



**US Army Corps  
of Engineers®**  
Philadelphia District

Wanamaker Building  
100 Penn Square East  
Philadelphia, PA 19107-3390  
ATTN: CENAP-OP-R

# Public Notice

Public Notice No. <b>CENAP-OP-R-2018-822</b>	Date <b>October 26, 2018</b>
Application No. <b>CENAP-OP-R-2018-822</b>	File No. <b>CENAP-OP-R-2018-822-85</b>
In Reply Refer to: <b>REGULATORY BRANCH</b>	

This District has received an application for a Department of the Army permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) and Section 404 of the Clean Water Act (33 U.S.C. 1344).

The purpose of this notice is to solicit comments and recommendations from the public concerning issuance of a Department of the Army permit for the work described below.

**APPLICANT:** Delaware Department of Transportation

**AGENT:** McCormick Taylor, Incorporated

**WATERWAY:** Nonesuch Creek

**LOCATION:** The SR 141, I-295 and I-95 Interchange, 0.5 mile South of Newport, New Castle County, Delaware  
(Lat. 39.699948°N/Long.75.604308°W).

**ACTIVITY:** The applicant has applied for a Department of the Army permit to discharge fill material into waters of the United States in order to improve the operational, congestion and safety deficiencies located at the SR 141, I-295 and I-95 Interchange, 0.5 mile South of Newport, in New Castle County, Delaware. The proposed project is funded through the Federal Highway Administration (FHWA) and has received categorical exclusion concurrence from the FHWA.

The I-95 and SR 141 interchange experiences congestion during the morning and afternoon peak hours. Both northbound and southbound SR 141 have deficient arterial levels of service for existing and future conditions. In addition, there are weaving, merging and diverging levels of service deficiencies throughout the interchange. The improvements includes:

- Widening northbound SR 141 and southbound SR 141 to provide an additional lane in each direction at the SR 141 and Commons Boulevard intersection;
- Remove the signal at Airport Road and SR 141 southbound;
- Replace Bridges 1-676 and 1-677 with larger new structures;
- Realign I-295 southbound to become adjacent but separated from I-95 southbound at its current location to allow I-295 southbound to merge with I-95 further south of the interchange; and
- Construct several overhead and cantilever sign structures.

These transportation improvements will result in 2.67 acres of permanent wetland impacts, 0.25 acre of permanent open water impacts, 0.79 acre of temporary wetland impacts and 0.07 acre of temporary open water impacts. The impact areas are degraded as a result of the adjacent transportation infrastructure and surrounding development and offer minimal wildlife value. As a result of the impacts and unsuitable areas for on-site compensatory mitigation, the applicant is proposing off-site compensatory mitigation at the Russell Peterson Urban Wildlife Refuge located 3 miles northeast of the proposed project by way of restoration and enhancement of 8.03 acres of wetlands. The location and extent of work for the infrastructure improvements and compensatory mitigation are indicated on the attached plans.

PURPOSE: The purpose of the project is to improve safety and traffic operations.

#### AVOIDANCE/MINIMIZATION/COMPENSATION STATEMENT:

On April 10, 2008, the U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency published a *Final Rule on Compensatory Mitigation for the Losses of Aquatic Resources* (33 CFR 325 and 332 and 40 CFR 230). The rule took effect on June 9, 2008. In accordance with 33 CFR Part 325.1(d)(7) of the rule, the applicant has stated that the proposed project has been designed to avoid and minimize adverse effects to the aquatic environment to the maximum extent practicable. Super silt fence will be utilized to identify the limits of construction to reduce additional impacts to surrounding resources. Retaining walls along the ramps were incorporated into the design in order to minimize the footprint of on/off ramps. Compensatory mitigation for unavoidable impacts is proposed at the Russell Peterson Urban Wildlife Refuge.

The Russell Peterson Urban Wildlife Refuge is approximately 225 acres, of which approximately 190 acres are tidally influenced freshwater wetlands. Much of these wetlands have been significantly altered in the past for agriculture, industry and road and railroad construction. As a result, these wetlands have restricted tidal exchange and a monoculture of *Phragmites*. Mitigation for other federally authorized projects has occurred within the refuge resulting in the restoration/enhancement of approximately 31 acres of wetlands. As such, additional restoration and enhancement activities within the refuge will improve the overall quality of existing tract of wetlands.

A preliminary review of this application indicates that the proposed work would not affect listed species or their critical habitat pursuant to Section 7 of the Endangered Species Act as amended. As a result, consultation with the United States Fish and Wildlife Service or the National Marine Fisheries Service pursuant to Section 7 of the ESA is not necessary. As the evaluation of this application continues, additional information may become available which could modify this preliminary determination.

The Magnuson-Stevens Fishery Conservation and Management Act requires all federal agencies to consult with the NOAA Fisheries all actions, or proposed actions, permitted, funded, or undertaken by the agency that may adversely affect Essential Fish Habitat (EFH). A preliminary review of this application indicates that EFH is present within the project area. The

Philadelphia District will evaluate the potential effects of the proposed actions on EFH and will consult with NOAA Fisheries as appropriate. Consultation will be concluded prior to the final decision on this permit application.

Review of the National Register of Historic Places indicates that no registered properties or properties listed as eligible for inclusion therein are located within the permit area of the work. The Philadelphia District has determined that the proposed project is of such limited nature and scope that little likelihood exists for the proposed action to impact an historic property. The District has determined that the project will have no effect on properties eligible for or listed in the National Register of Historic Places.

The decision whether to issue a permit will be based on an evaluation of the activity's probable impact including its cumulative impacts on the public interest. The decision will reflect the national concern for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the work must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the work will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs and welfare of the people. A Department of the Army permit will be granted unless the District Engineer determines that it would be contrary to the public interest.

The Corps of Engineers is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Comments on the proposed work should be submitted, in writing, within 30 days to the District Engineer, U.S. Army Corps of Engineers, Philadelphia District, Wanamaker Building, 100 Penn Square East, Philadelphia, Pennsylvania 19107-3390.

In accordance with Section 307(c) of the Coastal Zone Management Act of 1972, applicants for Federal Licenses or Permits to conduct an activity affecting land or water uses in a State's coastal zone must provide certification that the activity complies with the State's Coastal Zone Management Program. The applicant has stated that the proposed activity complies with and will be conducted in a manner that is consistent with the approved State Coastal Zone Management (CZM) Program. No permit will be issued until the State has concurred with the applicant's certification or has waived its right to do so. Comments concerning the impact of the

proposed and/or existing activity on the State's coastal zone should be sent to this office, with a copy to the State's Office of Coastal Zone Management.

In accordance with Section 401 of the Clean Water Act, a Water Quality Certificate is necessary from the State government in which the work is located. Any comments concerning the work described above which relate to Water Quality considerations should be sent to this office with a copy to the State.

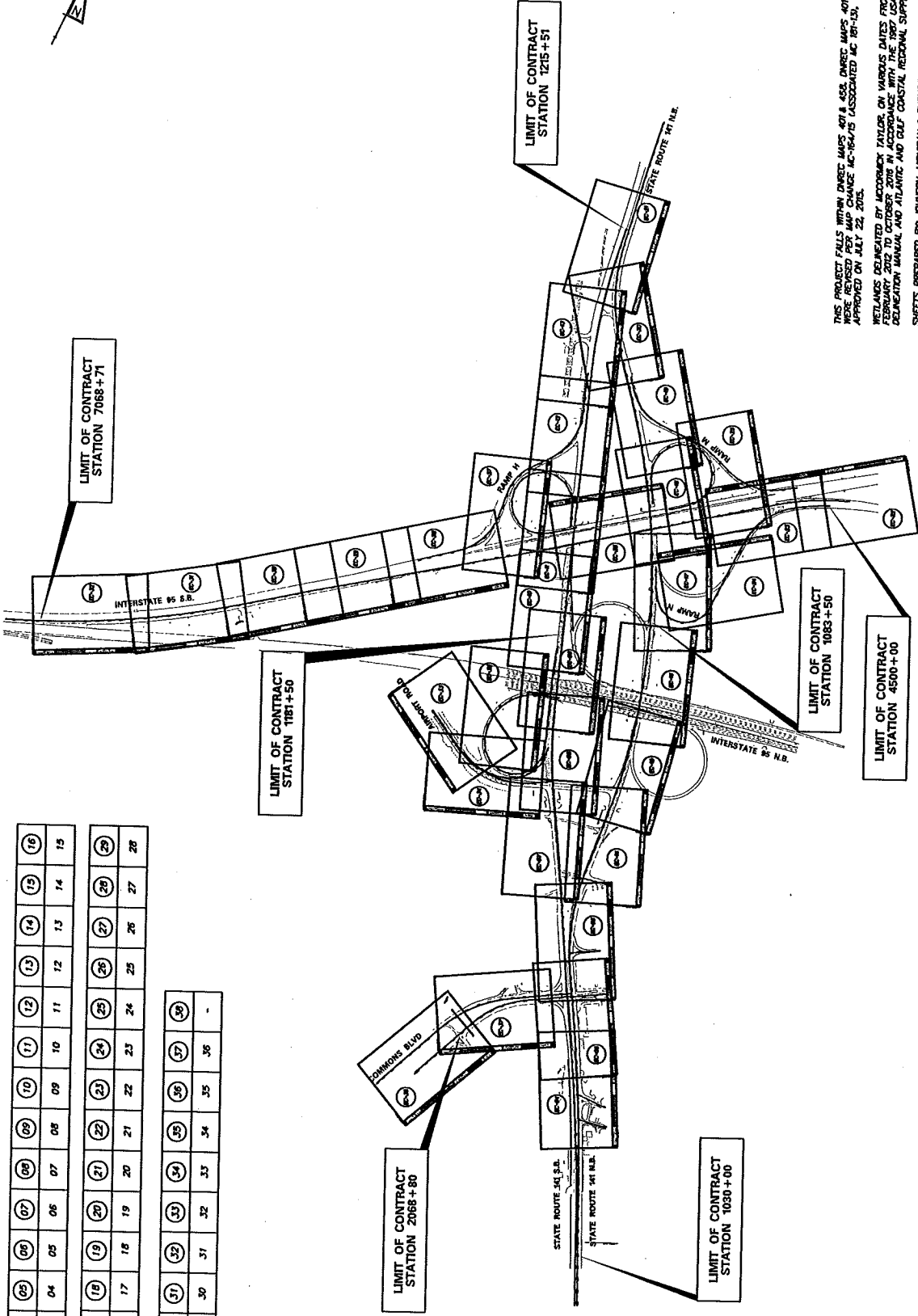
The evaluation of the impact of the work described above on the public interest will include application of the guidelines promulgated by the Administrator, U.S. Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act.

Any person may request, in writing, to the District Engineer, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for a public hearing shall state in writing, with particularity, the reasons for holding a public hearing.

Additional information concerning this permit application may be obtained by calling Michael D. Yost at (267) 240-5278, by email at [michael.d.yost@usace.army.mil](mailto:michael.d.yost@usace.army.mil), or by writing this office at the above address.

Edward E. Bonner  
Chief, Regulatory Branch

ENVIRONMENTAL COMPLIANCE	04	05	06	07	08	09	10	11	12	13	14	15
CONSTRUCTION PLAN	03	04	05	06	07	08	09	10	11	12	13	14
ENVIRONMENTAL COMPLIANCE	17	18	19	20	21	22	23	24	25	26	27	28
CONSTRUCTION PLAN	16	17	18	19	20	21	22	23	24	25	26	27
ENVIRONMENTAL COMPLIANCE	30	31	32	33	34	35	36	37	38	39	40	41
CONSTRUCTION PLAN	29	30	31	32	33	34	35	36	37	38	39	40



THIS PROJECT FALLS WITHIN DIRECT MAPS 401 & 453. DIRECT MAPS 401 & 453  
 WERE PREPARED BY J. W. CHANCE MC-164/15 ASSOCIATED MC 161-15,  
 APPROVED ON JULY 22, 2003.  
 WETLANDS DELINEATED BY MCCORMACK TAYLOR, ON VARIOUS DATES FROM  
 OCTOBER 2002 TO OCTOBER 2003 IN ACCORDANCE WITH THE 1987 USACE WETLAND  
 DELINEATION MANUAL AND ATLANTIC AND GULF COASTAL REGIONAL SUPPLEMENTS.  
 SHEETS PREPARED BY JOHNSON, MURRAY & THOMPSON, INC.  
 DATE: SEPTEMBER 2013  
 SHEETS LAST UPDATED APRIL 11, 2018

DELAWARE DEPARTMENT OF TRANSPORTATION		SR 141 IMPROVEMENTS, I-95 INTERCHANGE TO JAY DRIVE		ENVIRONMENTAL COMPLIANCE PLAN SHEET INDEX	
CONTRACT NO. 1207090001 COUNTY NEW CASTLE		SHEET NO. 389 TOTAL SHEETS 504		EC-01	
SCALE 0 400 800 1200 FEET		DESIGNED BY CHECKED BY		DATE: SEPTEMBER 2013	

ENVIRONMENTAL COMPLIANCE NOTES

1. GENERAL NOTES

- A. THE PURPOSE OF THESE SHEETS ARE TO IDENTIFY THOSE ITEMS ASSOCIATED WITH ENVIRONMENTAL COMPLIANCE. IMPACT CALCULATIONS ARE FOR AGENCY REPORTING PURPOSES ONLY AND ARE NOT TO BE USED FOR BIDDING PURPOSES.
- B. IF A DEVIATION FROM THE APPROVED PLANS WHICH WOULD AFFECT ANY NATURAL AND/OR CULTURAL RESOURCES IS NECESSARY, THE ENVIRONMENTAL STUDIES SECTION SHALL BE CONTACTED AT (302) 760-2264 TO ALLOW THEM TO COORDINATE WITH THE APPROPRIATE AGENCIES FOR APPROVAL.
- C. USE OF THESE SHEETS DOES NOT ALLEVIATE THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH ALL CONDITIONS SET FORTH IN THE ENVIRONMENTAL STATEMENT AND PERMITS.

2. NATURAL RESOURCES

A. PERMIT REQUIREMENTS / APPROVALS\*

- DDREC - INDIVIDUAL PERMIT\*\*
- DDREC SUBAQUEOUS WLS - WETLANDS & SUBAQUEOUS LANDS PERMIT\*\*
- DDREC WCC & CMA - REQUIRED\*\*
- NCC DEPT. OF LAND USE - FLOODPLAIN PERMIT SUBMITTED 11/6/17 TBO\*\*

- \* THE PERMITS/APPROVALS LISTED ARE THOSE REQUIRED FOR THIS PROJECT. THE ENVIRONMENTAL STUDIES SECTION IS RESPONSIBLE FOR COORDINATING/OBTAINING THIS APPROVAL.
- \*\* THE CONTRACTOR MUST ENSURE THAT THESE PERMITS/APPROVALS (DDREC, DDREC WLS, WCC & CMA, NCC) ARE IN THEIR POSSESSION PRIOR TO BEGINNING CONSTRUCTION IN THE PERMITTED AREAS(S) AND ENSURE THEY ARE DISPLAYED ON-SITE DURING THE ENTIRE CONSTRUCTION PERIOD.

- B. CONSTRUCTION RESTRICTIONS: VARIOUS TIME OF YEAR RESTRICTIONS OCCUR BETWEEN MARCH 15 - JULY 31, AS FOLLOWS:
- FISHERIES - ANY IN-WATER WORK THAT BLOCKS UPSTREAM FISH PASSAGE SHALL BE AVOIDED FROM MARCH 15 - JUNE 30.
- ENDANGERED SPECIES - NONE
- MIGRATORY BIRDS (SONG BIRDS) - TO MINIMIZE DISTURBANCE TO NESTING BIRDS WITHIN THE PROJECT AREA, THE REMOVAL OF VEGETATION SHOULD BE AVOIDED BETWEEN APRIL 1 - JULY 31ST.

3. CULTURAL RESOURCE ISSUES

- A. THE PROJECT IS CONSISTENT WITH THE ADVISORY COUNCIL ON HISTORIC PRESERVATION EXEMPTIONS REGARDING HISTORIC PRESERVATION REVIEW FOR EFFECTS TO THE INTERSTATE HIGHWAY SYSTEM FEDERAL REGISTER VOLUME 70, NUMBER 46 - THURSDAY, MARCH 10, 2005, PP. 18208 - 18210. AS SUCH, THE PROJECT WILL BE REVIEWED AND DETERMINED BY ENVIRONMENTAL STUDIES QUALIFIED STAFF WHEREBY NO CULTURAL RESOURCES ISSUES WILL BE IDENTIFIED. HOWEVER, THE CONFIRMED LOC AND/OR OTHER GEOGRAPHIC LIMITS AS DEFINED IN THE DESIGN PLANS OR SPECIAL PROVISIONS SHALL REMAIN. CHANGES IN LOC LIMITS AND SCOPE WILL BE COORDINATED BACK WITH THE ENVIRONMENTAL STUDIES OFFICE TO DETERMINE THE CONSISTENCY THAT THE PROJECT IS STILL FOLLOWING THE FEDERAL REGISTER NOTICE.

4. PROTECTION OF RESOURCES

- A. WETLAND AND STREAM RESOURCES OCCUR WITHIN AND IN THE VICINITY OF THE PROJECT. ACCESS INTO THESE RESOURCE AREAS WHICH IS NOT SPECIFICALLY AUTHORIZED BY THE ACOE AND DDREC PERMITS (AS ILLUSTRATED ON THESE ENVIRONMENTAL COMPLIANCE SHEETS) IS STRICTLY PROHIBITED.
- B. SLT FENCE/REINFORCED SLT FENCE OR CONSTRUCTION SAFETY FENCE SHALL BE USED ALONG THE LIMITS OF CONSTRUCTION IN ALL AREAS WHERE WATER/WETLANDS ARE BEING IMPACTED AND ALSO IN ANY AREA WHERE WATER/WETLANDS EXIST WITHIN 20 FEET OF THE LOC (AS SHOWN ON THE ENVIRONMENTAL COMPLIANCE PLANS). CONTRACTOR ACCESS BEYOND THE LOC IS STRICTLY PROHIBITED.
- C. CLEARING IN WETLAND AREAS SHALL BE KEPT TO A MINIMUM ABSOLUTELY NECESSARY FOR CONSTRUCTION ACCESS. ALL EQUIPMENT TRAVELING WETLANDS AND SUBAQUEOUS LANDS SUPPORTED ON MATS IN WETLAND AREAS THAT ARE CLEARED THERE SHALL BE NO GRUBBING EXCEPT WHERE NECESSARY TO CONSTRUCT PROJECT COMPONENTS SUCH AS EMBANKMENTS AND BRIDGE PROTECTION. VEGETATION SHALL BE CUT FLUSH WITH THE GROUND, I.E. NO DISTURBANCE OF THE ROOT MAT. TEMPORARILY DISTURBED WETLAND AREAS SHALL BE RESTORED TO GRADE AND SEEDED WITH TEMPORARY GRASS SEEDING - DRY GROUND. (PAYMENT UNDER ITEM SUBORDINAL ACCESS TO RESOURCE AREAS WHICH IS NOT SPECIFICALLY AUTHORIZED BY THE ACOE AND DDREC PERMITS (AS ILLUSTRATED ON THE ENVIRONMENTAL COMPLIANCE SHEET) IS STRICTLY PROHIBITED.

5. MITIGATION

- A. PERMANENT IMPACTS TO WETLANDS WILL BE MITIGATED AT A 3:1 RATIO AT THE RUSSELL PETERSON URBAN WILDLIFE REFUGE FOR A TOTAL OF 8.0352 ACRES.



DELAWARE  
DEPARTMENT OF TRANSPORTATION

AGREEMENTS / REVISIONS

NOT TO SCALE

SR 141 IMPROVEMENTS, I-95  
INTERCHANGE TO JAY DRIVE

CONTRACT  
1220100001  
COUNTY  
NEW CASTLE

PROJECT NO.  
6764077  
DESIGNED BY  
ORDERED BY

ENVIRONMENTAL  
COMPLIANCE PLAN

EC-02  
SHEET NO.  
380  
TOTAL SHEETS  
504

TOTAL PERMANENT WETLAND IMPACTS				
SHEET	IMPACT DESCRIPTION	AREA (AC)	VOLUME (CY)	JURISDICTION
EC-04	USACE IMPACTS	19.43	0.0004	USACE
EC-05	USACE IMPACTS	2083.28	0.0058	USACE
EC-06	USACE IMPACTS	20776.34	0.4855	USACE
EC-07	USACE IMPACTS	12558.57	0.0357	USACE
EC-08	USACE IMPACTS	505.84	0.0116	USACE
EC-09	USACE IMPACTS	744.20	0.0171	USACE
EC-10	USACE IMPACTS	3577.39	0.0778	USACE
EC-11	USACE IMPACTS	1855.62	0.0458	USACE
EC-12	USACE IMPACTS	270.80	0.0427	USACE
EC-13	USACE IMPACTS	4111.39	0.0082	USACE
EC-14	USACE IMPACTS	4785.24	0.1008	USACE
EC-15	USACE IMPACTS	17076.24	0.3919	USACE
EC-16	USACE IMPACTS	2217.90	0.1660	USACE
EC-17	USACE IMPACTS	4585.37	0.1146	USACE
EC-18	USACE IMPACTS	1746.25	0.0401	USACE
EC-19	USACE IMPACTS	1542.70	0.0814	USACE
EC-20	USACE IMPACTS	59.88	0.0014	USACE
EC-21	USACE IMPACTS	300.22	0.0090	USACE
EC-22	USACE IMPACTS	3547.99	0.0815	USACE
EC-23	USACE IMPACTS	7571.37	0.0812	USACE
EC-24	USACE IMPACTS	3542.31	0.0405	USACE
EC-25	USACE IMPACTS	8665.08	0.1887	USACE
EC-26	USACE IMPACTS	19981.80	0.4387	USACE
EC-27	USACE IMPACTS	24547.44	0.5635	USACE
EC-28	USACE IMPACTS	3812.84	0.0875	USACE
EC-29	USACE IMPACTS	2894.40	0.0864	USACE
EC-30	USACE IMPACTS	652.85	0.0152	USACE
EC-31	USACE IMPACTS	777.85	0.0179	USACE
EC-32	USACE IMPACTS	12506.19	0.3504	USACE
EC-33	USACE IMPACTS	8958.60	0.2287	USACE
EC-34	USACE IMPACTS	6881.97	0.1534	USACE
EC-35	USACE IMPACTS	121.30	0.0199	USACE
EC-36	USACE IMPACTS	154.00	0.0028	USACE
EC-37	USACE IMPACTS	154.00	0.0028	USACE
EC-38	USACE IMPACTS	66633.49	1.5205	USACE
EC-39	USACE IMPACTS	116672.64	2.6784	USACE
EC-40	USACE IMPACTS			USACE
EC-41	USACE IMPACTS			USACE
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EC-99	USACE IMPACTS			USACE
EC-100	USACE IMPACTS			USACE

TOTAL TEMPORARY WETLAND IMPACTS				
SHEET	IMPACT DESCRIPTION	AREA (AC)	VOLUME (CY)	JURISDICTION
EC-10	USACE IMPACTS	1817.53	0.0417	USACE
EC-11	USACE IMPACTS	434.73	0.0100	USACE
EC-12	USACE IMPACTS	1800.37	0.0368	USACE
EC-13	USACE IMPACTS	1071.53	0.0248	USACE
EC-14	USACE IMPACTS	651.93	0.0150	USACE
EC-15	USACE IMPACTS	2441.09	0.0391	USACE
EC-16	USACE IMPACTS	1894.09	0.0391	USACE
EC-17	USACE IMPACTS	4700.68	0.1029	USACE
EC-18	USACE IMPACTS	3373.79	0.0725	USACE
EC-19	USACE IMPACTS	7228.39	0.1660	USACE
EC-20	USACE IMPACTS	2448.98	0.0563	USACE
EC-21	USACE IMPACTS	4855.64	0.1085	USACE
EC-22	USACE IMPACTS	3010.27	0.0691	USACE
EC-23	USACE IMPACTS	214.06	0.0049	USACE
EC-24	USACE IMPACTS	1417.92	0.0326	USACE
EC-25	USACE IMPACTS	1216.62	0.0316	USACE
EC-26	USACE IMPACTS	2112.84	0.0102	USACE
EC-27	USACE IMPACTS	2568.07	0.0330	USACE
EC-28	USACE IMPACTS	2568.07	0.0330	USACE
EC-29	USACE IMPACTS	211.76	0.0049	USACE
EC-30	USACE IMPACTS	793.42	0.0182	USACE
EC-31	USACE IMPACTS	1584.64	0.0364	USACE
EC-32	USACE IMPACTS	2432.63	0.0539	USACE
EC-33	USACE IMPACTS	16841.39	0.3822	USACE
EC-34	USACE IMPACTS	34754.78	0.7975	USACE
EC-35	USACE IMPACTS			USACE
EC-36	USACE IMPACTS			USACE
EC-37	USACE IMPACTS			USACE
EC-38	USACE IMPACTS			USACE
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EC-100	USACE IMPACTS			USACE

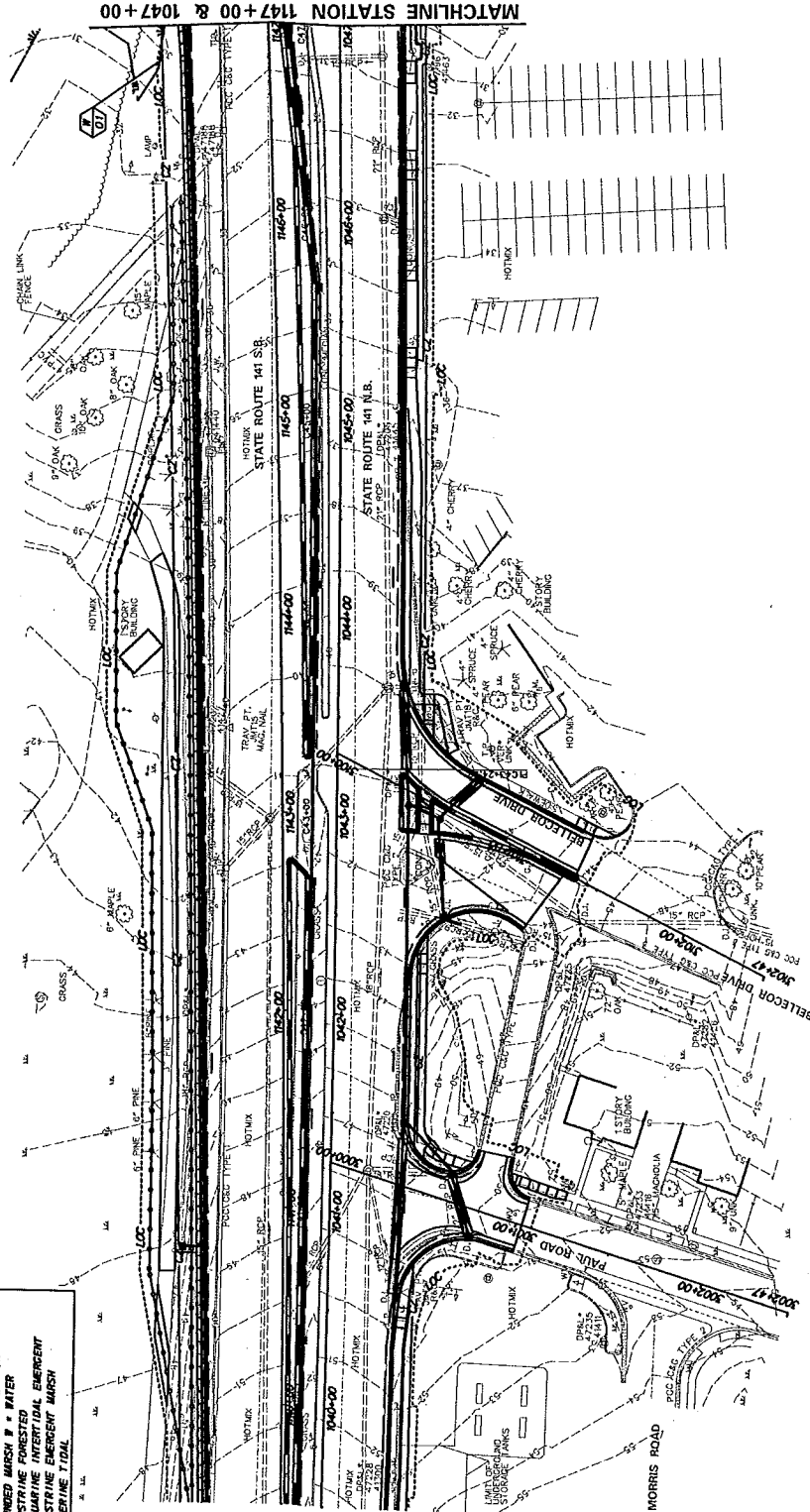
TOTAL TEMPORARY OPEN WATER IMPACTS					
SHEET	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
EC-05	USACE/DNRREC IMPACTS	305.06	0.0070	11.30	USACE/DNRREC
EC-06	USACE/DNRREC IMPACTS	214.71	0.0049	7.95	USACE/DNRREC
EC-07	USACE/DNRREC IMPACTS	101.69	0.0023	3.77	USACE/DNRREC
EC-14	USACE/DNRREC IMPACTS	55.30	0.0022	3.77	USACE/DNRREC
EC-15	USACE/DNRREC IMPACTS	25.89	0.0006	0.90	USACE/DNRREC
EC-23	USACE/DNRREC IMPACTS	158.82	0.0036	5.88	USACE/DNRREC
EC-28	USACE/DNRREC IMPACTS	558.19	0.0128	20.67	USACE/DNRREC
EC-30	USACE/DNRREC IMPACTS	1168.65	0.0268	43.28	USACE/DNRREC
EC-34	USACE/DNRREC IMPACTS	398.25	0.0092	14.76	USACE/DNRREC
EC-35	TOTAL DNRREC IMPACTS	2831.76	0.0672	106.59	DNRREC
ALL	TOTAL USACE IMPACTS	3027.06	0.0694	112.11	USACE

TOTAL PERMANENT OPEN WATER IMPACTS					
SHEET	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
EC-05	USACE/DNRREC IMPACTS	1418.40	0.0326	52.54	USACE/DNRREC
EC-06	USACE/DNRREC IMPACTS	4812.37	0.1105	178.24	USACE/DNRREC
EC-07	DNRREC IMPACTS	177.07	0.0039	6.34	DNRREC
EC-08	DNRREC IMPACTS	7.71	0.0010	17.80	DNRREC
EC-14	USACE/DNRREC IMPACTS	240.71	0.0055	2.93	USACE/DNRREC
EC-15	USACE/DNRREC IMPACTS	94.68	0.0022	15.37	USACE/DNRREC
EC-19	DNRREC IMPACTS	431.31	0.0099	15.97	USACE/DNRREC
EC-19	DNRREC IMPACTS	390.53	0.0088	14.09	USACE/DNRREC
EC-23	USACE/DNRREC IMPACTS	58.73	0.0013	2.18	USACE/DNRREC
EC-23	USACE/DNRREC IMPACTS	212.09	0.0048	7.86	USACE/DNRREC
EC-24	USACE/DNRREC IMPACTS	594.23	0.0134	21.61	USACE/DNRREC
EC-28	USACE/DNRREC IMPACTS	1649.06	0.0379	61.09	USACE/DNRREC
EC-29	USACE/DNRREC IMPACTS	1171.12	0.0274	41.43	USACE/DNRREC
EC-33	DNRREC IMPACTS	411.71	0.0094	30.09	DNRREC
EC-35	TOTAL DNRREC IMPACTS	12565.06	0.2864	200.00	DNRREC
ALL	TOTAL USACE IMPACTS	11184.72	0.2557	412.80	USACE

OPEN WATER CREATION AREA SCHEDULE					
IO	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
EC-05	USACE/DNRREC CREATION	1257.44	0.0289	46.57	USACE/DNRREC
EC-06	USACE/DNRREC CREATION	618.22	0.1402	296.02	USACE/DNRREC
EC-07	USACE/DNRREC CREATION				USACE/DNRREC

PERMANENT WETLAND IMPACTS				
ID	IMPACT DESCRIPTION	AREA (AC)	VOLUME (CY)	CLASSIFICATION
4-29-01	EMPAIRED WETLANDS FOR THIS SHEET	19.43	0.0004	PFO
TOTAL IMPACT PERMANENT WETLANDS FOR THIS SHEET		0.0004 AC	N/A	
TOTAL IMPACT PERMANENT WETLANDS FOR THIS SHEET		0.0004 AC	N/A	

LEGEND	
	PERMANENT IMPACT AREA
	TEMPORARY IMPACT AREA
	CREATION AREA
	ORDINARY HIGH WATER
	STATE MAPPED WETLAND
	USACE WETLAND BOUNDARY
	TIDAL WETLAND (USACE)
	NEAR HIGH WATER
	BIOFILTRATION SCALE
	IMPACT AREA TYPE 10 (SEE BELOW)
	IMPACT AREA TYPE 11 (SEE BELOW)
	WETLAND IMPACT
	OPEN WATER IMPACT
	TEMPORARY IMPACT
	IMPAIRED MARSH
	FORESTED
	ESTUARINE INTERTIDAL EMERGENT
	ESTUARINE EMERGENT MARSH
	RIVERINE TIDAL



DELAWARE DEPARTMENT OF TRANSPORTATION		PROJECT NO. 07N-077 DRAWING NO. 1047-00 SHEET NO. 1047-00		CONTRACT NO. 07N-077 COUNTY NEW CASTLE DESIGNED BY NEW CASTLE CHECKED BY	ENVIRONMENTAL COMPLIANCE PLAN	EC-04 SHEET NO. 1047-00 TOTAL SHEETS 1047-00
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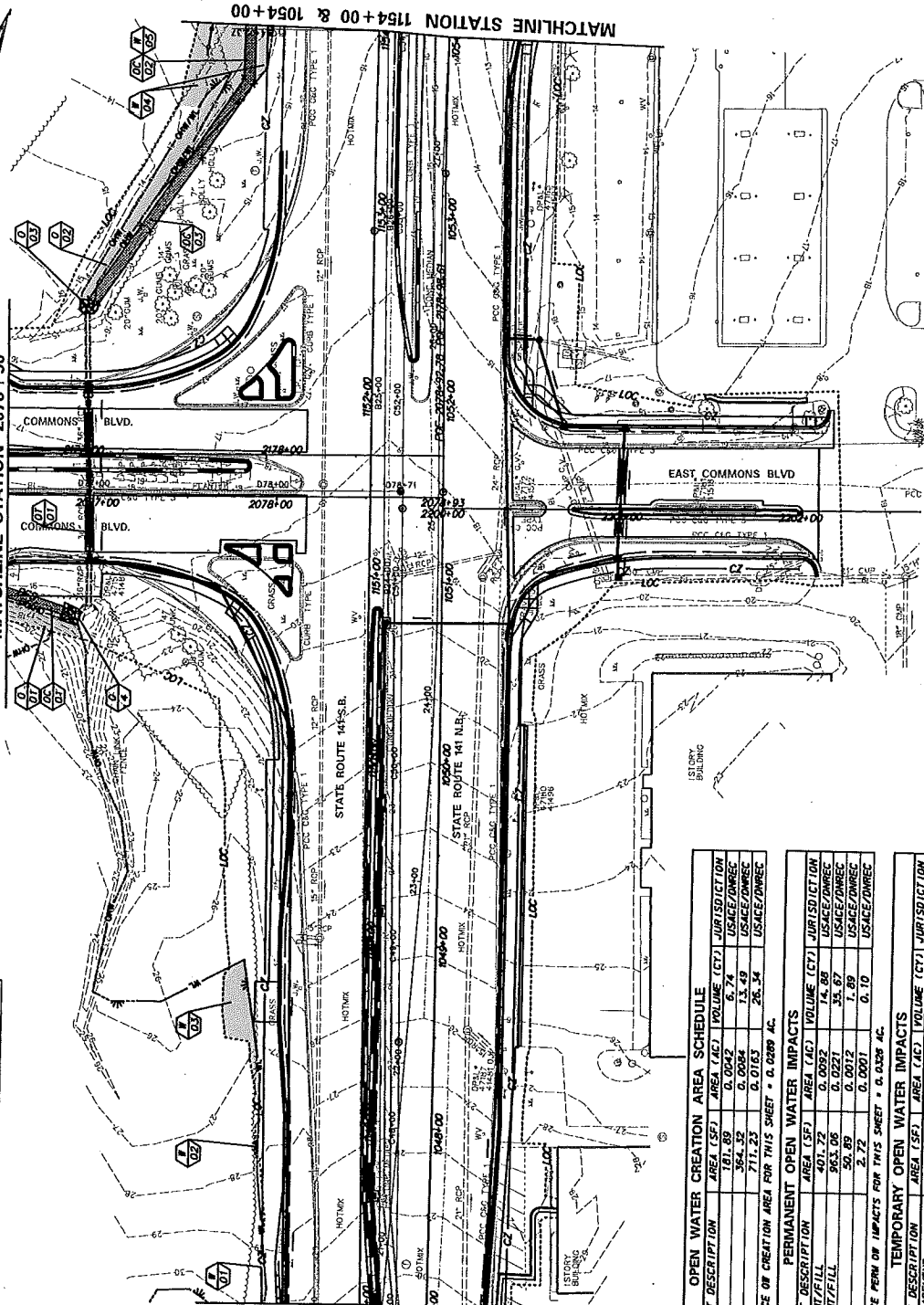
ID	IMPACT DESCRIPTION	AREA (AC)	VOLUME (CY)	JURISDICTION	CLASSIFICATION
5-W-01	EMBANKMENT/FILL	61.25	0.0014	N/A	PRO
5-W-02	EMBANKMENT/FILL	0.0007	N/A	USACE	PRO
5-W-03	EMBANKMENT/FILL	342.17	0.0017	N/A	PRO
5-W-04	EMBANKMENT/FILL	1653.60	0.0171	N/A	PRO
5-W-05	SWALE	364.32	0.0084	N/A	PEN

TOTAL DNRDC PERM W/L IMPACTS FOR THIS SHEET = 0.0000 AC.  
 TOTAL USACE PERM W/L IMPACTS FOR THIS SHEET = 0.0192  
 USACE PRO = 0.0468  
 USACE PEN = 0.0468

MATCHLINE STATION 2076+50

MATCHLINE STATION 1147+00 & 1047+00

MATCHLINE STATION 1154+00 & 1054+00



ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
5-00-01	SWALE	181.89	0.0042	6.74	USACE/DNRDC
5-00-02	SWALE	364.32	0.0084	13.49	USACE/DNRDC
5-00-03	SWALE	711.23	0.0163	26.34	USACE/DNRDC
TOTAL DNRDC AND USACE W/L IMPACTS FOR THIS SHEET = 0.0289 AC.					

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
5-00-01	EMBANKMENT/FILL	401.72	0.0092	14.89	USACE/DNRDC
5-00-02	EMBANKMENT/FILL	963.06	0.0221	35.87	USACE/DNRDC
5-00-03	RIPRAP	50.89	0.0012	0.10	USACE/DNRDC
5-00-04	RIPRAP	2.72	0.0001	0.10	USACE/DNRDC
TOTAL DNRDC AND USACE PERM W/L IMPACTS FOR THIS SHEET = 0.0328 AC.					

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
5-00-01	PIPE REPLACEMENT	505.06	0.0070	11.30	USACE/DNRDC
TOTAL DNRDC AND USACE TEMP W/L IMPACTS FOR THIS SHEET = 0.0070 AC.					

**LEGEND**

**PERMANENT IMPACT AREA**

**TEMPORARY IMPACT AREA**

**CREATION AREA**

ORDINARY HIGH WATER

STATE MAPPED WETLAND

STATE MAPPED WATER

USACE WETLAND (USACE)

NEAR HIGH WATER

BIOTRILLATION SCALE

IMPACT AREA TYPE ID. (SEE BELOW)

IMPACT AREA ID. AND/OR NUMBER

WETLAND IMPACT = 0 = OPEN WATER IMPACT

WETLAND IMPACT = 1 = OPEN WATER IMPACT

WETLAND IMPACT = 2 = OPEN WATER IMPACT

WETLAND IMPACT = 3 = OPEN WATER IMPACT

WETLAND IMPACT = 4 = OPEN WATER IMPACT

WETLAND IMPACT = 5 = OPEN WATER IMPACT

WETLAND IMPACT = 6 = OPEN WATER IMPACT

WETLAND IMPACT = 7 = OPEN WATER IMPACT

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WETLAND IMPACT = 96 = OPEN WATER IMPACT

WETLAND IMPACT = 97 = OPEN WATER IMPACT

WETLAND IMPACT = 98 = OPEN WATER IMPACT

WETLAND IMPACT = 99 = OPEN WATER IMPACT

WETLAND IMPACT = 100 = OPEN WATER IMPACT

**DELAWARE DEPARTMENT OF TRANSPORTATION**

**SR 141 IMPROVEMENTS, I-95 INTERCHANGE TO JAY DRIVE**

**ENVIRONMENTAL COMPLIANCE PLAN**

CONTRACT NO. 120100001

DESIGNED BY: NEW CASTLE

CHECKED BY: NEW CASTLE

PROJECT NO. 8784872

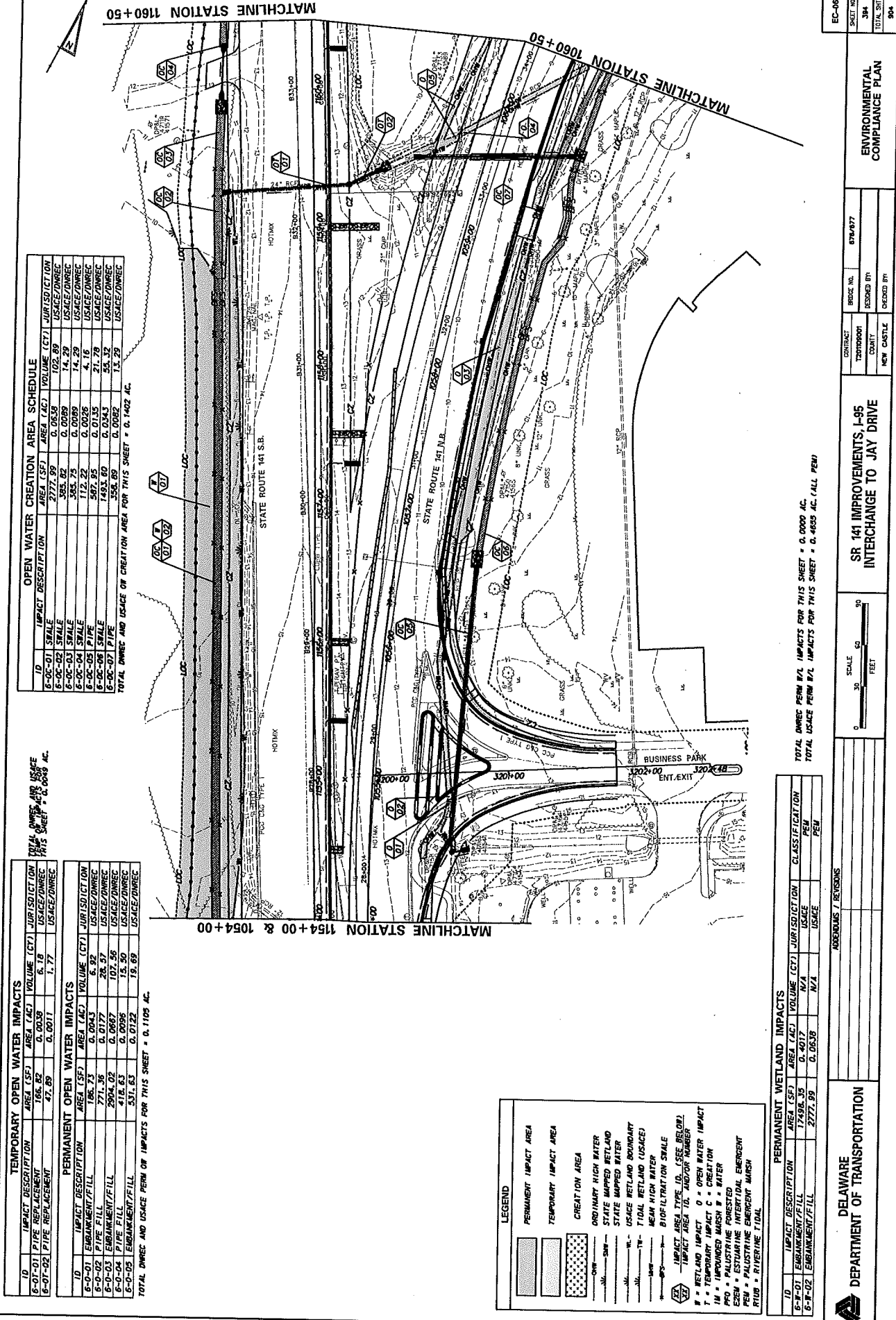
SHEET NO. 382

TOTAL SHEETS 384

EC-05

SCALE: 0 30 60 FEET

ADDITIONS / REVISIONS



OPEN WATER CREATION AREA SCHEDULE				
ID	IMPACT DESCRIPTION	AREA (SF)	VOLUME (CY)	JURISDICTION
6-00-01	SCALE	2777.99	102.89	USACE/DNR/EC
6-00-02	SCALE	585.82	0.0089	USACE/DNR/EC
6-00-03	SCALE	585.82	0.0089	USACE/DNR/EC
6-00-04	SCALE	112.22	0.0028	USACE/DNR/EC
6-00-05	SCALE	587.95	0.0135	USACE/DNR/EC
6-00-06	SCALE	1493.60	0.0343	USACE/DNR/EC
6-00-07	SCALE	358.89	0.0082	USACE/DNR/EC
TOTAL DNR/EC AND USACE OPEN CREATION AREA FOR THIS SHEET = 0.1402 AC.				

TOTAL DNR/EC AND USACE  
OPEN CREATION AREA FOR THIS SHEET = 0.0046 AC.

TEMPORARY OPEN WATER IMPACTS				
ID	IMPACT DESCRIPTION	AREA (SF)	VOLUME (CY)	JURISDICTION
6-01-01	PIPE REPLACEMENT	166.82	0.0039	USACE/DNR/EC
6-01-02	PIPE REPLACEMENT	47.89	0.0011	USACE/DNR/EC
PERMANENT OPEN WATER IMPACTS				
ID	IMPACT DESCRIPTION	AREA (SF)	VOLUME (CY)	JURISDICTION
6-02-01	EMBANKMENT/FILL	186.73	0.0043	USACE/DNR/EC
6-02-02	EMBANKMENT/FILL	771.38	0.0177	USACE/DNR/EC
6-02-03	EMBANKMENT/FILL	2904.02	0.0687	USACE/DNR/EC
6-02-04	PIPE FILL	531.85	0.0096	USACE/DNR/EC
6-02-05	EMBANKMENT/FILL	531.85	0.0122	USACE/DNR/EC
TOTAL DNR/EC AND USACE PERM OPEN IMPACTS FOR THIS SHEET = 0.1105 AC.				

**LEGEND**

PERMANENT IMPACT AREA

TEMPORARY IMPACT AREA

CREATION AREA

ORDINARY HIGH WATER

STATE MAPPED WETLAND

STATE MAPPED WATER

USACE WETLAND BOUNDARY

TIDAL WETLAND (USACE)

NEAR HIGH WATER

BIOFILTRATION SCALE

IMPACT AREA TYPE ID (SEE BELOW)

IMPACT AREA NO. AND/OR NUMBER

W = WETLAND IMPACT

O = OPEN WATER IMPACT

IN = IMPROVED MUDSH W = WATER

PRO = PALUSTRINE FORESTED

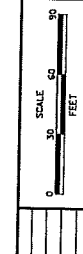
PEM = ESTUARINE INTERTIDAL EMERGENT

RTUB = PALUSTRINE EMERGENT MARSH

RTUB = RIVERINE TIDAL

PERMANENT WETLAND IMPACTS				
ID	IMPACT DESCRIPTION	AREA (SF)	VOLUME (CY)	JURISDICTION
6-03-01	EMBANKMENT/FILL	17498.35	0.4017	USACE
6-03-02	EMBANKMENT/FILL	2777.99	0.0638	USACE
TOTAL USACE PERM W/L IMPACTS FOR THIS SHEET = 0.4655 AC. (ALL PERM)				

PERMANENT WETLAND IMPACTS				
ID	IMPACT DESCRIPTION	AREA (SF)	VOLUME (CY)	JURISDICTION
6-03-01	EMBANKMENT/FILL	17498.35	0.4017	USACE
6-03-02	EMBANKMENT/FILL	2777.99	0.0638	USACE
TOTAL USACE PERM W/L IMPACTS FOR THIS SHEET = 0.4655 AC. (ALL PERM)				



SR 141 IMPROVEMENTS, I-95  
INTERCHANGE TO JAY DRIVE

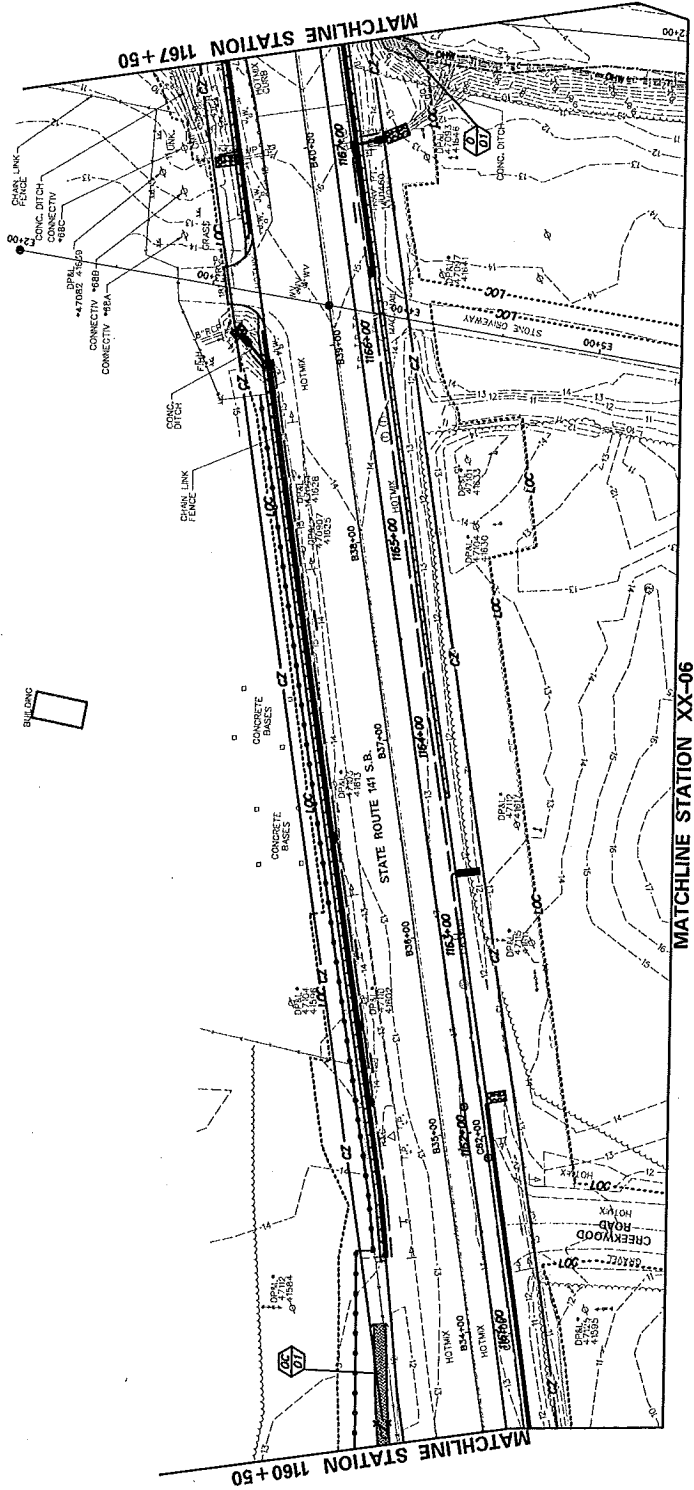
ENVIRONMENTAL COMPLIANCE PLAN			
CONTRACT	BRIDGE NO.	DESIGNED BY	CHECKED BY
120000000	878/497		
COUNTY	NEW CASTLE		

EC-06	SHEET NO.	384	TOTAL SHEETS	394
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LEGEND	
	PERMANENT IMPACT AREA
	TEMPORARY IMPACT AREA
	CREATION AREA
	ORDINARY HIGH WATER
	STATE MAPPED WETLAND
	USACE WETLAND BOUNDARY
	TIDAL WETLAND (USACE)
	MEAN HIGH WATER
	BIOFILTRATION SCALE
	IMPACT AREA TYPE (SEE BELOW)
	IMPACT AREA TYPE AND/OR NUMBER
	P = WETLAND IMPACT
	T = TEMPORARY IMPACT
	M = IMPROVED MARSH
	F = FORESTED
	E = ESTUARINE INTERTIDAL EMERGENT
	P = PALUSTRINE EMERGENT MARSH
	R = RIVERINE TIDAL

PERMANENT OPEN WATER IMPACTS			
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)
7-0-01	EMBANKMENT/FILL	171,07	0.0039
TOTAL DOWNSIDE PERM OPEN IMPACTS FOR THIS SHEET = 0.0039 AC. (ALL W)			0.34

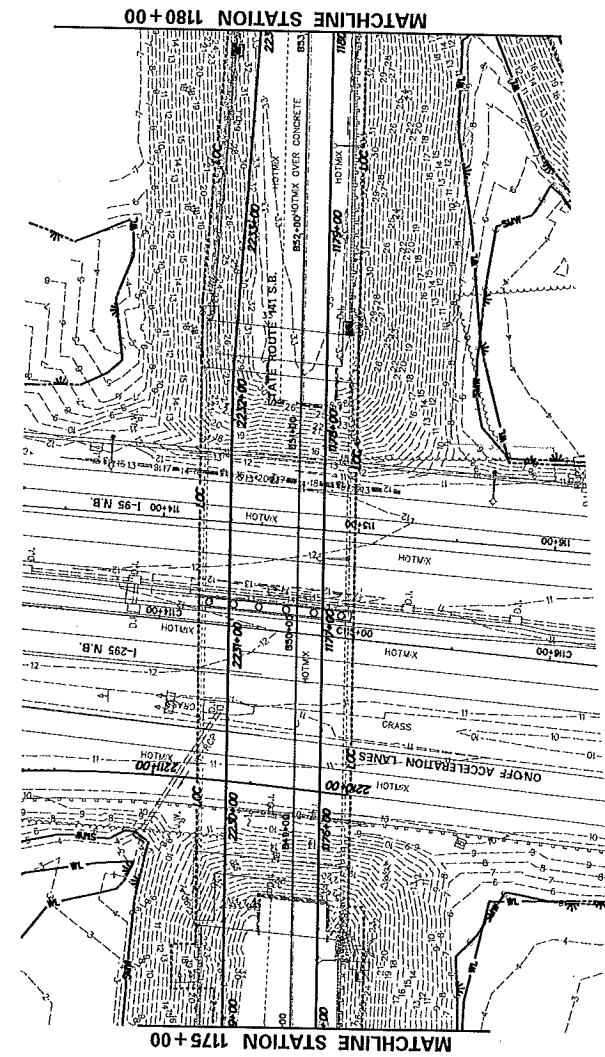
OPEN WATER CREATION AREA SCHEDULE			
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)
7-0-01	SWALE	358,42	0.0084
TOTAL DOWNSIDE AND USACE OPEN CREATION AREA FOR THIS SHEET = 0.0084 AC.			13.97



 DELAWARE DEPARTMENT OF TRANSPORTATION	APPENDIX / REVISIONS		SR 141 IMPROVEMENTS I-05 INTERCHANGE TO JAY DRIVE		CONTRACT 120000000	SHEET NO. 385	EC-07
	SCALE 0 30 60 FEET		DESIGNED BY NEW CASTLE		CHECKED BY 994	ENVIRONMENTAL COMPLIANCE PLAN	

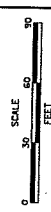


DELAWARE DEPARTMENT OF TRANSPORTATION	ADOPTIONS / REVISIONS		SR 141 IMPROVEMENTS, I-95 INTERCHANGE TO JAY DRIVE		ENVIRONMENTAL COMPLIANCE PLAN		EC-09
	SHEET NO. 397	PROJECT NO. 67N-877	CONTRACT T22000000	DESIGNED BY 	CHECKED BY 	DATE 2015	804



**LEGEND**

PERMANENT IMPACT AREA  
 TEMPORARY IMPACT AREA  
 CREATION AREA  
 ORDINARY HIGH WATER  
 STATE MAPPED WETLAND  
 USACE MAPPED WETLAND  
 USACE WETLAND BOUNDARY  
 TIDAL WETLAND (USACE)  
 MEAN HIGH WATER  
 BIOFILTRATION SWALE  
 IMPACT AREA TYPE (SEE BELOW)  
 IMPACT AREA TO ADJACENT NUMBER  
 W = WETLAND IMPACT  
 T = TEMPORARY IMPACT  
 IN = IMPROVED MARSH  
 PFO = PALUSTRINE FORESTED  
 EE2W = ESTUARINE INTERTIDAL EMERGENT  
 PEN = PALUSTRINE EMERGENT MARSH  
 RTUB = RHYTHMIC TIDAL  
 NO IMPACTS OCCUR ON THIS SHEET



**LEGEND**

PERMANENT IMPACT AREA

TEMPORARY IMPACT AREA

CREATION AREA

ORDINARY HIGH WATER

STATE MAPPED WETLAND

USACE MAPPED WETLAND

USACE WETLAND BOUNDARY

TIDAL WETLAND (USACE)

MEAN HIGH WATER

BIOFILTRATION SWALE

IMPACT AREA TYPE (ID, SEE BELOW)

IMPACT AREA ID AND/OR NUMBER

W = WETLAND IMPACT

O = OPEN WATER IMPACT

Y = TEMPORARY IMPACT

C = CREATION

IM = IMPROVED MARSH

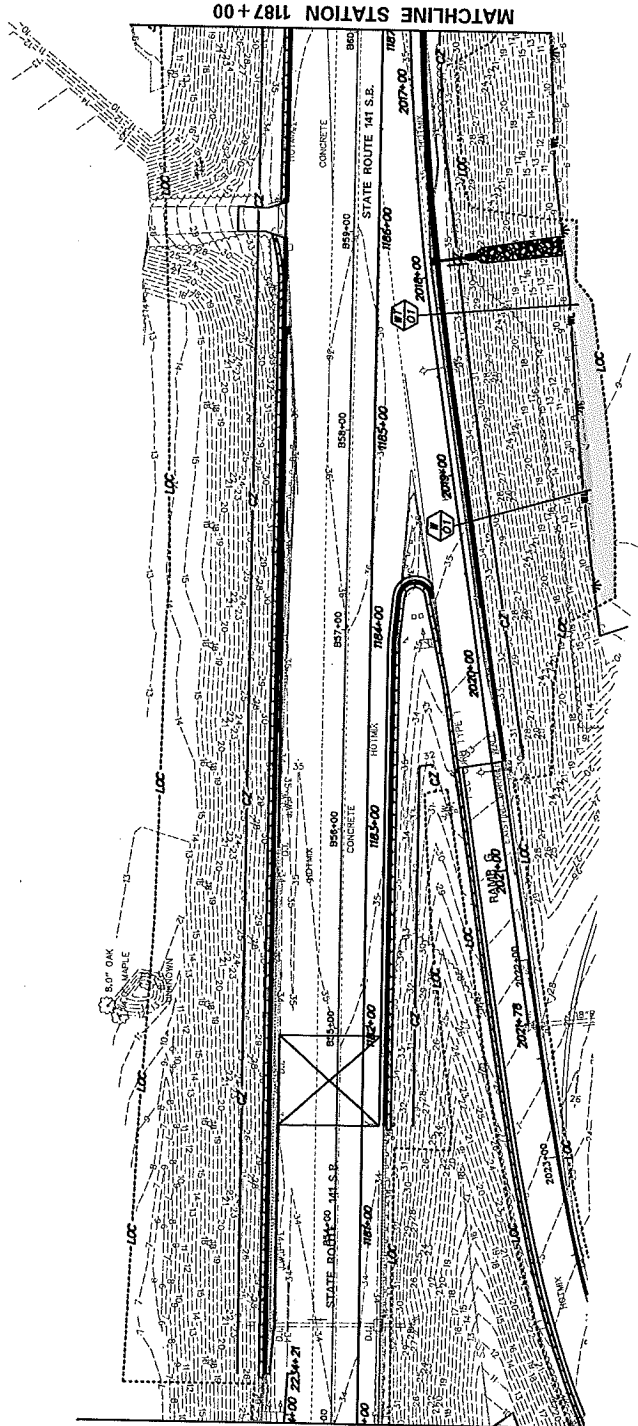
PRO = PALUSTRINE FORESTED

PEM = PALUSTRINE EMERGENT

PEM = PALUSTRINE FORESTED MARSH


RIUD = RIVERINE TIDAL

TEMPORARY WETLAND IMPACTS					
ID	IMPACT DESCRIPTION	AREA (SF)	VOLUME (CY)	USE	CLASSIFICATION
10-01	ACCESS	1817.93	0.0417	W/A	PRO
TOTAL DNRREC TEMP W/L IMPACTS FOR THIS SHEET = 0.0000 AC.					
TOTAL USACE TEMP W/L IMPACTS FOR THIS SHEET = 0.0417 AC. (ALL PRO)					
PERMANENT WETLAND IMPACTS					
ID	IMPACT DESCRIPTION	AREA (SF)	VOLUME (CY)	USE	CLASSIFICATION
10-01	EMBANKMENT/FILL	905.84	0.0118	W/A	PRO
TOTAL DNRREC PERM W/L IMPACTS FOR THIS SHEET = 0.0000 AC.					
TOTAL USACE PERM W/L IMPACTS FOR THIS SHEET = 0.0118 AC. (ALL PRO)					

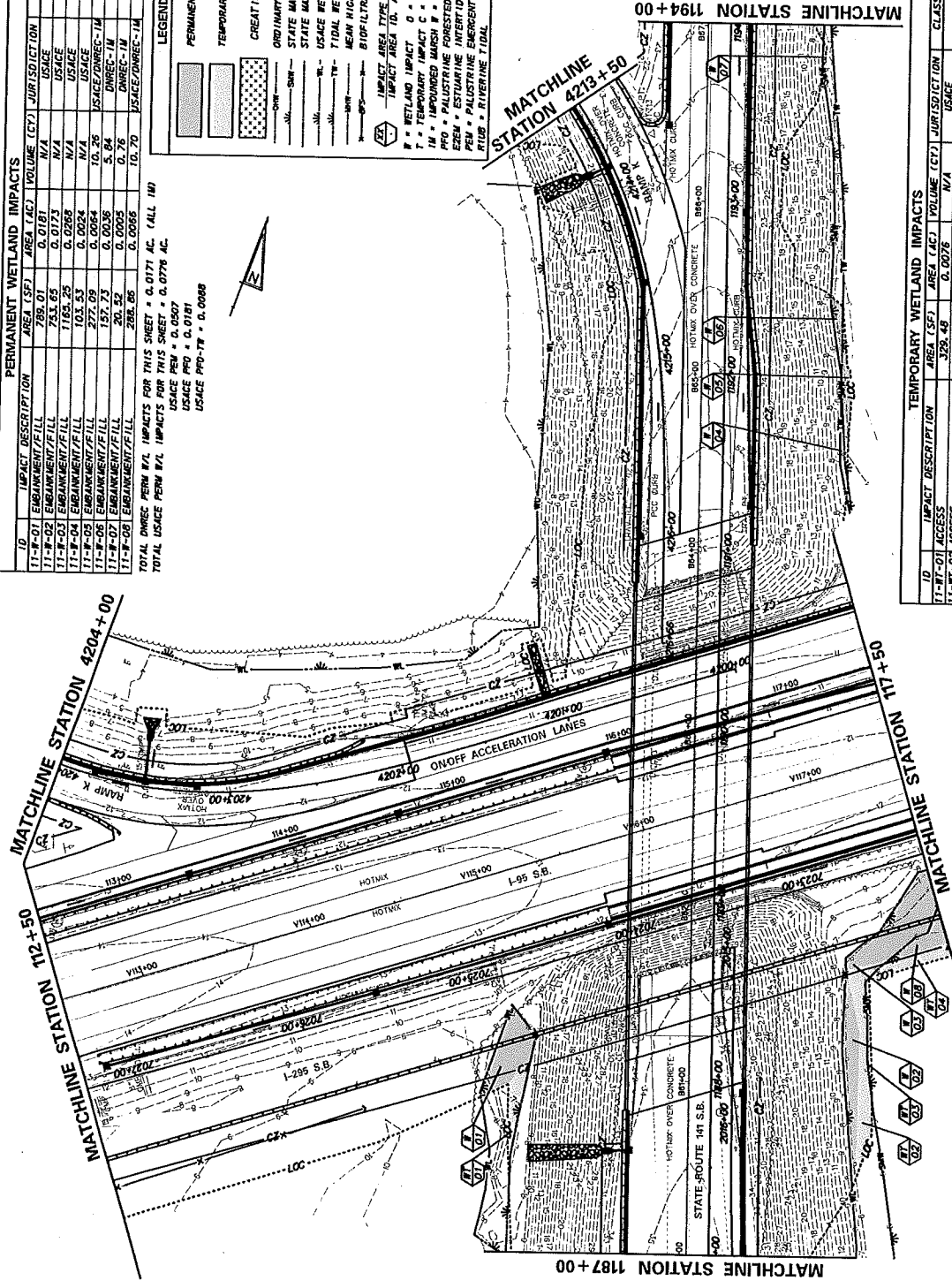


<b>DELAWARE</b> <b>DEPARTMENT OF TRANSPORTATION</b>		<b>SR 141 IMPROVEMENTS, I-95 INTERCHANGE TO JAY DRIVE</b>		<b>ENVIRONMENTAL COMPLIANCE PLAN</b>	
PROJECT NO. 120100000 COUNTY NEW CASTLE DESIGNED BY NEW CASTLE CHECKED BY		BRIDGE NO. 678/497 DESIGNED BY CHECKED BY		SHEET NO. 508 TOTAL SHEETS 904	

PERMANENT WETLAND IMPACTS						
ID	UNPAID DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION	CLASSIFICATION
11-W-01	EMBANKMENT/FILL	289.01			USACE	PEM
11-W-02	EMBANKMENT/FILL	289.01		0.0181	N/A	PEM
11-W-03	EMBANKMENT/FILL	1,651.25		0.0173	USACE	PEM
11-W-04	EMBANKMENT/FILL	103.53		0.0024	N/A	PEM
11-W-05	EMBANKMENT/FILL	157.73		0.0064	USACE/DNRREC-1M	PEM-17
11-W-06	EMBANKMENT/FILL	277.09		0.0036	USACE/DNRREC-1M	PEM-17
11-W-07	EMBANKMENT/FILL	20.52		0.0005	DNRREC-1M	-
11-W-08	EMBANKMENT/FILL	289.06		0.0068	USACE/DNRREC-1M	PEM
TOTAL: 8,492.23 ACRES, 8,492.23 ACRES						

LEGEND	
	PERMANENT IMPACT AREA

TOTAL USACE PERM W/L IMPACTS FOR THIS SHEET = 0.0171 AC. (ALL 100)  
TOTAL USACE PERM W/L IMPACTS FOR THIS SHEET = 0.0776 AC.  
USACE PERM = 0.0507  
USACE PRO = 0.0181  
USACE PRO-TX = 0.0068

[illegible]

TEMPORARY WETLAND IMPACTS				
ID	IMPACT DESCRIPTION	AREA (SF)	VOLUME (CY)	JURISDICTION CLASSIFICATION
11-T1-01	ACCESS	329.48	N/A	USACE PERM
11-T1-02	ACCESS	836.16	N/A	USACE PERM
11-T1-03	ACCESS	105.26	3.90	USACE/DNRREC-IN PERM
11-T1-04	ACCESS	329.48	0.0076	USACE/DNRREC-IN PERM
TOTAL DNRREC TEMP W/L IMPACTS FOR THIS SHEET = 0.0100 AC. (ALL IN)				

TOTAL USAGE TEMP W/L IMPACTS FOR THIS SHEET = 0.0368 AC.  
 USAGE PERM = 0.0292  
 INCHES BCL = 0.0094

EC-11
SHEET NO.
399
TOTAL SHEETS
904

TEMPORARY WETLAND IMPACTS				
NO.	IMPACT DESCRIPTION	AREA (SF)	VOLUME (CY)	CLASSIFICATION
12-ET-01	ACCESS	584.86	0.0014	N/A
12-ET-02	ACCESS	479.26	0.0110	DIRREC-1M
12-ET-03	ACCESS	592.27	0.0136	USACE/DIRREC-1M
TOTAL DIRREC TEMP W/L IMPACTS FOR THIS SHEET = 0.0246 AC. (ALL 1M)				
TOTAL USACE TEMP W/L IMPACTS FOR THIS SHEET = 0.0150 AC. (ALL PFO)				

**LEGEND**

PERMANENT IMPACT AREA

TEMPORARY IMPACT AREA

CREATION AREA

ORDINARY HIGH WATER

STATE MAPPED WETLAND

USACE WETLAND BOUNDARY

TIDAL WETLAND (USACE)

MEAN HIGH WATER

BIOFILTRATION STALE

IMPACT AREA TYPE 10, (SEE BELOW)

IMPACT AREA 10, AND/OR NUMBER

P = WETLAND IMPACT D = OPEN WATER IMPACT

T = TEMPORARY IMPACT C = CREATION

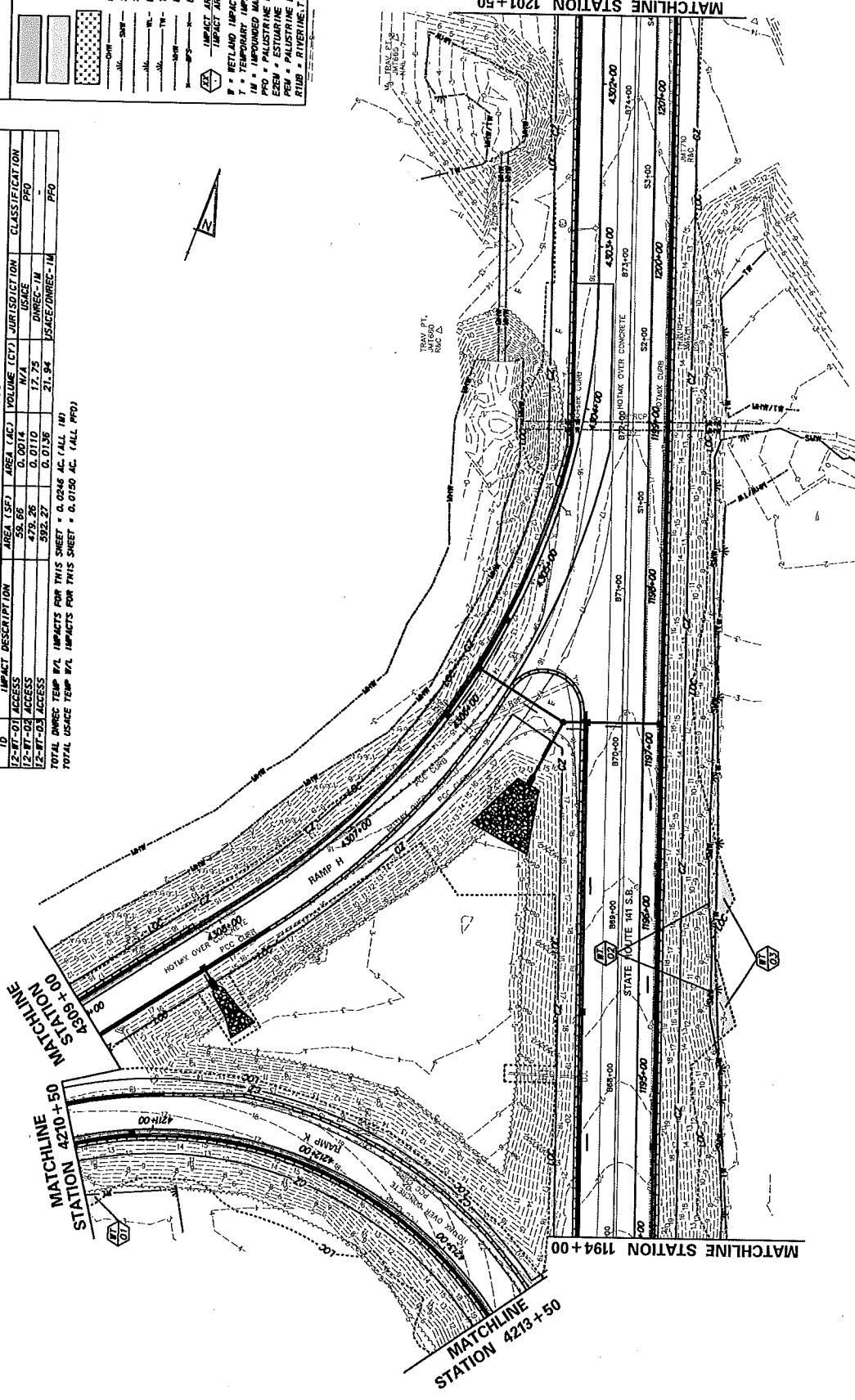
IM = IMPROVED MARSH P = WATER

FOR = FORESTED

EST = ESTUARINE

PEM = PALUSTRINE

RTUB = RIVERINE, TIDAL



DELAWARE  
DEPARTMENT OF TRANSPORTATION

APPENDIX / REVISIONS

CONTRACT	BRIDGE NO.	678/477
120100001	DESIGNED BY	
NEW CASTLE	CHECKED BY	

SR 141 IMPROVEMENTS, I-95  
INTERCHANGE TO JAY DRIVE

ENVIRONMENTAL  
COMPLIANCE PLAN

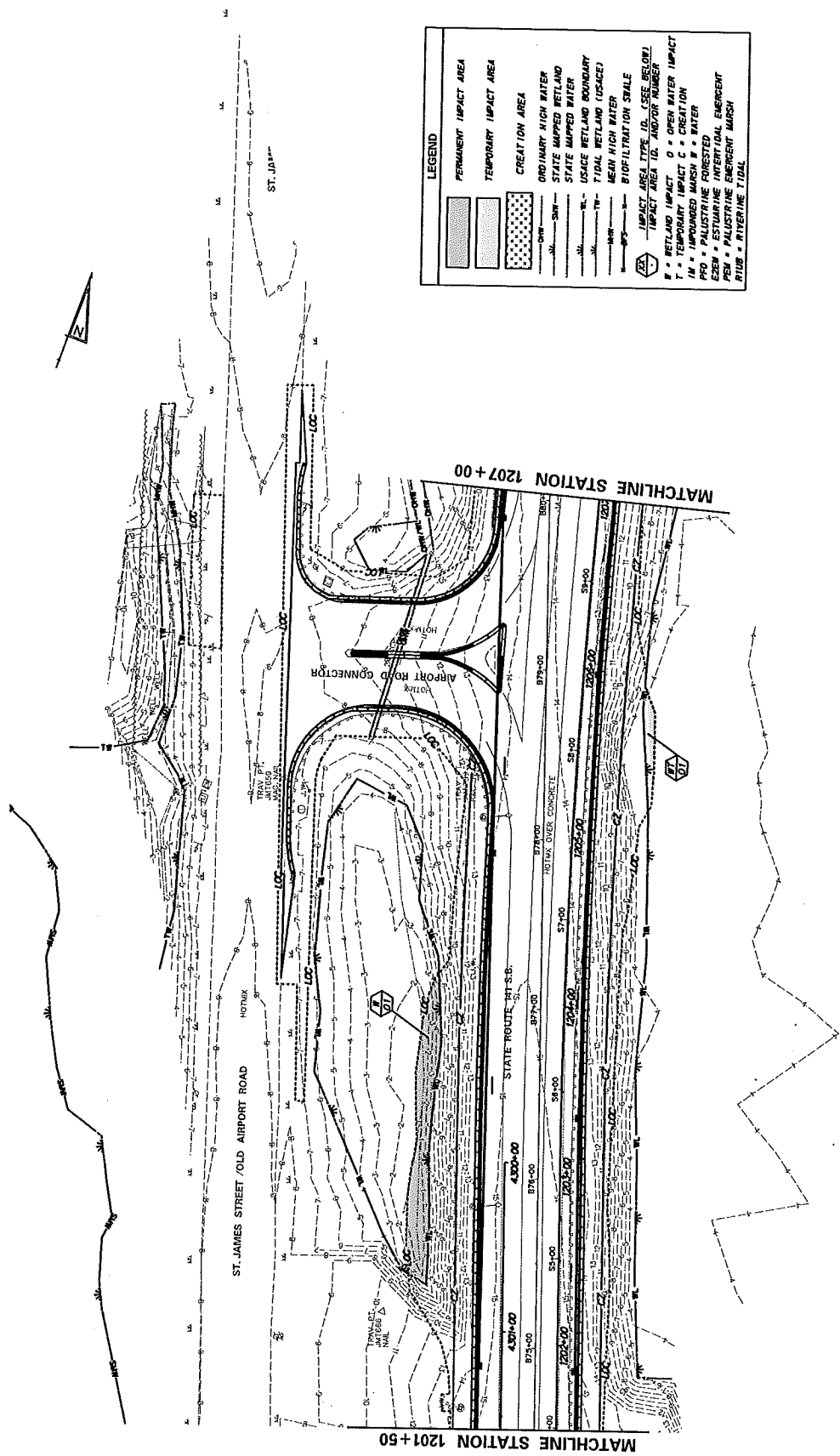
EC-12

SHEET NO. 400

TOTAL SHEETS 904

TEMPORARY WETLAND IMPACTS				
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)
13-W-01	ACCESS	331.05	0.0076	N/A
TOTAL DIRECT TEMP W/L IMPACTS FOR THIS SHEET = 0.0000 AC.				
TOTAL USACE TEMP W/L IMPACTS FOR THIS SHEET = 0.0076 AC. (ALL PP)				

PERMANENT WETLAND IMPACTS				
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)
13-W-01	EMBANKMENT/FILL	1955.62	0.0456	N/A
TOTAL DIRECT PERM W/L IMPACTS FOR THIS SHEET = 0.0000 AC.				
TOTAL USACE PERM W/L IMPACTS FOR THIS SHEET = 0.0456 AC. (ALL PER)				

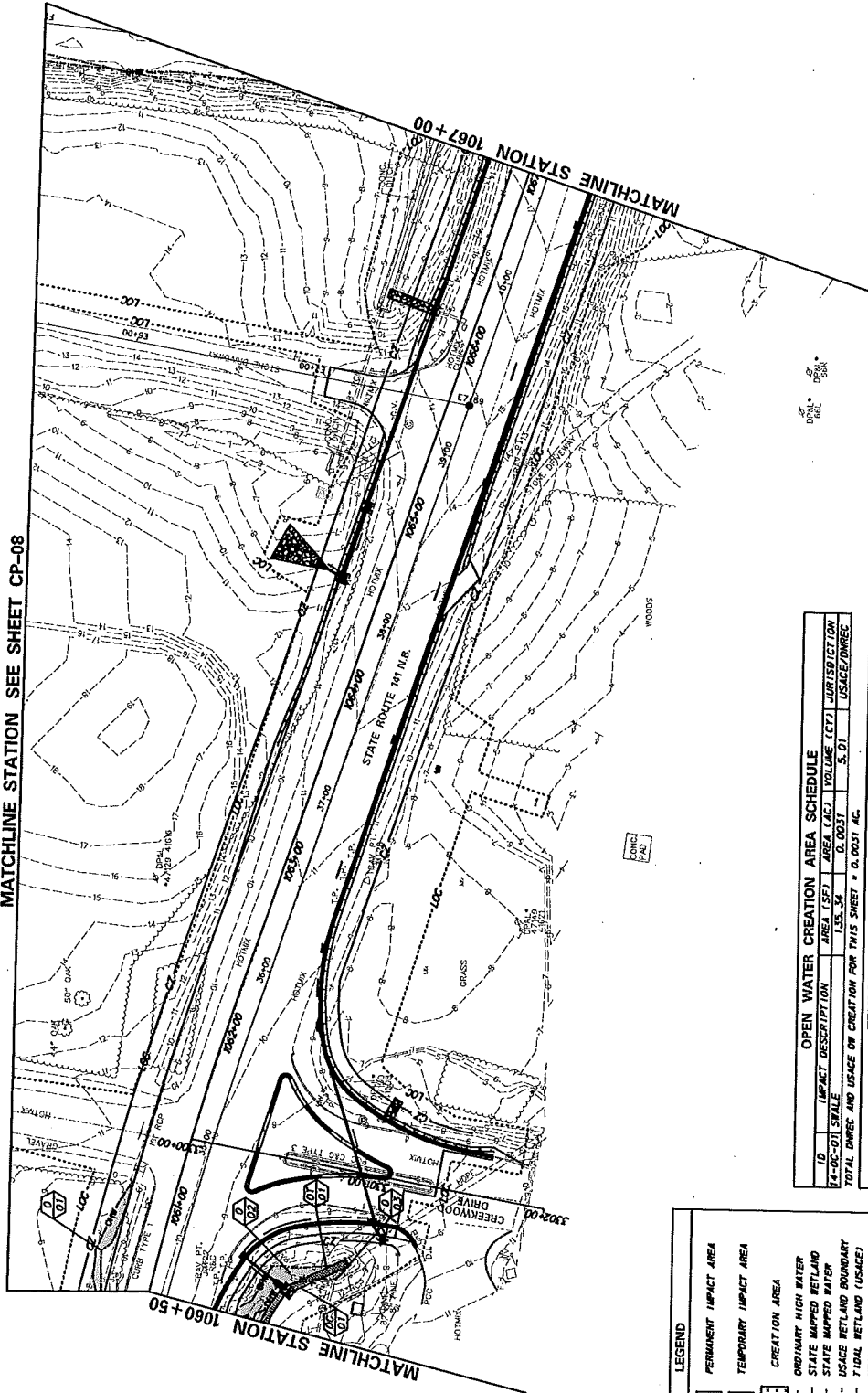


**LEGEND**

- PERMANENT IMPACT AREA
- TEMPORARY IMPACT AREA
- CREATION AREA
- ORDINARY HIGH WATER
- STATE MAPPED WETLAND
- USACE WETLAND BOUNDARY
- TIDAL WETLAND (USACE)
- MEAN HIGH WATER
- BIOFILTRATION STALE
- IMPACT AREA TYPE ID. (SEE BELOW)
- IMPACT AREA ID. AND/OR NUMBER
- W = WETLAND IMPACT
- O = OPEN WATER IMPACT
- T = TEMPORARY IMPACT
- C = CREATION
- IN = IMPROVED MARSH
- W = WATER
- ESB = PALOUSTINE FORESTED
- ESB = PALOUSTINE OPEN/SHRUB
- ESB = PALOUSTINE HERBERT MARSH
- RUB = RIVERINE TIDAL

<b>DELAWARE DEPARTMENT OF TRANSPORTATION</b>		<b>SR 141 IMPROVEMENTS, I-95 INTERCHANGE TO JAY DRIVE</b>		<b>ENVIRONMENTAL COMPLIANCE PLAN</b>	
PROJECT NO. 678-077 COUNTY NEW CASTLE SHEET NO. 401 TOTAL SHEETS 904		CONTRACT 120000000 COUNTY NEW CASTLE DESIGNED BY CHECKED BY		DATE 12/10/2017 FILE LOCATION Q:\WORK\080772-09\I-95_MO-SR_ML\REF\COMB\RD.DGN SHEET 1 OF 2	

MATCHLINE STATION SEE SHEET CP-08



**LEGEND**

	PERMANENT IMPACT AREA
	TEMPORARY IMPACT AREA
	CREATION AREA
	ORDINARY HIGH WATER
	STATE MAPED WETLAND
	STATE MAPED WATER
	USACE WETLAND BOUNDARY
	TIDAL WETLAND (USACE)
	MEAN HIGH WATER
	BIO-FILTRATION SHALE

**IMPACT AREA TYPE 10 (SEE BELOW)**

**IMPACT AREA 10L AND/OR NUMBER**

W = WETLAND IMPACT  
 T = TEMPORARY IMPACT  
 P = PALUSTRINE FORESTED  
 E = ESTUARINE INTERTIDAL EMERGENT  
 M = MARSH  
 R = RIVERINE TIDAL

OPEN WATER CREATION AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
14-00-01	SCALE	1,55.34	0.0031	3.01	USACE/DNR/EC
TOTAL DNR/EC AND USACE FOR THIS SHEET = 0.0031 AC					
TEMPORARY OPEN WATER IMPACTS					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
14-01-01	SCALE	101.69	0.0023	1.77	USACE/DNR/EC
TOTAL DNR/EC AND USACE TEMP FOR THIS SHEET = 0.0023 AC					
PERMANENT OPEN WATER IMPACTS					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
14-0-01	EMBANKMENT/FILL	19.17	0.0004	10.34	USACE/DNR/EC
14-0-02	EMBANKMENT/FILL	15.72	0.0007	15.72	USACE/DNR/EC
14-0-03	EMBANKMENT/FILL	35.58	0.0009	1.47	USACE/DNR/EC
TOTAL DNR/EC AND USACE PERM FOR THIS SHEET = 0.0010 AC					

**DELaware DEPARTMENT OF TRANSPORTATION**

**SR 141 IMPROVEMENTS, I-95 INTERCHANGE TO JAY DRIVE**

CONTRACT NO. 67N4877  
 COUNTY: NEW CASTLE  
 DESIGNED BY:  
 CHECKED BY:  
 DATED: 12/8/2017

EC-14  
 SHEET NO. 402  
 TOTAL SHEETS 404

ENVIRONMENTAL COMPLIANCE PLAN

SCALE: 0 30 60 FEET

ADDENDUM / REVISIONS

TEMPORARY OPEN WATER IMPACTS				
ID	IMPACT DESCRIPTION	AREA (SF)	VOLUME (CY)	JURISDICTION
15-01-01	ACCESS	95.30	0.0022	USACE
15-01-02	ACCESS	25.89	0.0006	USACE
TOTAL DNRDC TEMP OR IMPACTS FOR THIS SHEET = 0.0008 AC.				
TOTAL USACE TEMP OR IMPACTS FOR THIS SHEET = 0.0028 AC.				

PERMANENT WETLAND IMPACTS				
ID	IMPACT DESCRIPTION	AREA (SF)	VOLUME (CY)	JURISDICTION
15-P-01	EMBANKMENT/FILL	24.45	0.0006	USACE
15-P-02	EMBANKMENT/FILL	56.27	0.0013	USACE
15-P-03	EMBANKMENT/FILL	272.62	0.0049	USACE
15-P-04	EMBANKMENT/FILL	1564.35	0.0359	USACE
TOTAL DNRDC PERM W/L IMPACTS FOR THIS SHEET = 0.0427 AC. (ALL W)				
TOTAL USACE PERM W/L IMPACTS FOR THIS SHEET = 0.0862 AC. (ALL PSS)				

**LEGEND**

PERMANENT IMPACT AREA

TEMPORARY IMPACT AREA

CREATION AREA

ORDINARY HIGH WATER

STATE MAPPED WETLAND

USACE WETLAND BOUNDARY

TIDAL WETLAND (USACE)

MEAN HIGH WATER

BIOFILTRATION SWALE

IMPACT AREA TYPE ID (SEE BELOW)

IMPACT AREA NO. PREFIX NUMBER

W = WETLAND IMPACT

T = TEMPORARY IMPACT

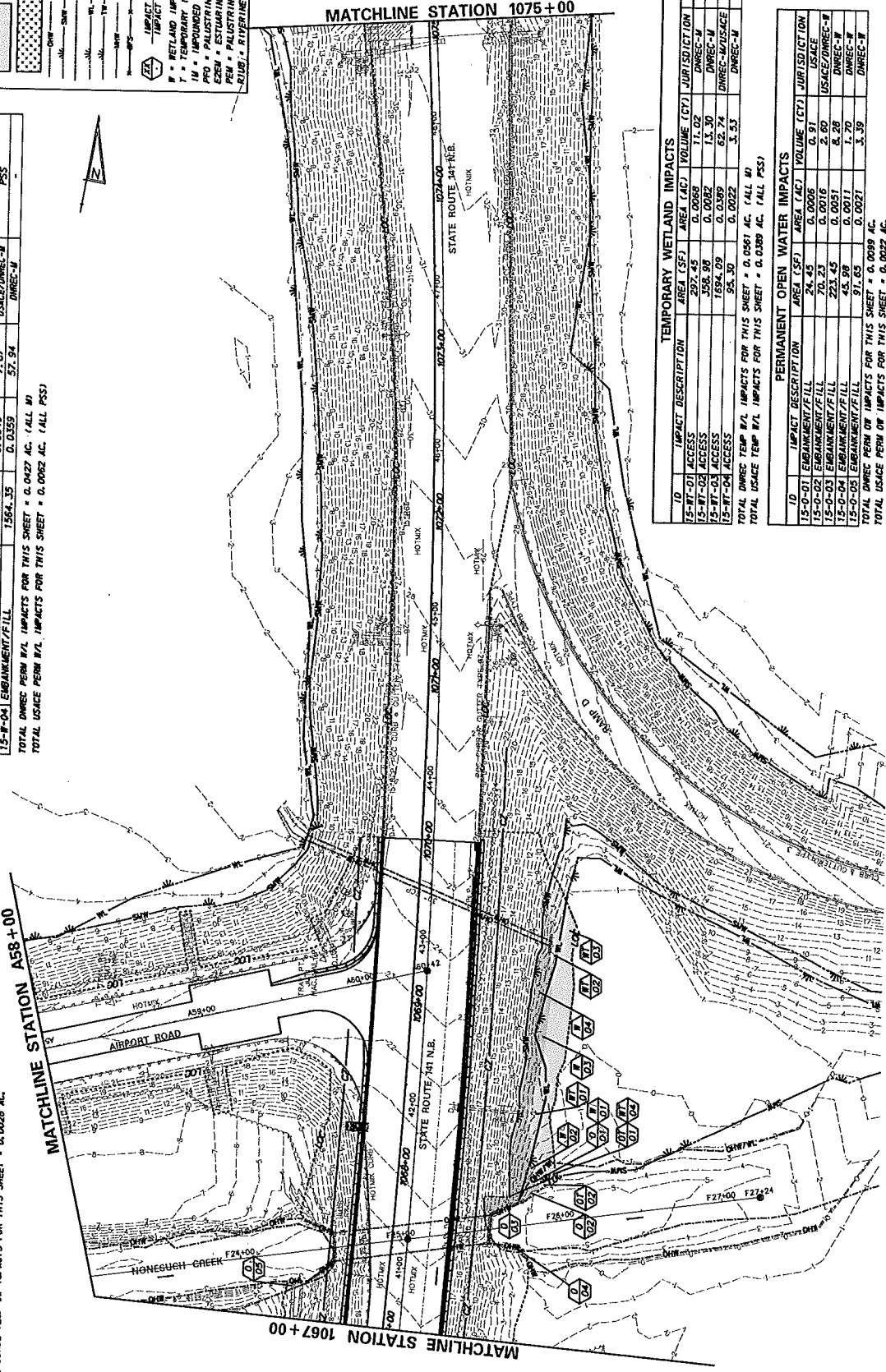
IN = IMPROVED MARSH

PRO = PALUSTRINE FORESTED

EXEM = ESTUARINE INTERTIDAL EMERGENT

PERM = PALUSTRINE FORESTED

PROB = RIVERINE TIDAL



TEMPORARY WETLAND IMPACTS				
ID	IMPACT DESCRIPTION	AREA (SF)	VOLUME (CY)	JURISDICTION
15-W-01	ACCESS	297.45	0.0068	USACE
15-W-02	ACCESS	358.98	0.0082	USACE
15-W-03	ACCESS	1694.09	0.0389	USACE
15-W-04	ACCESS	95.30	0.0022	USACE
TOTAL DNRDC TEMP W/L IMPACTS FOR THIS SHEET = 0.0561 AC. (ALL W)				
TOTAL USACE TEMP W/L IMPACTS FOR THIS SHEET = 0.0389 AC. (ALL PSS)				

PERMANENT OPEN WATER IMPACTS				
ID	IMPACT DESCRIPTION	AREA (SF)	VOLUME (CY)	JURISDICTION
15-O-01	EMBANKMENT/FILL	24.45	0.0006	USACE
15-O-02	EMBANKMENT/FILL	70.23	0.0016	USACE
15-O-03	EMBANKMENT/FILL	223.45	0.0051	USACE
15-O-04	EMBANKMENT/FILL	62.88	0.0014	USACE
15-O-05	EMBANKMENT/FILL	95.30	0.0022	USACE
TOTAL DNRDC PERM W/L IMPACTS FOR THIS SHEET = 0.0099 AC.				
TOTAL USACE PERM W/L IMPACTS FOR THIS SHEET = 0.0028 AC.				

**DELaware DEPARTMENT OF TRANSPORTATION**

**SR 141 IMPROVEMENTS, I-85 INTERCHANGE TO JAY DRIVE**

**ENVIRONMENTAL COMPLIANCE PLAN**

EC-15

SHEET NO. 403

TOTAL SHEETS 804

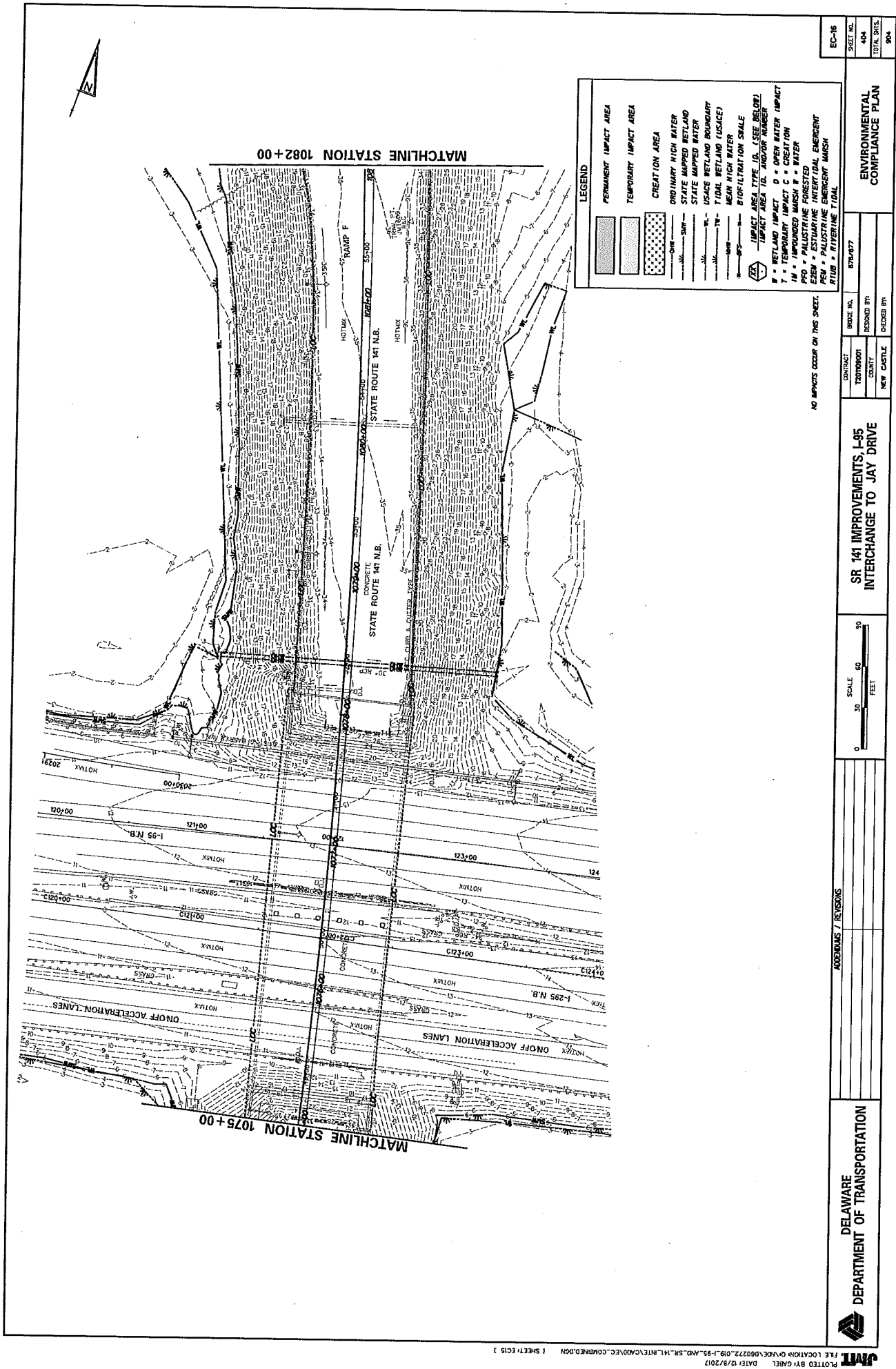
CONTRACT NO. 87N-077

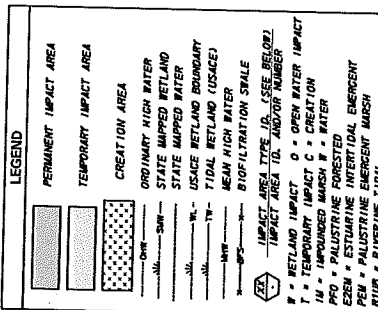
DESIGNED BY: [blank]

CHECKED BY: [blank]

DATE: 4/10/2018

FILE LOCATION: Q:\JVC\080772\09\1-85-AD-SR-141\NTE\COM\DEC.COM\DEC.DGN (SHEET 1 OF 3)





PERMANENT WETLAND IMPACTS						
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION	CLASSIFICATION
17-N-01	EMBANKMENT/FILL	1976.27	0.0454	N/A	USACE	PF0
17-N-02	EMBANKMENT/FILL	1169.94	0.0269	N/A	USACE	PF0
17-N-03	EMBANKMENT/FILL	965.18	0.0222	N/A	USACE	EF0M

TEMPORARY WETLAND IMPACTS					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION CLASSIFICATION
7-WT-01	ACCESS	1,207.01	0.0277	N/A	USDA
7-WT-02	ACCESS	2845.79	0.0607	N/A	USDA
7-WT-03	ACCESS	2827.34	0.0190	N/A	USDA
7-WT-04	ACCESS	20.54	0.0005	N/A	USDA

TOTAL DRAINAGE TEMP W/L IMPACTS FOR THIS SURVEY = 0.0005 AC

TOTAL DNREC PERM W/L IMPACTS FOR THIS SHEET = 0.0000 AC.  
TOTAL USACE PERM W/L IMPACTS FOR THIS SHEET = 0.0945 AC.  
USACE PFD = 0.0723  
USACE FISH = 0.0000

	20, 54	0, 0
TOTAL DNRFC TEMP W/L IMPACTS FOR THIS SHEET	0.0000 AC.	
TOTAL USACE TEMP W/L IMPACTS FOR THIS SHEET	0.1079 AC.	
USACE PFO = 0.0084		
USACE EXEM = 0.0195		

EC-17

ON 1336

405

204	TAL SH/S.
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## ENVIRONMENTAL COMPLIANCE PLAN

**SR 141 IMPROVEMENTS, I-95  
INTERCHANGE TO JAY DRIVE**

SCALE 60 90

## APPENDIXES / RÉVISIONS

DELAWARE  
DEPARTMENT OF TRANSPORTATION





















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PLOTTED BY: GABEL DATE: 12/8/2017

TOTAL DNGRC TEMP W/L IMPACTS FOR THIS SHEET = 0.0775 AC. (ALL IN)  
TOTAL USACE TEMP W/L IMPACTS FOR THIS SHEET = 0.1680 AC.  
USACE PEM = 0.0265  
USACE E2EN = 0.1395

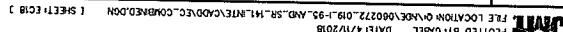


TOTAL DNRSC PERM W/L IMPACTS FOR THIS SHEET = 0.1098 AC. (ALL IND)  
TOTAL USACE PERM W/L IMPACTS FOR THIS SHEET = 0.3919 AC.  
USACE E2EM = 0.3145 (0.0525 TR)  
USACE PERM = 0.0774

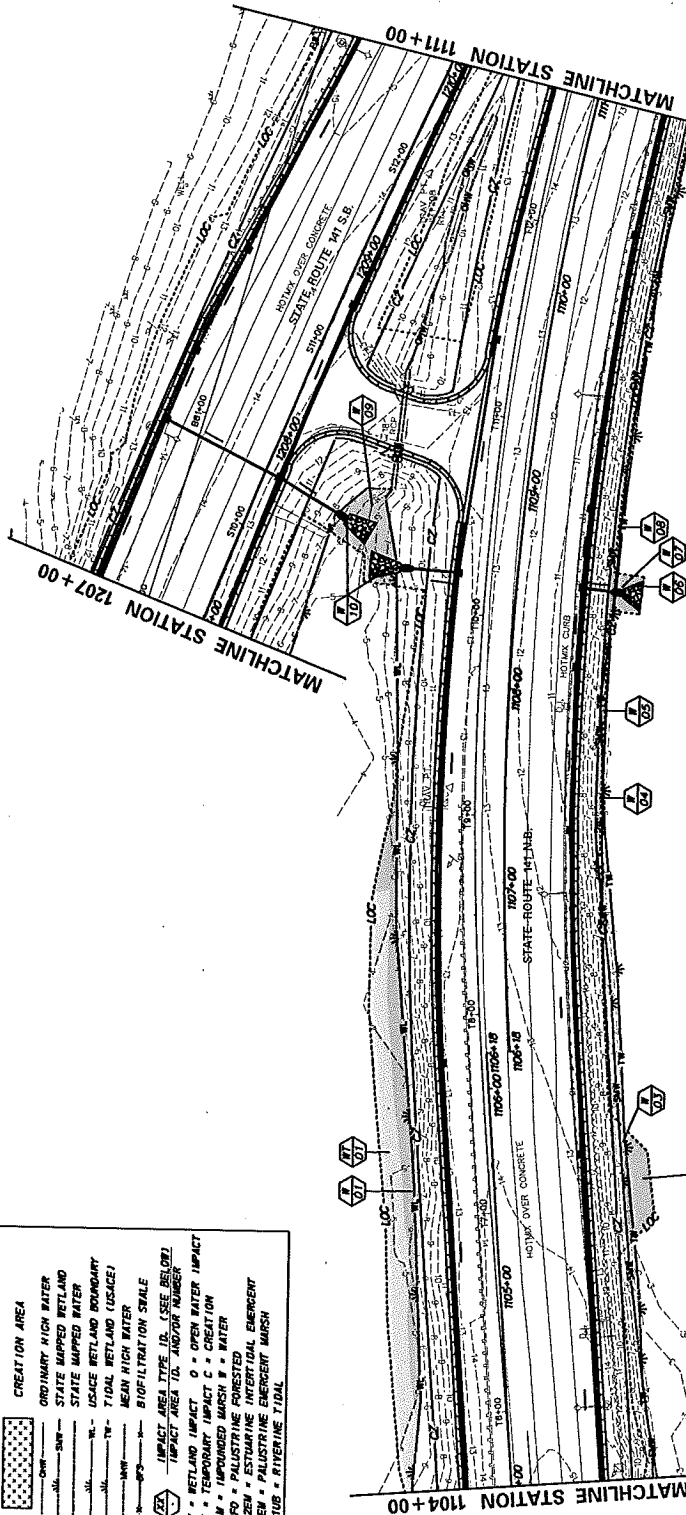
LEGEND

	PERMANENT IMPACT AREA
	TEMPORARY IMPACT AREA
	CREATION AREA
	ORDINARY HIGH WATER
	STATE MAPPED RETLAND
	STATE MAPPED WATER
	USACE RETLAND BOUNDARY
	TIDAL RETLAND (USACE)
	MICHIGAN WATER
	BIODIVERSITY SCALE
	IMPACT AREA TYPE (USE BELOW)
	IMPACT AREA 10 AND/OR NUMBER
	W = RETLAND IMPACT
	T = TEMPORARY IMPACT
	C = OPEN WATER IMPACT
	M = MICHIGAN WATER IMPACT
	P = PALUSTRINE FORESTED
	E = ESTUARINE INFERTIL EMERGENT
	F = FRESHWATER INFERTIL EMERGENT
	R = RIVER

ENVIRONMENTAL  
COMPLIANCE PLAN



LEGEND	
	PERMANENT IMPACT AREA
	TEMPORARY IMPACT AREA
	CREATION AREA
	ORDINARY HIGH WATER
	STATE MAPPED WETLAND
	USACE WETLAND BOUNDARY
	TIDAL WETLAND (USACE)
	MEAN HIGH WATER
	BIOFILTRATION SCALE
	IMPACT AREA TYPE (SEE BELOW)
	R = RETLAND IMPACT
	O = OPEN WATER IMPACT
	T = TEMPORARY IMPACT
	C = CREATION
	W = WATER
	F = PALUSTRINE FORESTED
	E = PALUSTRINE EMERGENT MARSH
	M = ESTUARINE EMERGENT MARSH
	R = RIVERINE TIDAL



TEMPORARY WETLAND IMPACTS				
ID	IMPACT DESCRIPTION	AREA (SF)	VOLUME (CY)	CLASSIFICATION
20-T-01	ACCESS	3010.27	0.0691	USACE
TOTAL USACE TEMP W/L IMPACTS FOR THIS SHEET = 0.0691 AC. (ALL PFD)				

PERMANENT WETLAND IMPACTS				
ID	IMPACT DESCRIPTION	AREA (SF)	VOLUME (CY)	CLASSIFICATION
20-P-01	EMBANKMENT/FILL	1718.15	0.0389	USACE
20-P-02	EMBANKMENT/FILL	492.13	0.0112	USACE
20-P-03	EMBANKMENT/FILL	183.82	0.0042	USACE
20-P-04	EMBANKMENT/FILL	148.65	0.0034	USACE
20-P-05	EMBANKMENT/FILL	56.16	0.0013	USACE
20-P-06	EMBANKMENT/FILL	87.20	0.0020	USACE
20-P-07	EMBANKMENT/FILL	164.48	0.0038	USACE
20-P-08	EMBANKMENT/FILL	613.81	0.0141	USACE
20-P-09	EMBANKMENT/FILL	752.28	0.0173	USACE
20-P-10	EMBANKMENT/FILL	250.97	0.0058	USACE
TOTAL USACE PERM W/L IMPACTS FOR THIS SHEET = 0.0401 AC. (ALL M)				

DELAWARE DEPARTMENT OF TRANSPORTATION		SR 141 IMPROVEMENTS, I-95 INTERCHANGE TO JAY DRIVE		ENVIRONMENTAL COMPLIANCE PLAN	
ADJUSTMENTS / REVISIONS		CONTRACT NO. 87M487		SHEET NO. 408	
SCALE 0 30 60 90 FEET		COUNTY NEW CASTLE		TOTAL SITES 904	

PERMANENT WETLAND IMPACTS				
ID	IMPACT DESCRIPTION	AREA (SF)	VOLUME (CY)	JURISDICTION
21-B-01	EMBANKMENT/FILL	59,88	0.0014	UNREC-B
TOTAL UNREC PERM W/L IMPACTS FOR THIS SHEET = 0.0014 AC. (ALL W)				
TOTAL USACE PERM W/L IMPACTS FOR THIS SHEET = 0.0000 AC.				

**LEGEND**

PERMANENT IMPACT AREA

TEMPORARY IMPACT AREA

CREATION AREA

ORDINARY HIGH WATER

STATE MAPPED WETLAND

STATE MAPPED WATER

USACE WETLAND BOUNDARY

TIDAL WETLAND (USACE)

MEAN HIGH WATER

BIOFILTRATION SCALE

IMPACT AREA TYPE (SEE BELOW)

IMPACT AREA TO ANCHOR NUMBER

W = WETLAND IMPACT

O = OPEN WATER IMPACT

T = TEMPORARY IMPACT

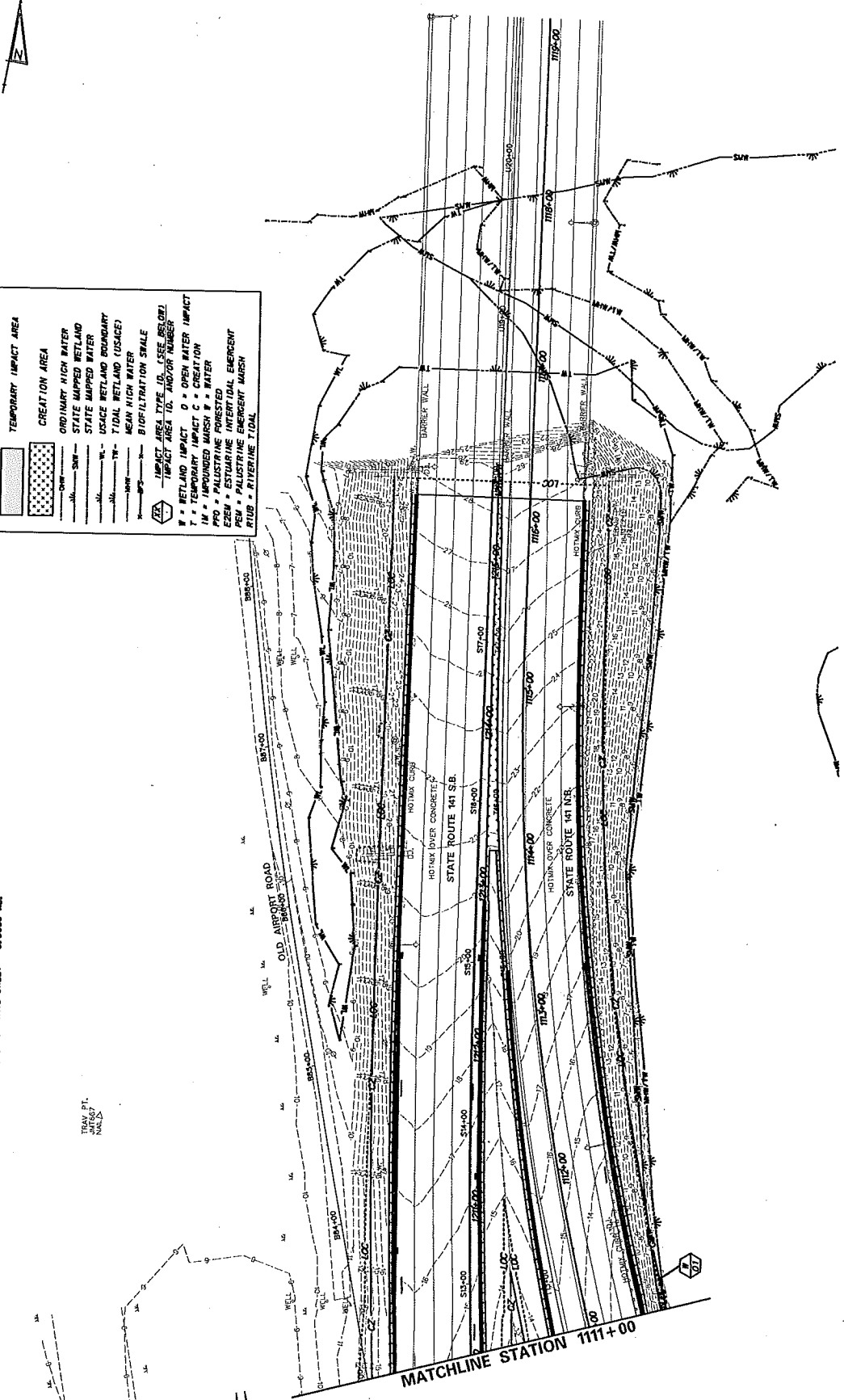
IM = IMPOUNDED MARSH

PFM = PALUSTRINE FORESTED

EZEM = ESTUARINE INTERTIDAL EMERGENT

PEN = PALUSTRINE EMERGENT MARSH

RTUB = RIVERINE TIDAL



 DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS		CONTRACT 67N-077		EC-21
	SCALE 0 30 60 FEET		PROJECT NO. 67N-077		SHEET NO. 409
SR 141 IMPROVEMENTS, I-95 INTERCHANGE TO JAY DRIVE		DESIGNED BY COUNTY NEW CASTLE		ENVIRONMENTAL COMPLIANCE PLAN	
				TOTAL SHEETS 504	



**LEGEND**

**PERMANENT IMPACT AREA**

**TEMPORARY IMPACT AREA**

**CREATION AREA**

ORDINARY HIGH WATER

STATE MAPPED WETLAND

STATE MAPPED WATER

USACE WETLAND BOUNDARY

TIDAL WETLAND (USACE)

MEAN HIGH WATER

BIOFILTRATION SHALE

IMPACT AREA TYPE (ID, SEE BELOW)

W = WETLAND IMPACT

T = TEMPORARY IMPACT

C = CREATION

IN = IMPROVED MARSH

PRO = PALUSTRINE FORESTED

ESEM = ESTUARINE INTERTIDAL EMERGENT

PERU = PALUSTRINE EMERGENT MARSH

RUB = RIVERINE TIDAL

TEMPORARY WETLAND IMPACTS				
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)
23-W-01	ACCESS	314.58	0.0072	0.0049
TOTAL WETLAND TEMP W/L IMPACTS FOR THIS SHEET		314.58	0.0072	0.0049
TOTAL USACE TEMP W/L IMPACTS FOR THIS SHEET		314.58	0.0072	0.0049

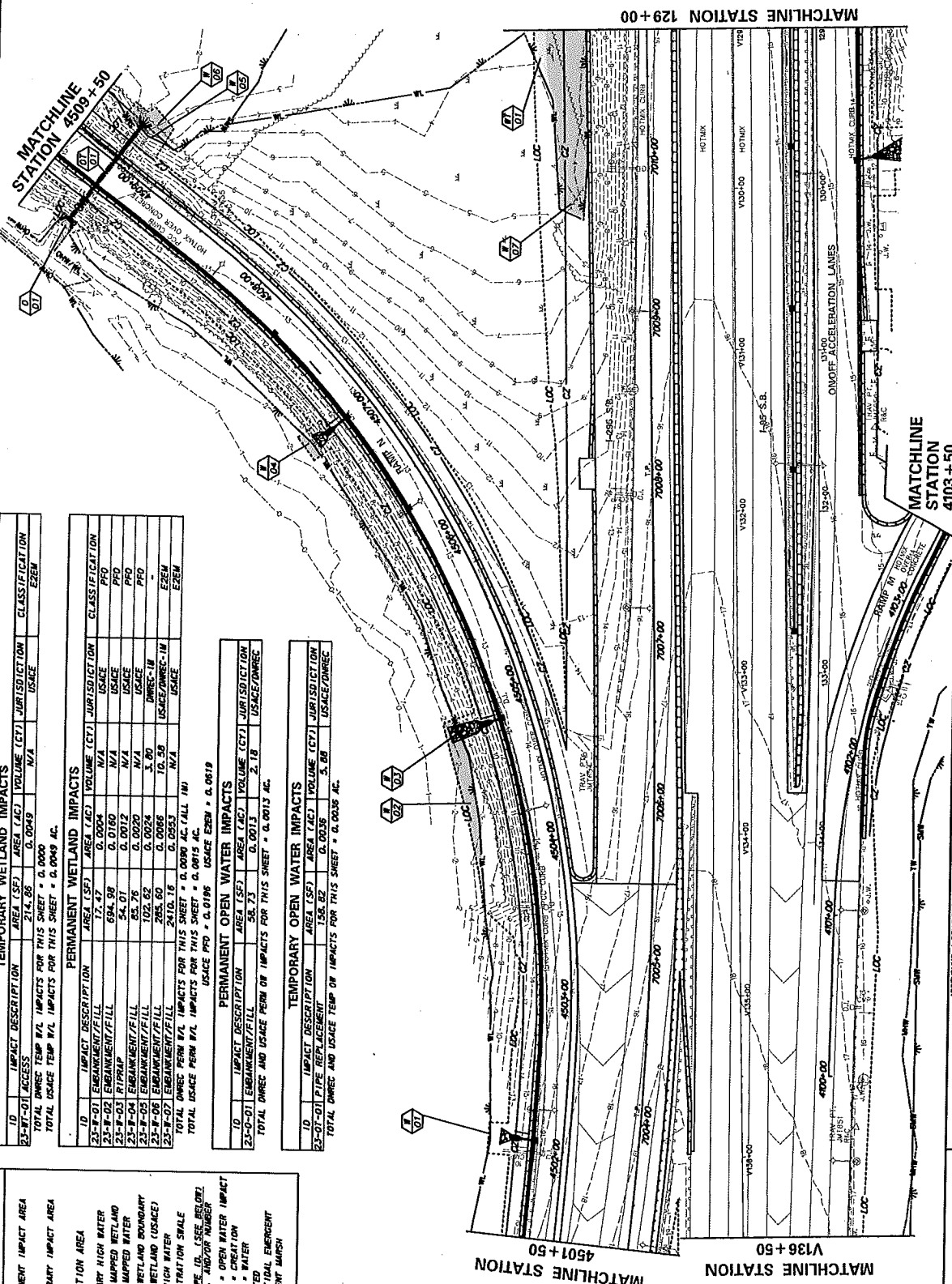
PERMANENT WETLAND IMPACTS				
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)
23-W-01	EMBANKMENT/FILL	17.47	0.0004	N/A
23-W-02	EMBANKMENT/FILL	694.98	0.0160	N/A
23-W-03	EMBANKMENT/FILL	54.01	0.0012	N/A
23-W-04	EMBANKMENT/FILL	65.76	0.0020	N/A
23-W-05	EMBANKMENT/FILL	102.62	0.0024	N/A
23-W-06	EMBANKMENT/FILL	2410.16	0.0552	N/A
23-W-07	EMBANKMENT/FILL	30.00	0.0007	N/A
TOTAL PERMANENT WETLAND IMPACTS FOR THIS SHEET		314.58	0.0072	0.0049
TOTAL USACE PERMANENT WETLAND IMPACTS FOR THIS SHEET		314.58	0.0072	0.0049

PERMANENT OPEN WATER IMPACTS				
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)
23-O-01	PIPE REPLACEMENT	58.73	0.0013	2.18
TOTAL PERMANENT OPEN WATER IMPACTS FOR THIS SHEET		58.73	0.0013	2.18
TOTAL USACE PERMANENT OPEN WATER IMPACTS FOR THIS SHEET		58.73	0.0013	2.18

TEMPORARY OPEN WATER IMPACTS				
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)
23-O-01	PIPE REPLACEMENT	136.82	0.0031	5.26
TOTAL TEMPORARY OPEN WATER IMPACTS FOR THIS SHEET		136.82	0.0031	5.26
TOTAL USACE TEMPORARY OPEN WATER IMPACTS FOR THIS SHEET		136.82	0.0031	5.26



**DELAWARE DEPARTMENT OF TRANSPORTATION**

**ENVIRONMENTAL COMPLIANCE PLAN**

**SR 141 IMPROVEMENTS, I-95 INTERCHANGE TO JAY DRIVE**

**PROJECT NO. 676/877**

**DESIGNED BY: NEW CASTLE**

**CHECKED BY: NEW CASTLE**

**DATE: 12/18/2017**

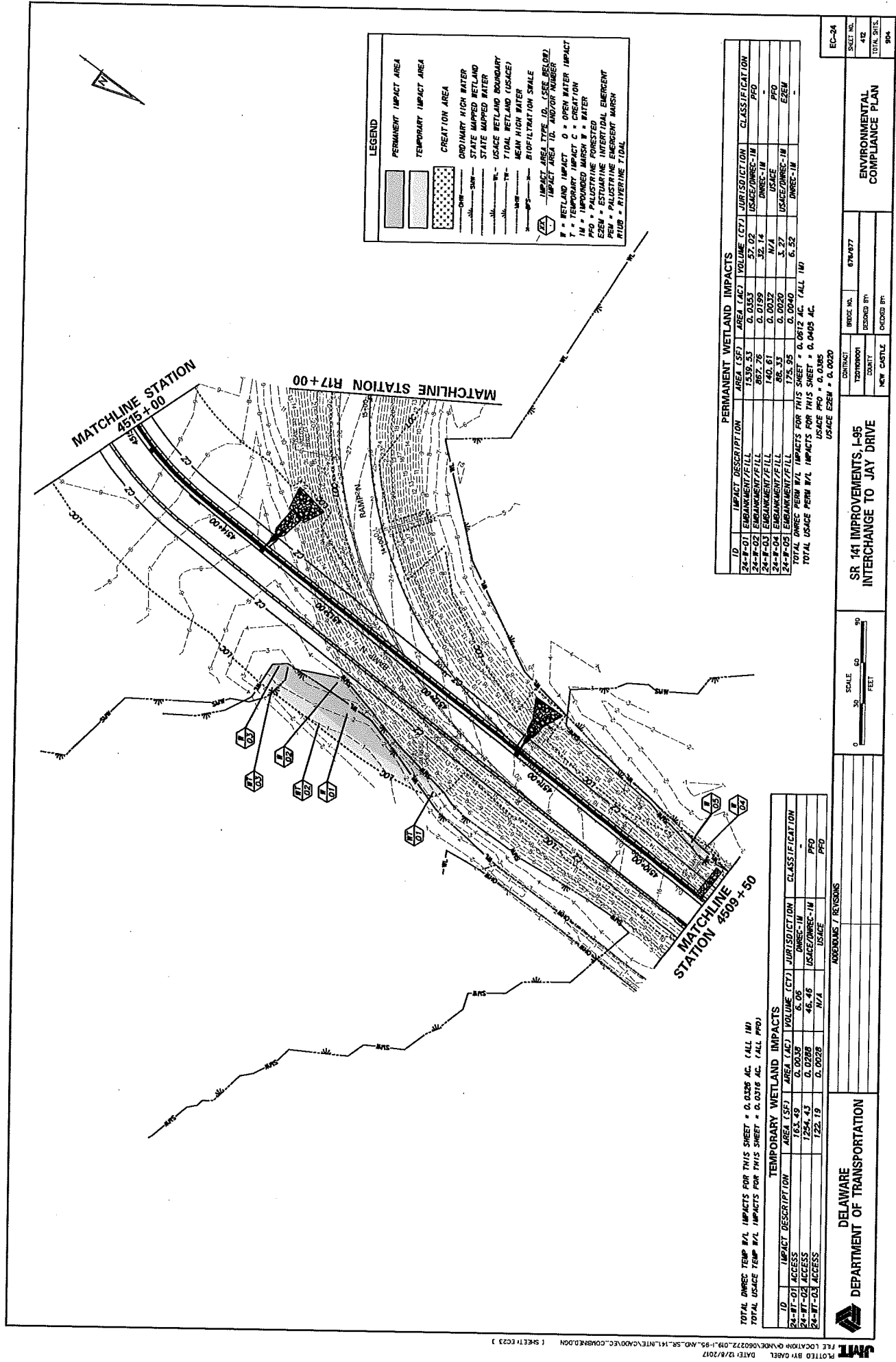
**SCALE: 1" = 50'**

**ADDITIONAL / REVISIONS**

**EC-23**

**SHEET NO. 41**

**TOTAL SHEETS 94**



LEGEND

[Pattern]	PERMANENT IMPACT AREA
[Pattern]	TEMPORARY IMPACT AREA
[Pattern]	CREATION AREA
[Pattern]	ORDINARY HIGH WATER
[Pattern]	STATE MAPPED RETLAND
[Pattern]	USACE RETLAND BOUNDARY
[Pattern]	TIDAL RETLAND (USACE)
[Pattern]	MEAN HIGH WATER
[Pattern]	BIOFILTRATION SWALE
[Pattern]	IMPACT AREA TYPE ID (SEE BELOW)
[Pattern]	IMPACT AREA ID AND/OR NUMBER
[Pattern]	W = RETLAND IMPACT O = OPEN WATER IMPACT
[Pattern]	T = TEMPORARY IMPACT C = CREATION
[Pattern]	IM = IMPROVED MARSH W = WATER
[Pattern]	ESEM = ESTUARINE FORESTED EMERGENT
[Pattern]	PEM = PALUSTRINE FORESTED EMERGENT
[Pattern]	RIUB = RIVERINE TIDAL

PERMANENT WETLAND IMPACTS

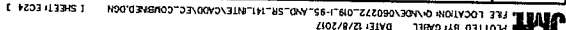
ID	IMPACT DESCRIPTION	AREA (SF)	VOLUME (CY)	JURISDICTION	CLASSIFICATION
24-P-01	EMBANKMENT/FILL	1539.53	0.0353	USACE/DMREC-IM	DMREC-IM
24-P-02	EMBANKMENT/FILL	867.76	0.0199	USACE/DMREC-IM	DMREC-IM
24-P-03	EMBANKMENT/FILL	140.61	0.0032	USACE/DMREC-IM	DMREC-IM
24-P-04	EMBANKMENT/FILL	266.33	0.0020	USACE/DMREC-IM	DMREC-IM
24-P-05	EMBANKMENT/FILL	25.35	0.0040	USACE/DMREC-IM	DMREC-IM
TOTAL DMREC PERM W/L IMPACTS FOR THIS SHEET		2663.58	0.0622	USACE/DMREC-IM	DMREC-IM
TOTAL USACE PERM W/L IMPACTS FOR THIS SHEET		2663.58	0.0622	USACE/DMREC-IM	DMREC-IM
TOTAL USACE PERM W/L IMPACTS FOR THIS SHEET		2663.58	0.0622	USACE/DMREC-IM	DMREC-IM

TEMPORARY WETLAND IMPACTS

ID	IMPACT DESCRIPTION	AREA (SF)	VOLUME (CY)	JURISDICTION	CLASSIFICATION
24-T-01	ACCESS	163.49	0.0038	USACE/DMREC-IM	DMREC-IM
24-T-02	ACCESS	1284.43	0.0288	USACE/DMREC-IM	DMREC-IM
24-T-03	ACCESS	122.19	0.0028	USACE/DMREC-IM	DMREC-IM
TOTAL USACE TEMP W/L IMPACTS FOR THIS SHEET		1570.11	0.0354	USACE/DMREC-IM	DMREC-IM

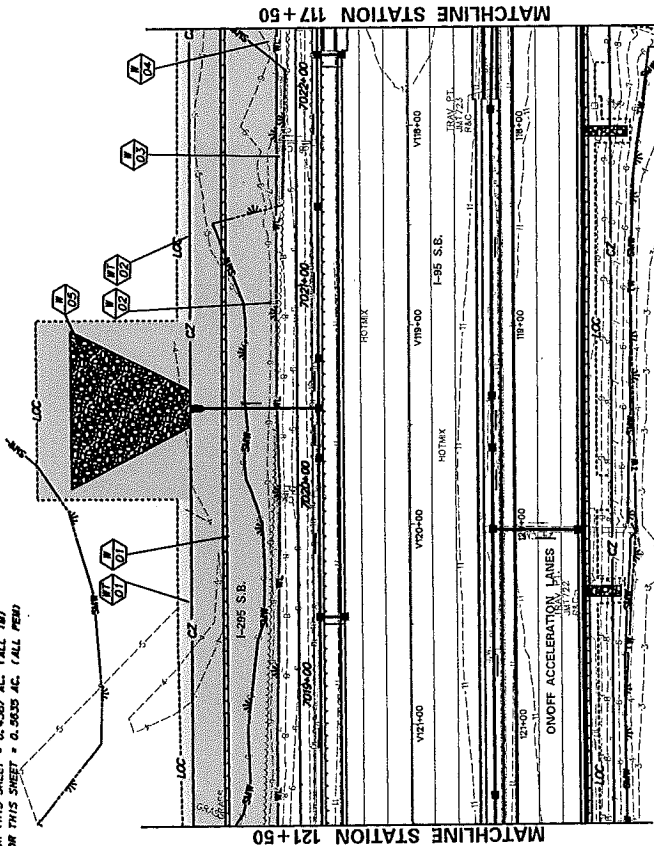
TOTAL DMREC TEMP W/L IMPACTS FOR THIS SHEET = 0.0326 AC. (ALL IM)  
TOTAL USACE TEMP W/L IMPACTS FOR THIS SHEET = 0.0318 AC. (ALL PPD)

DELAWARE DEPARTMENT OF TRANSPORTATION		SR 141 IMPROVEMENTS, I-95 INTERCHANGE TO JAY DRIVE		ENVIRONMENTAL COMPLIANCE PLAN	
PROJECT NO. 076/077		SHEET NO. 412		TOTAL SHEETS 504	
CONTRACT 127000001		DESIGNED BY		CHECKED BY	
DATE 12/18/2017		DRAWN BY		DATE 12/18/2017	
FILE LOCATION Q:\V060272\09\1-95\NO-SR-141\INTERCHANGE\COMPLIANCE.DGN		SHEET 412 OF 504		DATE 12/18/2017	



LEGEND	
	PERMANENT IMPACT AREA
	TEMPORARY IMPACT AREA
	CREATION AREA
	ORDINARY HIGH WATER
	STATE MAPPED WATER
	USACE RETLAND BOUNDARY
	TIDAL RETLAND (USACE)
	MEAN HIGH WATER
	BIOFILTRATION SCALE
	IMPACT AREA ID. AND/OR NUMBER
	W = RETLAND IMPACT
	O = OPEN WATER IMPACT
	T = TEMPORARY IMPACT
	C = CREATION
	P = PALUSTRINE FORESTED
	E = ESTUARINE INTERTIDAL EMERGENT
	M = PALUSTRINE FORESTED MARSH
	R = RIVERINE TIDAL

TEMPORARY WETLAND IMPACTS				
ID	IMPACT DESCRIPTION	AREA (SF)	VOLUME (CY)	CLASSIFICATION
26-WT-01	ACCESS	1,501.81	0.0289	PEM
26-WT-02	ACCESS	1,266.28	0.0281	PEM
TOTAL DNRDC TEMP W/L IMPACTS FOR THIS SHEET		2,768.09 AC. (ALL PEM)		
TOTAL USACE TEMP W/L IMPACTS FOR THIS SHEET		0.0590 AC. (ALL IN)		
PERMANENT WETLAND IMPACTS				
ID	IMPACT DESCRIPTION	AREA (SF)	VOLUME (CY)	CLASSIFICATION
26-W-01	EMBANKMENT/FILL	16,750.91	0.1040	PEM
26-W-02	EMBANKMENT/FILL	46,535.70	0.1040	PEM
26-W-03	EMBANKMENT/FILL	26,333.38	0.0080	PEM
26-W-04	EMBANKMENT/FILL	19,333.33	0.0044	PEM
26-W-05	RIPRAP	29,558.50	0.0879	PEM
TOTAL DNRDC PERM W/L IMPACTS FOR THIS SHEET		0.4307 AC. (ALL IN)		
TOTAL USACE PERM W/L IMPACTS FOR THIS SHEET		0.5635 AC. (ALL IN)		



 DELAWARE DEPARTMENT OF TRANSPORTATION		ADDENDUM / REVISIONS		SCALE 0 30 60 90 FEET		SR 141 IMPROVEMENTS, I-95 INTERCHANGE TO JAY DRIVE		CONTRACT T22000001 COUNTY NEW CASTLE		BROCK NO. 874-877 DESIGNED BY DESIGNED BY		ENVIRONMENTAL COMPLIANCE PLAN		EC-28 SHEET NO. 444 TOTAL SHEETS 804	
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**LEGEND**

**PERMANENT IMPACT AREA**

**TEMPORARY IMPACT AREA**

**CREATION AREA**

ORDINARY HIGH WATER

STATE MAPPED WETLAND

STATE MAPPED WATER

USACE WETLAND BOUNDARY

WETLAND W/IN (USACE)

WETLAND W/OUT (USACE)

BIOPRODUCTION SHALE

IMPACT AREA TYPE ID: (SEE BELOW)

IMPACT AREA ID: AND/OR NUMBER

WETLAND IMPACT: 0 = OPEN WATER IMPACT

WETLAND IMPACT: 1 = PALUSTRINE FORESTED

WETLAND IMPACT: 2 = PALUSTRINE EMERGENT MARSH

WETLAND IMPACT: 3 = PALUSTRINE TIDAL

WETLAND IMPACT: 4 = PALUSTRINE TIDAL

WETLAND IMPACT: 5 = PALUSTRINE TIDAL

WETLAND IMPACT: 6 = PALUSTRINE TIDAL

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WETLAND IMPACT: 91 = PALUSTRINE TIDAL

WETLAND IMPACT: 92 = PALUSTRINE TIDAL

WETLAND IMPACT: 93 = PALUSTRINE TIDAL

WETLAND IMPACT: 94 = PALUSTRINE TIDAL

WETLAND IMPACT: 95 = PALUSTRINE TIDAL

WETLAND IMPACT: 96 = PALUSTRINE TIDAL

WETLAND IMPACT: 97 = PALUSTRINE TIDAL

WETLAND IMPACT: 98 = PALUSTRINE TIDAL

WETLAND IMPACT: 99 = PALUSTRINE TIDAL

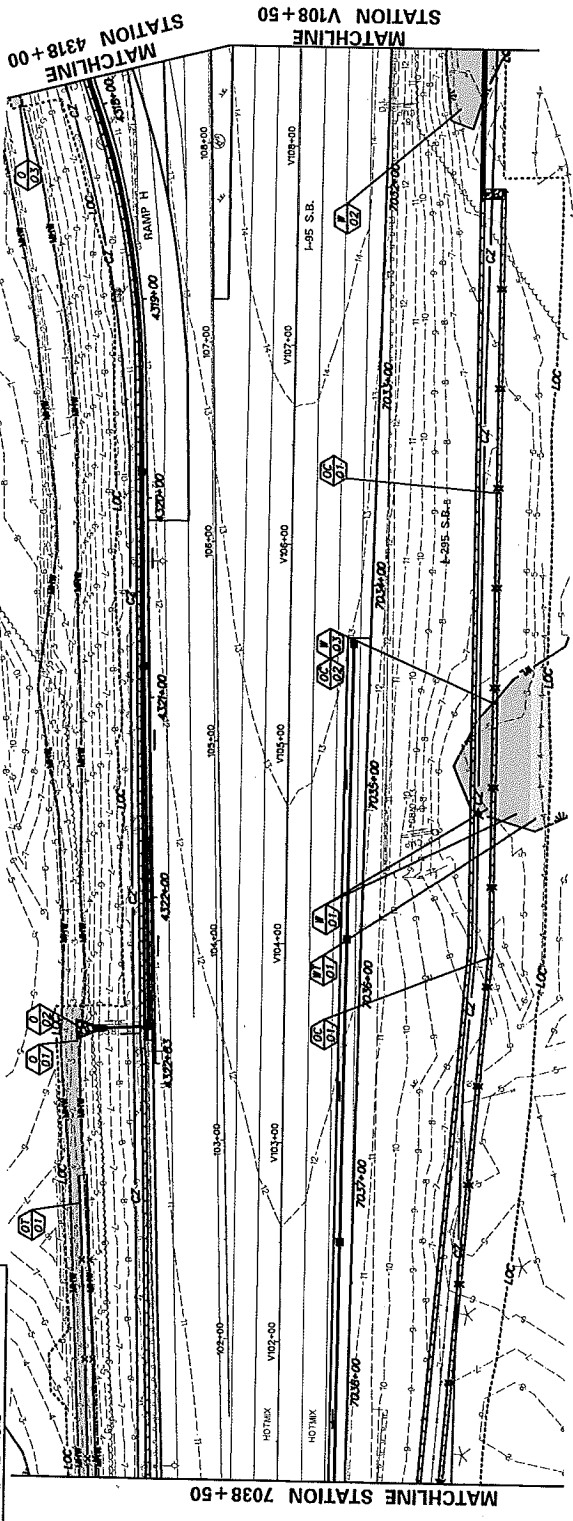
WETLAND IMPACT: 100 = PALUSTRINE TIDAL

**TEMPORARY WETLAND IMPACTS**

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION	CLASSIFICATION
28-W-01	ACCESS	753.42	0.0182	N/A	USACE	PRO
TOTAL TEMP W/L IMPACTS FOR THIS SHEET = 0.0182 AC. (ALL PRO)						
<b>PERMANENT WETLAND IMPACTS</b>						
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION	CLASSIFICATION
28-W-01	EMBANKMENT/FILL	1968.62	0.0451	N/A	USACE/DNR/EC	PRO
28-W-02	EMBANKMENT/FILL	810.46	0.0186	N/A	USACE	PRO
28-W-03	EMBANKMENT/FILL	117.32	0.0027	N/A	USACE	PRO
TOTAL PERM W/L IMPACTS FOR THIS SHEET = 0.0664 AC. (ALL PRO)						
<b>TEMPORARY OPEN WATER IMPACTS</b>						
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION	CLASSIFICATION
28-O-01	SWALE	558.19	0.0128	20.67	USACE/DNR/EC	PRO
TOTAL TEMP OPEN WATER IMPACTS FOR THIS SHEET = 0.0128 AC.						
<b>PERMANENT OPEN WATER IMPACTS</b>						
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION	CLASSIFICATION
28-O-01	EMBANKMENT/FILL	1994.24	0.0456	58.05	USACE/DNR/EC	PRO
28-O-02	EMBANKMENT/FILL	22.08	0.0005	0.82	USACE/DNR/EC	PRO
28-O-03	EMBANKMENT/FILL	32.74	0.0008	1.21	USACE/DNR/EC	PRO
TOTAL PERM OPEN WATER IMPACTS FOR THIS SHEET = 0.0379 AC.						

**OPEN WATER CREATION AREA SCHEDULE**

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
28-O-01	SWALE	1976.27	0.0454	73.20	USACE/DNR/EC
28-O-02	SWALE	117.32	0.0027	4.35	USACE/DNR/EC
TOTAL OPEN WATER CREATION AREA FOR THIS SHEET = 0.0481 AC.					
TOTAL USACE OPEN WATER CREATION AREA FOR THIS SHEET = 0.0481 AC.					



**SR 141 IMPROVEMENTS, I-95 INTERCHANGE TO JAY DRIVE**

CONTRACT NO. 720100001

DESIGNED BY: NEW CASTLE

CHECKED BY: NEW CASTLE

DATE: 12/8/2017

FILE LOCATION: Q:\V08\080272\09\I-95\NO.\SR\141\INT\CA00\VC.C\DWG\RD.DWG

SHEET: EC27

**DELAWARE DEPARTMENT OF TRANSPORTATION**

**ENVIRONMENTAL COMPLIANCE PLAN**

EC-28

SHEET NO. 418

TOTAL SHEETS 904

SCALE: 0 30 60 FEET

**LEGEND**

PERMANENT IMPACT AREA

TEMPORARY IMPACT AREA

CREATION AREA

ORDINARY HIGH WATER

STATE MAPPED WETLAND

STATE MAPPED WATER

USACE WETLAND BOUNDARY

TIDAL WETLAND (USACE)

MEAN HIGH WATER

BIOFILTRATION SCALE

IMPACT AREA TYPE ID, (SEE BELOW)

IMPACT AREA ID, AND/OR NUMBER

W = WETLAND IMPACT O = OPEN WATER IMPACT

T = TEMPORARY IMPACT C = CREATION

TM = IMPROVED MARSH W = WATER

PRO = PALUSTRINE FORESTED

SEB = ESTUARINE INTERTIDAL EMERGENT

SEB = ESTUARINE SUBTIDAL EMERGENT

RTUB = RIVERINE TIDAL

**PERMANENT WETLAND IMPACTS**

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION	CLASSIFICATION
20-P-01	EMBANKMENT/FILL	364.00	0.0083	N/A	USACE	PRO
20-P-02	EMBANKMENT/FILL	294.95	0.0068	N/A	USACE	PRO
TOTAL DNRRC PERM W/L IMPACTS FOR THIS SHEET		658.95	0.0152 AC	(ALL PRO)		
TOTAL USACE PERM W/L IMPACTS FOR THIS SHEET		658.95	0.0152 AC	(ALL PRO)		

**PERMANENT OPEN WATER IMPACTS**

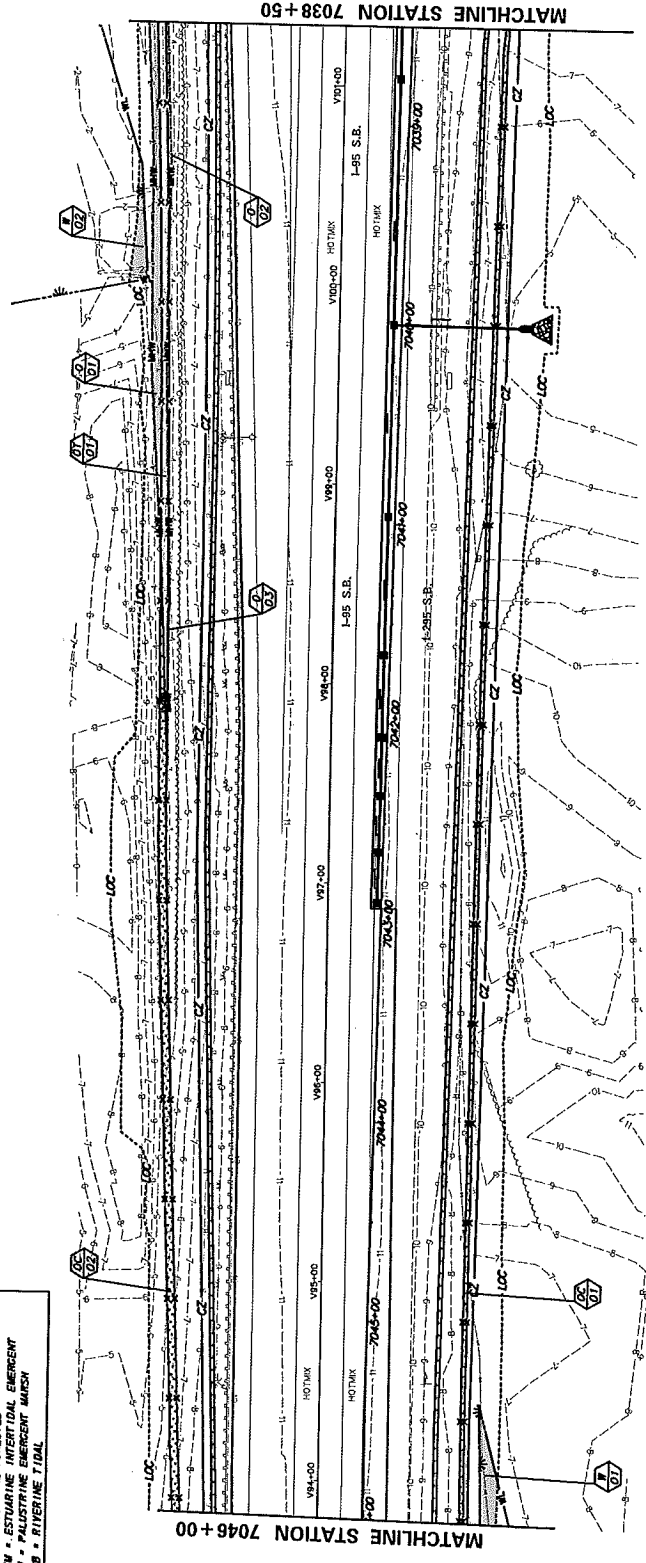
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
20-O-01	EMBANKMENT/FILL	1000.66	0.0230	37.07	USACE/DNRRC
20-O-02	EMBANKMENT/FILL	146.05	0.0034	5.41	USACE/DNRRC
23-O-03	EMBANKMENT/FILL	44.45	0.0010	1.63	USACE/DNRRC
TOTAL DNRRC AND USACE PERM W/L IMPACTS FOR THIS SHEET		1191.16	0.0274 AC		

**OPEN WATER CREATION AREA SCHEDULE**

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
20-OC-01	SWALE	1501.39	0.0343	35.61	USACE/DNRRC
20-OC-02	SWALE	1721.08	0.0395	63.77	USACE/DNRRC
TOTAL DNRRC AND USACE OF CREATION AREA FOR THIS SHEET		3222.47	0.0740 AC		

**TEMPORARY OPEN WATER IMPACTS**

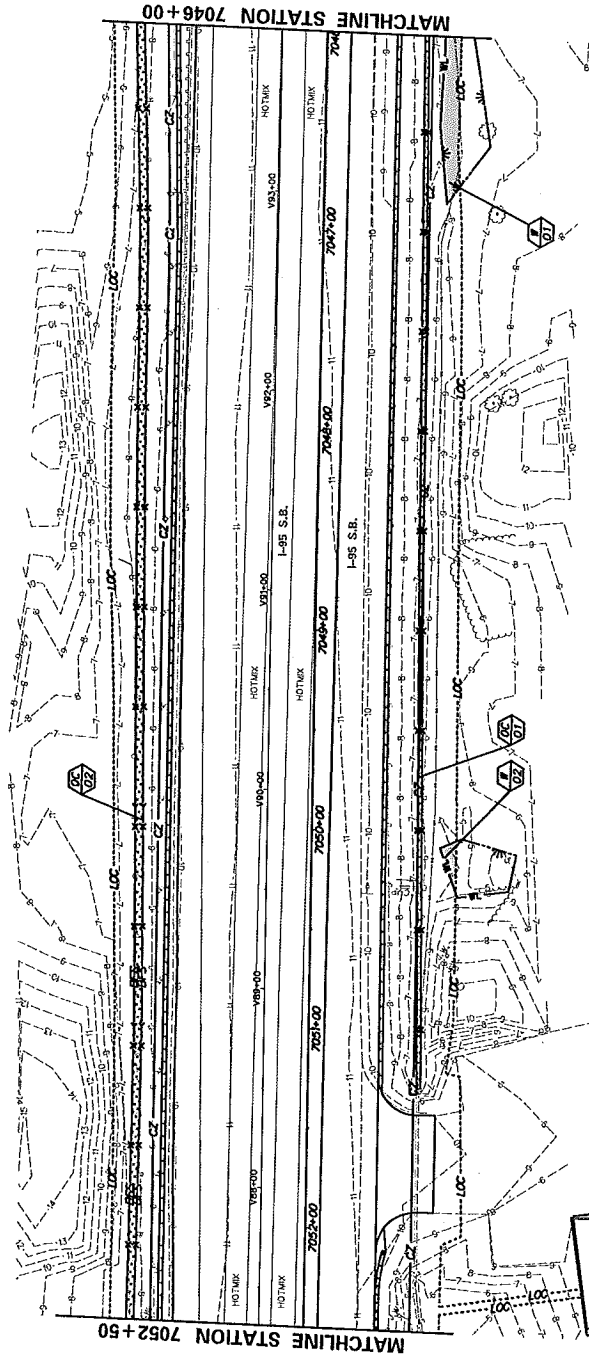
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
20-OT-01	SWALE	1164.33	0.0268	43.28	USACE/DNRRC
TOTAL DNRRC AND USACE TEMP W/L IMPACTS FOR THIS SHEET		1164.33	0.0268 AC		



<p><b>DELAWARE</b> DEPARTMENT OF TRANSPORTATION</p>	<p>ADDITIONS / REVISIONS</p>		<p>CONTRACT</p> <p>T20700001</p>	<p>BRIEF NO.</p> <p>6794677</p>	<p>ENVIRONMENTAL COMPLIANCE PLAN</p>
	<p>SR 141 IMPROVEMENTS, I-95 INTERCHANGE TO JAY DRIVE</p>		<p>DESIGNED BY</p> <p>NEW CASTLE</p>	<p>CHECKED BY</p> <p>NEW CASTLE</p>	<p>EC-29</p> <p>SHEET NO.</p> <p>410</p> <p>TOTAL SHEETS</p> <p>904</p>

LEGEND	
	PERMANENT IMPACT AREA
	TEMPORARY IMPACT AREA
	CREATION AREA
	ORDINARY HIGH WATER
	STATE MAPPED RETLAND
	USACE RETLAND BOUNDARY
	USACE RETLAND (USACE)
	MEAN HIGH WATER
	BIOFILTRATION SCALE
	IMPACT AREA TYPE ID (SEE BELOW)
	IMPACT AREA IN MAP/ROW NUMBER
	P = RETLAND IMPACT
	T = TEMPORARY IMPACT
	IM = IMPROVED MARSH
	PFO = PALUSTRINE FORESTED
	EEM = ESTUARINE INTERTIDAL EMERGENT
	PEM = PALUSTRINE EMERGENT MARSH
	RTUB = RIVERINE TIDAL

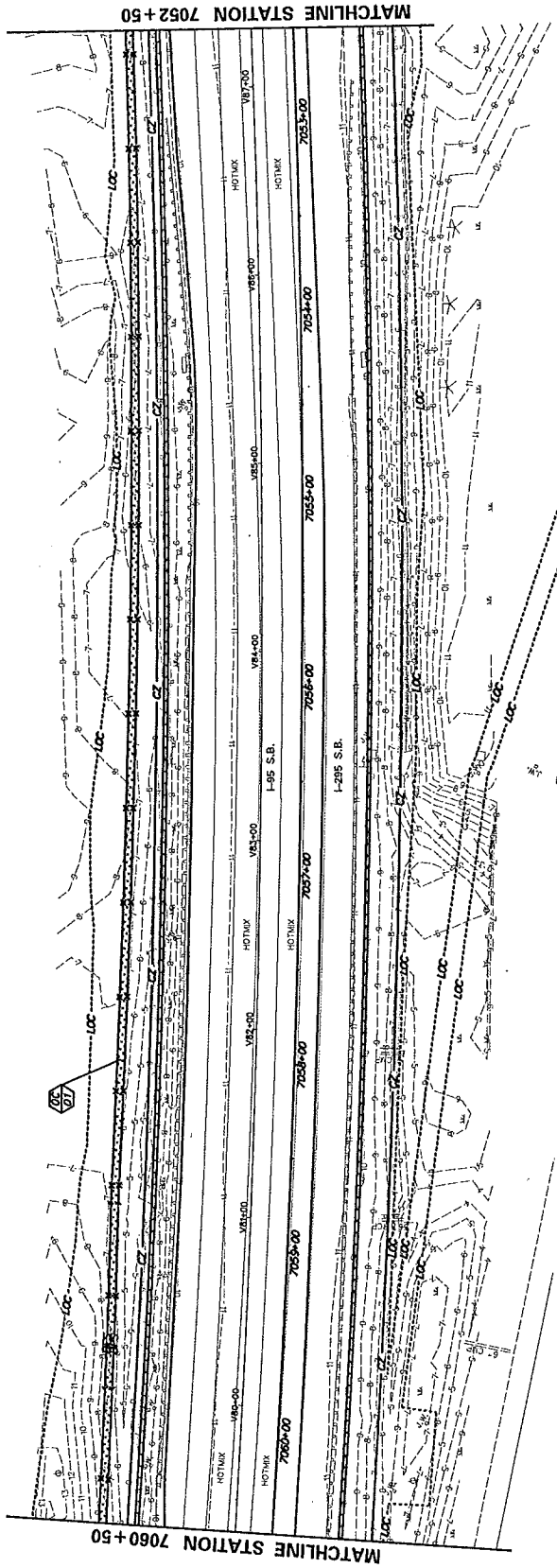
PERMANENT WETLAND IMPACTS				
ID	IMPACT DESCRIPTION	AREA (SF)	VOLUME (CY)	JURISDICTION
SO-B-01	EMBANKMENT/FILL	673.73	0.0155	N/A
SO-B-02	EMBANKMENT/FILL	104.12	0.0024	USACE
TOTAL DIRECT PERM W/L IMPACTS FOR THIS SHEET		0.0000 AC		
TOTAL USACE PERM W/L IMPACTS FOR THIS SHEET		0.0179 AC (ALL PFO)		
OPEN WATER CREATION AREA SCHEDULE				
ID	IMPACT DESCRIPTION	AREA (SF)	VOLUME (CY)	JURISDICTION
SO-OC-01	SWALE	1056.39	0.0243	USACE/DMREC
SO-OC-02	SWALE	2602.10	0.0597	USACE/DMREC
TOTAL DIRECT AND USACE OR CREATION AREA FOR THIS SHEET		0.0840 AC		



<b>DELAWARE DEPARTMENT OF TRANSPORTATION</b>		<b>SR 141 IMPROVEMENTS I-95 INTERCHANGE TO JAY DRIVE</b>		CONTRACT 123000001	BRIDGE NO. 674/677	<b>ENVIRONMENTAL COMPLIANCE PLAN</b>		EC-30
ADDENDUMS / REVISIONS		SCALE 0 30 60 FEET		COUNTY NEW CASTLE	DESIGNED BY 	SHEET NO. 49	TOTAL SHEETS 904	DATE 12/8/2017

LEGEND	
	PERMANENT IMPACT AREA
	TEMPORARY IMPACT AREA
	CREATION AREA
	ORDINARY HIGH WATER
	STATE MAPPED WETLAND
	USACE WETLAND BOUNDARY
	TIDAL WETLAND (USACE)
	MEAN HIGH WATER
	BIOFILTRATION SCALE
	IMPACT AREA TYPE 10 (SEE BELOW)
	IMPACT AREA 10A AND/OR NUMBER
	W = WETLAND IMPACT D = OPEN WATER IMPACT
	T = TEMPORARY IMPACT C = CREATION
	IM = IMPOUNDED MARSH W = WATER
	PRO = PALUSTRINE FORESTED
	EZEM = ESTUARINE INTERTIDAL EMERGENT
	PEN = PALUSTRINE EMERGENT MARSH
	RTUB = RIVERINE TIDAL

OPEN WATER CREATION AREA SCHEDULE				
ID	IMPACT DESCRIPTION	AREA (AC)	VOLUME (CY)	JURISDICTION
51-00-01	SCALE	3105.01	0.0728	USACE/DMREC
TOTAL DMREC AND USACE OF CREATION AREA FOR THIS SHEET = 0.0728 AC				



<b>DELAWARE DEPARTMENT OF TRANSPORTATION</b>		<b>SR 141 IMPROVEMENTS, I-95 INTERCHANGE TO JAY DRIVE</b>		<b>ENVIRONMENTAL COMPLIANCE PLAN</b>	
ADDENDUMS / REVISIONS		CONTRACT TENDERSON COUNTY KEY CASTLE		BRIDGE NO. 678/877 ASSIGNED BY DEIGNED BY	
EC-31		SHEET NO. 48A		TOTAL SHEETS 90A	



OPEN WATER CREATION AREA SCHEDULE				
ID	IMPACT DESCRIPTION	AREA (AC)	VOLUME (CY)	JURISDICTION
32-05-01	SCALE	3105.48	0.0713	USACE/DNR/EC
TOTAL UNREC. AND USAGE OF CREATION AREA FOR THIS SHEET = 0.0713 AC.				

**LEGEND**

**PERMANENT IMPACT AREA**

**TEMPORARY IMPACT AREA**

**CREATION AREA**

ORDINARY HIGH WATER

STATE MAPPED RETLAND

USACE RETLAND BOUNDARY

TIDAL RETLAND (USACE)

NEAR HIGH WATER

BIOFILTRATION SWALE

IMPACT AREA TYPE (0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100)

IMPACT AREA TOL. AND/OR NUMBER

W = RETLAND IMPACT 0 = OPEN WATER IMPACT

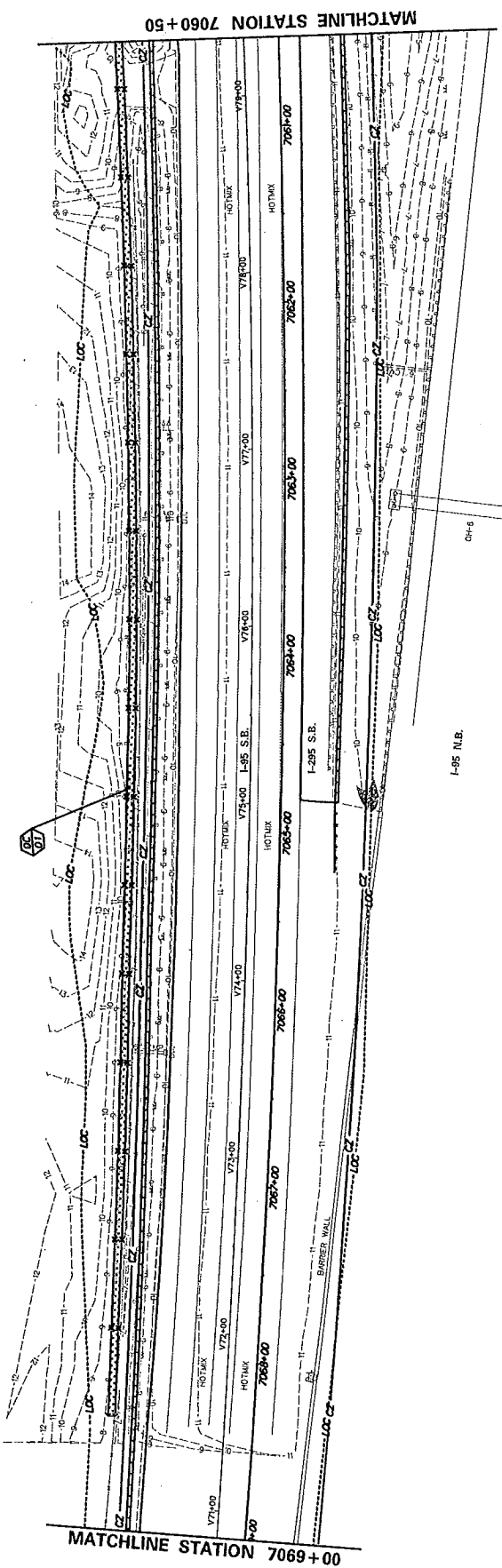
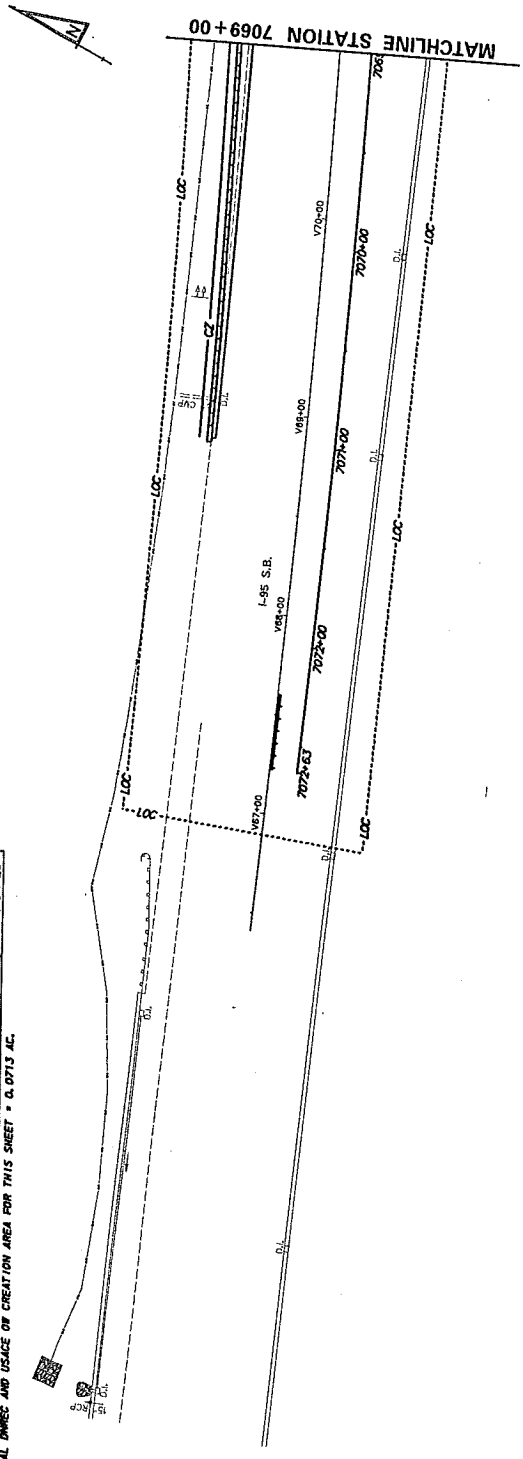
T = TEMPORARY IMPACT C = CREATION

18 = IMPROVED MARSH W = WATER

ESB = ESTUARINE FORESTED

PEB = ESTUARINE PERENNIAL

RUB = RIVERINE TIDAL

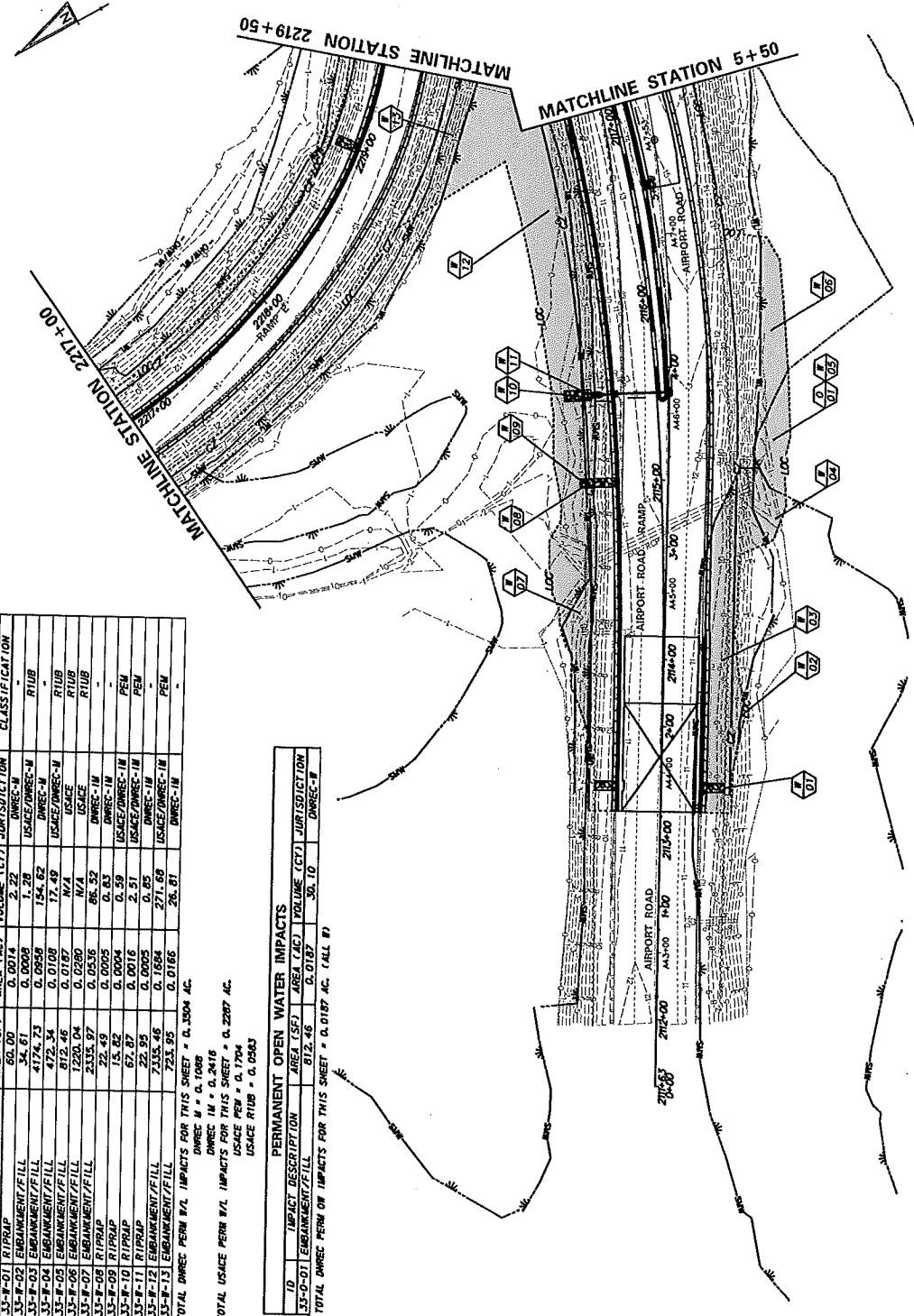


EC-32 SHEET NO. 4309 TOTAL SHEETS 504		ENVIRONMENTAL COMPLIANCE PLAN	
CONTRACT 720100001 COUNTY NEW CASTLE		BRIDGE NO. 578/877 RECORD BY DECKED BY	
SR 141 IMPROVEMENTS, I-95 INTERCHANGE TO JAY DRIVE			
ADDRESS / REVISIONS		SCALE 0 30 60 FEET	
DELAWARE DEPARTMENT OF TRANSPORTATION		DATE 12/12/2017	

LEGEND	
	PERMANENT IMPACT AREA
	TEMPORARY IMPACT AREA
	CREATION AREA
	ORDINARY HIGH WATER
	STATE MAPPED WETLAND
	USACE WETLAND BOUNDARY
	TIDAL WETLAND (USACE)
	MEAN HIGH WATER
	BIOFILTRATION SCALE
	IMPACT AREA ID. (SEE BELOW)
	IMPACT AREA ID. AND/OR NUMBER
	WETLAND IMPACT O = OPEN WATER IMPACT
	TEMPORARY IMPACT C = CREATION
	IMPOUNDED MARSH W = WATER
	PRO = PALUDSTRINE FORESTED
	SEMI = ESTUARINE INTERTIDAL EMERGENT
	RUB = ESTUARINE TIDAL

PERMANENT WETLAND IMPACTS				
ID	IMPACT DESCRIPTION	AREA (SF)	VOLUME (CY)	JURISDICTION
33-B-01	RTP/RUP	50.07	2.22	DMREC-M
33-B-02	EMBANKMENT/FILL	34.61	1.28	USACE/DMREC-M
33-B-03	EMBANKMENT/FILL	474.73	17.82	DMREC-M
33-B-04	EMBANKMENT/FILL	472.34	17.49	USACE/DMREC-M
33-B-05	EMBANKMENT/FILL	812.46	0.0187	USACE
33-B-06	EMBANKMENT/FILL	1220.04	0.0280	USACE
33-B-07	EMBANKMENT/FILL	2335.97	0.0536	DMREC-M
33-B-08	RTP/RUP	22.49	0.0005	DMREC-M
33-B-09	RTP/RUP	15.62	0.0004	USACE/DMREC-M
33-B-10	RTP/RUP	67.87	0.0016	USACE/DMREC-M
33-B-11	EMBANKMENT/FILL	223.85	0.0025	DMREC-M
33-B-12	EMBANKMENT/FILL	233.46	0.0024	USACE/DMREC-M
33-B-13	EMBANKMENT/FILL	225.95	0.0165	DMREC-M
TOTAL DMREC PERM W/L IMPACTS FOR THIS SHEET = 0.3504 AC.				
TOTAL USACE PERM W/L IMPACTS FOR THIS SHEET = 0.2287 AC.				
TOTAL DMREC PERM W/L IMPACTS FOR THIS SHEET = 0.5791 AC.				

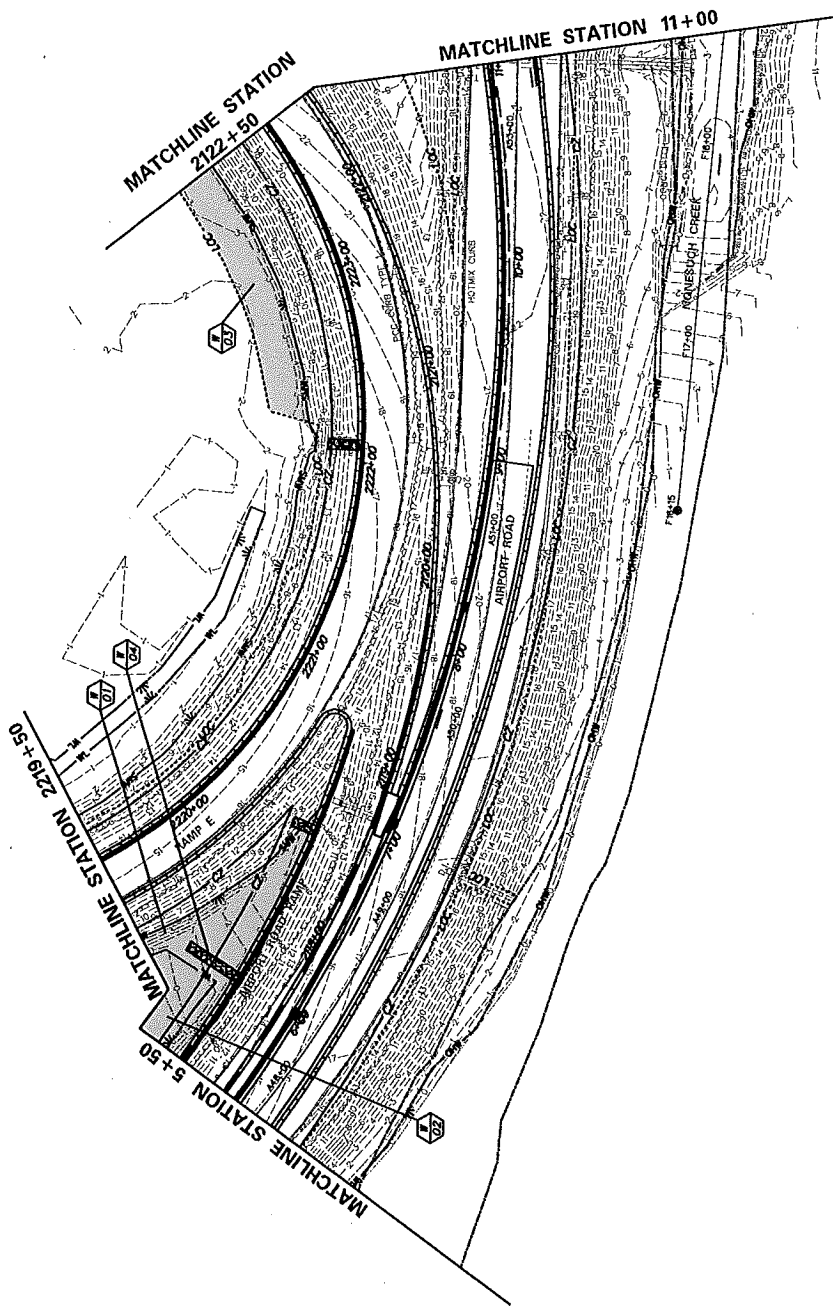
PERMANENT OPEN WATER IMPACTS				
ID	IMPACT DESCRIPTION	AREA (SF)	VOLUME (CY)	JURISDICTION
33-O-01	EMBANKMENT/FILL	812.46	0.0187	DMREC-M
TOTAL DMREC PERM OW IMPACTS FOR THIS SHEET = 0.0187 AC. (ALL W)				



 DELAWARE DEPARTMENT OF TRANSPORTATION	SR 141 IMPROVEMENTS, I-95 INTERCHANGE TO JAY DRIVE		CONTRACT 120700001	BRIDGE NO. 678-677	ENVIRONMENTAL COMPLIANCE PLAN	EC-33
	ADDENDUMS / REVISIONS		COUNTY NEW CASTLE	DESIGNED BY DESIGNED BY	SHEET NO. 421	TOTAL SHEETS 504

LEGEND	
	PERMANENT IMPACT AREA
	TEMPORARY IMPACT AREA
	CREATION AREA
	ORDINARY HIGH WATER
	STATE MAPPED WETLAND
	USACE WETLAND BOUNDARY
	TIDAL WETLAND (USACE)
	MEAN HIGH WATER
	BIOFILTRATION SCALE
	IMPACT AREA TYPE ID. (SEE BELOW)
	IMPACT AREA ID. AND/OR NUMBER
	WETLAND IMPACT 0 = OPEN WATER IMPACT
	TEMPORARY IMPACT C = CREATION
	IMPROVED MARSH W = WATER
	ESTUARINE INTERESTED
	RIVERINE INTERESTED
	PEN = PALUSTRINE EMERGENCY
	RIBS = RIVERINE TIDAL

PERMANENT WETLAND IMPACTS					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	CLASSIFICATION
54-P-01	EMBANKMENT/FILL	2719.01	0.0624	100.20	USEC-DWREC-IN
54-P-02	EMBANKMENT/FILL	857.54	0.0199	52.13	USEC-DWREC-IN
54-P-03	EMBANKMENT/FILL	2947.42	0.0677	109.16	DWREC-IN
54-P-04	RIPRAP	150.00	0.0034	5.55	DWREC-IN
TOTAL DWREC PERM W/L IMPACTS FOR THIS SHEET = 0.1534 AC. (ALL IN)					
TOTAL USEC PERM W/L IMPACTS FOR THIS SHEET = 0.0199 AC. (ALL PERM)					



<b>DELAWARE DEPARTMENT OF TRANSPORTATION</b>		<b>SR 141 IMPROVEMENTS, I-95 INTERCHANGE TO JAY DRIVE</b>		<b>ENVIRONMENTAL COMPLIANCE PLAN</b>	
ADDENDUMS / REVISIONS		CONTRACT T20100001	BRIDGE NO. 674/677	SHEET NO. 422	EC-34
		COUNTY NEW CASTLE	DECDED BY 	TOTAL SHEETS 904	



PERMANENT WETLAND IMPACTS				
ID	IMPACT DESCRIPTION	AREA (AC)	VOLUME (CY)	CLASSIFICATION
35-P-01	EMBANKMENT/FILL	70.28	0.0016	DMREC-1M
35-P-02	EMBANKMENT/FILL	52.92	0.0012	DMREC-1M
TOTAL DMREC PERM W/L IMPACTS FOR THIS SHEET = 0.0028 AC. (ALL 1M)				

**LEGEND**

**PERMANENT IMPACT AREA**

**TEMPORARY IMPACT AREA**

**CREATION AREA**

ORDINARY HIGH WATER

STATE MAPPED WETLAND

STATE MAPPED WATER

USACE WETLAND BOUNDARY

USACE WETLAND (USACE)

USACE HIGH WATER

BIOFILTRATION SCALE

IMPACT AREA TYPE ID. (SEE BELOW)

IMPACT AREA ID. AND/OR NUMBER

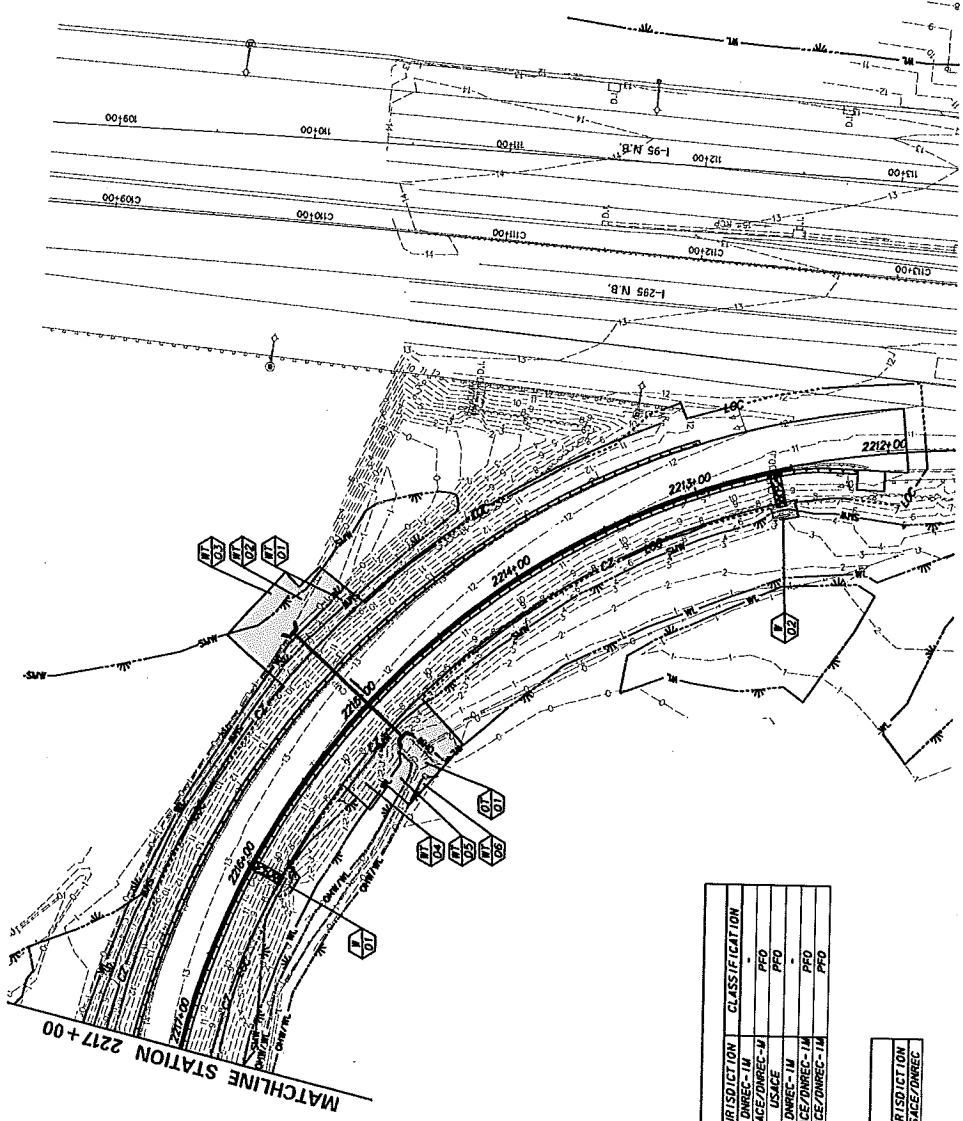
W = WETLAND IMPACT D = OPEN WATER IMPACT

IN = TEMPORARY IMPACT C = CREATION

PRO = PALUSTRINE FORESTED WATER

PEM = ESTUARINE PERMANENT WETLAND

RIUB = RIVERINE TIDAL



TEMPORARY WETLAND IMPACTS				
ID	IMPACT DESCRIPTION	AREA (AC)	VOLUME (CY)	CLASSIFICATION
35-T-01	ACCESS	315.89	0.0023	DMREC-1M
35-T-02	ACCESS	998.62	0.0029	USACE/DMREC-1M
35-T-03	ACCESS	387.46	0.0089	USACE
35-T-04	ACCESS	919.36	0.0211	DMREC-1M
35-T-05	ACCESS	156.25	0.0036	USACE/DMREC-1M
35-T-06	ACCESS	41.51	0.0010	USACE/DMREC-1M
TOTAL DMREC TEMP W/L IMPACTS FOR THIS SHEET = 0.0039 AC. (ALL 1M)				
TOTAL USACE TEMP W/L IMPACTS FOR THIS SHEET = 0.0364 AC. (ALL PRO)				

TEMPORARY OPEN WATER IMPACTS			
ID	IMPACT DESCRIPTION	AREA (AC)	VOLUME (CY)
35-O-01	SWALE	398.75	0.0092
TOTAL DMREC AND USACE TEMP W/L IMPACTS FOR THIS SHEET = 0.0092 AC.			

**DELAWARE**  
**DEPARTMENT OF TRANSPORTATION**

**SR 141 IMPROVEMENTS, I-95 INTERCHANGE TO JAY DRIVE**

**ENVIRONMENTAL COMPLIANCE PLAN**

CONTRACT NO. 678-077

DESIGNED BY: NEW CASTLE

DESIGNED BY: NEW CASTLE

DATE: 4/11/2018

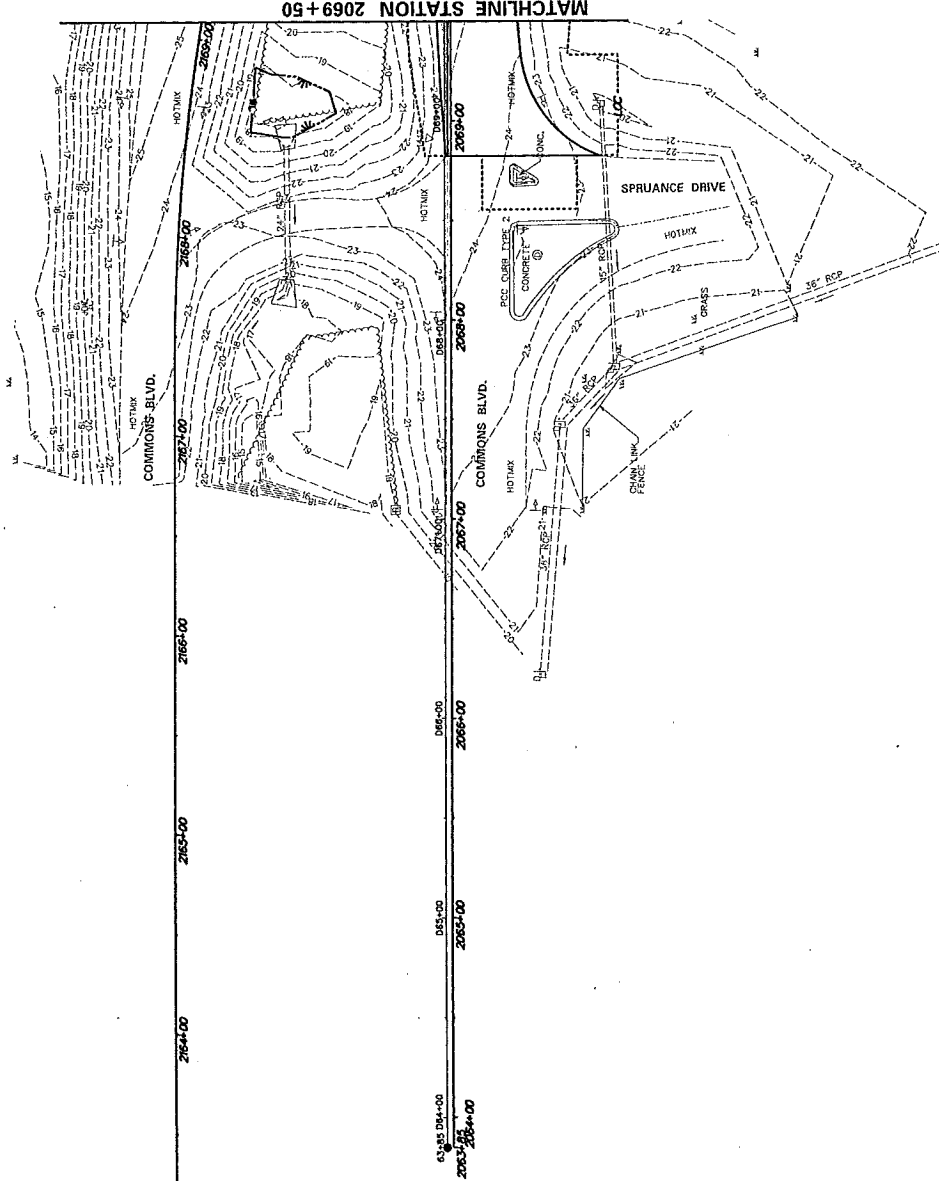
FILE LOCATION: G:\WORK\060272\09-I-95-NO-35-SR-141\INTERCOMPL.DWG

SHEET: 423 OF 423

TOTAL SHEETS: 904

LEGEND	
	PERMANENT IMPACT AREA
	TEMPORARY IMPACT AREA
	CREATION AREA
	ORDINARY HIGH WATER
	STATE MAPPED WETLAND
	USACE WETLAND BOUNDARY
	TIDAL WETLAND (USACE)
	MEAN HIGH WATER
	BIOFILTRATION SWALE
	IMPACT AREA TYPE ID. (SEE BELOW)
	IMPACT AREA ID. AND/OR NUMBER
	WETLAND IMPACT
	OPEN WATER IMPACT
	TEMPORARY IMPACT
	CREATION
	IMPOUNDED MARSH
	FORESTED
	ESTUARINE
	PALUSTRINE
	RIVERINE
	TIDAL
	MARSH

NO IMPACTS OCCUR ON THIS SHEET.



MATCHLINE STATION 2069+50

		DELAWARE DEPARTMENT OF TRANSPORTATION		ADDENDUMS / REVISIONS		SR 141 IMPROVEMENTS, I-95 INTERCHANGE TO JAY DRIVE		ENVIRONMENTAL COMPLIANCE PLAN		EC-38
SHEET NO. 426		BRIDGE NO. 6784877		CONTRACT T20100001		COUNTY NEW CASTLE		TOTAL SHEETS 904		
DATE: 12/8/2017		REVISION BY:		CHECKED BY:		DESIGNED BY:		DRAWN BY:		

**LEGEND**

**PERMANENT IMPACT AREA**

**TEMPORARY IMPACT AREA**

**CREATION AREA**

ORDINARY HIGH WATER

STATE MAPPED WETLAND

STATE MAPPED WATER

USACE WETLAND BOUNDARY

TIDAL WETLAND (USACE)

MEAN HIGH WATER

BIOFILTRATION SWALE

**IMPACT AREA TYPE (SEE BELOW)**

**IMPACT AREA 10 AND/OR NUMBER**

**W = WETLAND IMPACT** 0 = OPEN WATER IMPACT

**T = TEMPORARY IMPACT** C = CREATION

**M = MUD/SEDIMENT IMPACT**

**PRO = PROPOSED FORESTED**

**EZEN = ESTUARINE INHERENT EMERGENT**

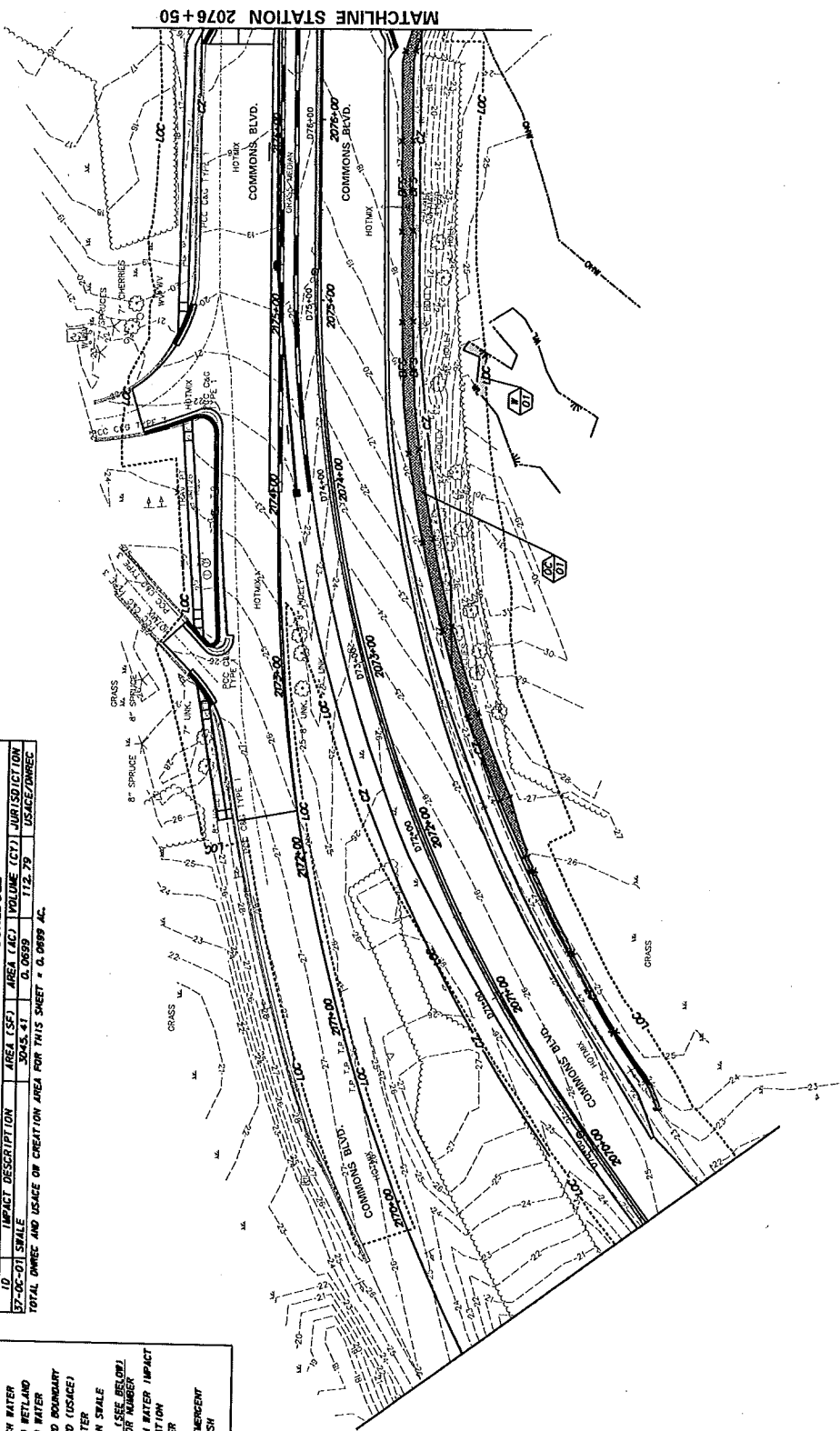
**PEN = PALUSTRINE EMERGENT MARSH**

**R10B = RIVERINE TIDAL**

PERMANENT WETLAND IMPACTS				
ID	IMPACT DESCRIPTION	AREA (SF)	VOLUME (CY)	JURISDICTION
37-E-01	EMBANKMENT/FILL	154.00	0.0035	USACE
TOTAL DNRDC PERM W/L IMPACTS FOR THIS SHEET = 0.000 AC.				
TOTAL USACE PERM W/L IMPACTS FOR THIS SHEET = 0.0035 AC. (ALL PRO)				

OPEN WATER CREATION AREA SCHEDULE				
ID	IMPACT DESCRIPTION	AREA (SF)	VOLUME (CY)	JURISDICTION
37-DC-01	SWALE	3045.41	0.0039	USACE/DNRDC
TOTAL DNRDC AND USACE ON CREATION AREA FOR THIS SHEET = 0.0039 AC.				



**DELAWARE**  
**DEPARTMENT OF TRANSPORTATION**

**SR 141 IMPROVEMENTS, I-95 INTERCHANGE TO JAY DRIVE**

CONTRACT: 720100001  
COUNTY: NEW CASTLE  
DESIGNED BY: NEW CASTLE  
CHECKED BY: NEW CASTLE

BRIDGE NO.: 676/677  
SHEET NO.: 428  
TOTAL SHEETS: 504

**ENVIRONMENTAL COMPLIANCE PLAN**

ADDITIONAL REVISIONS

0 30 60 FEET

**LEGEND**

PERMANENT IMPACT AREA

TEMPORARY IMPACT AREA

CREATION AREA

ORDINARY HIGH WATER

STATE MAPPED WETLAND

USACE WETLAND BOUNDARY

TIDAL WETLAND (USACE)

MEAN HIGH WATER

BIOFILTRATION SCALE

IMPACT AREA TYPE (SEE BELOW)

IMPACT AREA TO ADJACENT NUMBER

W = WETLAND IMPACT

T = TEMPORARY IMPACT

IM = IMPOUNDED MARSH

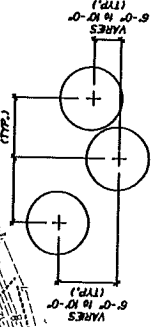
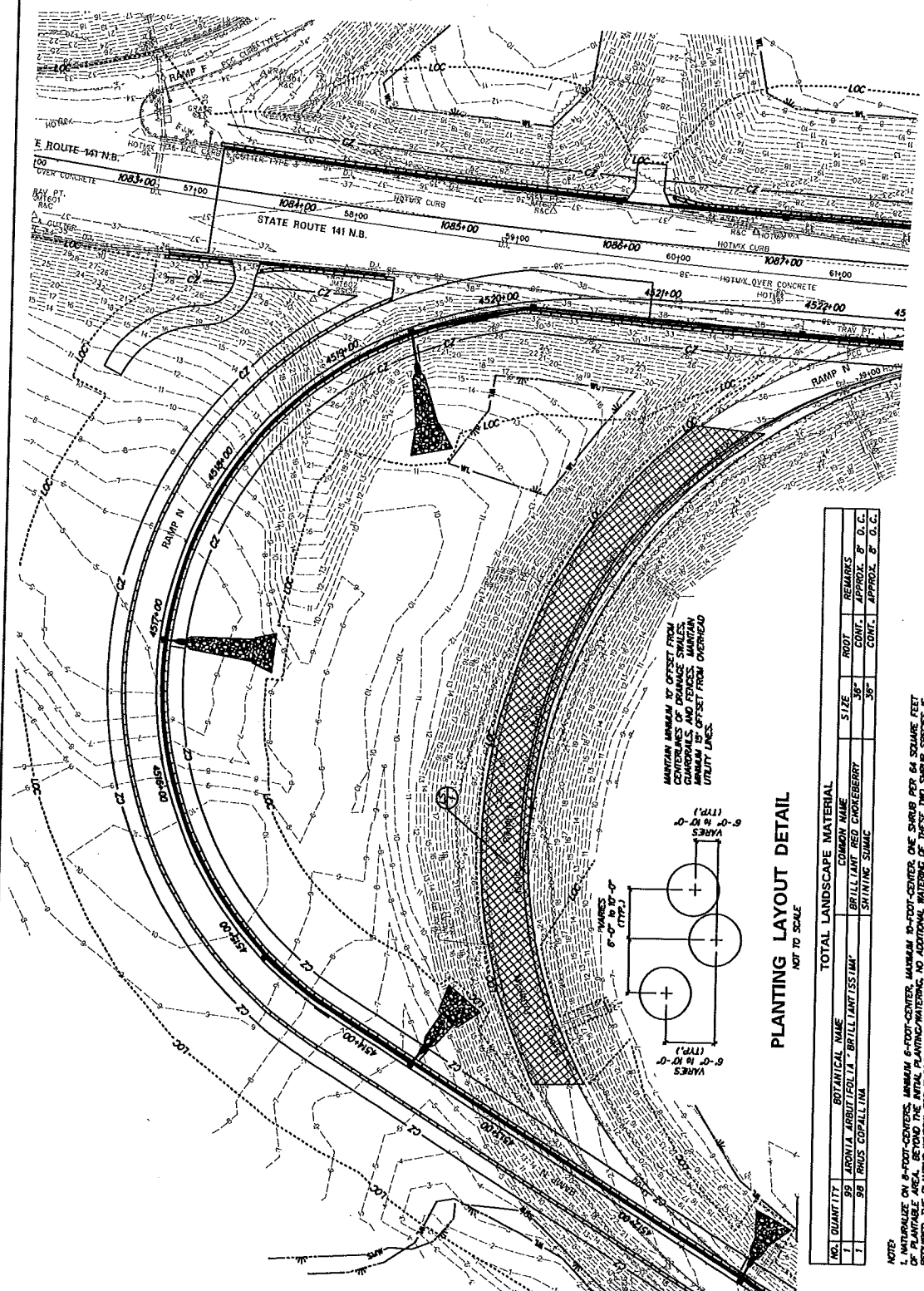
PD = PALUSTRINE FORESTED

EZE = ESTUARINE INTERTIDAL EMERGENT

PEM = PALUSTRINE EMERGENT MARSH

RIB = RIVERINE TIDAL

NOTE: IMPACTS REPORTED ON EC-17.



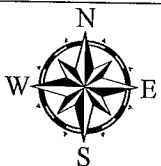
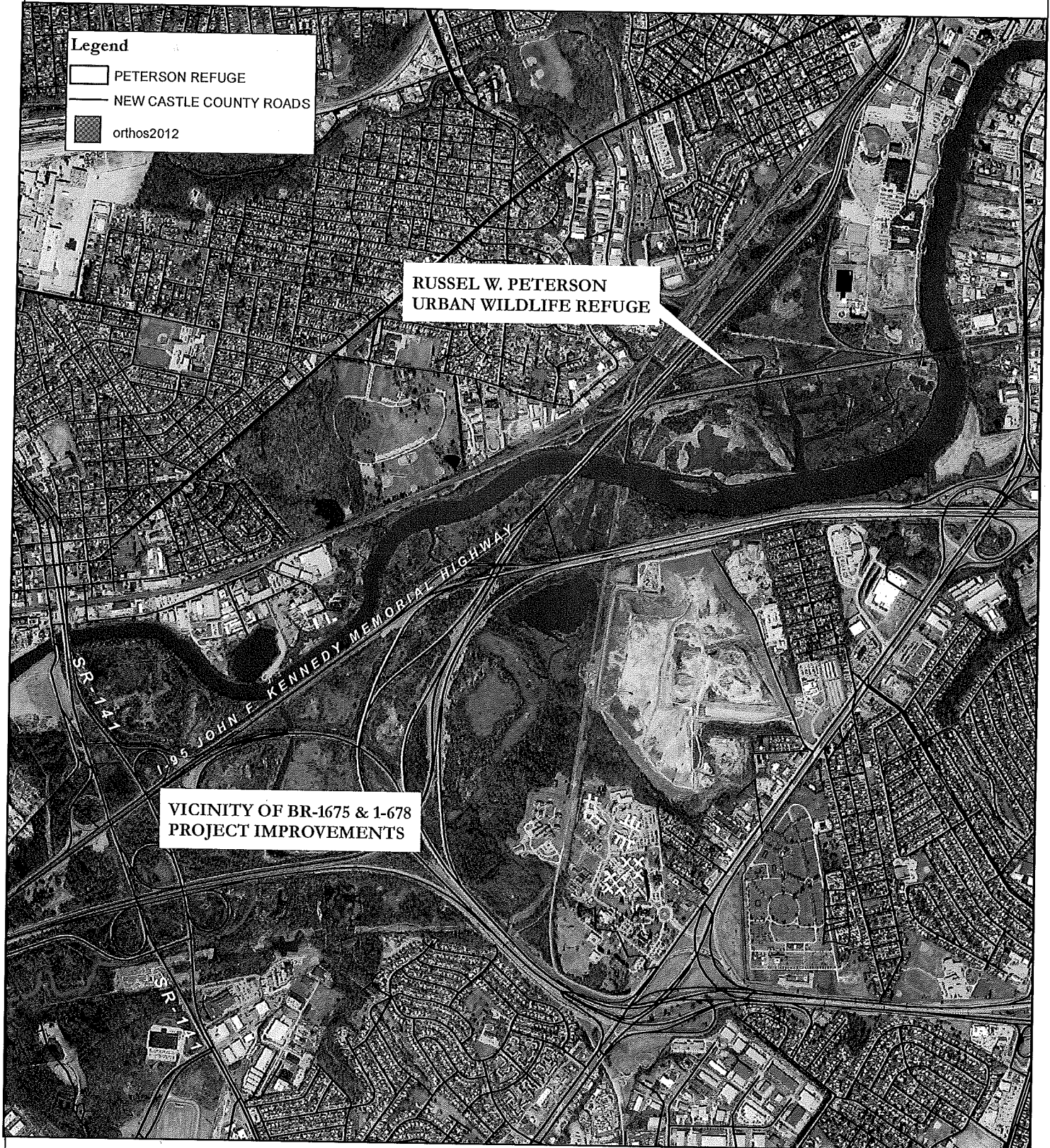
**PLANTING LAYOUT DETAIL**  
NOT TO SCALE

TOTAL LANDSCAPE MATERIAL				
NO.	QUANTITY	BOTANICAL NAME	COMMON NAME	REMARKS
1	99	ARUNDA ARBUTIFOLIA	BRILLIANT ISSIM	CONF. APPROX. 8' O.C.
2	98	RHUS COPALLINA	SHINING SUMAC	CONF. APPROX. 8' O.C.

NOTE:  
1. NATURALIZE ON 8-FOOT-CENTERS, MINIMUM 6-FOOT-CENTER, MAXIMUM 10-FOOT-CENTER ONE SHURB PER 64 SQUARE FEET OF PLANTABLE AREA. BEYOND THE INITIAL PLANTING/WHITING, NO ADDITIONAL MATERIAL SHALL BE ORDERED. THE PLANTING WINDOW FOR THESE TWO SHURB SPECIES IS LIMITED TO OCTOBER-DECEMBER. 1. PLANTING SHALL BE DONE IMMEDIATELY AFTER THE PLANTING WINDOW, ASSURE THE EROSION CONTROL BLANKET (ECB) AT THE BASE OF EACH PLANT WITH "8" STAPLES INTO UNDISTURBED SOIL WHERE POSSIBLE.

EC-38 SHEET NO. 438 TOTAL SHEETS 904		ENVIRONMENTAL COMPLIANCE PLAN	
CONTRACT 202000001		BRIDGE NO. 674-477	
COUNTY NEW CASTLE		DESIGNED BY DESIGNED BY	
DELAWARE DEPARTMENT OF TRANSPORTATION		SR 141 IMPROVEMENTS, I-95 INTERCHANGE TO JAY DRIVE	

**FIGURE 1: I-95 IMPROVEMENTS AND PETERSON REFUGE LOCATIONS**



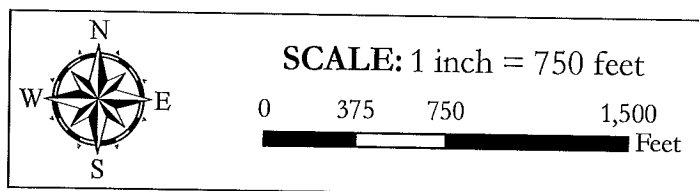
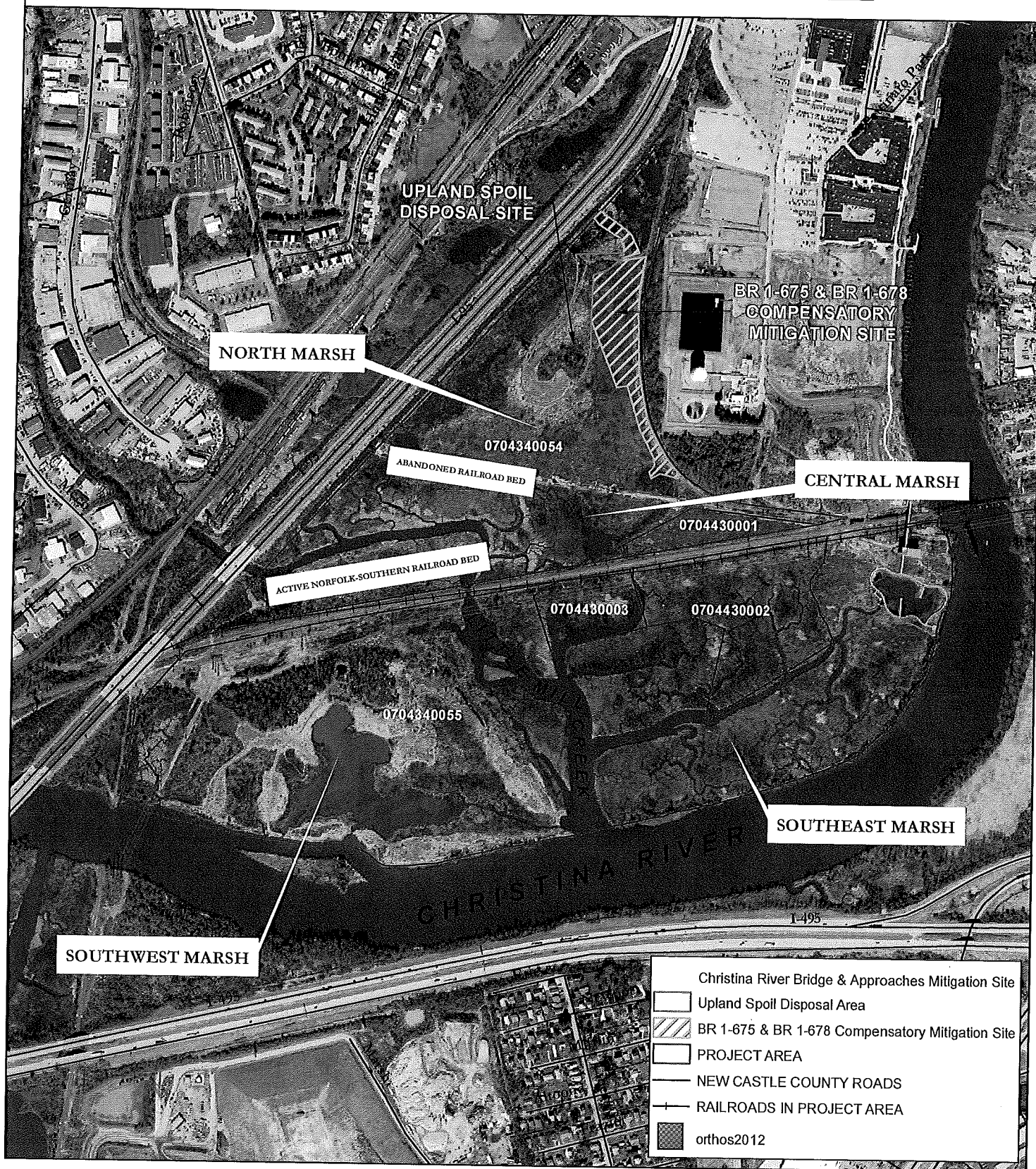
**SCALE: 1 inch = 2,000 feet**

0 1,000 2,000 4,000  
Feet

**2012 AERIAL, DEMAC BASEMAP  
RUSSELL W. PETERSON URBAN  
WILDLIFE REFUGE  
SOUTH WILMINGTON QUADRANGLE  
NEW CASTLE COUNTY, DELAWARE**

**ERI** ENVIRONMENTAL  
RESOURCES, INC.

**FIGURE 2: REFERENCE DIAGRAM FOR THE PETERSON REFUGE**

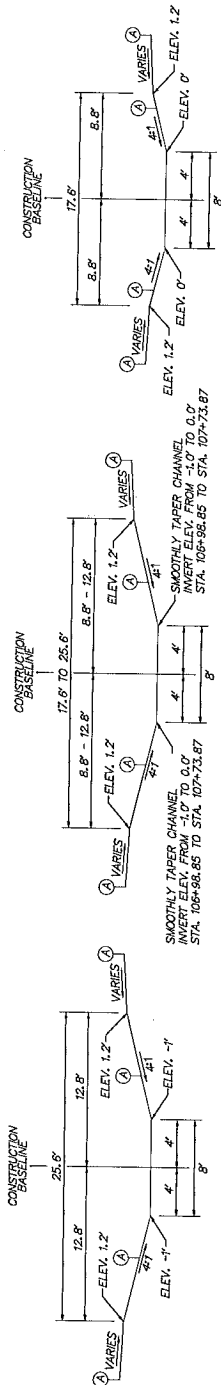


2012 AERIAL, DEMAC BASEMAP  
 RUSSELL W. PETERSON URBAN  
 WILDLIFE REFUGE  
 SOUTH WILMINGTON QUADRANGLE  
 NEW CASTLE COUNTY, DELAWARE

**ERI** ENVIRONMENTAL  
 RESOURCES, INC.

LEGEND

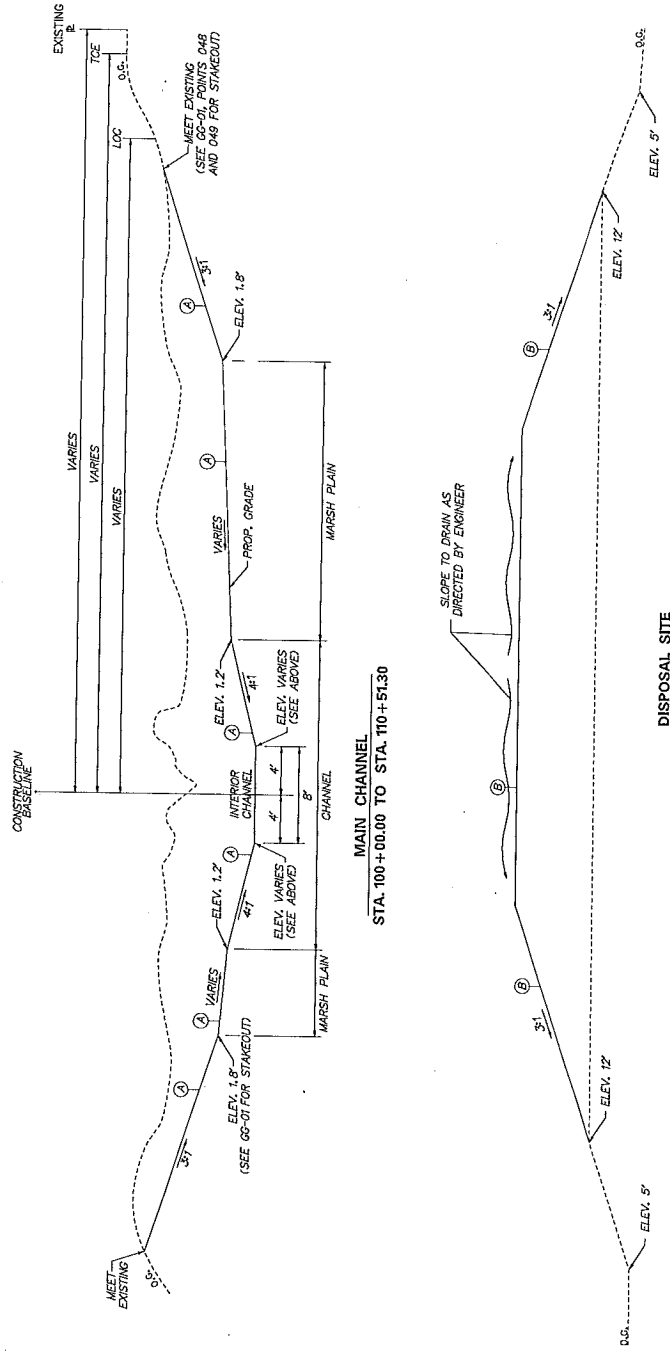
- (A) ITEM 908512 - TEMPORARY GRASS SEEDING - WET GROUND
- (B) ITEM 908501 - NATIVE GRASS SEEDING, NO MOW MAX



MAIN CHANNEL AND SPUR DITCHES  
 MAIN CHANNEL: STA. 100+00.00 TO STA. 106+98.85  
 SPUR DITCH WEST: STA. 200+00.00 TO STA. 202+22.42  
 SPUR DITCH EAST: STA. 300+00.00 TO STA. 305+82.80

MAIN CHANNEL  
 STA. 106+98.85 TO STA. 107+73.87

MAIN CHANNEL  
 STA. 107+73.87 TO STA. 110+51.30



MAIN CHANNEL  
 STA. 100+00.00 TO STA. 110+51.30

DISPOSAL SITE

DELAWARE  
 DEPARTMENT OF TRANSPORTATION

ADDITIONS / REVISIONS

NOT TO SCALE

WETLAND MITIGATION AT  
 PETERSON WILDLIFE REFUGE,  
 PHASE II

TYPICAL SECTIONS

TS-01
SHEET NO.
5
TOTAL SHEETS
20

CONTRACT	PRICE NO.	DATE
20070301	20070301	20070301
COUNTY	DESIGNED BY	CHECKED BY
NEW CASTLE	ALB	JP

## 1. GENERAL NOTES:

A. THE PURPOSE OF THESE SHEETS AND MITIGATION SUMMARY TABLES IS TO IDENTIFY THOSE ITEMS ASSOCIATED WITH ENVIRONMENTAL COMPLIANCE. IMPACT CALCULATIONS ARE FOR THE AGENCY PERMIT REPORTING PURPOSES ONLY AND ARE NOT TO BE USED FOR BIDDING PURPOSES.

- ## 2. CONSTRUCTION RESTRICTIONS

FISHERIES? NONE  
MIGRATORY BIRDS? NONE

KEEP CLEARING IN WETLAND AREAS TO A MINIMUM ABSOLUTELY NECESSARY FOR CONSTRUCTION ACCESS. ALL EQUIPMENT TRAVERSING WETLANDS AND SUBJUGIOUS LAND SHALL BE LOW GROUND-CONTACT PRESSURE EQUIPMENT OR SHALL BE SUPPORTED ON MATS. PAYMENT FOR TRAVERSING WETLANDS WITH LOW GROUND-CONTACT PRESSURE EQUIPMENT OR MATS WILL BE INCIDENTAL TO ITEM 202000 - EXCAVATION AND EMBANKMENT. SEE PROJECT NOTES FOR ADDITIONAL DETAILS. RESTORE TEMPORARILY DISTURBED WETLAND AREAS TO GRADE AND SEED WITH ITEM 909512 - TEMPORARY GRASS SEEDING - WET GRASS.

FLAGGED IN AREAS WHERE SUPER SILY FENCE AND TURBIDITY CURTAIN ARE NOT UTILIZED

IF ANY UNANTICIPATED DISCOVERIES OF ARCHAEOLOGICAL OR HUMAN REMAINS OCCUR DURING CONSTRUCTION, ALL WORK SHALL BE IMMEDIATELY SUSPENDED IN THE AREA OF THE DISCOVERY AND THE ENVIRONMENTAL MONITOR SHALL BE CONTACTED. THE ENVIRONMENTAL MONITOR WILL CONTACT DELTA CULTURAL RESOURCES, SHPO AND USACE TO COMMENCE THE NECESSARY FEDERAL AND STATE COORDINATION. WORK SHALL NOT RESUME UNTIL APPROPRIATE RESOURCE AGENCY COORDINATION, INVESTIGATION AND/OR RECOVERY IS COMPLETE.

AND REVEALED BY EDWIN H. CROWLEY, II, FORTRESS MONITOR, 1994

MAP REVISION DATE: 12-2-2015

100

DEPARTMENT OF TRANSPORTATION  
STATE

100

10


**TEMPORARY WETLAND IMPACT AREA SCHEDULE**

WETLAND CREATION AREA SCHEDULE			
ID	DESCRIPTION	AREA (AC)	JURISDICTION
2-WP-01	TIDAL WETLAND	5, 878.99	DNREC
2-WP-02	TIDAL WETLAND	2, 824.83	DNREC
TOTAL WETLAND CREATION AREAS		0	USACE
TOTAL WETLAND CREATION AREAS		8, 703.73	DNREC

COMPENSATORY MITIGATION PROVIDED		
TYPE	USACE (AC)	DIUREC (AC)
CREATION	0	0.1998
ENHANCEMENT	9.3046	9.1048
TOTAL	9.3046	9.3046

IMPACT LOCATION	DNREC COMPENSATORY MITIGATION TABLE		
	IMPACTS (AC)	RATIO	MITIGATION REQUIRED (AC)
HARTISTINA RIVER BRIDGE	0	0.045:3	4:1
HARTISTINA RIVER BRIDGE	0	0	0.1812
PROCHACES	0	-	0
R 141, 1-55 JAY DRIVE	1, 52855	3:1	4, 56855
			2-WC-01 2-WE-04
			2-WC-02 2-WE-03

CHRISTINA RIVER BRIDGE IMPACTS NUMBER EXCLUDES SHADING IMPACTS.  
DUE TO DIFFERING USAGE AND DNRCC WETLAND BOUNDARIES, MITIGATION AREAS MAY PRESENT MULTIPLE IDENTIFIERS (E.G., 2-WE-01 AND 2-WC-01 ON EF-02)

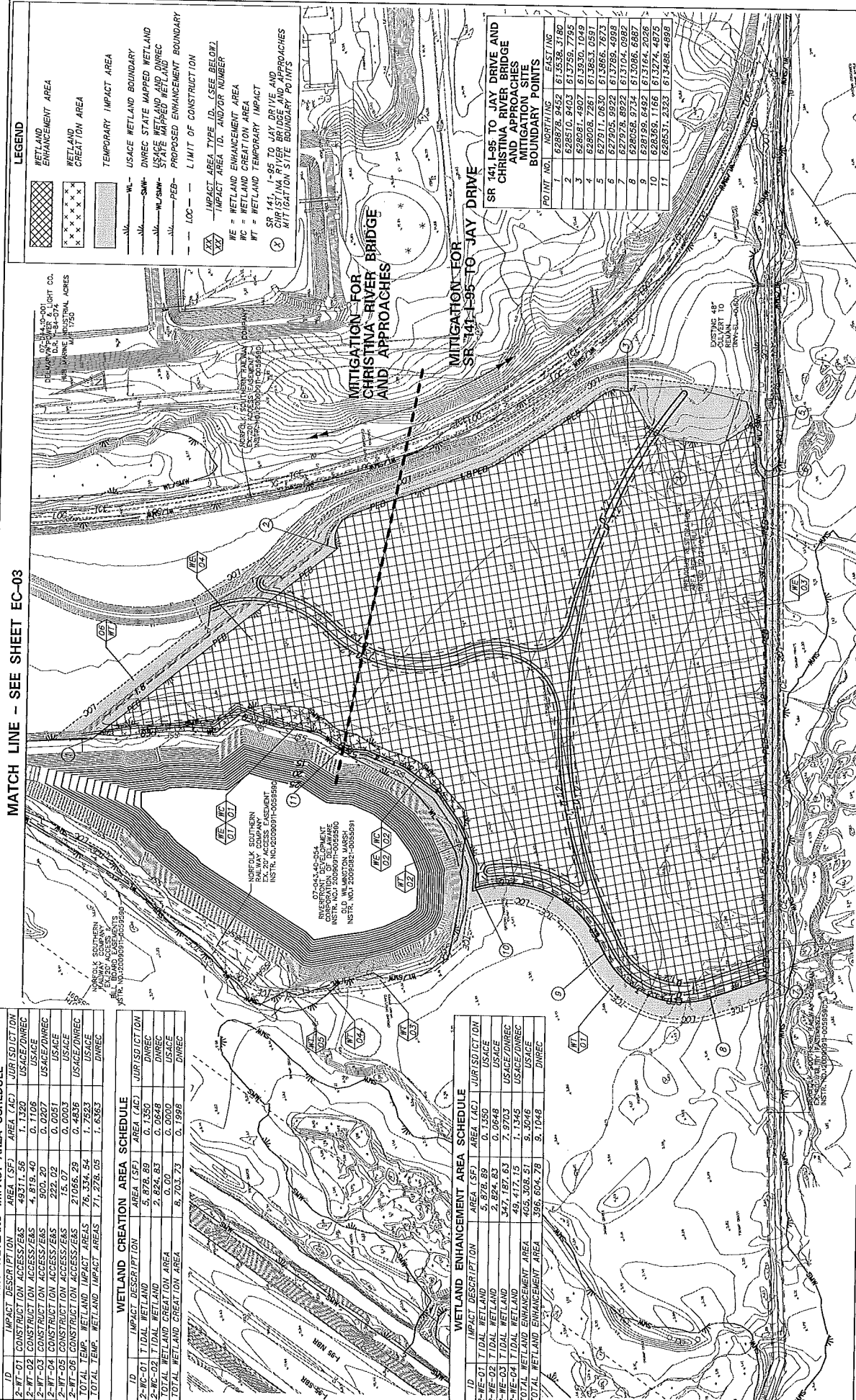
 <b>DELAWARE</b> <b>DEPARTMENT OF TRANSPORTATION</b>	ADDENDUMS / REVISIONS		<b>NOT TO SCALE</b>	<b>WETLAND MITIGATION AT          PETERSON WILDLIFE REFUGE,          PHASE II</b>	CONTRACT T207023701	BRIDGE NO. N/A	<b>ENVIRONMENTAL          COMPLIANCE NOTES</b>	EC-01
					COUNTY NEW CASTLE	DESIGNED BY N.E.B.		SHEET NO. 11
								TOTAL SHEETS 20

TEMPORARY WETLAND IMPACT AREA SCHEDULE			
ID	IMPACT DESCRIPTION	AREA (AC)	JURISDICTION
2-WT-01	CONSTRUCTION ACCESS/FEAS	49,371.56	USACE/DNREC
2-WT-02	CONSTRUCTION ACCESS/FEAS	4,879.40	USACE
2-WT-03	CONSTRUCTION ACCESS/FEAS	900.20	USACE/DNREC
2-WT-04	CONSTRUCTION ACCESS/FEAS	222.02	USACE
2-WT-05	CONSTRUCTION ACCESS/FEAS	0.0051	USACE
2-WT-06	CONSTRUCTION ACCESS/FEAS	21,086.29	USACE/DNREC
TOTAL TEMP. WETLAND IMPACT AREAS		76,334.54	1,750.9
			USACE
			DNREC

WETLAND CREATION AREA SCHEDULE			
ID	IMPACT DESCRIPTION	AREA (AC)	JURISDICTION
2-WC-01	TIDAL WETLAND	5,879.89	USACE
2-WC-02	TIDAL WETLAND	0.1350	DNREC
2-WC-03	TIDAL WETLAND	0.0848	DNREC
TOTAL WETLAND CREATION AREA		6,009.47	0.1998
			USACE
			DNREC

WETLAND ENHANCEMENT AREA SCHEDULE			
ID	IMPACT DESCRIPTION	AREA (AC)	JURISDICTION
2-WE-01	TIDAL WETLAND	5,879.89	USACE
2-WE-02	TIDAL WETLAND	0.1350	USACE
2-WE-03	TIDAL WETLAND	0.0848	USACE
2-WE-04	TIDAL WETLAND	347,187.63	USACE/DNREC
2-WE-05	TIDAL WETLAND	49,417.13	USACE/DNREC
TOTAL WETLAND ENHANCEMENT AREA		403,308.51	9,304.6
TOTAL WETLAND ENHANCEMENT AREA		395,604.78	9,104.8
			USACE
			DNREC

MATCH LINE - SEE SHEET EC-03



LEGEND

- WETLAND ENHANCEMENT AREA
- WETLAND CREATION AREA
- TEMPORARY IMPACT AREA
- USACE WETLAND BOUNDARY
- DNREC STATE MAPPED WETLAND
- USACE STATE MAPPED WETLAND
- USACE STATE MAPPED WETLAND
- PROPOSED ENHANCEMENT BOUNDARY
- LOC - LIMIT OF CONSTRUCTION
- IMPACT AREA TYPE ID. (SEE BELOW)
- IMPACT AREA ID. AND/OR NUMBER
- WE = WETLAND ENHANCEMENT AREA
- WC = WETLAND CREATION AREA
- WT = WETLAND TEMPORARY IMPACT
- SR 141-195 TO JAY DRIVE AND CHRISTINA RIVER BRIDGE AND APPROACHES
- MITIGATION SITE BOUNDARY POINTS

MITIGATION FOR CHRISTINA RIVER BRIDGE AND APPROACHES

MITIGATION FOR SR 141-195 TO JAY DRIVE

SR 141-195 TO JAY DRIVE AND CHRISTINA RIVER BRIDGE AND APPROACHES MITIGATION SITE BOUNDARY POINTS

POINT NO.	NORTHING	EASTING
1	628878.9452	614538.3180
2	628810.9403	613730.7705
3	628801.4907	613830.1049
4	628808.7261	613863.0591
5	627911.0630	613866.7673
6	627905.9922	613789.4988
7	627978.8922	613104.0988
8	628058.9734	613086.6887
9	628199.6492	613164.2026
10	628369.1166	613274.4875
11	628531.2323	613488.4898

**DEPARTMENT OF TRANSPORTATION**

**DELWARE**

**WETLAND MITIGATION AT PETERSON WILDLIFE REFUGE, PHASE II**

CONTRACT: T20703701  
DESIGNED BY: N/A  
COUNTY: NEW CASTLE  
CHECKED BY: JIR

ADDITIONS / REVISIONS

SCALE: 1" = 100' FEET

ENVIRONMENTAL COMPLIANCE PLAN

SHEET NO. 12  
TOTAL SHEETS 20

ID	IMPACT DESCRIPTION	AREA (SQ. FT.)	JURISDICTION
3-WT-01	CONSTRUCTION ACCESS/EGAS	31,220.75	DNREC
3-WT-02	CONSTRUCTION ACCESS/EGAS	0.0791	USACE
3-WT-03	CONSTRUCTION ACCESS/EGAS	0.0024	USACE/DNREC
3-WT-04	CONSTRUCTION ACCESS/EGAS	418.46	USACE
3-WT-05	CONSTRUCTION ACCESS/EGAS	235.49	USACE
3-WT-06	CONSTRUCTION ACCESS/EGAS	0.0006	USACE
3-WT-07	CONSTRUCTION ACCESS/EGAS	3,983.54	USACE
3-WT-08	CONSTRUCTION ACCESS/EGAS	4,508.02	USACE
3-WT-09	CONSTRUCTION ACCESS/EGAS	0.0010	USACE
3-WT-10	CONSTRUCTION ACCESS/EGAS	0.0035	USACE
3-WT-11	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-12	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-13	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-14	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-15	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-16	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-17	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-18	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-19	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-20	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-21	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-22	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-23	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-24	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-25	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-26	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-27	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-28	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-29	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-30	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-31	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-32	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-33	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-34	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-35	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-36	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-37	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-38	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-39	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-40	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-41	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-42	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-43	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-44	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-45	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-46	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-47	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-48	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-49	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-50	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-51	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-52	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-53	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-54	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-55	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-56	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-57	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-58	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-59	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-60	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-61	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-62	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-63	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-64	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-65	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-66	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-67	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-68	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-69	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-70	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-71	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-72	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-73	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-74	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-75	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-76	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-77	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-78	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-79	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-80	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-81	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-82	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-83	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-84	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-85	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-86	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-87	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-88	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-89	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-90	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-91	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-92	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-93	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-94	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-95	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-96	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-97	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-98	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-99	CONSTRUCTION ACCESS/EGAS	0.0047	USACE
3-WT-100	CONSTRUCTION ACCESS/EGAS	0.0047	USACE

**LEGEND**

WETLAND ENHANCEMENT AREA

WETLAND CREATION AREA

TEMPORARY IMPACT AREA

USACE WETLAND BOUNDARY

DNREC STATE MAPPED WETLAND

STATE MAPPED WETLAND

PROPOSED ENHANCEMENT BOUNDARY

LIMIT OF CONSTRUCTION

IMPACT AREA TYPE ID. (SEE BELOW)

WE = WETLAND ENHANCEMENT AREA

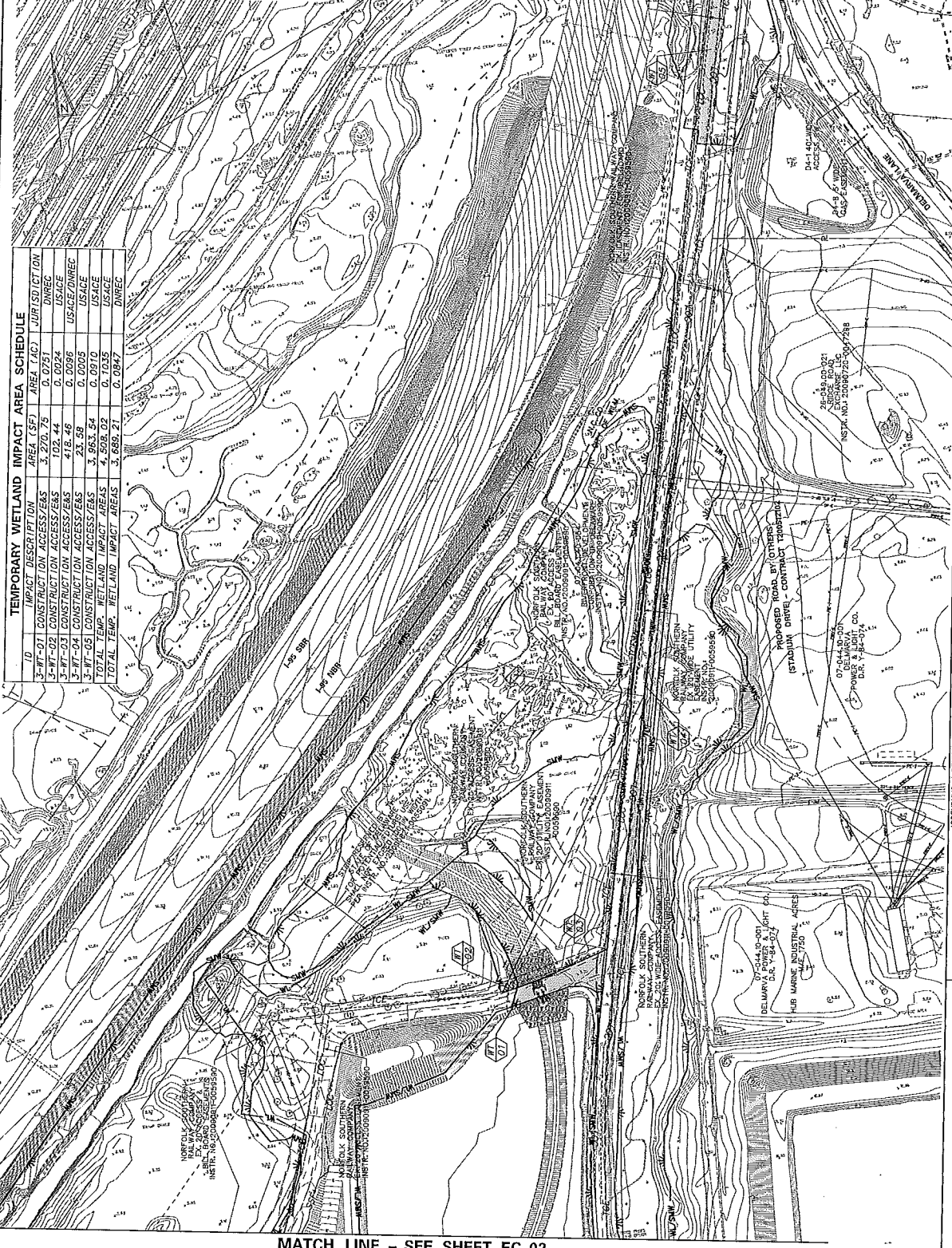
WC = WETLAND CREATION AREA

WT = WETLAND TEMPORARY IMPACT

SR 141, 1-98 TO JAY DRIVE AND APPROACHES

CHRISTINA RIVER BRIDGE POINTS

MITIGATION SITE BOUNDARY POINTS



MATCH LINE - SEE SHEET EC-02

**DELAWARE DEPARTMENT OF TRANSPORTATION**

ADDITIONS / REVISIONS

NO.	DATE	DESCRIPTION
1	10/23/2017	10/23/2017 9:05:21 AM

**WETLAND MITIGATION AT PETERSON WILDLIFE REFUGE, PHASE II**

BRIDGE NO. N/A

DESIGNED BY: NIB

CHECKED BY: JTR

CONTRACT: T200703701

COUNTY: NEW CASTLE

ENVIRONMENTAL COMPLIANCE PLAN

EC-03

SHEET NO. 13

TOTAL SHEETS 20