District approval.

**SOIL EROSION NOTES**

N.T.S.

**Soil De-compaction and Testing Requirements**

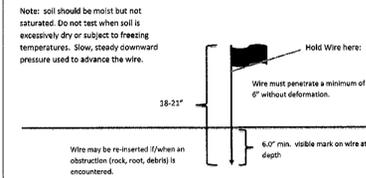
**Soil Compaction Testing Requirements**

1. Subgrade soils prior to the application of topsoil (see permanent seeding and stabilization notes for topsoil requirements) shall be free of excessive compaction to a depth of 6.0 inches to enhance the establishment of permanent vegetative cover.
  2. Areas of the site which are subject to compaction testing and/or mitigation are explicitly denoted on the certified soil erosion control plan.
  3. Compaction testing locations are denoted on the plan. A copy of the plan or portion of the plan shall be used to mark locations of tests, and attached to the compaction remediation form, available from the local soil conservation district. This form must be filled out and submitted prior to receiving a certificate of compliance from the district.
  4. In the event that testing indicates compaction in excess of the maximum thresholds indicated for the simplified testing methods (see details below), the contractor/owner shall have the option to perform either (1) compaction mitigation over the entire mitigation area denoted on the plan (excluding exempt areas), or (2) perform additional, more detailed testing to establish the limits of excessive compaction whereupon only the excessively compacted areas would require compaction mitigation. Additional detailed testing shall be performed by a trained, licensed professional.
- Compaction Testing Methods**
- A. Probing Wire Test (see detail)
  - B. Handheld Penetrometer Test (see detail)
  - C. Tube Bulk Density Test (licensed professional engineer required)
  - D. Nuclear Density Test (licensed professional engineer required)
- Note: Additional testing methods which conform to ASTM standards and specifications, and which produce a dry weight soil bulk density measurement may be allowed subject to District approval.
- Soil compaction testing is not required if/when subsoil compaction remediation (scarification/tilage (6" minimum depth) or similar) is proposed as part of the sequence of construction.
- Procedures for Soil Compaction Mitigation**
- Procedures shall be used to mitigate excessive soil compaction prior to placement of topsoil and establishment of permanent vegetative cover.
- Restoration of compacted soils shall be through deep scarification/tilage (6" minimum depth) where there is no danger to underground utilities (cables, irrigation systems, etc.). In the alternative, another method is specified by a New Jersey Licensed Professional Engineer maybe substituted subject to District Approval.

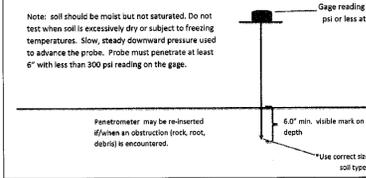
**SOIL EROSION NOTES**

N.T.S.

**Probing Wire Test- 15.5 ga steel wire (survey flag)**



**Handheld Soil Penetrometer Test**



**SOIL EROSION NOTES**

N.T.S.

**EDA** Engineering Design Associates, P.A.  
 Environmental Planners, Landscape Architects  
 CAMBRIDGE PROFESSIONAL OFFICES  
 600 Commercial Street, Suite 200  
 Cambridge, MA 02142  
 (609) 390-0332 • Fax (609) 390-9204 • www.engineeringdesign.com • CERTIFICATE OF AUTHORIZATION# Z60297000

**ENGINEERING DETAILS**  
 BLOCK 236, LOTS 6.18 & 6.19  
 TOWNSHIP OF DENNIS  
 CAPE MAY COUNTY, NEW JERSEY

**JOSEPH H. MAFFEI**  
 PROFESSIONAL ENGINEER  
 N.J.P.E. LIC. #37894

IF THIS PLAN OR DOCUMENT DOES NOT CONTAIN A RAISED SEAL IMPRESSION BEARING THE NAME AND REGISTRATION NUMBER OF THE ABOVE SIGNED PROFESSIONAL, IT MAY NOT BE AN AUTHORIZED COPY OF THE ORIGINAL DOCUMENT AND MAY HAVE BEEN ALTERED. REPRODUCTION OR FURTHER DISSEMINATION OF THE CONTENTS IN WHOLE OR IN PART REQUIRES PERMISSION IN WRITING FROM ENGINEERING DESIGN ASSOCIATES, P.A.

REVISION	DATE	BY



DATE: 1/12/2026	DRAWN BY: MAJ
SCALE: AS NOTED	CHECKED BY: JHM
PROJECT #: 10793	SHEET: 10 OF 11

### SOIL EROSION AND SEDIMENT CONTROL PLAN

- The soil erosion inspector may require additional erosion measure to be installed, in accordance with the Standards for Soil Erosion and Sediment Control in New Jersey, 7th Edition, January 2014, Revised July 2017.
- All property owner shall be responsible for any erosion or sedimentation that may occur beyond stormwater outfalls or ditches as a result of the construction project.
- The soil conservation district shall be notified 48 hours prior to any land disturbance.
- All applicable erosion and sediment control practices shall be in place prior to any grading or installation of proposed structures or utilities.
- Soil Erosion and Sediment Control Practices on this plan shall be conducted in accordance with the standards for Soil Erosion and Sediment Control in New Jersey.
- Applicable erosion and sediment control practices shall be left in place until construction is completed and/or the area is stabilized.
- The contractor shall perform all work, furnish all materials and install all measures required to reasonably control erosion resulting from construction operations and prevent excessive flow of sediment from the construction site.
- Any disturbed area that is to be left exposed for more than sixty (60) days and not subject to construction traffic shall immediately receive a temporary seeding and fertilization in accordance with the New Jersey Standards and Rules for the control of erosion. If the erosion prohibits temporary seeding, the disturbed areas will be mulched with salt hay equivalent and anchored in accordance with the New Jersey Standards. (See page two, mulch, mulch netting or liquid mulch binder).
- It shall be the responsibility of the contractor to provide confirmation of the time and date of seeding and fertilization and rates of application at the request of the Soil Conservation District.
- All critical areas subject to erosion shall receive a temporary seeding in combination with straw mulch at a rate of 2 tons per acre, according to the New Jersey Standards immediately following rough grading.
- The site shall at all times be graded and maintained such that all stormwater runoff is diverted to soil erosion and sediment control facilities.
- All sedimentation structures will be inspected and maintained on a regular basis and after every storm event.
- A crushed stone, 1/2" opening shall be installed wherever a construction access exists. The stabilized part will be installed according to the standards for stabilized construction access.
- All driveways must be stabilized with 1 1/2" crushed stone or sub-base prior to individual lot construction.
- Remove any siltment that may be spilled, dropped, or tracked off the project site. All paved rights of way adjacent to the project site must be maintained in a clean, swept condition throughout construction.
- All catch basin inlets will be protected according to the certified plan.
- All storm drainage will be stabilized, as required, before the discharge points become operational.
- All dewatering operations must discharge directly into a sediment filter area. The sediment filter should be composed of a suitable sediment filter fabric. (See detail). The basin must be installed to normal pond within 10 days of the design storm.
- N.J.A.C. 4:24-39, Eros. Sec. requires that no certificate of occupancy be issued before all provisions of the certified soil erosion and sediment control plan have been complied with for permanent measures. All site work for the project must be completed prior to the district issuing a record of compliance as a prerequisite to the issuance of a certificate of occupancy by the municipality.
- A copy of the certified Soil Erosion and Sediment Control Plan must be maintained on the project site during construction.
- Any conveyance of this project prior to its completion will transfer full responsibility for compliance with the certified plan to any subsequent owners.
- Immediately after the completion of stripping and stockpiling of topsoil, the stockpile must be stabilized according to the standard for temporary vegetative cover. Stabilize topsoil with straw mulch for protection if the season does not permit the application and establishment of temporary seeding. All soil stockpiles are not to be located within fifty (50) feet of a floodplain, slope, roadway or drainage facility and the basin must be protected with a sediment barrier.
- Any changes to the plan will require the submission of a revised Soil Erosion and Sediment Control Plan to the Soil Conservation District. The revised plan must be in accordance with the current New Jersey Standards for Soil Erosion and Sediment Control. All approved changes shall be incorporated into the certified plan.
- Methods for the management of high acid producing soils shall be in accordance with the standards. High acid producing soils are those found to contain sulfides or have a pH of 4 or less.
- Maximum side slopes of all exposed surfaces shall not be constructed steeper than 3:1 unless otherwise approved by the district.
- Dusts to be controlled by an approved method according to the New Jersey Standards and Rules and may include watering with a solution of calcium chloride and water.
- Adding properties shall be protected from excavation and back-filling operations on the proposed site.
- Use standard construction methods to minimize exposed surfaces, where applicable.
- All vegetative materials with American Standards for Nursery Stock of the American Association of the Nurserymen and in accordance with the New Jersey Standards for Soil Erosion and Sediment Control in New Jersey.
- Natural vegetation and species shall be retained where specified in the Landscaping Plan.
- The permanent vegetative cover such as seeding or sodding on all areas shall be accomplished within 10 days after final grading operations have been completed.
- Excavated soil material shall not be placed adjacent to rivers, streams, or bodies of water in a manner that will cause it to be washed away by high water or runoff. Excess borrow material removed from the construction site shall be stabilized at the site of placement.
- This certification is limited to the conditions specified in this plan. It is not authorization to engage in the proposed land use unless such use has been previously approved by the municipality, county, state agency or other controlling agency.

### STORMWATER MANAGEMENT MAINTENANCE PROGRAM

In order to ensure that all retention and detention basins function properly, a maintenance program must be followed. The following are the minimum requirements for the maintenance of all basins.

- Annual maintenance program
- Inspection of vegetated basins to include checking for obstructions of outfall pipes and the accumulation of silts and sediments.
- Inspection of beaver ponds to remove debris and accumulated particles such as silts and sediments.
- Removal of vegetation from basins
- Mowing of grass is required regularly to ensure the aerobiotic quality of the site. All clippings shall be raked and bagged to avoid soil compaction.
- A dense turf, with extensive root growth, is encouraged to reduce erosion and enhance infiltration throughout the bottom and the sides of the basin. Well-established turf of the floors and sides will guard against sediment deposits, thus forming a porous turf and preventing the formation of an impermeable layer.
- Grasses of the fescue family are recommended for seeding, primarily due to their adaptability to dry spells, drought resistance, hardiness, and ability to withstand bird burrows. Fescues will permit longer intervals between mowings.
- Seed type: A mixture of the following species water-tolerant seed will ensure a high quality grass for retention basins.

Mixture #	SEEDING RATE
Fescue	2.1lb./1,000 SF
Perennial Ryegrass	0.25lb./1,000 SF
Kentucky Bluegrass	0.25lb./1,000 SF
White Clover	0.10lb./1,000 SF

- Fertilizing and liming: Bi-annually
- Fertilize with 10-20-10 or 11-11-11, 1,000 SF
- Liming with pulverized dolomite limestone at a rate of 50lbs./1,000 SF

- City of Cape May
- In order to ensure proper function of all basins, every seven years each basin bottom shall be scarified to a depth of 4" to remove sediments and silts. Then a 4" topsoil must be added and reseeded.

### STANDARDS FOR STABILIZATION WITH MULCH

#### METHODS AND MATERIALS

- Grade as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. All grading should be done in accordance with Standards for Land Grading.
- Grade as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. All grading should be done in accordance with Standards for Land Grading.
- Protective Materials
  - Unrotted small grain straw, at a rate of 2.0 to 2.5 tons per acre, is spread uniformly to a minimum depth of 1.5 inches per 1,000 square feet and anchored with a mulch anchoring tool, 1/4" mesh netting, or, netting tie down. Other suitable materials may be used if approved by the Soil Conservation District. The approved rates above have been met when the mulch covers the ground completely upon visual inspection, i.e. the soil cannot be seen below the mulch.
  - Synthetic or organic soil stabilizers may be used under suitable conditions and in quantities as recommended by the manufacturer.
  - Wood fiber or paper fiber mulch at the rate of 1,500 pounds per acre (or according to the manufacturer's requirements) may be applied by a hydroseeder.
  - Work time and fertilizer into the soil as nearly as practical to a depth of 4 inches with a disk, spring-tough harrow, or other suitable equipment. The final harrowing or diskking operation should be 7:1 Standards for Soil Erosion and Sediment Control in New Jersey January 2014 be on the general contour. Continue tillage until a reasonable uniform seedbed is prepared.
- Work time and fertilizer into the soil as nearly as practical to a depth of 4 inches with a disk, spring-tough harrow, or other suitable equipment. The final harrowing or diskking operation should be 7:1 Standards for Soil Erosion and Sediment Control in New Jersey January 2014 be on the general contour. Continue tillage until a reasonable uniform seedbed is prepared.
- Soil should be just before seeding, if traffic has let the soil compacted, the area must be retilled in accordance with the above.
- Soil high in sulfides or having a pH of 4 or less refer to Standard for Management of High Acid Producing Soils, pg. 11-1.

#### SEEDING

- Select seed from recommendations in Table 7-2.
- Conventional Seeding: Apply seed uniformly by hand, cyclone (centrifugal) seeder, drop seeder, drill or coulter seeder. Except for drilled, hydroseeded or coulter seeded seedings, planting rates to compensate for the erosion. Seed depth of seed placement may be 1/4 inch deeper or coarse textured soil.
- Hydroseeding is a broadcast seeding method usually involving a truck or trailer mounted tank, with an agitation system and hydraulic pump for mixing seed, water and fertilizer and spraying the mix onto the prepared seedbed. Mulch shall not be included in the tank with seed. Short spaced mulch shall not be applied with hydroseeding following seeding. (also see Section 4-Mulching below). Hydroseeding is not recommended for seeding and fertilizer are applied to the surface and not incorporated into the soil. Poor seeding to soil contact occurs reducing seed germination and growth. Hydroseeding may be used for areas to steep for conventional equipment to traverse or on obstructed with rocks, stumps, etc.
- After seeding, firming the soil with a corrugated roller will assure good seed-to soil contact, restore capillary, and improve seedling emergence. This is the preferred method. When performed on the contour, sheet erosion will be minimized and water conservation on site will be maximized.

#### MULCHING

Mulching is required on all seeding. Mulch will protect against erosion before grass is established and will promote faster and earlier establishment. The existence of vegetation sufficient to control soil erosion shall be deemed compliance with this mulching requirement.

- Straw or Hay: Unrotted small grain straw, hay free of seeds, applied at the rate of 1.1 to 2 tons per acre (70 to 90 pounds per 1,000 square feet), except that where a crimper is used instead of a liquid mulch anchor (backfilling or adhesive agent), the rate of application is 3 tons per acre. Mulch chopper-blown must not grind the mulch. Hay which is not recommended for establishing turf or lawns due to the presence of weed seed.
- Application: Spread mulch uniformly by hand or mechanically so that approximately 95% of the soil surface will be covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000 square foot sections and distribute 70 to 90 pounds within each section.
- Anchor: Mulch shall be accomplished immediately after placement to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area, steepness of slopes, and costs.
  - Peg and Twine: Drive to 10 to 12 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a cross-crook and a square pattern. Secure twine around each peg with two or more round turns.
  - Match Netting: Staple paper, cotton, or plastic netting over mulch. Use degradable netting in areas to be mowed. Staple plastic netting in areas to be mowed.
  - Crimper (mulch anchoring tool): A tractor-drawn implement, somewhat like a disc harrow, especially designed to push or cut some of the broadest long fiber mulch 3 to 4 inches into the soil as an anchor and to leave part standing upright. This technique is limited to areas traversable by a tractor, which must operate on the contour of slopes. Straw mulch rate must be 3 tons per acre. No tacking or adhesive agent is required.
  - Liquid Mulch-Binders: May be used to anchor hay, straw or mulch.
- Applications should be heavier at edges where wind catches the mulch, in valleys, and at crests of banks. The remainder of the area should be uniform in appearance.

- Organic and Vegetable Based Binders: Naturally occurring, powder based, hydrophilic materials when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membrane networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turf grass. Vegetable based gels shall be applied at rates and weather conditions as recommended by the manufacturer and remain tacky until germination of grass. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.
- Synthetic Binders: High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.

#### SEEDING

- Organic and Vegetable Based Binders: Naturally occurring, powder based, hydrophilic materials when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membrane networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turf grass. Vegetable based gels shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.
- Synthetic Binders: High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.

#### MULCHING

- Straw or Hay: Unrotted small grain straw, hay free of seeds, applied at the rate of 1.1 to 2 tons per acre (70 to 90 pounds per 1,000 square feet), except that where a crimper is used instead of a liquid mulch anchor (backfilling or adhesive agent), the rate of application is 3 tons per acre. Mulch chopper-blown must not grind the mulch. Hay which is not recommended for establishing turf or lawns due to the presence of weed seed.
- Application: Spread mulch uniformly by hand or mechanically so that approximately 95% of the soil surface will be covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000 square foot sections and distribute 70 to 90 pounds within each section.
- Anchor: Mulch shall be accomplished immediately after placement to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area, steepness of slopes, and costs.
  - Peg and Twine: Drive to 10 to 12 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a cross-crook and a square pattern. Secure twine around each peg with two or more round turns.
  - Match Netting: Staple paper, cotton, or plastic netting over mulch. Use degradable netting in areas to be mowed. Staple plastic netting in areas to be mowed.
  - Crimper (mulch anchoring tool): A tractor-drawn implement, somewhat like a disc harrow, especially designed to push or cut some of the broadest long fiber mulch 3 to 4 inches into the soil as an anchor and to leave part standing upright. This technique is limited to areas traversable by a tractor, which must operate on the contour of slopes. Straw mulch rate must be 3 tons per acre. No tacking or adhesive agent is required.
  - Liquid Mulch-Binders: May be used to anchor hay or straw mulch.
- Applications should be heavier at edges where wind catches the mulch, in valleys, and at crests of banks. The remainder of the area should be uniform in appearance.

- Organic and Vegetable Based Binders: Naturally occurring, powder based, hydrophilic materials when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membrane networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turf grass. Vegetable based gels shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.
- Synthetic Binders: High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.

#### SEEDING

- Organic and Vegetable Based Binders: Naturally occurring, powder based, hydrophilic materials when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membrane networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turf grass. Vegetable based gels shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.
- Synthetic Binders: High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.

#### MULCHING

- Straw or Hay: Unrotted small grain straw, hay free of seeds, applied at the rate of 1.1 to 2 tons per acre (70 to 90 pounds per 1,000 square feet), except that where a crimper is used instead of a liquid mulch anchor (backfilling or adhesive agent), the rate of application is 3 tons per acre. Mulch chopper-blown must not grind the mulch. Hay which is not recommended for establishing turf or lawns due to the presence of weed seed.
- Application: Spread mulch uniformly by hand or mechanically so that approximately 95% of the soil surface will be covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000 square foot sections and distribute 70 to 90 pounds within each section.
- Anchor: Mulch shall be accomplished immediately after placement to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area, steepness of slopes, and costs.
  - Peg and Twine: Drive to 10 to 12 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a cross-crook and a square pattern. Secure twine around each peg with two or more round turns.
  - Match Netting: Staple paper, cotton, or plastic netting over mulch. Use degradable netting in areas to be mowed. Staple plastic netting in areas to be mowed.
  - Crimper (mulch anchoring tool): A tractor-drawn implement, somewhat like a disc harrow, especially designed to push or cut some of the broadest long fiber mulch 3 to 4 inches into the soil as an anchor and to leave part standing upright. This technique is limited to areas traversable by a tractor, which must operate on the contour of slopes. Straw mulch rate must be 3 tons per acre. No tacking or adhesive agent is required.
  - Liquid Mulch-Binders: May be used to anchor hay or straw mulch.
- Applications should be heavier at edges where wind catches the mulch, in valleys, and at crests of banks. The remainder of the area should be uniform in appearance.

- Organic and Vegetable Based Binders: Naturally occurring, powder based, hydrophilic materials when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membrane networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turf grass. Vegetable based gels shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.
- Synthetic Binders: High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.

#### SEEDING

- Organic and Vegetable Based Binders: Naturally occurring, powder based, hydrophilic materials when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membrane networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turf grass. Vegetable based gels shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.
- Synthetic Binders: High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.

#### MULCHING

- Straw or Hay: Unrotted small grain straw, hay free of seeds, applied at the rate of 1.1 to 2 tons per acre (70 to 90 pounds per 1,000 square feet), except that where a crimper is used instead of a liquid mulch anchor (backfilling or adhesive agent), the rate of application is 3 tons per acre. Mulch chopper-blown must not grind the mulch. Hay which is not recommended for establishing turf or lawns due to the presence of weed seed.
- Application: Spread mulch uniformly by hand or mechanically so that approximately 95% of the soil surface will be covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000 square foot sections and distribute 70 to 90 pounds within each section.
- Anchor: Mulch shall be accomplished immediately after placement to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area, steepness of slopes, and costs.
  - Peg and Twine: Drive to 10 to 12 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a cross-crook and a square pattern. Secure twine around each peg with two or more round turns.
  - Match Netting: Staple paper, cotton, or plastic netting over mulch. Use degradable netting in areas to be mowed. Staple plastic netting in areas to be mowed.
  - Crimper (mulch anchoring tool): A tractor-drawn implement, somewhat like a disc harrow, especially designed to push or cut some of the broadest long fiber mulch 3 to 4 inches into the soil as an anchor and to leave part standing upright. This technique is limited to areas traversable by a tractor, which must operate on the contour of slopes. Straw mulch rate must be 3 tons per acre. No tacking or adhesive agent is required.
  - Liquid Mulch-Binders: May be used to anchor hay or straw mulch.
- Applications should be heavier at edges where wind catches the mulch, in valleys, and at crests of banks. The remainder of the area should be uniform in appearance.

- Organic and Vegetable Based Binders: Naturally occurring, powder based, hydrophilic materials when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membrane networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turf grass. Vegetable based gels shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.
- Synthetic Binders: High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.

#### SEEDING

- Organic and Vegetable Based Binders: Naturally occurring, powder based, hydrophilic materials when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membrane networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turf grass. Vegetable based gels shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.
- Synthetic Binders: High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.

#### MULCHING

- Straw or Hay: Unrotted small grain straw, hay free of seeds, applied at the rate of 1.1 to 2 tons per acre (70 to 90 pounds per 1,000 square feet), except that where a crimper is used instead of a liquid mulch anchor (backfilling or adhesive agent), the rate of application is 3 tons per acre. Mulch chopper-blown must not grind the mulch. Hay which is not recommended for establishing turf or lawns due to the presence of weed seed.
- Application: Spread mulch uniformly by hand or mechanically so that approximately 95% of the soil surface will be covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000 square foot sections and distribute 70 to 90 pounds within each section.
- Anchor: Mulch shall be accomplished immediately after placement to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area, steepness of slopes, and costs.
  - Peg and Twine: Drive to 10 to 12 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a cross-crook and a square pattern. Secure twine around each peg with two or more round turns.
  - Match Netting: Staple paper, cotton, or plastic netting over mulch. Use degradable netting in areas to be mowed. Staple plastic netting in areas to be mowed.
  - Crimper (mulch anchoring tool): A tractor-drawn implement, somewhat like a disc harrow, especially designed to push or cut some of the broadest long fiber mulch 3 to 4 inches into the soil as an anchor and to leave part standing upright. This technique is limited to areas traversable by a tractor, which must operate on the contour of slopes. Straw mulch rate must be 3 tons per acre. No tacking or adhesive agent is required.
  - Liquid Mulch-Binders: May be used to anchor hay or straw mulch.
- Applications should be heavier at edges where wind catches the mulch, in valleys, and at crests of banks. The remainder of the area should be uniform in appearance.

- Organic and Vegetable Based Binders: Naturally occurring, powder based, hydrophilic materials when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membrane networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turf grass. Vegetable based gels shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.
- Synthetic Binders: High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.

#### SEEDING

- Organic and Vegetable Based Binders: Naturally occurring, powder based, hydrophilic materials when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membrane networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turf grass. Vegetable based gels shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.
- Synthetic Binders: High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.

#### MULCHING

- Straw or Hay: Unrotted small grain straw, hay free of seeds, applied at the rate of 1.1 to 2 tons per acre (70 to 90 pounds per 1,000 square feet), except that where a crimper is used instead of a liquid mulch anchor (backfilling or adhesive agent), the rate of application is 3 tons per acre. Mulch chopper-blown must not grind the mulch. Hay which is not recommended for establishing turf or lawns due to the presence of weed seed.
- Application: Spread mulch uniformly by hand or mechanically so that at least 85% of the soil surface is covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000 square foot sections and distribute 70 to 90 pounds within each section.
- Anchor: Mulch shall be accomplished immediately after placement to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area, steepness of slopes, and costs.
  - Peg and Twine: Drive to 10 to 12 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a cross-crook and a square pattern. Secure twine around each peg with two or more round turns.
  - Match Netting: Staple paper, cotton, or plastic netting over mulch. Use degradable netting in areas to be mowed. Staple plastic netting in areas to be mowed.
  - Crimper (mulch anchoring tool): A tractor-drawn implement, somewhat like a disc harrow, especially designed to push or cut some of the broadest long fiber mulch 3 to 4 inches into the soil as an anchor and to leave part standing upright. This technique is limited to areas traversable by a tractor, which must operate on the contour of slopes. Straw mulch rate must be 3 tons per acre. No tacking or adhesive agent is required.
  - Liquid Mulch-Binders: May be used to anchor hay, straw or mulch.
- Applications should be heavier at edges where wind catches the mulch, in valleys, and at crests of banks. The remainder of the area should be uniform in appearance.

- Organic and Vegetable Based Binders: Naturally occurring, powder based, hydrophilic materials when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membrane networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turf grass. Vegetable based gels shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.
- Synthetic Binders: High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.

#### SEEDING

- Organic and Vegetable Based Binders: Naturally occurring, powder based, hydrophilic materials when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membrane networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turf grass. Vegetable based gels shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.
- Synthetic Binders: High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.

#### MULCHING

- Straw or Hay: Unrotted small grain straw, hay free of seeds, applied at the rate of 1.1 to 2 tons per acre (70 to 90 pounds per 1,000 square feet), except that where a crimper is used instead of a liquid mulch anchor (backfilling or adhesive agent), the rate of application is 3 tons per acre. Mulch chopper-blown must not grind the mulch. Hay which is not recommended for establishing turf or lawns due to the presence of weed seed.
- Application: Spread mulch uniformly by hand or mechanically so that at least 85% of the soil surface is covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000 square foot sections and distribute 70 to 90 pounds within each section.
- Anchor: Mulch shall be accomplished immediately after placement to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area, steepness of slopes, and costs.
  - Peg and Twine: Drive to 10 to 12 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a cross-crook and a square pattern. Secure twine around each peg with two or more round turns.
  - Match Netting: Staple paper, cotton, or plastic netting over mulch. Use degradable netting in areas to be mowed. Staple plastic netting in areas to be mowed.
  - Crimper (mulch anchoring tool): A tractor-drawn implement, somewhat like a disc harrow, especially designed to push or cut some of the broadest long fiber mulch 3 to 4 inches into the soil as an anchor and to leave part standing upright. This technique is limited to areas traversable by a tractor, which must operate on the contour of slopes. Straw mulch rate must be 3 tons per acre. No tacking or adhesive agent is required.
  - Liquid Mulch-Binders: May be used to anchor hay, straw or mulch.
- Applications should be heavier at edges where wind catches the mulch, in valleys, and at crests of banks. The remainder of the area should be uniform in appearance.

- Organic and Vegetable Based Binders: Naturally occurring, powder based, hydrophilic materials when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membrane networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turf grass. Vegetable based gels shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.
- Synthetic Binders: High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.

#### SEEDING

- Organic and Vegetable Based Binders: Naturally occurring, powder based, hydrophilic materials when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membrane networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turf grass. Vegetable based gels shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.
- Synthetic Binders: High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.

#### MULCHING

- Straw or Hay: Unrotted small grain straw, hay free of seeds, applied at the rate of 1.1 to 2 tons per acre (70 to 90 pounds per 1,000 square feet), except that where a crimper is used instead of a liquid mulch anchor (backfilling or adhesive agent), the rate of application is 3 tons per acre. Mulch chopper-blown must not grind the mulch. Hay which is not recommended for establishing turf or lawns due to the presence of weed seed.
- Application: Spread mulch uniformly by hand or mechanically so that at least 85% of the soil surface is covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000 square foot sections and distribute 70 to 90 pounds within each section.
- Anchor: Mulch shall be accomplished immediately after placement to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area, steepness of slopes, and costs.
  - Peg and Twine: Drive to 10 to 12 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a cross-crook and a square pattern. Secure twine around each peg with two or more round turns.
  - Match Netting: Staple paper, cotton, or plastic netting over mulch. Use degradable netting in areas to be mowed. Staple plastic netting in areas to be mowed.
  - Crimper (mulch anchoring tool): A tractor-drawn implement, somewhat like a disc harrow, especially designed to push or cut some of the broadest long fiber mulch 3 to 4 inches into the soil as an anchor and to leave part standing upright. This technique is limited to areas traversable by a tractor, which must operate on the contour of slopes. Straw mulch rate must be 3 tons per acre. No tacking or adhesive agent is required.
  - Liquid Mulch-Binders: May be used to anchor hay, straw or mulch.
- Applications should be heavier at edges where wind catches the mulch, in valleys, and at crests of banks. The remainder of the area should be uniform in appearance.

- Organic and Vegetable Based Binders: Naturally occurring, powder based, hydrophilic materials when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membrane networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turf grass. Vegetable based gels shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.
- Synthetic Binders: High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.

#### SEEDING

- Organic and Vegetable Based Binders: Naturally occurring, powder based, hydrophilic materials when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membrane networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turf grass. Vegetable based gels shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.
- Synthetic Binders: High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.

#### MULCHING

- Straw or Hay: Unrotted small grain straw, hay free of seeds, applied at the rate of 1.1 to 2 tons per acre (70 to 90 pounds per 1,000 square feet), except that where a crimper is used instead of a liquid mulch anchor (backfilling or adhesive agent), the rate of application is 3 tons per acre. Mulch chopper-blown must not grind the mulch. Hay which is not recommended for establishing turf or lawns due to the presence of weed seed.
- Application: Spread mulch uniformly by hand or mechanically so that at least 85% of the soil surface is covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000 square foot sections and distribute 70 to 90 pounds within each section.
- Anchor: Mulch shall be accomplished immediately after placement to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area, steepness of slopes, and costs.
  - Peg and Twine: Drive to 10 to 12 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a cross-crook and a square pattern. Secure twine around each peg with two or more round turns.
  - Match Netting: Staple paper, cotton, or plastic netting over mulch. Use degradable netting in areas to be mowed. Staple plastic netting in areas to be mowed.
  - Crimper (mulch anchoring tool): A tractor-drawn implement, somewhat like a disc harrow, especially designed to push or cut some of the broadest long fiber mulch 3 to 4 inches into the soil as an anchor and to leave part standing upright. This technique is limited to areas traversable by a tractor, which must operate on the contour of slopes. Straw mulch rate must be 3 tons per acre. No tacking or adhesive agent is required.
  - Liquid Mulch-Binders: May be used to anchor hay or straw mulch.
- Applications should be heavier at edges where wind catches the mulch, in valleys, and at crests of banks. The remainder of the area should be uniform in appearance.

- Organic and Vegetable Based Binders: Naturally occurring, powder based, hydrophilic materials when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membrane networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turf grass. Vegetable based gels shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.
- Synthetic Binders: High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.

#### SEEDING

- Organic and Vegetable Based Binders: Naturally occurring, powder based, hydrophilic materials when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membrane networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turf grass. Vegetable based gels shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.
- Synthetic Binders: High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.

#### MULCHING

- Straw or Hay: Unrotted small grain straw, hay free of seeds, applied at the rate of 1.1 to 2 tons per acre (70 to 90 pounds per 1,000 square feet), except that where a crimper is used instead of a liquid mulch anchor (backfilling or adhesive agent), the rate of application is 3 tons per acre. Mulch chopper-blown must not grind the mulch. Hay which is not recommended for establishing turf or lawns due to the presence of weed seed.
- Application: Spread mulch uniformly by hand or mechanically so that at