REAL PREAM REAL PREAM REAL AND REAL PREAM REAL OWNER FROM THE REAL OWNER OF CONSTRUCTION A STULLIN RELL FOR THE REAL OWNER OF RUMAN COM WITH AGAIN A DETURNED CONSTRUCTION A REAL OWNER OF RUMAN COM WITH AGAIN A DETURNED CONSTRUCTION A REAL OWNER OF REAL OWNER AGAIN A DETURNED CONSTRUCTION A REAL OWNER OF REAL OWNER AGAIN A DETURNED CONSTRUCTION A REAL OWNER OWNER AGAIN A DETURNED CONSTRUCTION A STULLIN RELL FOR THE REAL OWNER OF REAL OWNER AGAIN A DETURNED CONSTRUCTION A REAL OWNER OWNER AGAIN A DETURNED CONSTRUCTION A STULLIN RELL FOR THE REAL OWNER OF REAL OWNER AGAIN A DETURNED CONSTRUCTION A REAL OWNER OWNER AGAIN A DETURNED CONSTRUCTION A STULLING A DETURNED REAL OWNER OWNER AGAIN A DETURNED CONSTRUCTION A STULLING RELL FOR THE REAL OWNER OWNER AGAIN A DETURNED CONSTRUCTION A STULLING A DETURNED CONSTRUCTION REAL OWNER OWNER AGAIN A DETURNED CONSTRUCTION A STULLING A DETURNED CONSTRUCTION REAL OWNER OWNER AGAIN A DETURNED CONSTRUCTION A STULLING A DETURNED CONSTRUCTION REAL OWNER OWNER AGAIN A DETURNED CONSTRUCTION A STULLING A DETURNED CONSTRUCTION REAL OWNER OWNER AGAIN A DETURNED CONSTRUCTION A STULLING A DETURNED CONSTRUCTION REAL OWNER AGAIN A DETURNED CONSTRUCTION A STULLING A DETURNED CONSTRUCTION A STULLING A DETURNED CONSTRUCTION REAL OWNER AGAIN A DETURNED CONSTRUCTION A STULLING A DETURNED CONSTRUCTION A STULLING A DETURNED CONSTRUCTION REAL OWNER AGAIN A DETURNED CONSTRUCTION A STULLING A DETURNED CONSTRUCTION A STULLING A DETURNED CONSTRUCTION A REAL OWNER AGAIN A DETURNED CONSTRUCTION A STULLING A STUDIED CONSTRUCTION A STULLING A DETURNED CONSTRUCTION A STULLING A DETURNED CONSTRUCTION A REAL OWNER AGAIN A DETURNED AGAIN A A DETURNED CONSTRUCTION A STULLING A STUDIED CONSTRUCTION A REAL OWNER AGAIN A DETURNED AGAIN A A A DETURNED AGAIN A A DETURNED AGAIN A A A DETURNED AGAIN A A A DETURNED AGAIN A A A A A A A A A A A A A A A A A A
CLEAN WATER INFLOW

SCALE : N.T.S.

WATER DISCHARGE TO STABILIZED OUTFALL

 APPROVED Caustan With
 12/5/05

 CHIEF ENGINEER
 DATE

 RECOMMENDED Contraction of the second se

09/07/2005



(

	JUM				
TYPE	TYPE PIPE I PIPE 2				
I	PERFORATED 24"(600)CMP WITH PERFORATED CAP WELDED ON BOTTOM AND COMPLETELY WRAPPED WITH GEOTEXTILE.	N/A	4' (1200) MIN.	12" (300)	
2	PERFORATED 48" (1200) CMP WITH PERFORATED CAP WELDED ON BOTTOM	REMOVABLE PERFORATED 36" (900) CMP WITH PERFORATED CAP WELDED ON BOTTOM AND COMPLETELY WRAPPED WITH GEOTEXTILE.	8' (2400) MIN.	24" (600)	

DEL	AWARE		SUMP PIT, 1	TYPE 18	£ 2			APPI
DEPARTMENT	OF TRANSPORTATION	STANDARD NO.	E-16 (2005)	SHT.	1	OF	1	RECOM

09/07/2005

42' (12800) MIN.	STONE CHECK DAM	6' (1830 4' (1200
SUMP PIT OR STILLING WEI SUMP PIT OR STILLI		
	NOTES: I.) A DEWATERING BASIN (DWB) IS USED T A CONSTRUCTION SITE BEFORE THE W TOP WIDTH OF I5' (4570) AND A MINIMU PLAN IS USED ONLY FOR QUANTITY C FIELD SHALL BE CALCULATED BY THE US CUSTO METRIC : T WHERE Y IS THE MAXIMUM CAPACITY	O REMOVE SE ATER RE-ENT JM DEPTH OF ALCULATIONS EQUATION: MARY : TOP TOP LENGTH IN GALLONS
	2.) THE OUTFALL FROM THE BASIN TO THE SHALL CEASE WHEN THE EFFLUENT FI	HE RECEIVING Rom the Bas
R-4 RIPRAP	3.) A SUMP PIT OR STILLING WELL (SEE S MAY BE BYPASSED INTO THE STABILIZ MAY BE BYPASSED INTO THE STABILIZ DISCHARGE TO THE RECEIVING WATERS PUMP BECOMES SEDIMENT-LADEN.	STANDARD SH ED OUTFALL SHALL CEAS
215 DE DE DE DE STABILIZED OUTFALL	DEL. # 3 STONE FLAT DEL. # 3 STONE 4.) MAINTENANCE MUST BE PERFORMED IN SHALL BE REMOVED AND DISPOSED OF 12" (300) FROM THE CREST.	I ORDER FOR - IN AN APPF
GEOT SECTION A-A	5.) WHEN USED IN CONJUNCTION WITH A CONFERDAM INSTALLATION IN ORDER	COFFERDAM, D TO ALLOW SE
	DFW & TFRINGR & SIN	
		ALLV

🗕 B

DELAWARE		DEWATER	INGBASI	N			APP
EPARTMENT OF TRANSPORTATION	STANDARD NO.	E-17 (2005)	SHT.	1	OF	1	RECO

SCALE : N.T.S.



E SEDIMENT FROM SEDIMENT-LADEN WATER PUMPED FROM ENTERS THE WATERWAY. THE DWB SHALL HAVE A MINIMUM OF 3.5' (1065). THE MINIMUM TOP LENGTH SHOWN IN THE DNS BY THE ENGINEER. THE ACTUAL TOP LENGTH IN THE N:

OP LENGTH (FEET) = 26' + .01 × Y

TH (mm) = 7930 + 48300 × Y

NS PER MINUTE (CUBIC METERS PER SECOND) OF THE DEWATERING PUMP.

'ING WATERS SHALL BE STABILIZED. PUMPING INTO THE DWB BASIN BECOMES SEDIMENT-LADEN.

SHEETS) SHALL BE USED IN CONJUNCTION WITH A DWB. THE BASIN ALL IF THE WATER BEING PUMPED IS NON-SEDIMENT-LADEN. DIRECT EASE AND BE REDIRECTED TO THE DWB WHEN EFFLUENT FROM THE

FOR THE DWB TO FUNCTION PROPERLY, ACCUMULATED SEDIMENT PPROVED DISPOSAL AREA WHEN THE BASIN IS FILLED TO WITHIN

M, DEWATERING SHALL BEGIN NO SOONER THAN I2 HOURS AFTER / SEDIMENT PRODUCED DURING INSTALLATION TO SETTLE COMPLETELY.

PROVED Caustan Wich 12/5/05 CHIEF ENGINEER OFFICIALE MMENDED Provent Office United Date

09/07/2005

2' (600) OVERLAP STONE TRENCH	PINS 24" (600) MAX. LATERAL SPACIN	SPACING IG) FLOW STONE TI	RENCHES		SANDBAG DIKE (SEE STANDARD	SHEET)-
D FLOW IV/2" (40) DIA. WASHER GEOTEXTILI GEOTEXTILI FASTENING DETAIL	EL. NO. 3 STONE		STONE TRENCH	<u>I' (300)</u> 	PLAN GE SEE PLANS FOR	<u>:otextile</u> <u>TION A</u> Locatio
DELAWARE DEPARTMENT OF TRANSPORTATION	GEO STANDARD NO.	DTEXTILE-LINED E-18 (2005)	CHANNEL DIVER	SION OF	1	APF RECO

()

 \bigcirc

 \bigcirc







 \bigcirc

 \bigcirc

	SCALE : N.T.S.
DISTURBED AR	EA
	/ /
9	
BANK STABILI-	
PEAK FLOW,	
THE ONE	
OVED Carolan	JICA 12/5/05

09/08/2005



()

- **NOTES:** I). THE WORK SHALL CONSIST OF INSTALLING A SANDBAG DIKE FOR THE PURPOSE OF EROSION CONTROL WHEN CONSTRUCTION ACTIVITIES TAKE PLACE WITHIN THE STREAM CHANNEL SUCH AS BANK STABILI-ZATION OR BRIDGE ABUTMENT CONSTRUCTION.
 - 2). THE SANDBAG DIKE SHALL BE INSTALLED AT THE UPSTREAM LOCATION FIRST.
 - 3). THE HEIGHT OF THE SANDBAG DIKE SHALL BE I' (300) ABOVE THE PEAK ELEVATION OF THE ONE YEAR STORM, OR EQUAL WITH THE TOP OF BANK, WHICHEVER IS LESS. SEE PLANS FOR INFORMATION.
 - 4). THE SPILLWAY SHALL BE SIZED TO PASS A (1) ONE YEAR STORM EVENT PEAK FLOW, SEE PLANS.
 - 5). THE PIPE, WHEN UTILIZED, SHALL BE SIZED TO PASS THE STREAM BASE FLOW.

DELAWARE	SANDBA	G DIKE				
DEPARTMENT OF TRANSPORTATION	STANDARD NO. E-20 (2005)	SHT.	1	OF	1	RECOM

SCALE : N.T.S.
 PROVED
 Caudana Uich
 12/5/05

 CHIEF ENGINEER
 Date

 MMENDED
 ENGINEER

 CHIEF ENGINEER
 UI29/05

 Date
 Date

09/08/2005



SCALE : N.T.S.







DELAWARE		TURBIDITY	CURTA	IN			
DEPARTMENT OF TRANSPORTATION	STANDARD NO.	E-23 (2005)	SHT.	1	OF	2	RECOM

 PROVED
 Caurlan Uich
 12/5/05

 CHIEF ENGINEER
 DATE

 MMENDED
 Description

 Exercise
 11/29/05

 09/08/2005

DELAWARE		TURBIDITY	CURTA	IN			APPR
DEPARTMENT OF TRANSPORTATION	STANDARD NO.	E-23 (2005)	SHT.	2	OF	2	RECOM





 \bigcirc

 \bigcirc

 \bigcirc



09/08/2005





(

09/08/2005

)	I2" (300) MIN. (TYP) PROPOSED PIPE REPRAP (SEE PLANS FOR TYPE) PLAN_VIEW	3' (900) A		GEOTEXTILE	DETAI	
	SEE NOTES 1& 2	EL. GEOTEXTILE	- SEE DETAIL B SEE NOTE 3			NOTES: I. RIPRAP IS TO E 2. PLACE DELAWA 3. ELEVATION (EL 4. REFER TO THE CONSTRUCTION VARIABLES.
)	DELAWARE]	RIPRAP ENERGY	DISSIPATOR DET	AIL	APF
	DEPARTMENT OF TRANSPORTATION	STANDARD NO.	E-26 (2006)	SHT. 1	OF 1	RECO

SCALE : N.T.S.



BE PLACED PRIOR TO PLACING PIPE. ARE NO. 3 STONE UNDER PIPE. L.) SHOULD NOT BE HIGHER THAN PIPE INVERT. E PIPE ENERGY DISSIPATOR SCHEDULE ON THE I PLANS FOR THE VALUE OF DIMENSION



08/04/2006



08/04/2006



 $\left(\right)$

SCALE : N.T.S.

\bigcirc	DELAWARE		PLANTIN	G DETAILS		APPRO
		PE	<u>Rennial/groundco</u>	<u>over planting d</u>	<u>etail</u>	
\bigcirc	Image: state			X	x	3
\bigcirc						NOTE

SCALE : N.T.S.

ST FOR SPACING (X).

- PERENNIAL/GROUND COVER
- FINISHED GRADE

- 3" (75) MULCH NOT TO COVER LEAVES

- ROOT MASS
- 6" (150) PREPARED SOIL MIX, AS PER SPECIFICATION.
- SUBGRADE TILLED TO 6" (ISO) DEPTH



06/27/2006

END POST: 2/2" (GO Q.D. SLESS / UNE FT. USB SK / USB / UNE FT. USB SK / USB / US		ONAL BRACE: 1%" (41) O.D. LBS./LIN.FT. (3.38 kg/m)) LENGTH 7'-0" (2130)±	<u>FRONT V</u>	IEW		(2.27 LE LI
$\frac{12''(300) \text{ DIA}}{100}$ $\frac{12''(300) \text{ DIA}}{100}$ $\frac{12''(300) \text{ DIA}}{100}$ $\frac{100}{100}$	7'-0" (2130) 30" (750) 36" (900) 36" (900)	24" (600) 24" (600) ANCHOR PLATE	30"(750) 	GAGE (3.9)		DIAGON
I2" (300) DIA. Image: Construction of the second of th				<u>6" (I50)</u> (TYP.)		
I2" (300) DIA. TOP VIEW NTERMEDIATE OR LINE POST: STUDDED "T" - 1,33 LBS./LIN. FT. (1,98 kg/m), T - 1,33 LBS./LIN. FT. (1,98 kg/m), H - 2,27 LBS./LIN. FT. (1,38 kg/m)	END POST: 21/2"(64)0.D. (3.65 LBS./LIN.FT.(5.43 kg/m)) —	FASTEN WITH 5 CLAMPS OR # 9 GAGE GALV. WIRE TIES	12	1/2 GAGE (2.7), 4-PT. ONE STRAND BA	BARB, 5" (127) C.C., ARBED WIRE	<i></i>
I2" (300) DIA.		INTERMEDIATE OR LINE POST: STUDDED "T"- 1.33 LBS./LIN.FT.(1.98 kg/m),				
		1	TOP VIEW	<u>I_</u>		
	12" (300) DIA.	IS. (300)				



^{05/21/2001}

	DELAWARE DEPARTMENT OF TRANSPORTATION		CONCRETI	E MONUM	ENT	OF	1	APP: RECON
								NOTES : I. LON 2. LE
	SPOT WELD			<u>ELEV</u>	TION			
	V2" (20) X 24" (600) STEEL ROD SPACED 3" (75) C. C., TRANSVERSE STEEL SPACED 8" (26" (650) LONG (TYP.) 7 GAGE (4.5) WIRE (200) C.C.		4. ((
		L 6 GAGE (4.9) WIRE						
)						A		
			30" (75					
	TOP		20					
	المجلس المجلس المجلس المجلس المجلس المحلوم المحلوم ومحلوم المحلوم المحلوم المحلوم المحلوم محلوم محلوم المحلوم المحلوم محلوم محلوم المحلوم المحلوم المحلوم ال	ODATE						
	6° (150)			(50)				
	$\frac{\frac{3}{4}}{(19)} = \frac{\frac{6''(150)}{4'/2''(115)}}{\frac{3''}{(19)}} = \frac{\frac{3}{4}}{(19)}$					<u>/2" (13)</u> }4" (20)		
)								



07/28/2008



	SCALE : N.T.S.
5° BEVEL (TYP) 4 SIDES	
EE NOTE 8	
' (150) × 6" (150) (NOM) REATED POST	
-SEE NOTE 2 2" (50) DIA. HOLE LOCATED 4" (100) ABOVE GRADE	
CLASS B CONCRETE LOWER PORTION OF BE WELDED TO	DE LAIL OF HASP SHALL STEEL TUBE.
6" (150) x 6" (150) x 3/6" (5) STEEL TUBE, STOCK	
DELAWARE #57 STONE RD	
DS AT A ROADWAY OR RAILROAD CROSSING, THEN DETEC	TABLE
13) ABOVE GROUND WITH CONCRETE TO SLOPE AWAY FRO 13) ABOVE GROUND WITH CONCRETE TO SLOPE AWAY FRO 14 FROM DRAINING INTO TUBE. 15 FOR A SHARED-USE PATH LESS THAN 8' (2450) WIDE. 16 ARY SO THAT IT WILL FIT IN THE STEEL TUBE. 17 BE A MINIMUM OF 5' (1525) IN LENGTH AND SHALL HAVE 18 A MINIMUM OF 5' (1525) IN LENGTH AND SHALL HAVE 19 COPE OF 2%. THE ENTIRE LANDING SECTION MUST ALSO 19 YE A MAXIMUM CROSS SLOPE OF 2%. IT SHALL ALSO H 12:1. HOWEVER, IF A 12:1 RUNNING SLOPE DOES NOT ALLOW 19 HIN 15' (4200), THE RUNNING SLOPE MAY EXCEED 12:1. 19 TERMINED BY THE ENGINEER BASED ON THE MATERIAL T 10 ON. 19 CT MARKER SHALL BE PLACED ON THE FRONT AND B DETAIL.	A MAXIMUM DE CONCRETE. AVE A V THE RAMP THAT ACK OF
PROVED SIGNATURE ON FILE	01/19/2010
MMENDED <u>SIGNATURE ON FILE</u>	01/14/2010 ATE

01/06/2010

DELAWARE	BIKE RACK DETAILS						
DEPARTMENT OF TRANSPORTATION	STANDARD NO.	M-4 (2007)	SHT.	1	OF	1	RECOM



 \bigcirc

 \bigcirc

 \bigcirc



04/03/2007



()

 \bigcirc

 \bigcirc

09/27/2004





4" (100) × 8" (200) RUNNING BOND PATTERN

4" (100) × 8" (200) HERRINGBONE PATTERN

NOTES:

 $\left(\right)$

()

- ACTUAL PATTERN TO BE USED SHALL BE SPECIFIED ON THE PLANS. COLOR IS TO BE "BRICK RED" UNLESS OTHERWISE NOTED ON THE PLANS.
 MATERIALS AND PAVEMENT BOX VARY DEPENDING ON PLANS.
 FOR CROSSWALK APPLICATIONS, 8" (200) WHITE LINES SHOULD BE PLACED ON BOTH SIDES.
 THE PATTERNS ABOVE ARE THE PREFERRED PATTERNS AVAILABLE FOR SIDEWALK OR CROSSWALK APPLCATIONS.



ALL PAVERS ARE TO BE 'BRICK RED" UNLESS OTHERWISE SPECIFIED ON THE PLANS. THE PATTERN SHALL BE SPECIFIED ON THE PLANS.
 EXPANSION JOINT MAY BE NEEDED ON NON-CURB SIDE OF BRICK PAVER SIDEWALK IF THAT SIDE IS AGAINST BUILDING OR OTHER CONFINING FEATURE.

DELAWARE	PATTERNED	HOT-MIX OR C	CONCRETE &	BRICK	PAVER	DETAILS	APPR
DEPARTMENT OF TRANSPORTATION	STANDARD NO.	M-6 (2004)	SHT.	1	OF	1	RECOMM



09/24/2004

SCALE : N.T.S.



DELAWARE	P.C.C. PARKING BUMPER						
DEPARTMENT OF TRANSPORTATION	STANDARD NO.	M-8 (2007)	SHT.	1	OF	1	RECO

 \square

 \square







SCALE : N.T.S.





08/01/2007



()

04/18/2001



10/01/2004

)	$\frac{12'''(300)}{19/6'''(40)} + \frac{11/2'''(38)}{11/2'''(38)} + \frac{11/2'''(38)}{11/2'''(38)} + \frac{11/2'''(38)}{23/4'''(70)} + \frac{23/4'''(70)}{3'''(70)} + \frac{3'''(76)}{3'''(76)} + \frac{3'''(76)}{111111111111111111111111111111111111$	
	<u>W BOLT</u>	
)	THREADED STEEL SLEEVE (THREAD ENTIRE LENGTH) 3"(75) * 8"(200) 8"(200)	8" (2
	HOOK BOLT + - ¹ / ₆ " (17) RC	
)	DELAWARE P.C.C. PAVEMENT AF	» b £
	VEFARIMENT OF TRANSPORTATION STANDARD NO. P-1 (2001) SHT. 3 OF 5 REC	COM



05/22/2001



(

(

 \bigcirc

04/18/2001

\supset	TRANSVERSE JOINT TOP	OF SLAB				TRANSVERSE JOIN
	POSITION SPECIFIED	(52)				POSITION A
	VERTICAL TRA	NSLATION				
	<u>+ (25)</u>	POSITION				
	POSITION SPECIFIED POSITION ALLOWED					POSITI ALLOW
	TRANSVERSE JOINT T	TRANSVERSE JOINT			TF	RANSVERSE JOINT —
		POSITION SPECIFIED	± I" (25)			
	HORIZONTAL TRANSLATION	LONGITUD	INAL TRANSLATIO	N		<u> </u>
			DOWEL & TIE	BAR PLACEMENT	TOLERANCES	
	DELAWARE		P.C.C.	PAVEMENT		APPR
	DEPARTMENT OF TRANSPORTATION	STANDARD NO.	P-1 (2001)	SHT. 5	OF 5	RECOMM



^{04/18/2001}

 \bigcirc



11/14/2008



^{11/14/2008}



DELAWARE	P.C.C. PAVEMENT PATCHING						
DEPARTMENT OF TRANSPORTATION	STANDARD NO.	P-2 (2004)	SHT.	3	OF	5	RECOMM

10/01/2004



^{04/18/2001}



 \bigcirc

05/22/2001



01/08/2010