

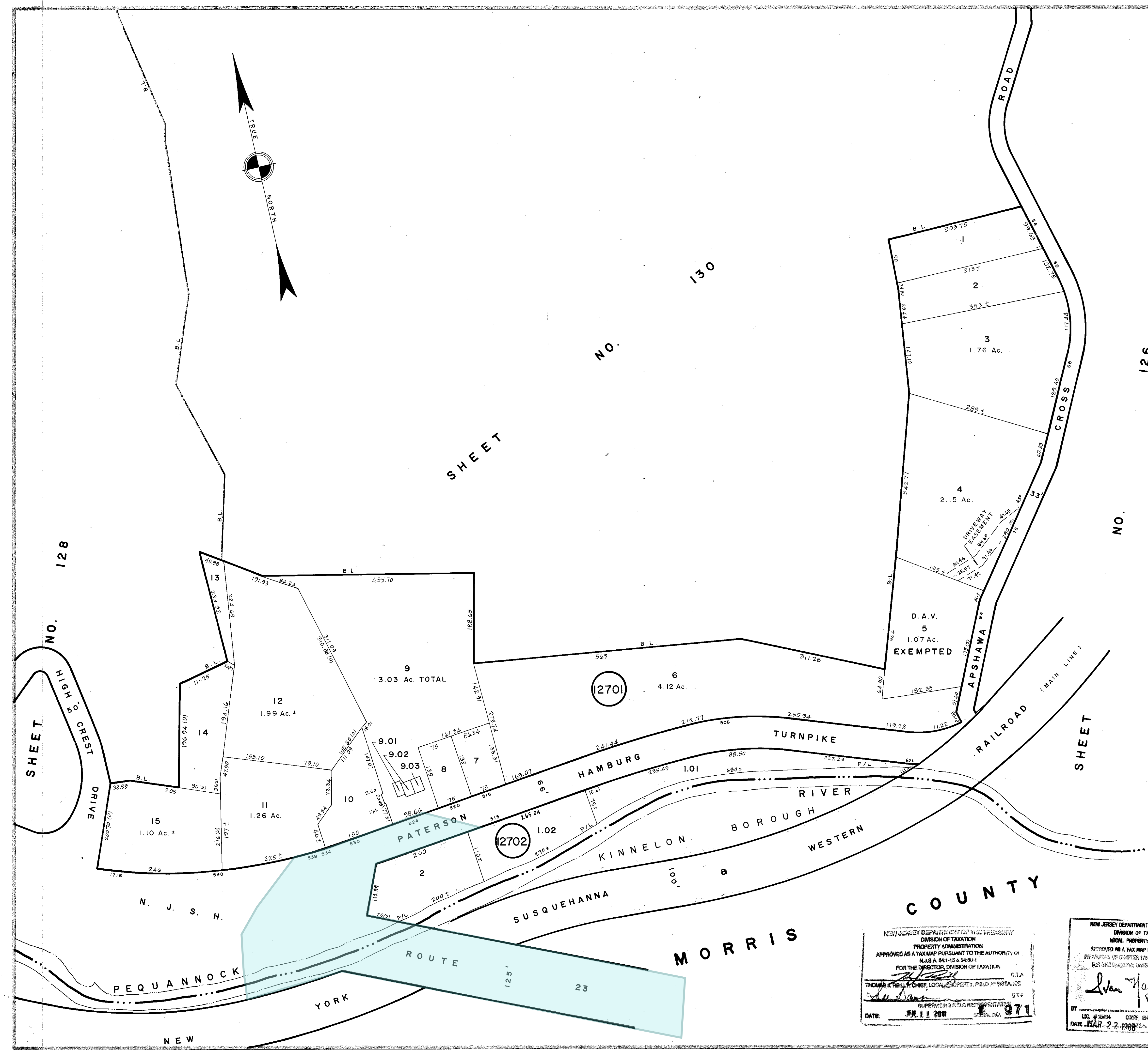
ROUTE 23 ADAPTIVE TRAFFIC SIGNAL ENVIRONMENTAL REPORT

APPENDICES

Appendix A

Tax Maps

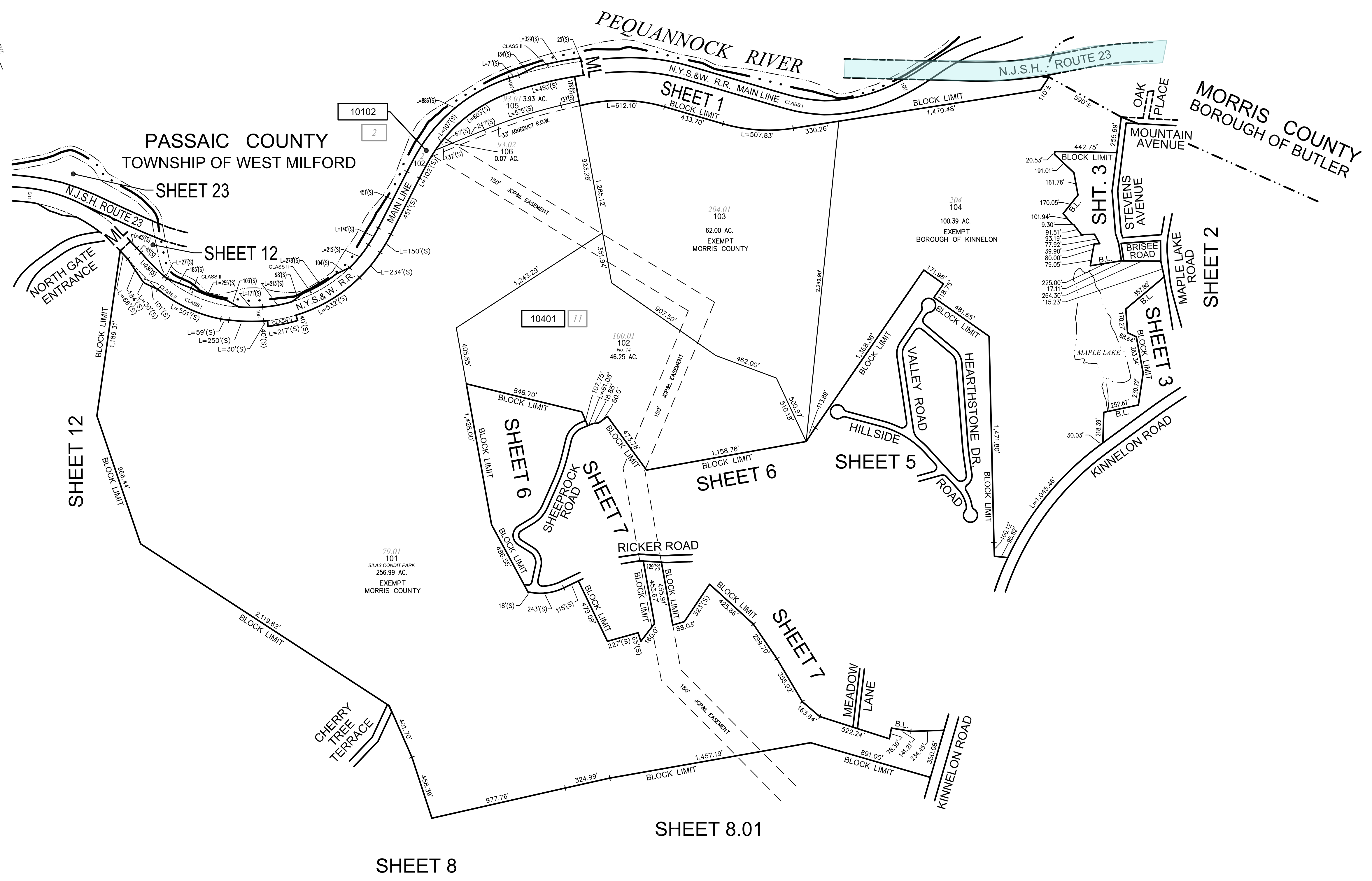
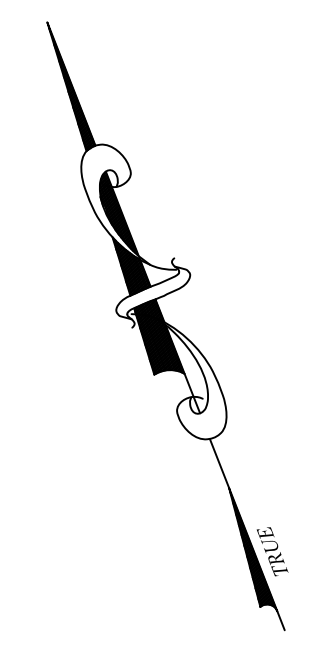
REVISIONS		
DATE	NAME	NO.
3 - 26 - 10	Michael J. Berry	21787
9 - 16 - 10	"	"
2 - 19 - 16	Stephen P. Eid	30081



NEW JERSEY DEPARTMENT OF THE TREASURY
DIVISION OF TAXATION
PROPERTY ADMINISTRATION
APPROVED AS A TAX MAP PURSUANT TO THE AUTHORITY OF
N.J.S.A. 54:1-15 & 54:5-1
FOR THE DIRECTOR, DIVISION OF TAXATION
THOMAS J. KELLY, CHIEF, LOCAL PROPERTY, FIELD APRAISAL
DATE: JUN 11 2011

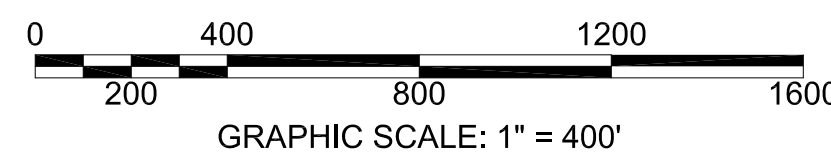
NEW JERSEY DEPARTMENT OF THE TREASURY
DIVISION OF TAXATION
LOCAL PROPERTY BRANCH
APPROVED AS A TAX MAP PURSUANT TO THE
PROVISIONS OF CHAPTER 175, LAWS OF 1913, ETC.
BY: [Signature]
DATE: MAR 22 2008

TAX MAP
TOWNSHIP OF WEST MILFORD
PASSAIC COUNTY, NEW JERSEY
SCALE: 1" = 100' DATE: 9-30-86
ANDREW J. LYCOSKY P.E. & L.S.
TOWNSHIP ENGINEER
1480 UNION VALLEY ROAD
WEST MILFORD



THIS MAP HAS BEEN DRAWN USING COMPUTER AIDED DRAFTING/DESIGN (CAD/D) UNDER THE SUPERVISION OF
ROBERT L. CIGOL, N.J.L.S. No. 24GS04026100.

REVISIONS			
DATE	L. S. NAME	LIC. NO.	DESCRIPTION



NEW JERSEY DEPARTMENT OF THE TREASURY
DIVISION OF TAXATION
PROPERTY ADMINISTRATION TAX MAP SECTION
APPROVED AS A TAX MAP PURSUANT TO THE
AUTHORITY OF N.J.S.A. 54:1-15 & N.J.S.A. 54:50-1
FOR THE DIRECTOR, DIVISION OF TAXATION

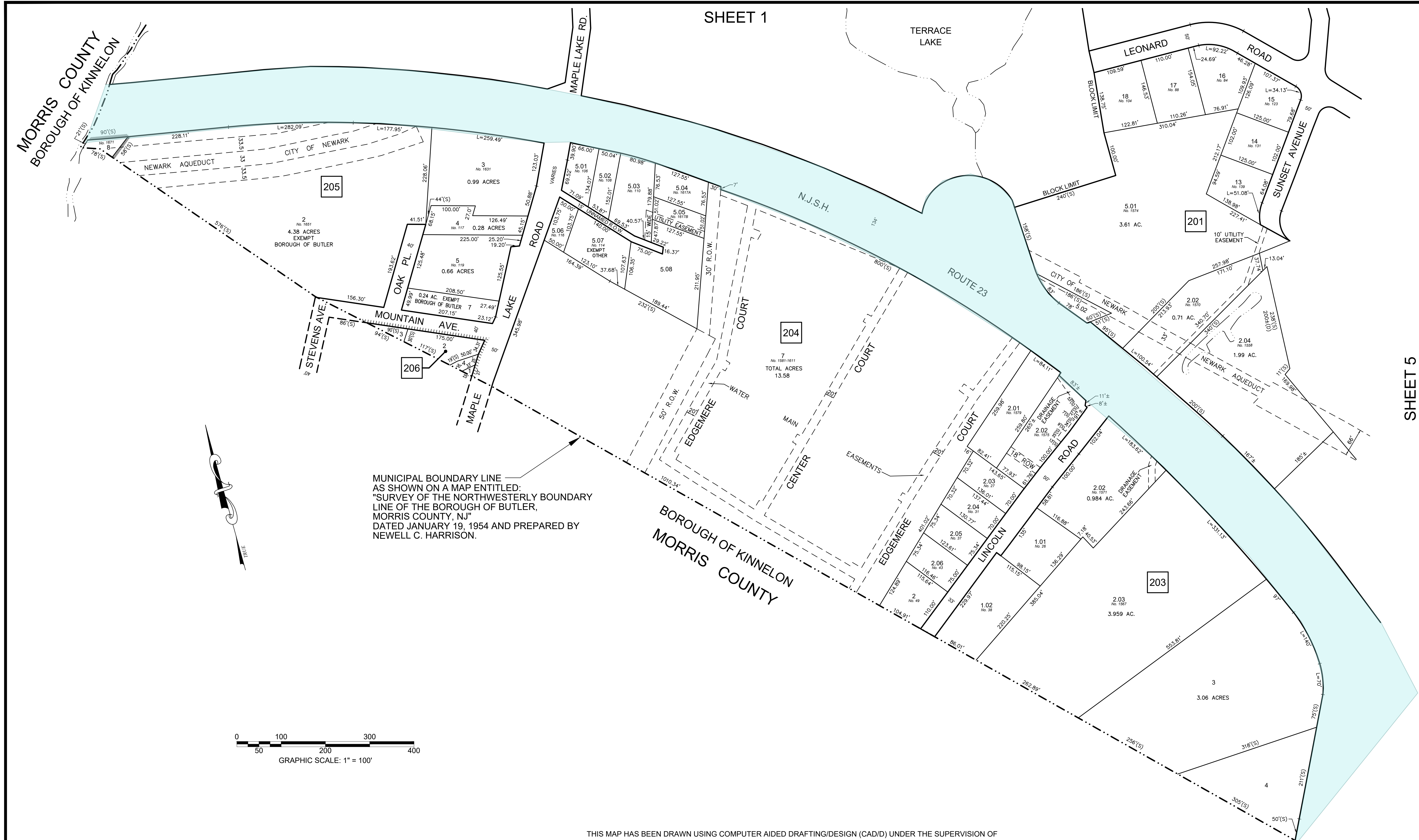
Sue Davison CTA Supervising Field Rep
Sue Davison, CTA Supervising Field Rep

DATE: APR 10 2014 SERIAL NO. 1036

TAX ASSESSMENT MAP
BOROUGH OF KINNELON
MORRIS COUNTY, NEW JERSEY
SCALE: 1"=400' 01/01/2014

ROBERT L. CIGOL
NEW JERSEY LICENSED LAND SURVEYOR
LICENSE NO. 24GS04026100 CERTIFICATE OF AUTHORIZATION NO. 24GA27919000

DMC ASSOCIATES, INC.
211 MAIN STREET
BUTLER, N.J. 07405
TO SHOW CONDITIONS AS OF 01/01/2014



THIS MAP HAS BEEN DRAWN USING COMPUTER AIDED DRAFTING/DESIGN (CAD/D) UNDER THE SUPERVISION OF ROBERT L. CIGOL, N.J.L.S. No. 24GS04026100.

REVISIONS			
DATE	L. S. NAME	LIC. NO.	DESCRIPTION
11/11/13	R. CIGOL	24GS04026100	GENERAL REVISIONS TO ADDRESS STATE REVIEW
07/25/16	R. CIGOL	24GS04026100	REVISED BLOCK 204, 206
11/15/17	R. CIGOL	24GS04026100	ANNUAL DEED REVIEW
10/15/19	R. CIGOL	24GS04026100	EXEMPT STATUS B. 205 L. 2 & 7
11/08/21	R. CIGOL	24GS04026100	ANNUAL DEED REVIEW
12/19/22	R. CIGOL	24GS04026100	ANNUAL DEED REVIEW

NEW JERSEY DEPARTMENT OF THE TREASURY
DIVISION OF TAXATION
PROPERTY ADMINISTRATION
APPROVED AS A TAX MAP PURSUANT TO THE AUTHORITY OF
N.J.S.A. 54:1-15 & 54:50-1
FOR THE DIRECTOR, DIVISION OF TAXATION
SUE DAVISON, CTA SUPERVISING FIELD REP.
DATE: MARCH 25, 2014 SERIAL NO. 1034

TAX MAP
BOROUGH OF BUTLER
MORRIS COUNTY, NEW JERSEY
SCALE: 1"=100'
03/12/2009
ROBERT L. CIGOL
NEW JERSEY LICENSED LAND SURVEYOR
LICENSE NO. 24GS04026100 CERTIFICATE OF AUTHORIZATION NO. 24GA27919000
DMC ASSOCIATES, INC.
6 CAREY AVENUE
BUTLER, N.J. 07405

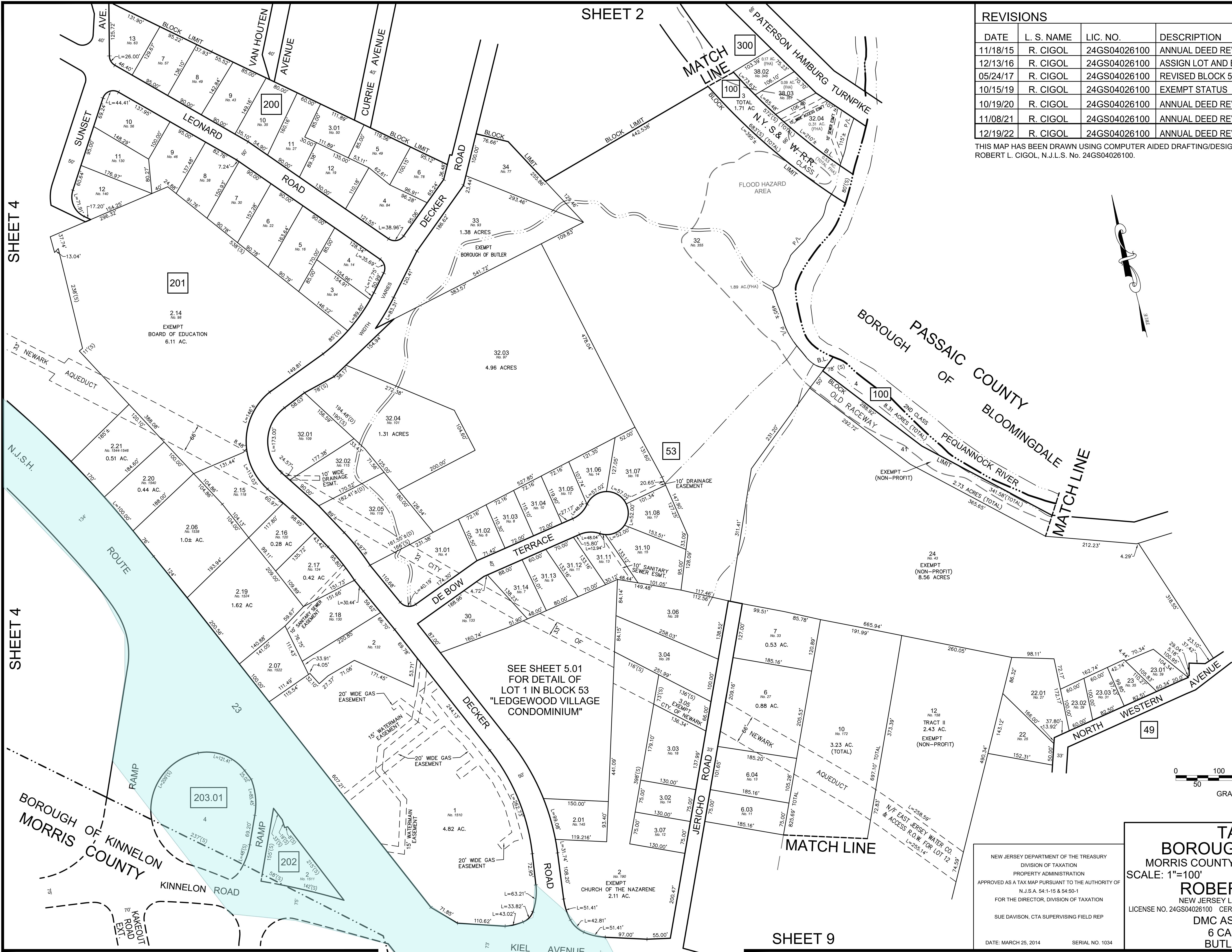
REVISIONS			
DATE	L. S. NAME	LIC. NO.	DESCRIPTION
11/18/15	R. CIGOL	24GS04026100	ANNUAL DEED REVIEW
12/13/16	R. CIGOL	24GS04026100	ASSIGN LOT AND BLOCK DESIGNATION (B. 203.01 L. 4)
05/24/17	R. CIGOL	24GS04026100	REVISED BLOCK 53 - LOTS 6, 6.04 & 7
10/15/19	R. CIGOL	24GS04026100	EXEMPT STATUS B. 53 L. 33
10/19/20	R. CIGOL	24GS04026100	ANNUAL DEED REVIEW
11/08/21	R. CIGOL	24GS04026100	ANNUAL DEED REVIEW
12/19/22	R. CIGOL	24GS04026100	ANNUAL DEED REVIEW

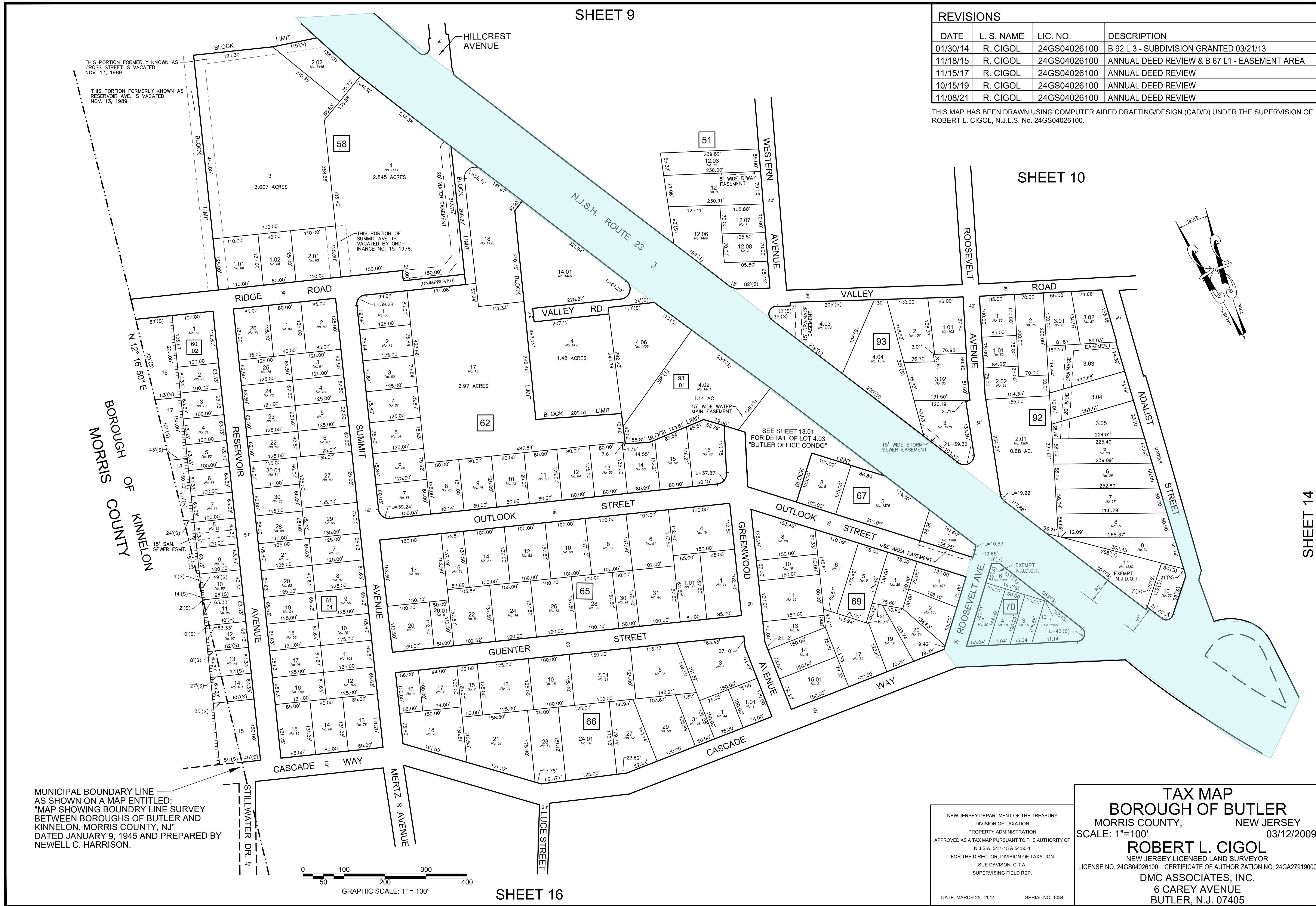
THIS MAP HAS BEEN DRAWN USING COMPUTER AIDED DRAFTING/DESIGN (CAD/D) UNDER THE SUPERVISION OF ROBERT L. CIGOL, N.J.L.S. No. 24GS04026100.

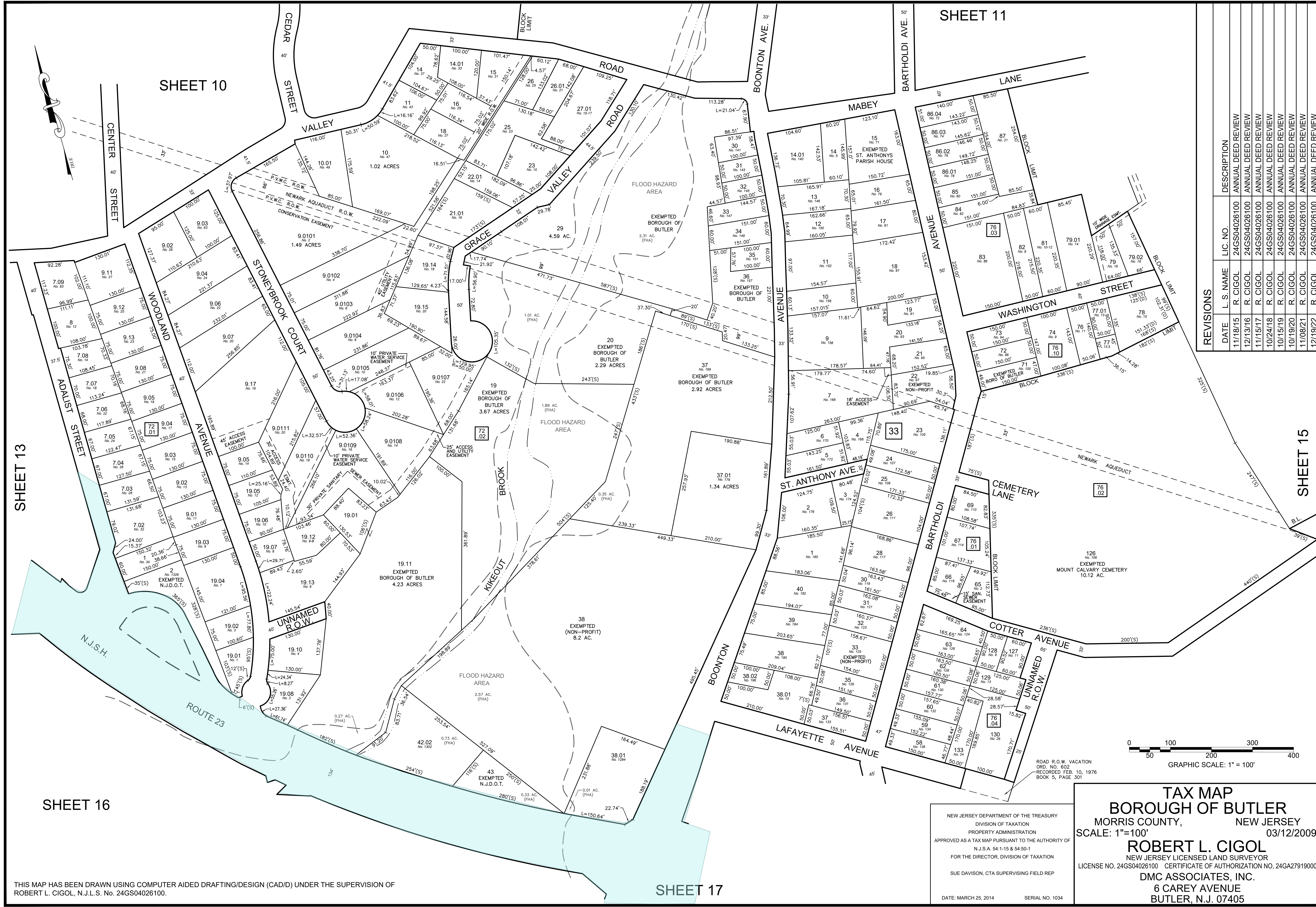
NEW JERSEY DEPARTMENT OF THE TREASURY
DIVISION OF TAXATION
PROPERTY ADMINISTRATION
APPROVED AS A TAX MAP PURSUANT TO THE AUTHORITY OF
N.J.S.A. 54:1-15 & 54:50-1
FOR THE DIRECTOR, DIVISION OF TAXATION
SUE DAVISON, CTA SUPERVISING FIELD REP

DATE: MARCH 25, 2014
SERIAL NO. 1034

TAX MAP
BOROUGH OF BUTLER
MORRIS COUNTY, NEW JERSEY
SCALE: 1"=100'
03/12/2009
ROBERT L. CIGOL
NEW JERSEY LICENSED LAND SURVEYOR
LICENSE NO. 24GS04026100 CERTIFICATE OF AUTHORIZATION NO. 24GA27919000
DMC ASSOCIATES, INC.
6 CAREY AVENUE
BUTLER, N.J. 07405







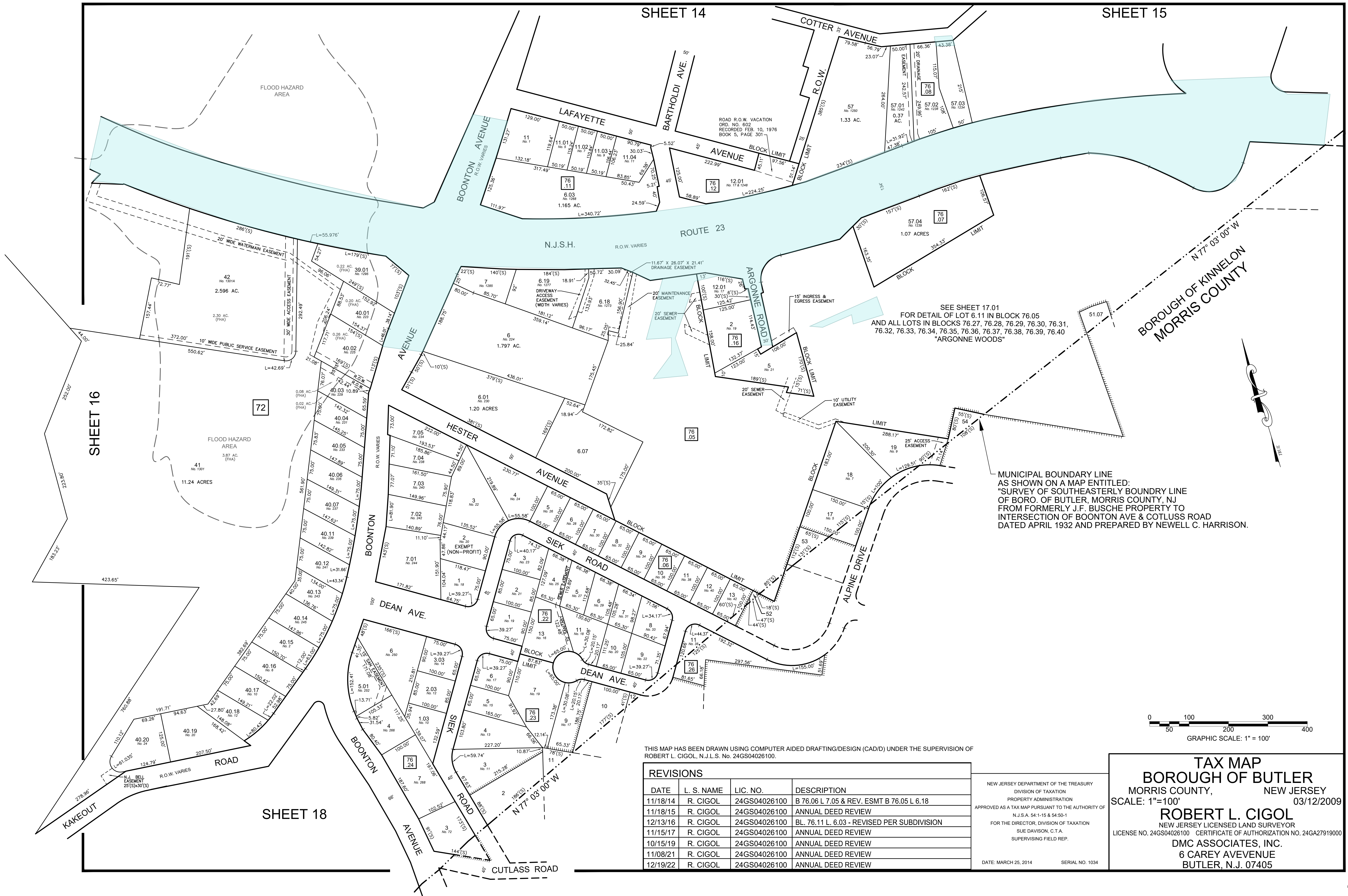
THIS MAP HAS BEEN DRAWN USING COMPUTER AIDED DRAFTING/DESIGN (CAD/D) UNDER THE SUPERVISION OF ROBERT L. CIGOL, N.J.L.S. No. 24GS04026100.

NEW JERSEY DEPARTMENT OF THE TREASURY
DIVISION OF TAXATION
PROPERTY ADMINISTRATION
APPROVED AS A TAX MAP PURSUANT TO THE AUTHORITY OF
N.J.S.A. 54:1-15 & 54:50-1
FOR THE DIRECTOR, DIVISION OF TAXATION
SUE DAVISON, CTA SUPERVISING FIELD REP
DATE: MARCH 25, 2014 SERIAL NO. 1034

TAX MAP
BOROUGH OF BUTLER
MORRIS COUNTY, NEW JERSEY
SCALE: 1"=100'
03/12/2009
ROBERT L. CIGOL
NEW JERSEY LICENSED LAND SURVEYOR
LICENSE NO. 24GS04026100 CERTIFICATE OF AUTHORIZATION NO. 24GA27919000
DMC ASSOCIATES, INC.
6 CAREY AVENUE
BUTLER, N.J. 07405

REVISIONS

DATE	L.S. NAME	LIC. NO.	DESCRIPTION
11/18/15	R. CIGOL	24GS04026100	ANNUAL DEED REVIEW
12/13/16	R. CIGOL	24GS04026100	ANNUAL DEED REVIEW
11/15/17	R. CIGOL	24GS04026100	ANNUAL DEED REVIEW
10/24/18	R. CIGOL	24GS04026100	ANNUAL DEED REVIEW
10/15/19	R. CIGOL	24GS04026100	ANNUAL DEED REVIEW
10/19/20	R. CIGOL	24GS04026100	ANNUAL DEED REVIEW
11/09/21	R. CIGOL	24GS04026100	ANNUAL DEED REVIEW
12/19/22	R. CIGOL	24GS04026100	ANNUAL DEED REVIEW



THIS MAP HAS BEEN DRAWN USING COMPUTER AIDED DRAFTING/DESIGN (CAD/D) UNDER THE SUPERVISION OF ROBERT L. CIGOL, N.J.L.S. No. 24GS04026100.

REVISIONS			
DATE	L. S. NAME	LIC. NO.	DESCRIPTION
11/18/14	R. CIGOL	24GS04026100	B 76.06 L 7.05 & REV. ESMT B 76.05 L 6.18
11/18/15	R. CIGOL	24GS04026100	ANNUAL DEED REVIEW
12/13/16	R. CIGOL	24GS04026100	BL. 76.11 L. 6.03 - REVISED PER SUBDIVISION
11/15/17	R. CIGOL	24GS04026100	ANNUAL DEED REVIEW
10/15/19	R. CIGOL	24GS04026100	ANNUAL DEED REVIEW
11/08/21	R. CIGOL	24GS04026100	ANNUAL DEED REVIEW
12/19/22	R. CIGOL	24GS04026100	ANNUAL DEED REVIEW

NEW JERSEY DEPARTMENT OF THE TREASURY
DIVISION OF TAXATION
PROPERTY ADMINISTRATION
APPROVED AS A TAX MAP PURSUANT TO THE AUTHORITY OF
N.J.S.A. 54:1-15 & 54:50-1
FOR THE DIRECTOR, DIVISION OF TAXATION
SUE DAVISON, C.T.A.
SUPERVISING FIELD REP.
DATE: MARCH 25, 2014
SERIAL NO. 1034

TAX MAP

BOROUGH OF BUTLER

MORRIS COUNTY, NEW JERSEY

SCALE: 1"=100'

03/12/2009

ROBERT L. CIGOL

NEW JERSEY LICENSED LAND SURVEYOR

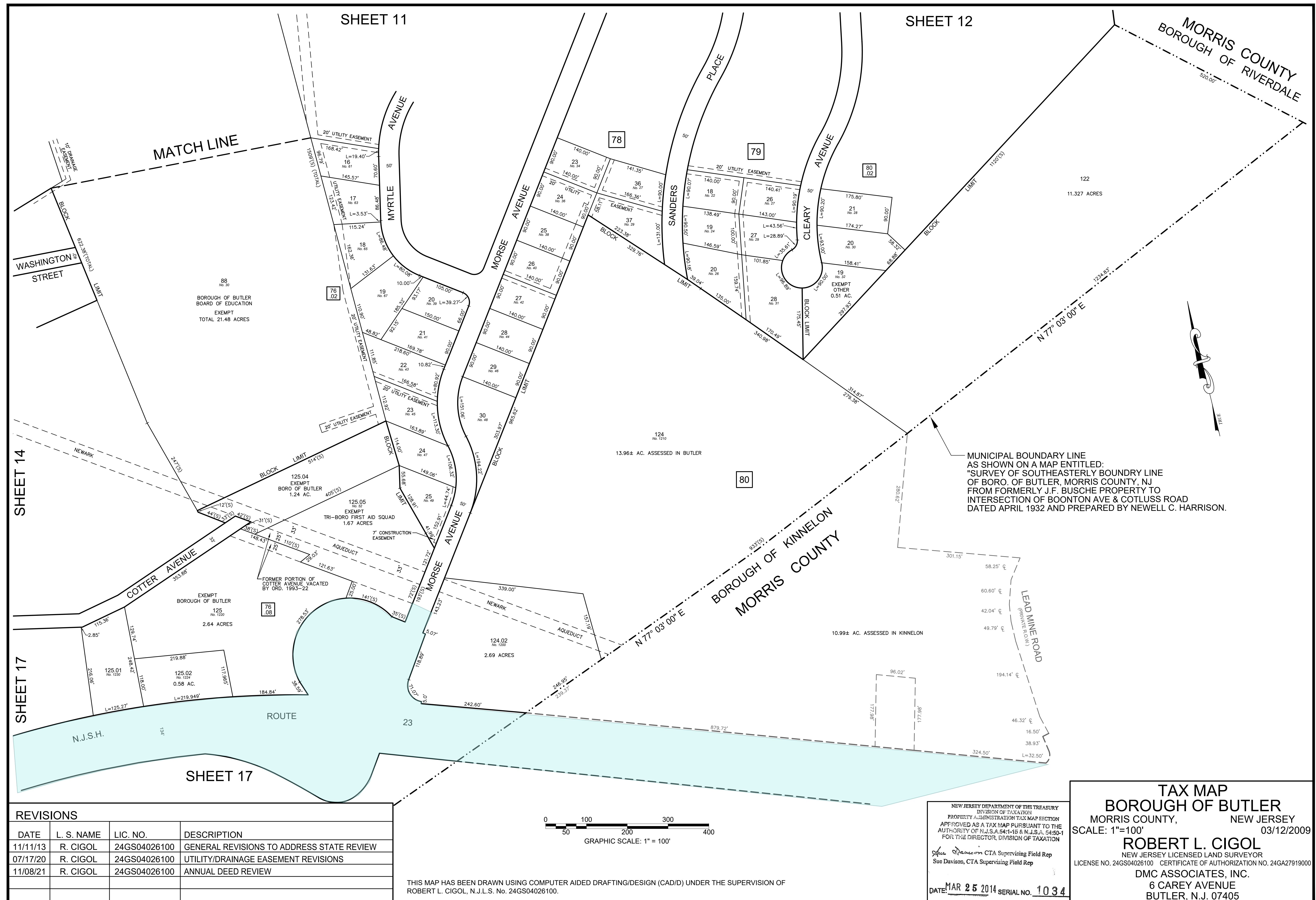
LICENSE NO. 24GS04026100

CERTIFICATE OF AUTHORIZATION NO. 24GA27919000

DMC ASSOCIATES, INC.

6 CAREY AVENUE

BUTLER, N.J. 07405



MUNICIPAL BOUNDARY LINE AS SHOWN ON A MAP ENTITLED:
"SURVEY OF SOUTHEASTERLY BOUNDRY LINE OF BORO. OF
BUTLER, MORRIS COUNTY, NJ FROM FORMERLY J.F. BUSCHE
PROPERTY TO INTERSECTION OF BOONTON AVE & COTLUSS ROAD"
DATED APRIL 1932 AND PREPARED BY NEWELL C. HARRISON.

TAX ASSESSMENT MAP

BOROUGH OF KINNELON

MORRIS COUNTY, NEW JERSEY

SCALE: 1"=100'

01/01/2014

NEW JERSEY DEPARTMENT OF THE TREASURY

DIVISION OF TAXATION

PROPERTY ADMINISTRATION

APPROVED AS A TAX MAP PURSUANT TO THE AUTHORITY OF

N.J.S.A. 54:1-15 & 54:50-1

FOR THE DIRECTOR, DIVISION OF TAXATION

SUE DAVISON, C.T.A.

SUPERVISING FIELD REP.

DATE: APRIL 10, 2014

SERIAL NO. 1036

ROBERT L. CIGOL

NEW JERSEY LICENSED LAND SURVEYOR

LICENSE NO. 24GS04026100

CERTIFICATE OF AUTHORIZATION NO. 24GA27919000

DMC ASSOCIATES, INC.

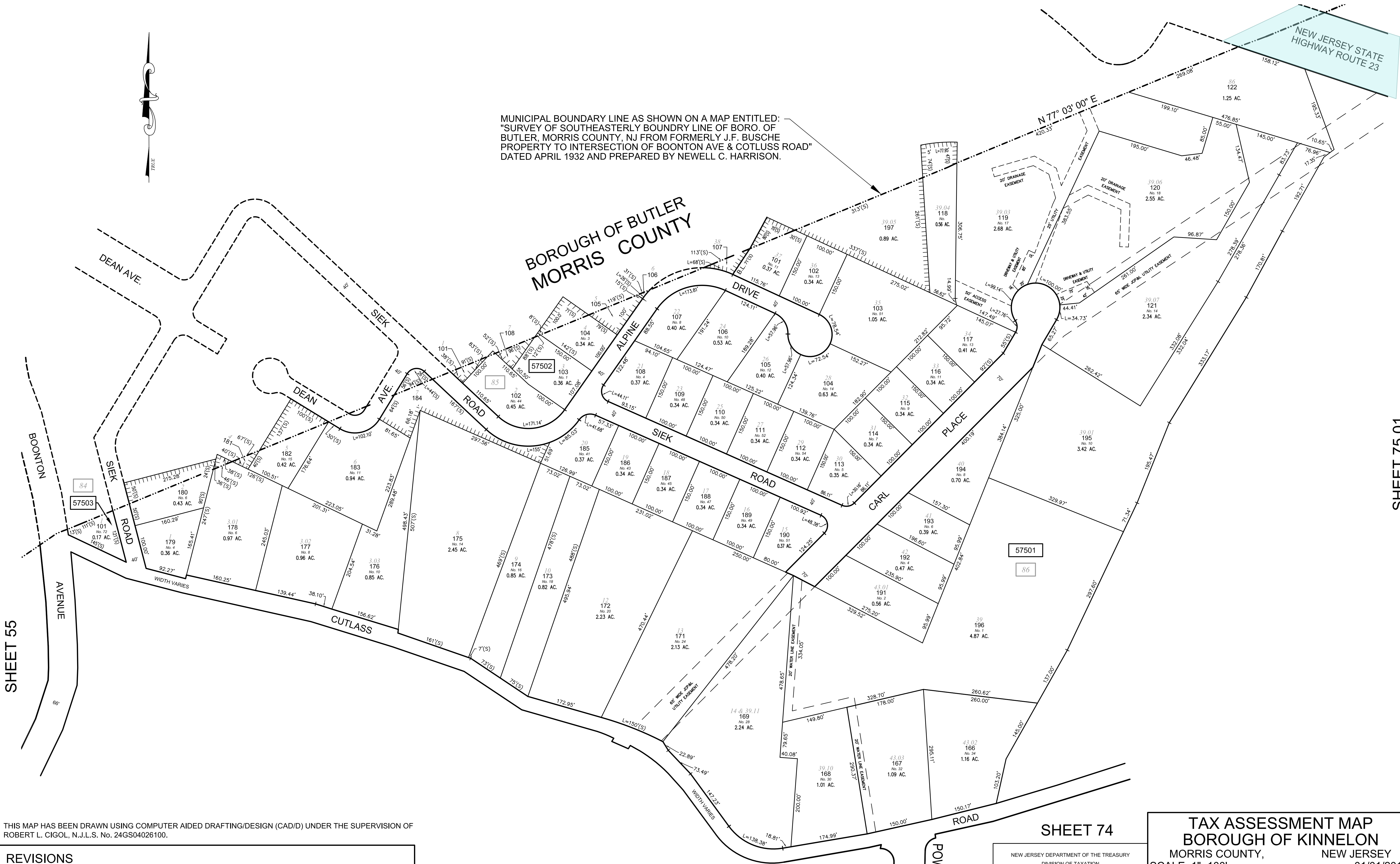
211 MAIN STREET

BUTLER, N.J. 07405

TO SHOW CONDITIONS AS OF 12/09/2016

THIS MAP HAS BEEN DRAWN USING COMPUTER AIDED DRAFTING/DESIGN (CAD/D) UNDER THE SUPERVISION OF
ROBERT L. CIGOL, N.J.L.S. No. 24GS04026100.

REVISIONS			
DATE	L. S. NAME	LIC. NO.	DESCRIPTION
12/04/15	R. CIGOL	24GS04026100	REV. ANNO PER DEED PLOT - B. 57501 L. 170
12/09/16	R. CIGOL	24GS04026100	LOT CONSOLIDATION: B. 57501 L. 169 & 170

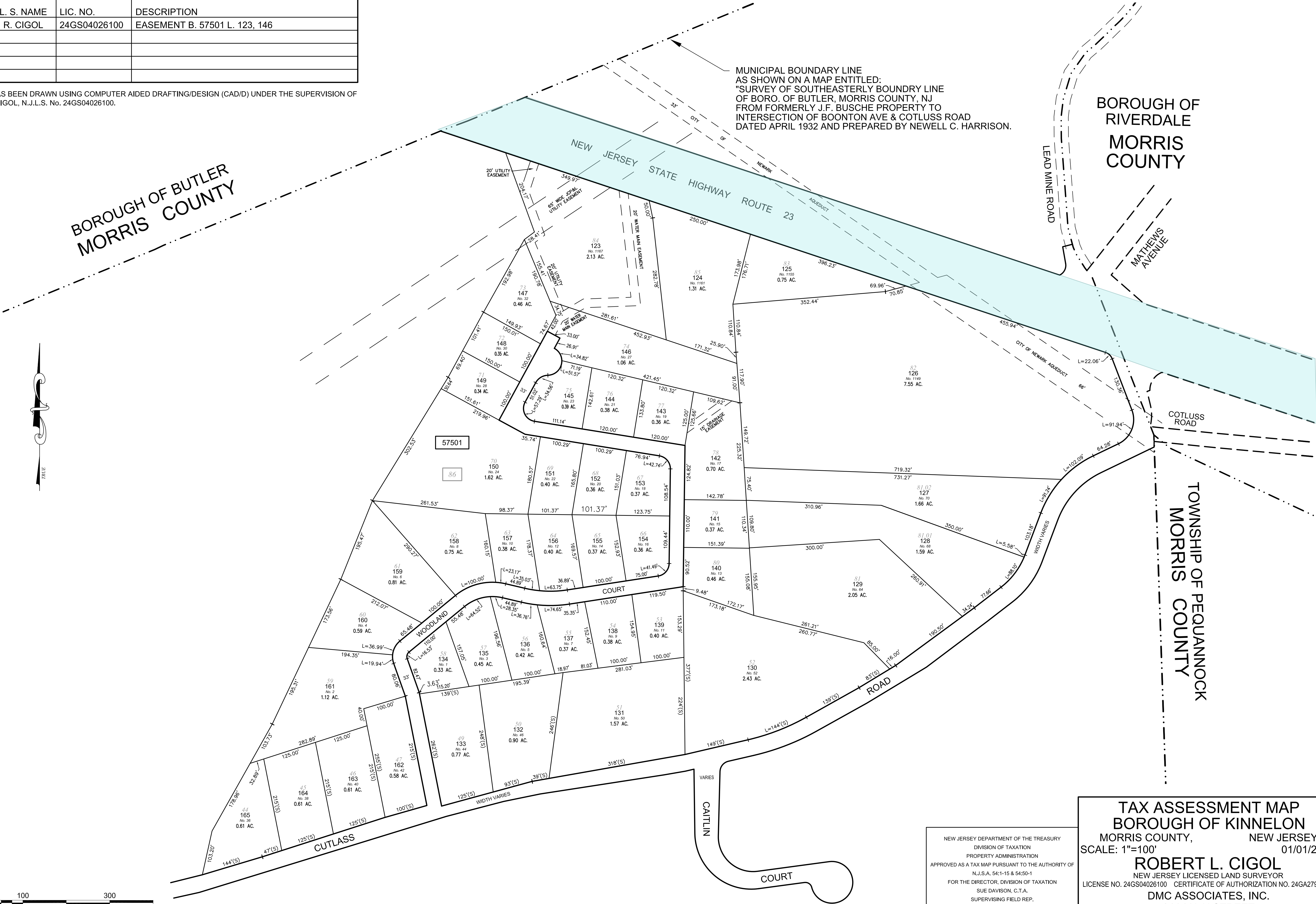
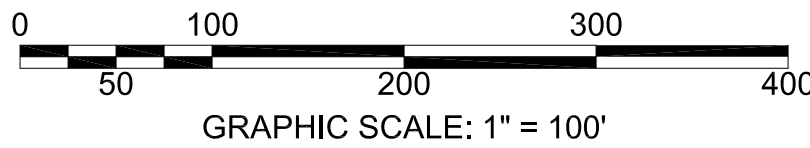


REVISIONS			
DATE	L. S. NAME	LIC. NO.	DESCRIPTION
12/04/15	R. CIGOL	24GS04026100	EASEMENT B. 57501 L. 123, 146

THIS MAP HAS BEEN DRAWN USING COMPUTER AIDED DRAFTING/DESIGN (CAD/D) UNDER THE SUPERVISION OF ROBERT L. CIGOL, N.J.L.S. No. 24GS04026100.

SHEET 76

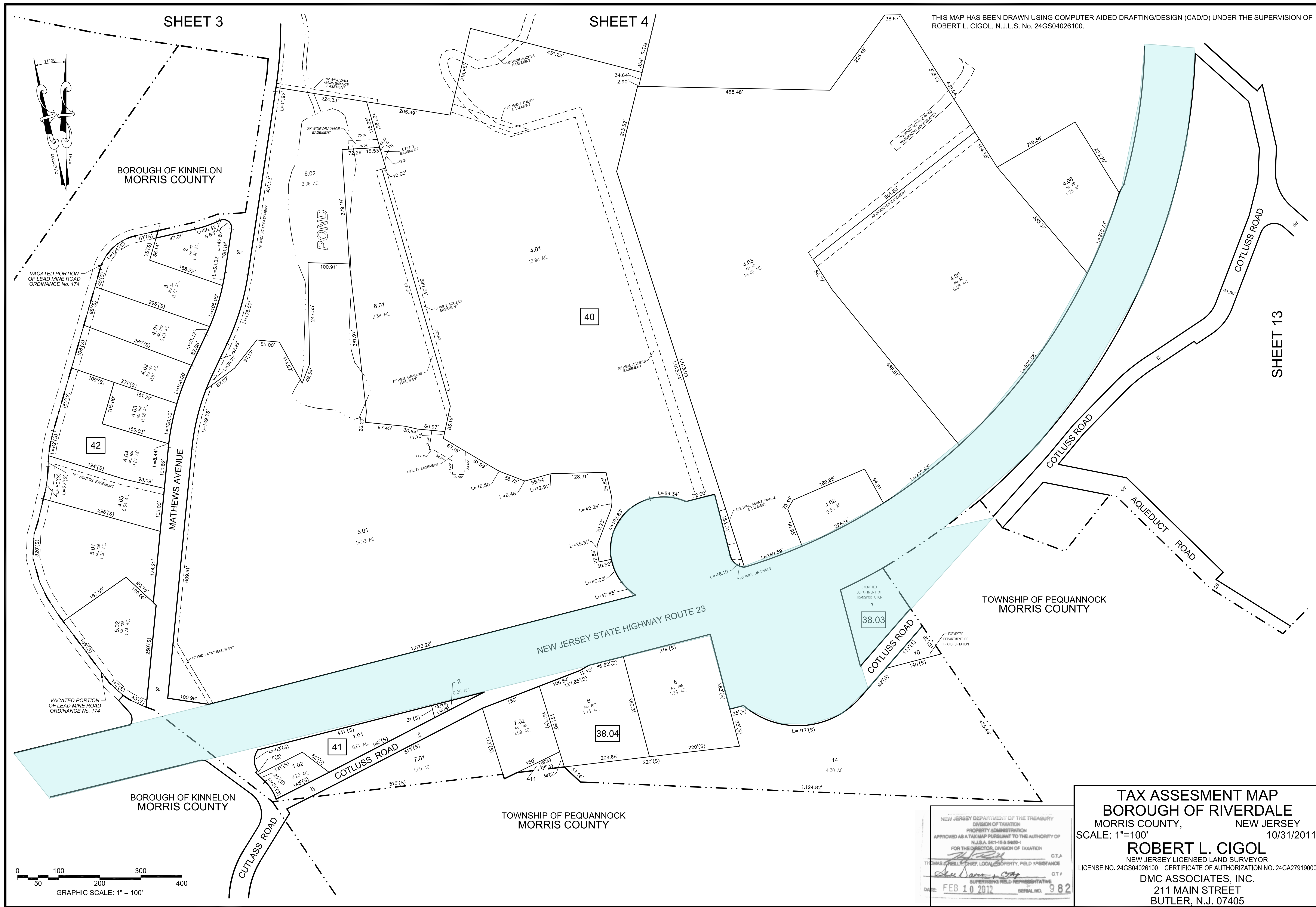
SHEET 75



SHEET 74

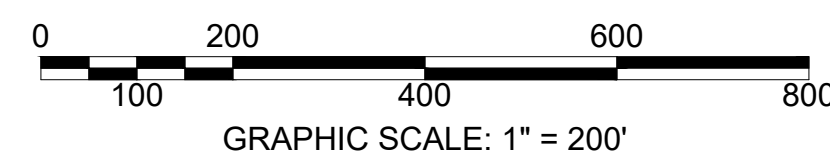
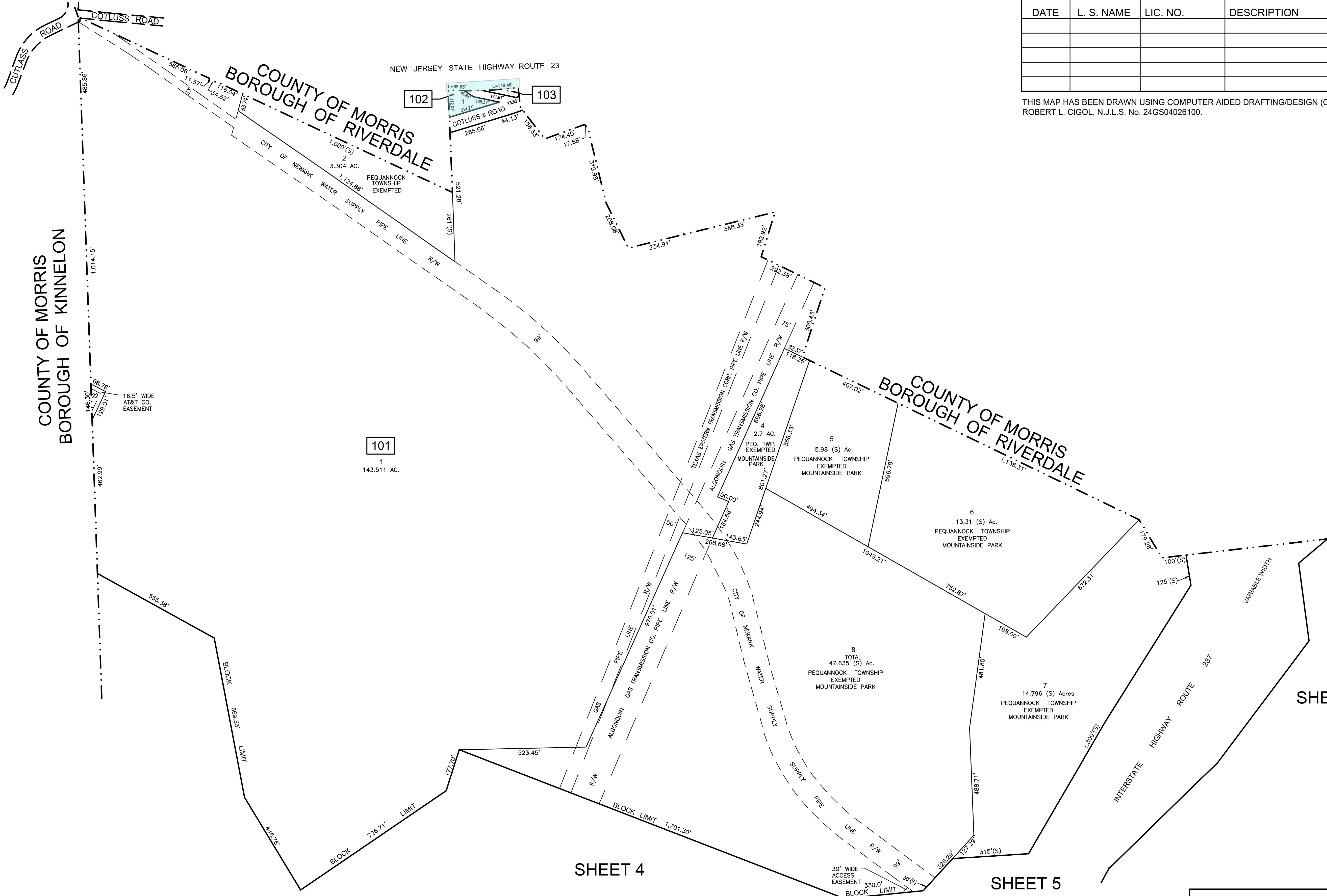
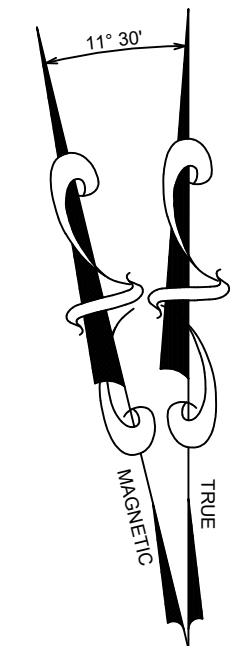
NEW JERSEY DEPARTMENT OF THE TREASURY
DIVISION OF TAXATION
PROPERTY ADMINISTRATION
APPROVED AS A TAX MAP PURSUANT TO THE AUTHORITY OF
N.J.S.A. 54:1-15 & 54:50-1
FOR THE DIRECTOR, DIVISION OF TAXATION
SUE DAVISON, C.T.A.
SUPERVISING FIELD REP.
DATE: APRIL 10, 2014
SERIAL NO. 1036

TAX ASSESSMENT MAP
BOROUGH OF KINNELON
MORRIS COUNTY, NEW JERSEY
SCALE: 1"=100' 01/01/2014
ROBERT L. CIGOL
NEW JERSEY LICENSED LAND SURVEYOR
LICENSE NO. 24GS04026100 CERTIFICATE OF AUTHORIZATION NO. 24GA27919000
DMC ASSOCIATES, INC.
211 MAIN STREET
BUTLER, N.J. 07405
TO SHOW CONDITIONS AS OF 12/05/2015



REVISIONS			
DATE	L. S. NAME	LIC. NO.	DESCRIPTION

THIS MAP HAS BEEN DRAWN USING COMPUTER AIDED DRAFTING/DESIGN (CAD/D) UNDER THE SUPERVISION OF ROBERT L. CIGOL, N.J.L.S. No. 24GS04026100.



TAX ASSESSMENT MAP

TOWNSHIP OF PEQUANNOCK

MORRIS COUNTY, NEW JERSEY

SCALE: 1"=200' 09/01/2021

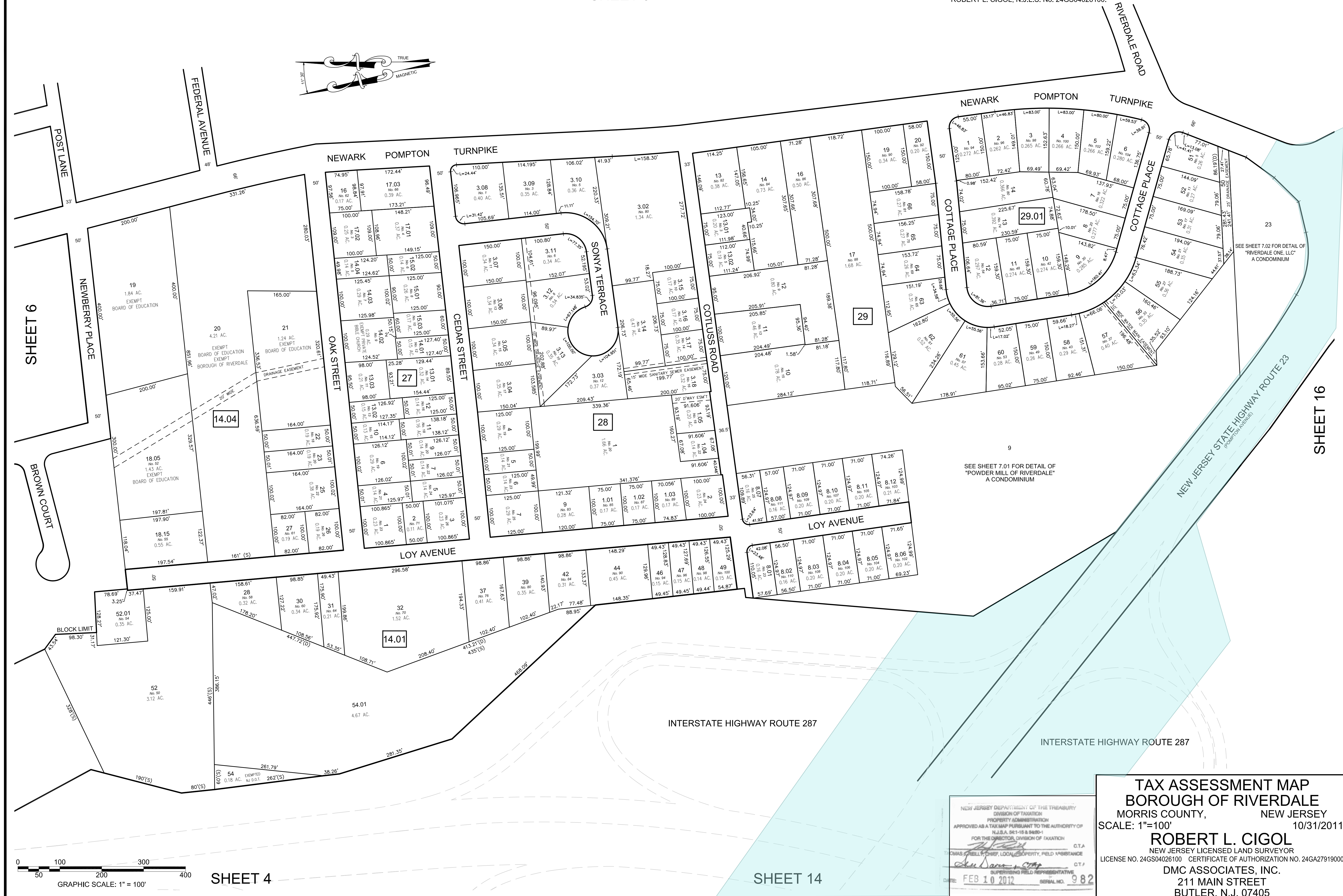
ROBERT L. CIGOL

NEW JERSEY LICENSED LAND SURVEYOR

LICENSE NO. 24GS04026100 CERTIFICATE OF AUTHORIZATION NO. 24GA27919000

DMC ASSOCIATES, INC.

211 MAIN STREET BUTLER, N.J. 07405

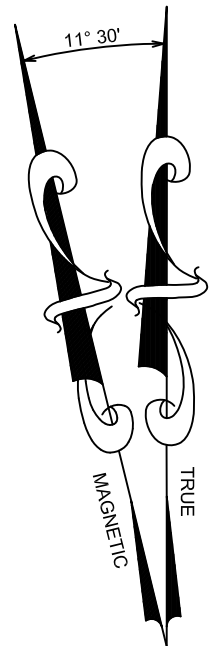


TAX ASSESSMENT MAP
BOROUGH OF RIVERDALE
MORRIS COUNTY, NEW JERSEY
SCALE: 1"=100' 10/31/2011
ROBERT L. CIGOL
NEW JERSEY LICENSED LAND SURVEYOR
LICENSE NO. 24GS04026100 CERTIFICATE OF AUTHORIZATION NO. 24GA27919000
DMC ASSOCIATES, INC.
211 MAIN STREET
BUTLER, N.J. 07405

NEW JERSEY DEPARTMENT OF THE TREASURY
DIVISION OF TAXATION
PROPERTY ADMINISTRATION
APPROVED AS A TAX MAP PURSUANT TO THE AUTHORITY OF
N.J.S.A. 54:1-19 & 54:1-20
FOR THE DIRECTOR, DIVISION OF TAXATION
THOMAS P. KELLY, CHIEF, LOCAL PROPERTY TAX ASSISTANCE
SUPERVISING FIELD REPRESENTATIVE
DATE: FEB 10 2012 SERIAL NO. 982

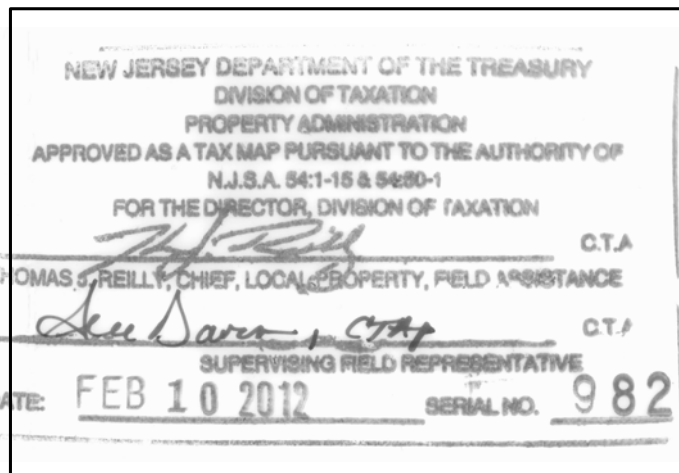
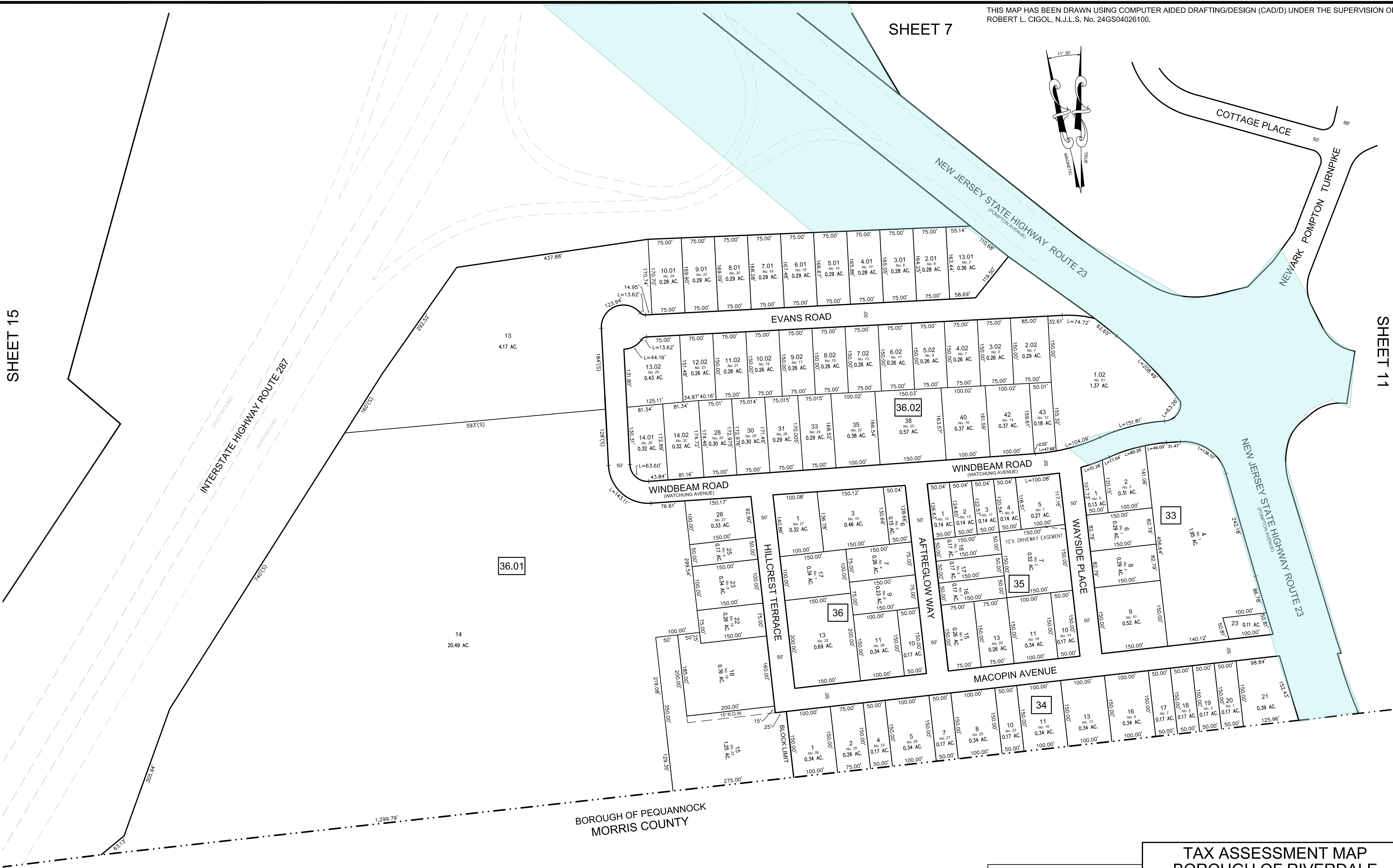
THIS MAP HAS BEEN DRAWN USING COMPUTER AIDED DRAFTING/DESIGN (CAD/D) UNDER THE SUPERVISION OF
ROBERT L. CIGOL, N.J.L.S. No. 24GS04026100.

SHEET 7



SHEET 15

SHEET 11

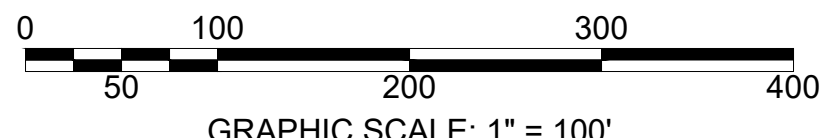
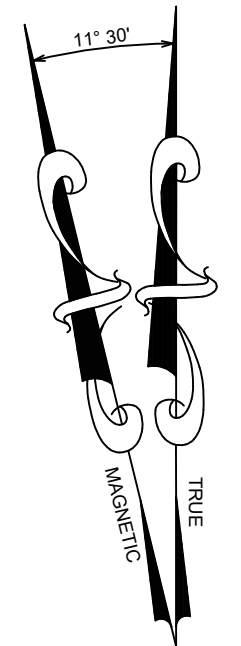


TAX ASSESSMENT MAP
BOROUGH OF RIVERDALE
MORRIS COUNTY, NEW JERSEY
SCALE: 1"=100' 10/31/2011
ROBERT L. CIGOL
NEW JERSEY LICENSED LAND SURVEYOR
LICENSE NO. 24GS04026100 CERTIFICATE OF AUTHORIZATION NO. 24GA27919000
DMC ASSOCIATES, INC.
211 MAIN STREET
BUTLER, N.J. 07405



REVISIONS			
DATE	L. S. NAME	LIC. NO.	DESCRIPTION

THIS MAP HAS BEEN DRAWN USING COMPUTER AIDED DRAFTING/DESIGN (CAD/D) UNDER THE SUPERVISION OF ROBERT L. CIGOL, N.J.L.S. No. 24GS04026100.



TAX ASSESSMENT MAP

TOWNSHIP OF PEQUANNOCK

MORRIS COUNTY, NEW JERSEY

SCALE: 1"=100' 09/01/2021

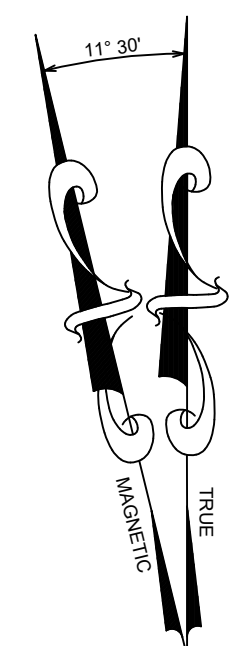
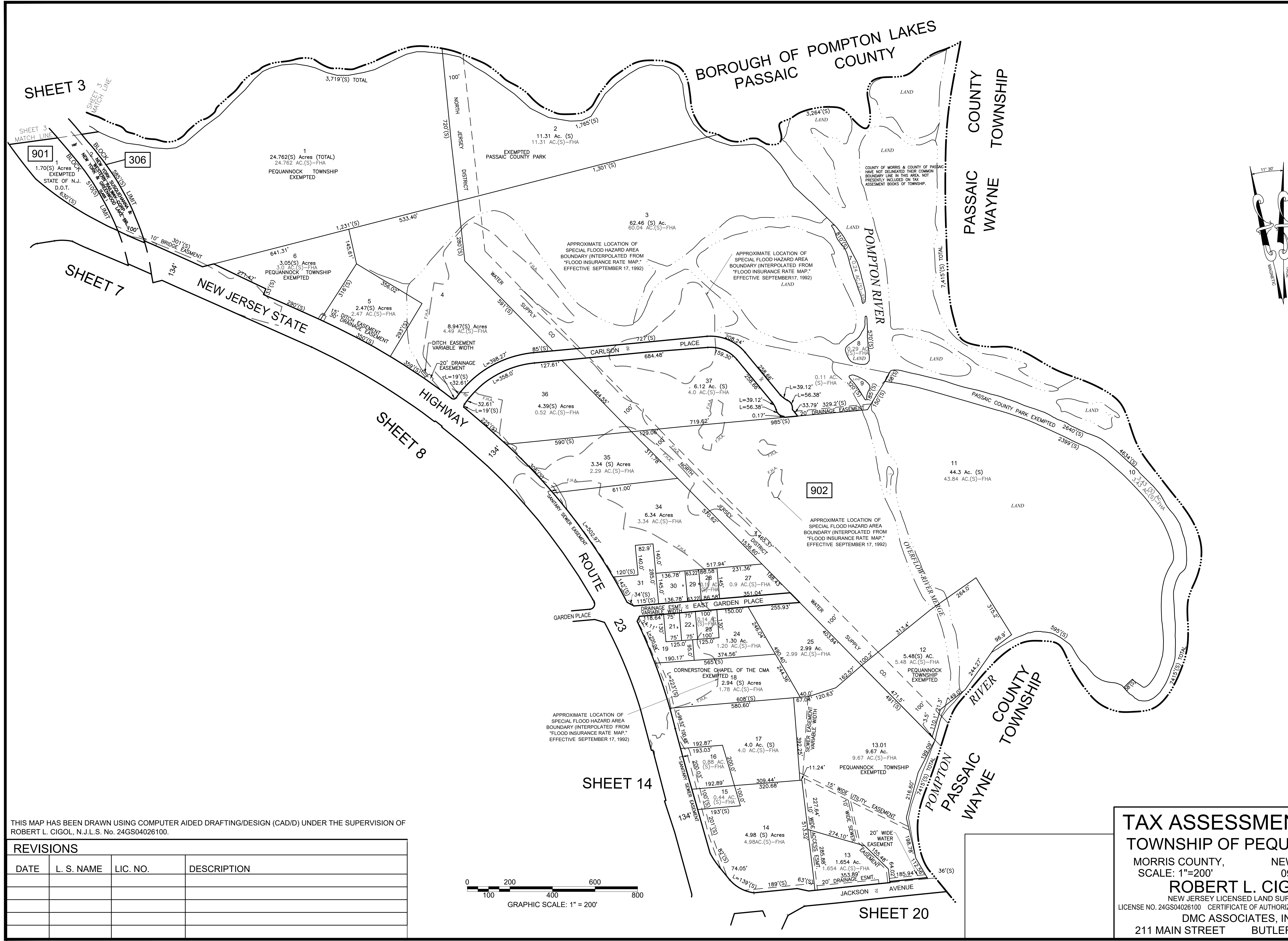
ROBERT L. CIGOL

NEW JERSEY LICENSED LAND SURVEYOR

LICENSE NO. 24GS04026100 CERTIFICATE OF AUTHORIZATION NO. 24GA27919000

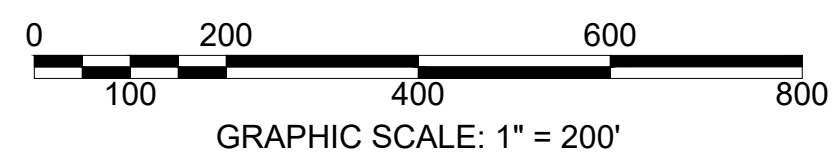
DMC ASSOCIATES, INC.

211 MAIN STREET BUTLER, N.J. 07405



THIS MAP HAS BEEN DRAWN USING COMPUTER AIDED DRAFTING/DESIGN (CAD/D) UNDER THE SUPERVISION OF
ROBERT L. CIGOL, N.J.L.S. No. 24GS04026100.

REVISIONS			
DATE	L. S. NAME	LIC. NO.	DESCRIPTION



TAX ASSESSMENT MAP

TOWNSHIP OF PEQUANNOCK

MORRIS COUNTY, NEW JERSEY

SCALE: 1"=200' 09/01/2021

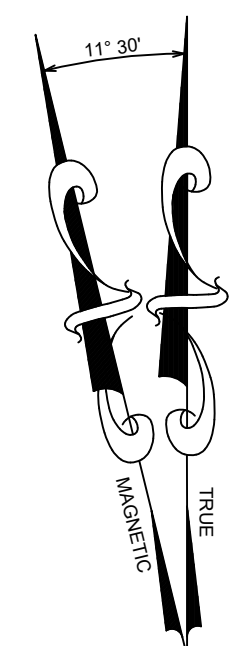
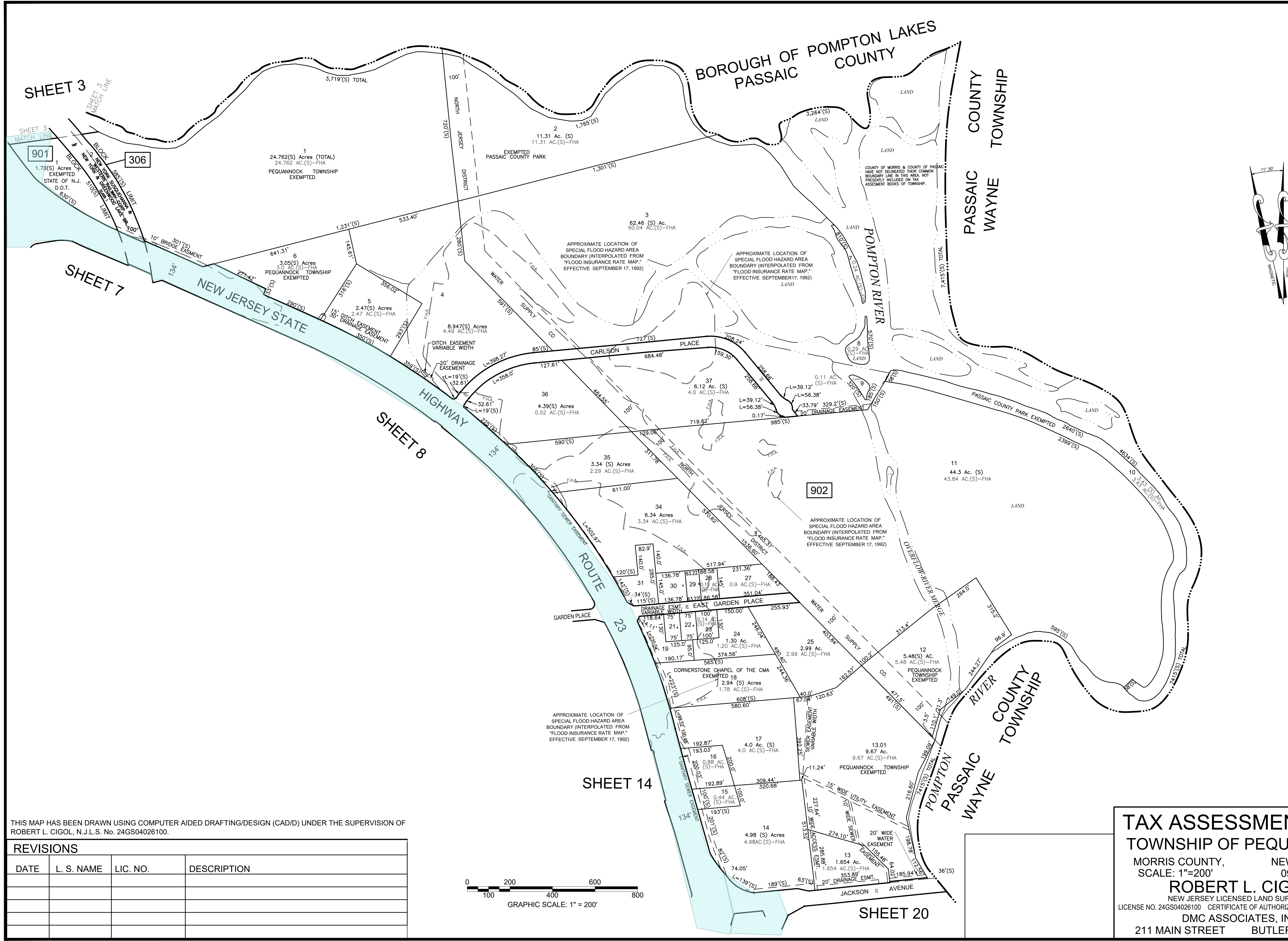
ROBERT L. CIGOL

NEW JERSEY LICENSED LAND SURVEYOR

LICENSE NO. 24GS04026100 CERTIFICATE OF AUTHORIZATION NO. 24GA27919000

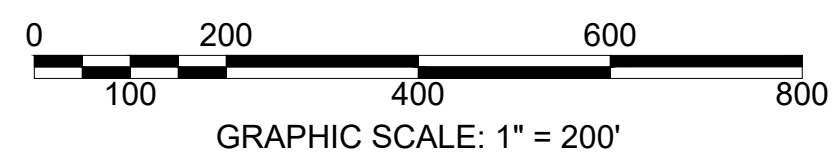
DMC ASSOCIATES, INC.

211 MAIN STREET BUTLER, N.J. 07405



THIS MAP HAS BEEN DRAWN USING COMPUTER AIDED DRAFTING/DESIGN (CAD/D) UNDER THE SUPERVISION OF ROBERT L. CIGOL, N.J.L.S. No. 24GS04026100.

REVISIONS			
DATE	L. S. NAME	LIC. NO.	DESCRIPTION



TAX ASSESSMENT MAP

TOWNSHIP OF PEQUANNOCK

MORRIS COUNTY, NEW JERSEY

SCALE: 1"=200' 09/01/2021

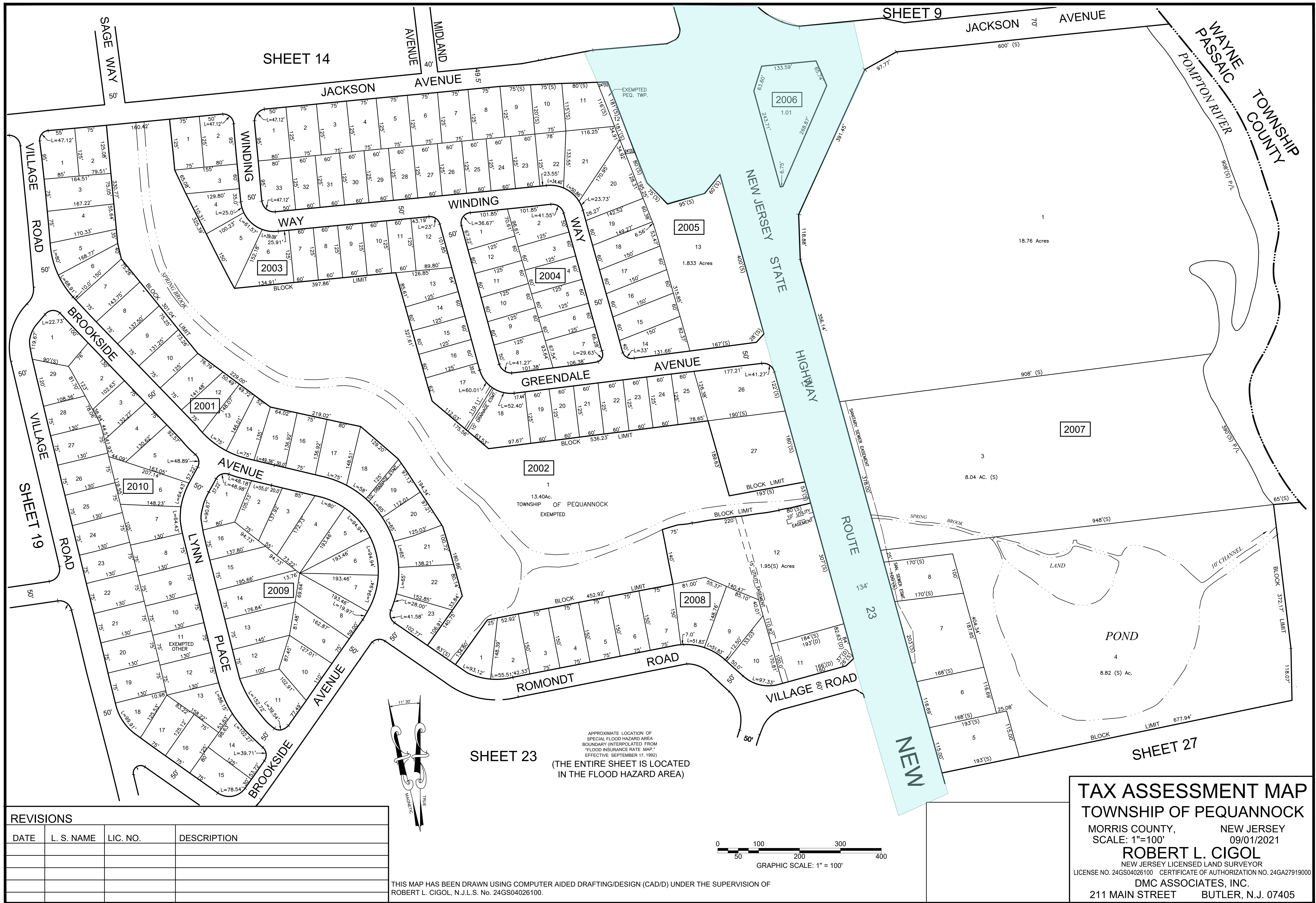
ROBERT L. CIGOL

NEW JERSEY LICENSED LAND SURVEYOR

LICENSE NO. 24GS04026100 CERTIFICATE OF AUTHORIZATION NO. 24GA27919000

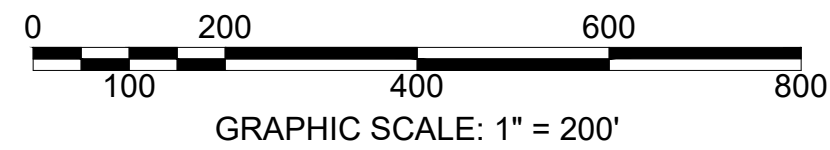
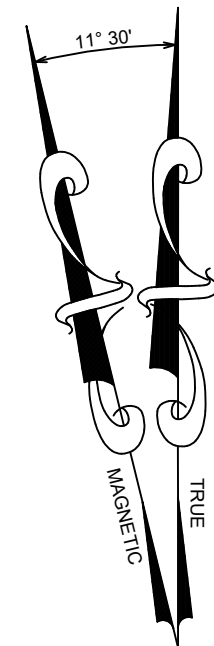
DMC ASSOCIATES, INC.

211 MAIN STREET BUTLER, N.J. 07405



REVISIONS			
DATE	L. S. NAME	LIC. NO.	DESCRIPTION

THIS MAP HAS BEEN DRAWN USING COMPUTER AIDED DRAFTING/DESIGN (CAD/D) UNDER THE SUPERVISION OF ROBERT L. CIGOL, N.J.L.S. No. 24GS04026100.



TAX ASSESSMENT MAP

TOWNSHIP OF PEQUANNOCK

MORRIS COUNTY, NEW JERSEY

SCALE: 1"=200' 09/01/2021

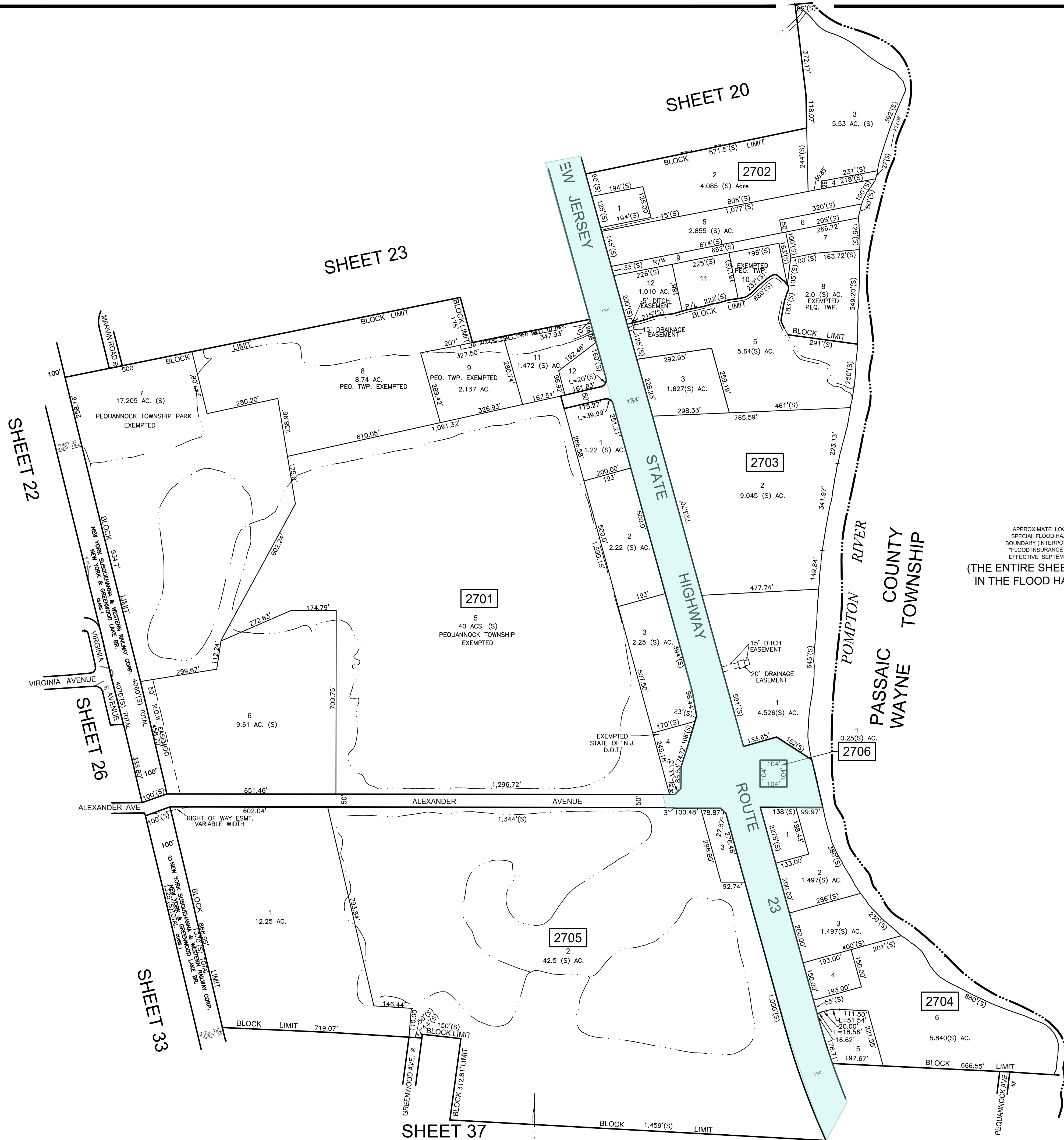
ROBERT L. CIGOL

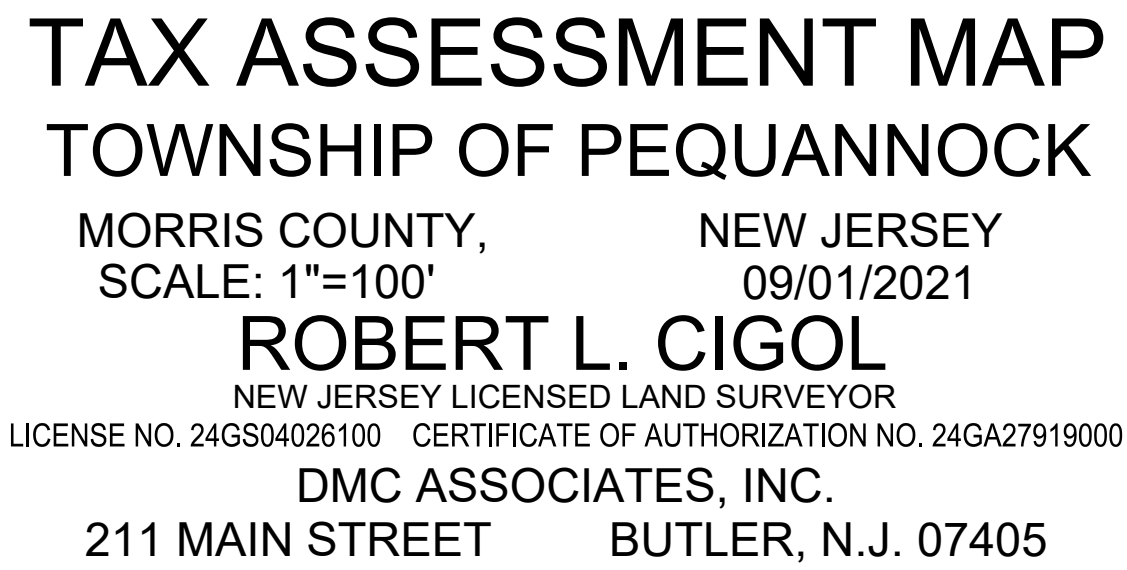
NEW JERSEY LICENSED LAND SURVEYOR

LICENSE NO. 24GS04026100 CERTIFICATE OF AUTHORIZATION NO. 24GA27919000

DMC ASSOCIATES, INC.

211 MAIN STREET BUTLER, N.J. 07405





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1. "Survey" means and the map has been prepared under the supervision and control of Robert V. Monroff, N.J. Lic. 42954, Professional Land Surveyor.

ASSESSMENT MAP
WAYNE TOWNSHIP
PASSAIC COUNTY, N.J.
1992
DAVID C. BOSWELL
RIDGEFIELD PARK, N.J.

STATE TAX DEPARTMENT
Approved as a Tax Map according to the provisions of Chapter 175, Laws of 1913.
J.H. THAYER MARTIN
State Tax Commissioner

N 24000

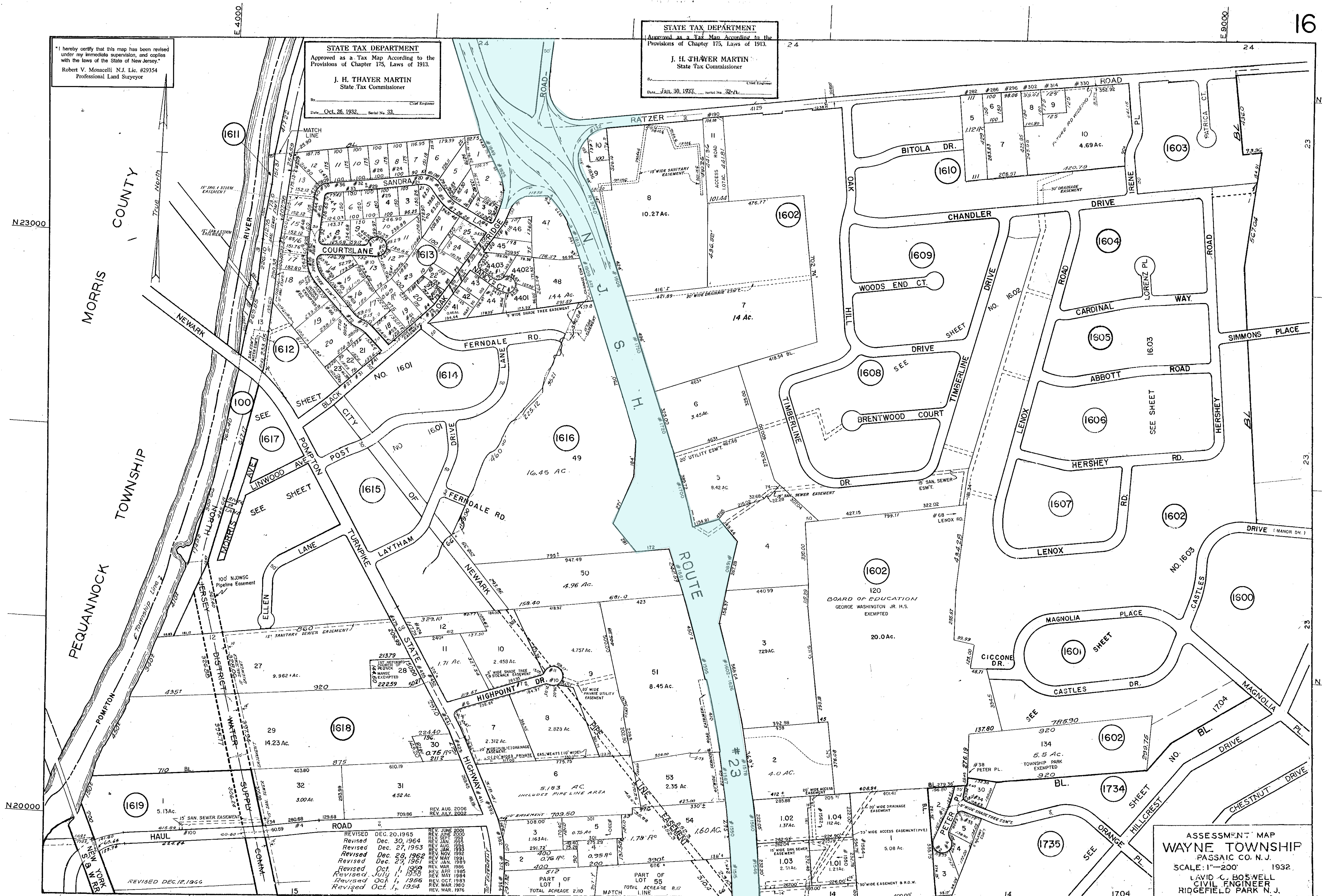
N 27000

24

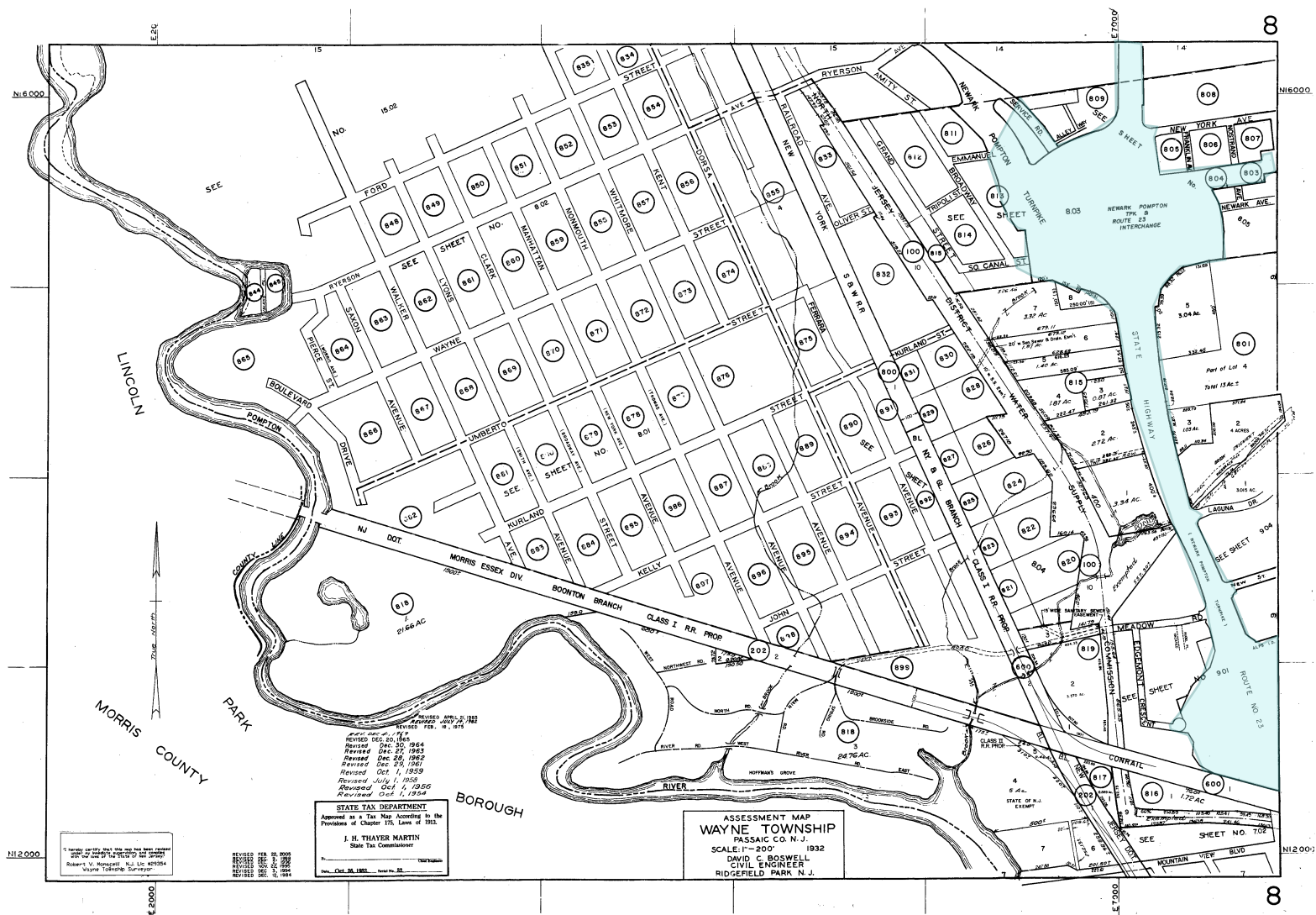
"I hereby certify that this map has been revised under my immediate supervision, and copies with the laws of the State of New Jersey."
Robert V. Monacelli N.J. Lic. #29354
Professional Land Surveyor

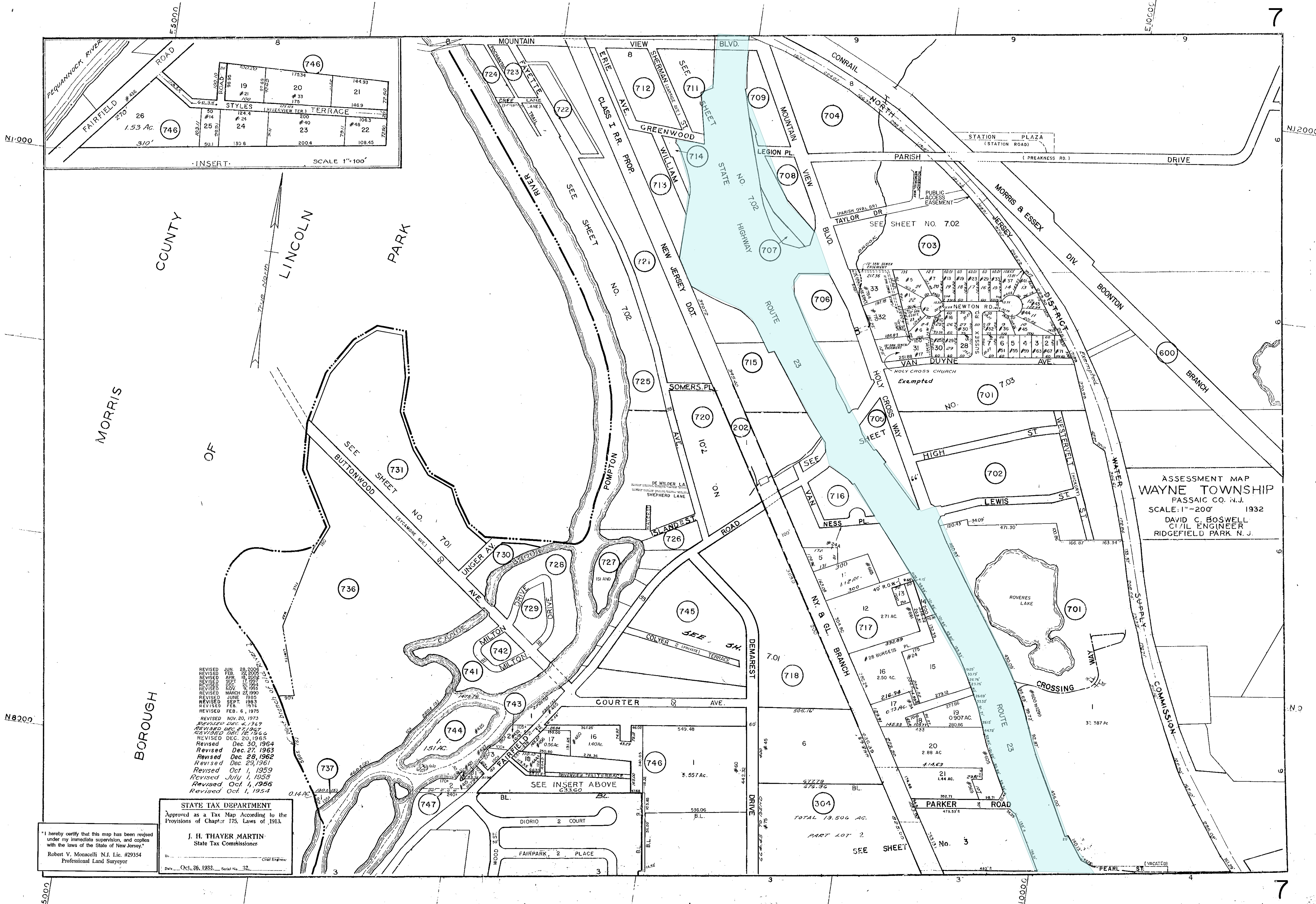
STATE TAX DEPARTMENT
Approved as a Tax Map According to the Provisions of Chapter 175, Laws of 1913.
J. H. THAYER MARTIN
State Tax Commissioner
By: _____ Chief Engineer
Date: Oct. 26, 1932. Serial No. 32.

STATE TAX DEPARTMENT
Approved as a Tax Map According to the Provisions of Chapter 175, Laws of 1913.
J. H. THAYER MARTIN
State Tax Commissioner
By: _____ Chief Engineer
Date: Jan. 30, 1933. Serial No. 32-A.



ASSESSMENT MAP
WAYNE TOWNSHIP
PASSAIC CO. N.J.
SCALE: 1"=200' 1932
L. A. BOSWELL
CIVIL ENGINEER
RIDGEFIELD PARK N.J.



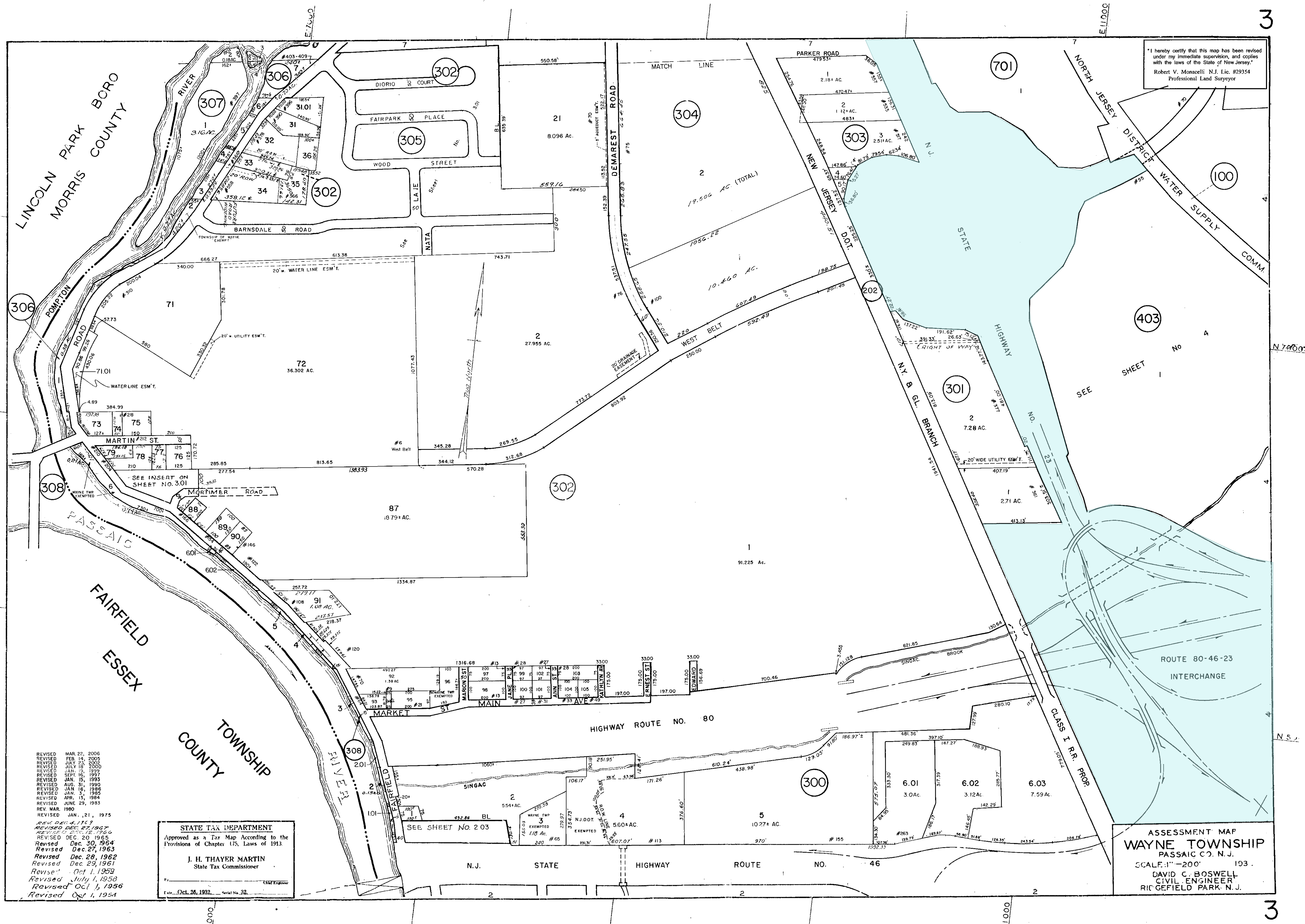


REVISOR JUN. 28, 2008
REVISOR FEB. 22, 2008
REVISOR APR. 10, 2008
REVISOR SEP. 17, 1997
REVISOR DEC. 19, 1994
REVISOR NOV. 27, 1994
REVISOR MARCH 27, 1990
REVISOR JUNE 1988
REVISOR SEPT. 1983
REVISOR FEB. 1976
REVISOR FEB. 6, 1975
REVISOR NOV. 20, 1973
REVISOR DEC. 6, 1969
REVISOR DEC. 27, 1967
REVISOR DEC. 18, 1964
REVISOR DEC. 20, 1963
Revised Dec. 30, 1964
Revised Dec. 27, 1963
Revised Dec. 28, 1962
Revised Dec. 29, 1961
Revised Oct. 1, 1959
Revised July 1, 1958
Revised Oct. 1, 1956
Revised Oct. 1, 1954

STATE TAX DEPARTMENT
Approved as a Tax Map According to the
Provisions of Chapter 173, Laws of 1913.
J. H. THAYER MARTIN
State Tax Commissioner
By _____ Chief Engineer
Date Oct. 26, 1932. Serial No. 32.

"I hereby certify that this map has been revised
under my immediate supervision, and copies
with the laws of the State of New Jersey."
Robert V. Monacelli N.J. Lic. #29354
Professional Land Surveyor

"I hereby certify that this map has been revised under my immediate supervision, and copies with the laws of the State of New Jersey."
Robert V. Monacelli N.J. Lic. #29354
Professional Land Surveyor



REVISED MAR. 22, 2006
REVISED FEB. 14, 2005
REVISED JULY 18, 2000
REVISED JAN. 13, 1999
REVISED SEPT. 16, 1997
REVISED JAN. 15, 1993
REVISED AUG. 31, 1990
REVISED JAN. 16, 1986
REVISED JAN. 31, 1985
REVISED APR. 15, 1984
REVISED JUNE 29, 1983
REV. MAR. 1980
REVISED JAN. 21, 1975
REV. DEC. 1, 1974
REVISED DEC. 27, 1967
REVISED DEC. 12, 1966
REVISED DEC. 20, 1965
REVISED DEC. 30, 1964
REVISED DEC. 27, 1963
REVISED DEC. 28, 1962
REVISED DEC. 29, 1961
REVISED OCT. 1, 1959
REVISED JULY 1, 1958
REVISED OCT. 1, 1956
REVISED OCT. 1, 1954

STATE TAX DEPARTMENT
Approved as a Tax Map According to the Provisions of Chapter 175, Laws of 1913.
J. H. THAYER MARTIN
State Tax Commissioner
Chief Engineer
Exp. Oct. 26, 1932. Serial No. 32.

ASSESSMENT MAP
WAYNE TOWNSHIP
PASSAIC CO., N.J.
SCALE: 1" = 200' 103.
DAVID C. BOSWELL
CIVIL ENGINEER
RIC GEFIELD PARK, N.J.

Appendix B

Site Photographs

Survey Area Photographs



Photograph 1 – A view of Wetland DFA, facing north.



Photograph 2 – A view of Wetland DFB, facing northeast.



Photograph 3 – A view of Stream DFC-S downstream, facing north.



Photograph 4 – A view of Stream DFC-S upstream to culvert, facing south.



Photograph 5 – A view of DFD-S downstream, facing north.



Photograph 6 – A view of DFD-S upstream, facing south.



Photograph 7 – A view of Stream DFE-S downstream on the northbound side of Route 23, facing north.



Photograph 8 – A view of Stream DFE-S upstream on the southbound side of Route 23, facing south.



Photograph 9 – A view of Stream DFE-S downstream on the southbound side, facing north.



Photograph 10 – A view of Wetland DFF, facing northwest.



Photograph 11 – A view of DFF/DFH-WET data point, facing north.



Photograph 12 – A view of Stream DFG-S upstream, facing southeast.



Photograph 13 – A view of Stream DFG-S downstream, facing northwest.



Photograph 14 – A view of Wetland DFH, facing north.



Photograph 15 – A view of Stream DFI-S upstream, facing southeast.



Photograph 16 – A view of Stream DFI-S downstream, facing north.



Photograph 17 – A view of Stream DFJ-S upstream, facing southeast.



Photograph 18 – A view of Stream DFJ-S downstream, facing northwest.



Photograph 19 – A view of Stream DFK-S upstream, facing southwest.



Photograph 20 – A view of Stream DFK-S downstream, facing northeast.



Photograph 21- A view of Stream DFL-S upstream, facing southwest.



Photograph 22 – A view of Stream DFL-S downstream, facing east.



Photograph 23 – A view of DFM-WET data point and Wetland DFM, facing west.



Photograph 24 – A view of Stream DFN-S upstream, facing southeast.



Photograph 25- A view of Stream DFN-S culvert and adjacent bedrock, facing northeast.



Photograph 26 – A view of Stream DFN-S downstream, facing north.



Photograph 27 - A view of the Pequannock River (NJDEP Stream 1) on the northbound side of Route 23 and adjacent railroad, facing west.



Photograph 28 – A view of Stone House Brook (DFZ-S) on the southbound side of Route 23, facing northwest.



Photograph 29- A view of NJDEP Wetland 2, facing east.



Photograph 30 – A view of Stream DFO-S upstream, facing south.



Photograph 31 – A view of Stream DFO-S downstream, facing northeast.



Photograph 32 – A view of Stream DFP-S upstream, facing east.



Photograph 33 – A view of Stream DFP-S downstream, facing north.



Photograph 34 – A view of Upland 1 data point area, facing south.



Photograph 35 – A view of Wetland DFQ PEM, facing southeast.



Photograph 36 – A view of Wetland DFQ, PFO flooded portion, facing southwest.



Photograph 37 – A view of Wetland DFR, facing south.



Photograph 38 – A view of DFS-WET data point, facing north.



Photograph 39 – A view of Wetland DFS, facing south.



Photograph 40 – A view of Stream DFT-S, daylighted portion, facing east.



Photograph 41 – A view of Stream DFT-S upstream, facing west.



Photograph 42 – A view of Stream DFU-S upstream, facing southwest.



Photograph 43 – A view of Stream DFU-S, daylighted portion, facing northeast.



Photograph 44 – A view of Stream DFV-S upstream, facing northeast.



Photograph 45 – A view of Stream DFV-S downstream, facing southwest.



Photograph 46- A view of DFW-WET data point, facing southeast.



Photograph 47 – A view of DFX-WET data point, facing east.



Photograph 48 – A view of Wetland DFY, facing west.



Photograph 49 – A view of the Pompton River (JBB-S) downstream, facing south.



Photograph 50 – A view of upland data point 2, facing north.



Photograph 51 – A view of Stream JBA-S downstream, facing west.



Photograph 52 – A view of Stream JBA-S upstream, facing east.



Photograph 53 – A view of Ditch 2, facing east.



Photograph 54 – A view of NJDEP wetland 4, facing north.



Photograph 55 – A view of the Pompton River (Stream JBB-S) downstream, facing south.



Photograph 56 – A view of the Pompton River (JBB-S) upstream, facing north.



Photograph 57 – A view of Wetland JBC, facing east.



Photograph 58 – A view of JBC-WET data point, facing southeast.



Photograph 59 – A view of Wetland JBD, facing east.



Photograph 60 – A view of Stream JBE-S downstream, facing east.



Photograph 61 – A view of Stream JBE-S upstream, facing west.



Photograph 62 – A view of Wetland JBF, facing east.



Photograph 63 – A view of Stream JBG-S downstream, facing southeast.



Photograph 64 – A view of Stream JBG-S upstream, facing northwest.



Photograph 65 – A view of Wetland JBH, facing north.



Photograph 66 – A view of Wetland JBJ, facing northeast.



Photograph 67 – A view of Stream JBK-S upstream, facing northwest.



Photograph 68 – A view of Stream JBL-S downstream, facing southeast.



Photograph 69 – A view of Stream JBL-S upstream, facing northwest.



Photograph 70 – A view of Wetland JBM, facing east.



Photograph 71 – A view of Wetland JBN, facing southeast.



Photograph 72 – A view of Wetland JBO, facing north.



Photograph 73 – A view of Wetland JBP, facing southeast.



Photograph 74 – A view of Wetland JBQ, facing northwest.



Photograph 75 – A view of Wetland JBR, facing northwest.



Photograph 76 – A view of Stream JBS-S, facing northwest.



Photograph 77 – A view of Ditch 3 downstream, facing northwest to Pompton River.



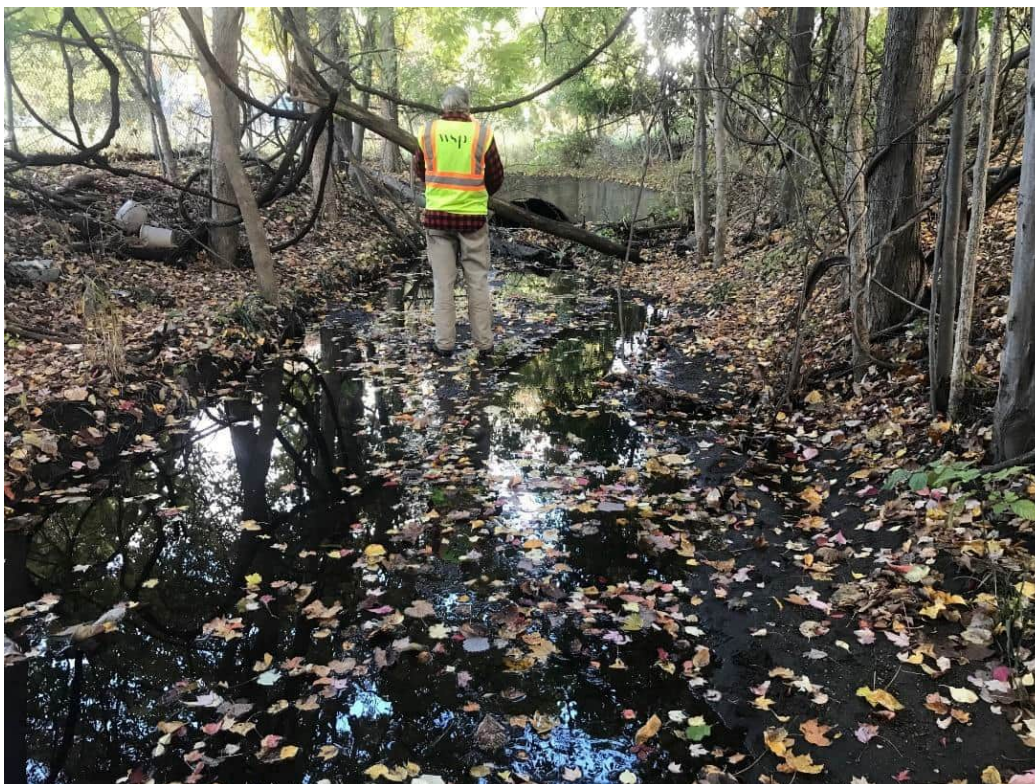
Photograph 78 – A view of Ditch 3 upstream, facing north.



Photograph 79 – A view of Stone House Brook downstream on the northbound side of Route 32, facing northeast.



Photograph 80- A view of Wetland DFAx, facing northeast.



Photograph 81 – A view of Stream DFBx-S, facing upstream and to the northwest.



Photograph 82 – A view of Stream DFBx-S, facing downstream and to the southeast.



Photograph 83 – A view of Wetland DFCx, facing west.



Photograph 84 – A view of Stream DFDx-S, facing upstream and to the east.



Photograph 85 – A view of Stream DFDx-S, facing downstream and to the southwest, towards Wetland DFEx.



Photograph 86 – A view of Wetland DFEx, facing northwest.



Photograph 87 – A view of NJDEP Wetland 7X, located outside of the NJDOT ROW, facing west.



Photograph 88 – A view of Packanack Brook, located outside of the NJDOT ROW, facing southwest.



Photograph 89- A view of NJDEP Wetland 8x, located outside of the NJDOT ROW, facing northeast.



Photograph 90 – A view of an unnamed tributary to the Pompton River, outside of the NJDOT ROW, in NJDEP Wetland 9X, facing southwest.



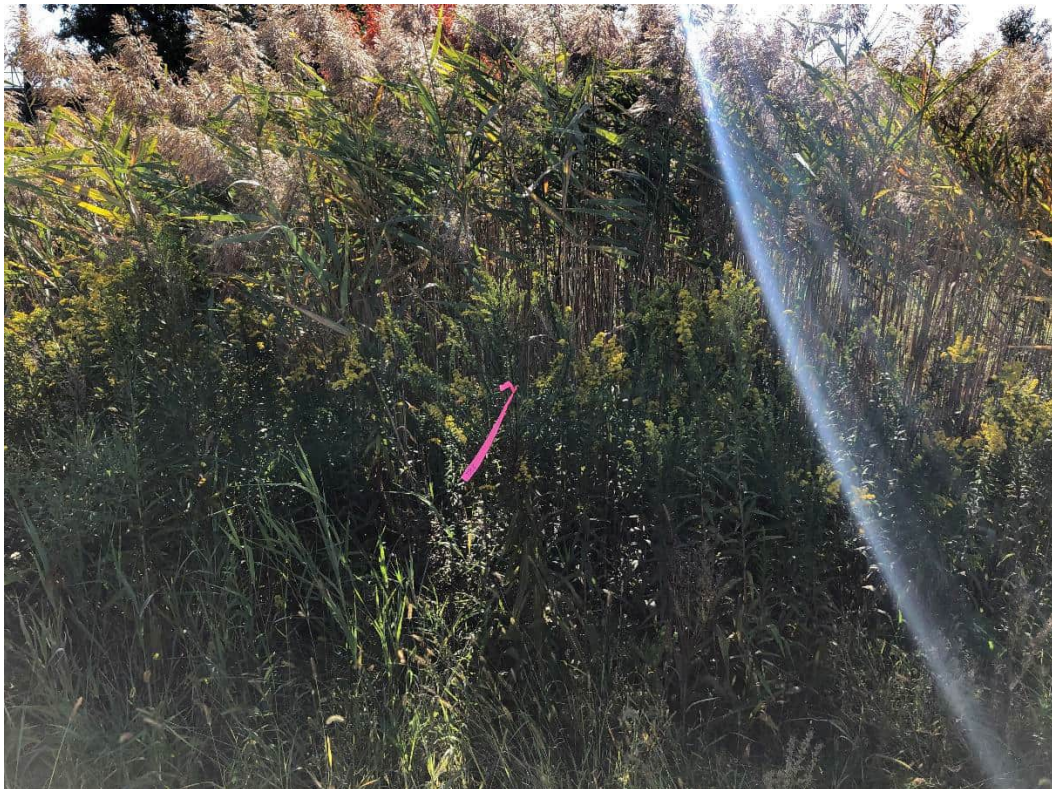
Photograph 91 – A view of NJDEP Wetland 9X, facing west.



Photograph 92 – A view of Wetland TSAx, facing southeast.



Photograph 93 – A view of Wetland TSBx, facing northwest.



Photograph 94 – A view of Wetland TSCx, facing northeast.



Photograph 95 – A view of Wetland TSDx, facing north.



Photograph 96 – A view of Wetland TSEx, facing southwest.



Photograph 97 – A view of Wetland TSFx, facing southeast.



Photograph 98 – A view of TSGx-S downstream (Naachpunkt Brook), facing southwest.



Photograph 99 – A view of Stream TSGx-S (Naachpunkt Brook) upstream, facing northeast.



Photograph 100 – A view of NJDEP Wetland 14x, facing east.



Photograph 101 – A view of Wetland DFFx, facing west.



Photograph 102 – A view of Wetland DFGx, facing northeast.



Photograph 103 – A view of Stream DFHx-S upstream, facing north.



Photograph 104 - A view of Stream DFHx-S downstream, facing south, towards Naachpunkt Brook.



Photograph 105 – A view of Wetland DFIx, facing northeast.



Photograph 106 – A view of NJDEP Wetland 10x, facing east.



Photograph 107 – A view of NJDEP Wetland 11x, facing northeast.



Photograph 108 – A view of Ditch DFJx-S/concrete ditch, facing northwest.



Photograph 109 – A view of Wetland DFKx, facing northwest.



Photograph 110 – A view of Wetland DFLx, facing southeast.

Appendix C

Wetland Data Forms

DATA FORM
ROUTINE WETLAND DETERMINATION

Project / Site: <u>Route 23, I-80 to CR694 (5.53-16.94) ATS C#1</u> Applicant / Owner: <u>New Jersey Department of Transportation</u> Investigator: <u>J. Baker</u>	Date: <u>3/25/2021</u> County: <u>Morris</u> State: <u>New Jersey</u>
Do normal circumstances exist on the site? Yes <u>X</u> No <u> </u> Is the site significantly disturbed (Atypical situation)? Yes <u> </u> No <u>X</u> Is the area a potential problem area? Yes <u> </u> No <u>X</u> (explain on reverse if needed)	Wetland Flag: Plot ID: <u>jbc wet</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Quercus palustris</i>	Tree	FACW	9		
2 <i>Fraxinus pennsylvanica</i>	Tree	FACW	10		
3 <i>Acer rubrum</i>	Tree	FAC	11		
4 <i>Bromus ciliatus</i>	Herb	FACW	12		
5 <i>Agrostis stolonifera</i>	Herb	FACW	13		
6 <i>Juniperus virginiana</i>	Herb	FACU	14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 83%

Remarks: Hydrophytic vegetation is dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): <u> </u> Stream, Lake, or Tide Gauge <u> </u> Aerial Photographs <u> </u> Other X <u> </u> No Recorded Data Available Field Observations: Depth of Surface Water: <u> 2 </u> (in.) Depth to Free Water in Pit: <u> 13 </u> (in.) Depth to Saturated Soil: <u> 0 </u> (in.)	Wetland Hydrology Indicators Primary Indicators: <u> X </u> Inundated <u> X </u> Saturated in Upper 12" <u> </u> Water Marks <u> </u> Drift Lines <u> </u> Sediment Deposits <u> </u> Drainage Patterns in Wetlands Secondary Indicators: <u> </u> Oxidized Roots Channels in Upper 12" <u> X </u> Water-Stained Leaves <u> </u> Local Soil Survey Data <u> </u> FAC-Neutral Test <u> X </u> Other (Explain in Remarks)
Remarks: <u>Buttressed trunks observed. Signs of wetland hydrology present.</u>	

SOILS

Map Unit Name (Series and Phase): <u>UR- Urban Land</u> Drainage Class: <u>not classified</u>					
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☒					
Profile Description:					
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-10		10YR 4/1	2.5YR 4/6	C PL 10%	silt loam
			7.5YR 4/2	D M 5%	
10-20+		7.5YR 4/1	5YR 5/8	C M 2%	clay loam
			5YR 4/3	C M 5%	
Hydric Soil Indicators:					
☐ Histosol		☐ Concretions			
☐ Histic Epipedon		☐ High Organic Content in Surface Layer in Sandy Soils			
☐ Sulfidic Odor		☐ Organic Streaking in Sandy Soils			
☐ Aquic Moisture Regime		☐ Listed On Local Hydric Soils List			
☒ Reducing Conditions		☐ Listed on National Hydric Soils List			
☐ Gleyed or Low-Chroma Colors		☐ Other (Explain in Remarks)			
Remarks: Meets hydric soil indicator F3 - Depleted Matrix as described in USDA NRCS Field Indicators of Hydric Soils in the United States, Version 8.2.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	_____	Is the Sampling Point Within a Wetland?	Yes	<u>X</u>	No	_____
Wetland Hydrology Present?	Yes	<u>X</u>	No	_____					
Hydric Soils Present?	Yes	<u>X</u>	No	_____					
Remarks: Area meets all three wetland criteria. Area is a PEM wetland									

DATA FORM
ROUTINE WETLAND DETERMINATION

Project / Site: <u>Route 23, I-80 to CR694 (5.53-16.94) ATS C#1</u> Applicant / Owner: <u>New Jersey Department of Transportation</u> Investigator: <u>J. Baker</u>	Date: <u>3/25/2021</u> County: <u>Morris</u> State: <u>New Jersey</u>
Do normal circumstances exist on the site? Yes <u>X</u> No <u> </u> Is the site significantly disturbed (Atypical situation)? Yes <u> </u> No <u>X</u> Is the area a potential problem area? Yes <u> </u> No <u>X</u> (explain on reverse if needed)	Wetland Flag: Plot ID: <u>jbc upl</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Quercus palustris</i>	Tree	FACW	9		
2 <i>Fraxinus pennsylvanica</i>	Tree	FACW	10		
3 <i>Lonicera japonica</i>	Herb	FACU	11		
4 <i>Lonicera tatarica</i>	Shrub	FACU	12		
5 <i>Allium vineale</i>	Herb	FACU	13		
6			14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 40%

Remarks: Hydrophytic vegetation is not dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): <u> </u> Stream, Lake, or Tide Gauge <u> </u> Aerial Photographs <u> </u> Other X <u> </u> No Recorded Data Available Field Observations: Depth of Surface Water: <u> </u> -- (in.) Depth to Free Water in Pit: <u> </u> -- (in.) Depth to Saturated Soil: <u> </u> -- (in.)	Wetland Hydrology Indicators Primary Indicators: <u> </u> Inundated <u> </u> Saturated in Upper 12" <u> </u> Water Marks <u> </u> Drift Lines <u> </u> Sediment Deposits <u> </u> Drainage Patterns in Wetlands Secondary Indicators: <u> </u> Oxidized Roots Channels in Upper 12" <u> </u> Water-Stained Leaves <u> </u> Local Soil Survey Data <u> </u> FAC-Neutral Test <u> </u> X Other (Explain in Remarks)
Remarks: Buttressed trunks observed.	

SOILS

Map Unit Name					
(Series and Phase): UR- Urban land			Drainage Class: Not classified		
Taxonomy (Subgroup):			Confirm Mapped Type? Yes No x		
<u>Profile Description:</u>					
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-13		10YR 3/1	5YR 4/6	C PL 2%	silt loam
13-16		10YR 2/1	10YR 4/1	D M 2%	silt loam
			5YR 5/6	C M 2%	
16-20+		10YR 4/1	10YR 6/8	D M 5%	clay loam
			10YR 3/1	D M 5%	
Hydric Soil Indicators:					
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☐ Aquic Moisture Regime ☒ Reducing Conditions ☐ Gleyed or Low-Chroma Colors			☐ Concretions ☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed On Local Hydric Soils List ☐ Listed on National Hydric Soils List ☐ Other (Explain in Remarks)		
Remarks: Meets hydric soil indicator F6 - Redox Dark Surface as described in USDA NRCS Field Indicators of Hydric Soils in the United States, Version 8.2.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u> X </u>	Is the Sampling Point	
Wetland Hydrology Present?	Yes <u> </u>	No <u> X </u>	Within a Wetland?	Yes <u> </u> No <u> X </u>
Hydric Soils Present?	Yes <u> X </u>	No <u> </u>		
Remarks: Area does not meet two of the wetland indicators (hydrology, aquatic vegetation) and is considered upland.				

DATA FORM
ROUTINE WETLAND DETERMINATION

Project / Site: Route 23, I-80 to CR694 (5.53-16.94) ATS C#1 Applicant / Owner: New Jersey Department of Transportation Investigator: J. Baker	Date: 3/25/2021 County: Morris State: New Jersey
Do normal circumstances exist on the site? Yes ☒ No ☐ Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☒ Is the area a potential problem area? Yes ☐ No ☒ (explain on reverse if needed)	Wetland Flag: Plot ID: jbd wet

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Quercus palustris</i>	Tree	FACW	9		
2 <i>Acer rubrum</i>	Tree	FAC	10		
3 <i>Lindera benzoin</i>	Shrub	FACW	11		
4 <i>Microstegium vimineum</i>	Herb	FAC	12		
5 <i>Persicaria hydropiper</i>	Herb	OBL	13		
6 <i>Alliaria petiolata</i>	Herb	FACU	14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 83%

Remarks: Hydrophytic vegetation is dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): ☐ Stream, Lake, or Tide Gauge ☐ Aerial Photographs ☐ Other ☒ No Recorded Data Available Field Observations: Depth of Surface Water: 1 (in.) Depth to Free Water in Pit: 10 (in.) Depth to Saturated Soil: 0 (in.)	Wetland Hydrology Indicators Primary Indicators: ☒ Inundated ☒ Saturated in Upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetlands Secondary Indicators: ☐ Oxidized Roots Channels in Upper 12" ☒ Water-Stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☒ Other (Explain in Remarks)
Remarks: Buttressed trunks observed. Signs of wetland hydrology present.	

SOILS

Map Unit Name (Series and Phase): Parsippany silt loam, sandy loam substratum, 0-3% slopes						Drainage Class: Poorly drained	
Taxonomy (Subgroup): _____					Confirm Mapped Type? Yes ☒ No ☐		
Profile Description:							
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.		
0-10		10YR 4/2	10YR 4/3	C M 30%	silt loam		
10-20+		2.5Y 6/2	10YR 6/4	C M 20%	clay loam		
Hydric Soil Indicators:							
☐ Histosol		☐ Concretions					
☐ Histic Epipedon		☐ High Organic Content in Surface Layer in Sandy Soils					
☐ Sulfidic Odor		☐ Organic Streaking in Sandy Soils					
☐ Aquic Moisture Regime		☐ Listed On Local Hydric Soils List					
☒ Reducing Conditions		☐ Listed on National Hydric Soils List					
☐ Gleyed or Low-Chroma Colors		☐ Other (Explain in Remarks)					
Remarks: Meets hydric soil indicator F3 - Depleted Matrix as described in USDA NRCS Field Indicators of Hydric Soils in the United States, Version 8.2.							

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☒	No ☐	Is the Sampling Point	
Wetland Hydrology Present?	Yes ☒	No ☐	Within a Wetland?	Yes ☒ No ☐
Hydric Soils Present?	Yes ☒	No ☐		
Remarks: Area meets all three wetland criteria and is considered a PFO wetland				

DATA FORM

ROUTINE WETLAND DETERMINATION

Project / Site: Route 23, I-80 to CR694 (5.53-16.94) ATS C#1		Date: 3/25/2021
Applicant / Owner: New Jersey Department of Transportation		County: Morris
Investigator: J. Baker		State: New Jersey
Do normal circumstances exist on the site?	Yes ☒ No ☐	Wetland Flag: Plot ID: jbf wet
Is the site significantly disturbed (Atypical situation)?	Yes ☐ No ☒	
Is the area a potential problem area? (explain on reverse if needed)	Yes ☐ No ☒	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Quercus palustris</i>	Tree	FACW	9		
2 <i>Acer rubrum</i>	Tree	FAC	10		
3 <i>Viburnum dentatum</i>	Shrub	FAC	11		
4 <i>Phragmites australis</i>	Herb	FACW	12		
5 <i>Persicaria hydropiper</i>	Herb	OBL	13		
6 <i>Panicum virgatum</i>	Herb	FAC	14		
7 <i>Microstegium vimineum</i>	Herb	FAC	15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 100%

Remarks: Hydrophytic vegetation is dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): ☐ Stream, Lake, or Tide Gauge ☐ Aerial Photographs ☐ Other ☒ No Recorded Data Available Field Observations: Depth of Surface Water: -- (in.) Depth to Free Water in Pit: 10 (in.) Depth to Saturated Soil: 10 (in.)	Wetland Hydrology Indicators Primary Indicators: ☐ Inundated ☒ Saturated in Upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetlands Secondary Indicators: ☐ Oxidized Roots Channels in Upper 12" ☐ Water-Stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☒ Other (Explain in Remarks)
Remarks: Buttressed trunks, shallow roots observed. Microtopography present and located in a depressional area. Multiple secondary indicators of wetland hydrology observed, in addition to a shallow water table and saturation.	

SOILS

Map Unit Name (Series and Phase): <u>Urban Land-Riverhead complex, 3-8% slopes</u> Drainage Class: <u>well drained</u>					
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☒					
Profile Description:					
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-12		10YR 3/1	10YR 4/1	D M 5%	silt loam
			2.5YR 3/6	C PL 2%	
12-30		10YR 2/1	10YR 4/1	D M 5%	silt loam
			10YR 6/4	C M 2%	
30-35		10YR 2/1	10YR 4/1	D M 20%	sandy loam
			10YR 6/1	MS 15%	
Hydric Soil Indicators:					
☐ Histosol		☐ Concretions			
☐ Histic Epipedon		☐ High Organic Content in Surface Layer in Sandy Soils			
☐ Sulfidic Odor		☐ Organic Streaking in Sandy Soils			
☐ Aquic Moisture Regime		☐ Listed On Local Hydric Soils List			
☒ Reducing Conditions		☐ Listed on National Hydric Soils List			
☐ Gleyed or Low-Chroma Colors		☐ Other (Explain in Remarks)			
Remarks: Meets hydric soil indicator F6 - Redox Dark Surface as described in USDA NRCS Field Indicators of Hydric Soils in the United States, Version 8.2.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☒ No ☐	Is the Sampling Point	
Wetland Hydrology Present?	Yes ☒ No ☐	Within a Wetland?	Yes ☒ No ☐
Hydric Soils Present?	Yes ☒ No ☐		
Remarks: Area meets all three wetland criteria and is considered a PFO wetland.			

DATA FORM

ROUTINE WETLAND DETERMINATION

Project / Site: Route 23, I-80 to CR694 (5.53-16.94) ATS C#1		Date: 3/25/2021
Applicant / Owner: New Jersey Department of Transportation		County: Morris
Investigator: J. Baker		State: New Jersey
Do normal circumstances exist on the site?	Yes ☒ No ☐	Wetland Flag: Plot ID: jbf upl
Is the site significantly disturbed (Atypical situation)?	Yes ☐ No ☒	
Is the area a potential problem area? (explain on reverse if needed)	Yes ☐ No ☒	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Acer rubrum</i>	Tree	FAC	9		
2 <i>Picea abies</i>	Tree	NI	10		
3 <i>Ulmus rubra</i>	Tree	FAC	11		
4 <i>Reynoutria japonica</i>	Herb	FACU	12		
5 <i>Vitis</i> sp.	Vine	n/a	13		
6 <i>Allium vineale</i>	Herb	FACU	14		
7 <i>Alliaria petiolata</i>	Herb	FACU	15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 40%

Remarks: Hydrophytic vegetation is not dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): ☐ Stream, Lake, or Tide Gauge ☐ Aerial Photographs ☐ Other ☒ No Recorded Data Available Field Observations: Depth of Surface Water: -- (in.) Depth to Free Water in Pit: -- (in.) Depth to Saturated Soil: -- (in.)	Wetland Hydrology Indicators Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetlands Secondary Indicators: ☐ Oxidized Roots Channels in Upper 12" ☐ Water-Stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other (Explain in Remarks)
Remarks: No signs of wetland hydrology were observed.	

SOILS

[illegible]

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☐	No ☒	Is the Sampling Point Within a Wetland?	Yes ☐	No ☒
Wetland Hydrology Present?	Yes ☐	No ☒			
Hydric Soils Present?	Yes ☐	No ☒			
Remarks: Area does not meet wetland indicators and is considered upland.					

DATA FORM

ROUTINE WETLAND DETERMINATION

Project / Site: <u>Route 23, I-80 to CR694 (5.53-16.94) ATS C#1</u>		Date: <u>3/26/2021</u>
Applicant / Owner: <u>New Jersey Department of Transportation</u>		County: <u>Morris</u>
Investigator: <u>J. Baker</u>		State: <u>New Jersey</u>
Do normal circumstances exist on the site?	Yes <u>X</u> No <u> </u>	Wetland Flag: Plot ID: <u>jbh wet</u>
Is the site significantly disturbed (Atypical situation)?	Yes <u> </u> No <u>X</u>	
Is the area a potential problem area? (explain on reverse if needed)	Yes <u> </u> No <u>X</u>	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Acer rubrum</u>	Tree	FAC	9 <u> </u>		
2 <u>Persicaria hydropiper</u>	Herb	OBL	10 <u> </u>		
3 <u>Phalaris arundinacea</u>	Herb	FACW	11 <u> </u>		
4 <u>Urtica dioica</u>	Herb	FAC	12 <u> </u>		
5 <u> </u>			13 <u> </u>		
6 <u> </u>			14 <u> </u>		
7 <u> </u>			15 <u> </u>		
8 <u> </u>			16 <u> </u>		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 100%

Remarks: Hydrophytic vegetation is dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): <u> </u> Stream, Lake, or Tide Gauge <u> </u> Aerial Photographs <u> </u> Other <u>X</u> No Recorded Data Available Field Observations: Depth of Surface Water: <u>2</u> (in.) Depth to Free Water in Pit: <u>12</u> (in.) Depth to Saturated Soil: <u>0</u> (in.)	Wetland Hydrology Indicators Primary Indicators: <u>X</u> Inundated <u>X</u> Saturated in Upper 12" <u> </u> Water Marks <u> </u> Drift Lines <u> </u> Sediment Deposits <u> </u> Drainage Patterns in Wetlands Secondary Indicators: <u> </u> Oxidized Roots Channels in Upper 12" <u>X</u> Water-Stained Leaves <u> </u> Local Soil Survey Data <u> </u> FAC-Neutral Test <u>X</u> Other (Explain in Remarks)
Remarks: <u>Buttressed trunks observed. Signs of wetland hydrology present.</u>	

SOILS

Map Unit Name (Series and Phase): <u>USRHVB - Urban land-Riverhead complex, 3 to 8 % slope</u> Drainage Class: <u>well drained</u>					
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☒					
Profile Description:					
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-9		10YR 3/1	10YR 4/1	D M 5%	silt loam
			7.5YR 4/6	C PL 2%	
9-16		10YR 4/1	10YR 3/1	C M 15%	silt loam
			5YR 3/4	C PL 5%	
16-20+		10YR 2/1	10YR 4/1	D M 10%	silt loam
Hydric Soil Indicators:					
☐ Histosol		☐ Concretions			
☐ Histic Epipedon		☐ High Organic Content in Surface Layer in Sandy Soils			
☐ Sulfidic Odor		☐ Organic Streaking in Sandy Soils			
☐ Aquic Moisture Regime		☐ Listed On Local Hydric Soils List			
☒ Reducing Conditions		☐ Listed on National Hydric Soils List			
☐ Gleyed or Low-Chroma Colors		☐ Other (Explain in Remarks)			
Remarks: Meets hydric soil indicators F3 - Depleted Matrix and F6-Redox Dark Surface as described in USDA NRCS Field Indicators of Hydric Soils in the United States, Version 8.2.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes	☒	No	☐	Is the Sampling Point Within a Wetland?	Yes	☒	No	☐
Wetland Hydrology Present?	Yes	☒	No	☐					
Hydric Soils Present?	Yes	☒	No	☐					
Remarks: Area meets all three wetland criteria and is considered PFO wetland									

DATA FORM
ROUTINE WETLAND DETERMINATION

Project / Site: <u>Route 23, I-80 to CR694 (5.53-16.94) ATS C#1</u> Applicant / Owner: <u>New Jersey Department of Transportation</u> Investigator: <u>J. Baker</u>	Date: <u>3/26/2021</u> County: <u>Morris</u> State: <u>New Jersey</u>
Do normal circumstances exist on the site? Yes <u>X</u> No <u> </u> Is the site significantly disturbed (Atypical situation)? Yes <u> </u> No <u>X</u> Is the area a potential problem area? Yes <u> </u> No <u>X</u> (explain on reverse if needed)	Wetland Flag: Plot ID: <u>jbh upl</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Ailanthus altissima</i>	Tree	UPL	9		
2 <i>Acer rubrum</i>	Tree	FAC	10		
3 <i>Rosa multiflora</i>	Shrub	FACU	11		
4 <i>Microstegium vimineum</i>	Herb	FAC	12		
5 <i>Alliaria petiolata</i>	Herb	FACU	13		
6			14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 40%

Remarks: Hydrophytic vegetation is not dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): <u> </u> Stream, Lake, or Tide Gauge <u> </u> Aerial Photographs <u> </u> Other X <u> </u> No Recorded Data Available Field Observations: Depth of Surface Water: <u> </u> -- (in.) Depth to Free Water in Pit: <u> </u> -- (in.) Depth to Saturated Soil: <u> </u> -- (in.)	Wetland Hydrology Indicators Primary Indicators: <u> </u> Inundated <u> </u> Saturated in Upper 12" <u> </u> Water Marks <u> </u> Drift Lines <u> </u> Sediment Deposits <u> </u> Drainage Patterns in Wetlands Secondary Indicators: <u> </u> Oxidized Roots Channels in Upper 12" <u> </u> Water-Stained Leaves <u> </u> Local Soil Survey Data <u> </u> FAC-Neutral Test <u> </u> Other (Explain in Remarks)
Remarks: No signs of wetland hydrology were observed.	

SOILS

[illegible]

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes	<u> </u>	No	<u> X </u>	Is the Sampling Point		
Wetland Hydrology Present?	Yes	<u> </u>	No	<u> X </u>	Within a Wetland?	Yes	<u> </u>
Hydric Soils Present?	Yes	<u> </u>	No	<u> X </u>		No	<u> X </u>
Remarks: Area does not meet wetland indicators and is considered upland.							

DATA FORM

ROUTINE WETLAND DETERMINATION

Project / Site: <u>Route 23, I-80 to CR694 (5.53-16.94) ATS C#1</u> Applicant / Owner: <u>New Jersey Department of Transportation</u> Investigator: <u>J. Baker</u>	Date: <u>3/26/2021</u> County: <u>Morris</u> State: <u>New Jersey</u>
Do normal circumstances exist on the site? Yes <u>X</u> No <u> </u> Is the site significantly disturbed (Atypical situation)? Yes <u> </u> No <u>X</u> Is the area a potential problem area? Yes <u> </u> No <u>X</u> (explain on reverse if needed)	Wetland Flag: Plot ID: <u>jbi wet</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Phragmites australis</i>	Herb	FACW	9		
2			10		
3			11		
4			12		
5			13		
6			14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 100%

Remarks: Hydrophytic vegetation is dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): <u> </u> Stream, Lake, or Tide Gauge <u> </u> Aerial Photographs <u> </u> Other X <u> </u> No Recorded Data Available Field Observations: Depth of Surface Water: <u> </u> -- (in.) Depth to Free Water in Pit: <u> </u> -- (in.) Depth to Saturated Soil: <u> </u> 0 (in.)	Wetland Hydrology Indicators Primary Indicators: <u> </u> Inundated <u> </u> X Saturated in Upper 12" <u> </u> Water Marks <u> </u> Drift Lines <u> </u> Sediment Deposits <u> </u> Drainage Patterns in Wetlands Secondary Indicators: <u> </u> Oxidized Roots Channels in Upper 12" <u> </u> X Water-Stained Leaves <u> </u> Local Soil Survey Data <u> </u> FAC-Neutral Test <u> </u> Other (Explain in Remarks)
Remarks: <u>Signs of wetland hydrology present.</u>	

SOILS

Map Unit Name (Series and Phase): <u>HhmCa - Hibernia loam, 3 to 15 % slopes, stony</u> Drainage Class: <u>somewhat poorly drained</u>					
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☒					
Profile Description:					
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-10		10YR 2/1			silt loam
10-15		10YR 5/2	10YR 3/1	C M 5%	silt loam
			10YR 6/3	C M 5%	
			5YR 3/4	C PL 5%	
15-20+		10YR 6/1	10YR 6/8	C M 5%	silt loam
			10YR 4/1	D M 5%	
Hydric Soil Indicators:					
☐ Histosol			☐ Concretions		
☐ Histic Epipedon			☐ High Organic Content in Surface Layer in Sandy Soils		
☐ Sulfidic Odor			☐ Organic Streaking in Sandy Soils		
☐ Aquic Moisture Regime			☐ Listed On Local Hydric Soils List		
☒ Reducing Conditions			☐ Listed on National Hydric Soils List		
☐ Gleyed or Low-Chroma Colors			☐ Other (Explain in Remarks)		
Remarks: Meets hydric soil indicator F3 - Depleted Matrix as described in USDA NRCS Field Indicators of Hydric Soils in the United States, Version 8.2.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes	☒	No	☐	Is the Sampling Point Within a Wetland?	Yes	☒	No	☐
Wetland Hydrology Present?	Yes	☒	No	☐					
Hydric Soils Present?	Yes	☒	No	☐					
Remarks: Area meets all three wetland criteria and is considered a PEM wetland Drainage basin in road cloverleaf.									

DATA FORM

ROUTINE WETLAND DETERMINATION

Project / Site: <u>Route 23, I-80 to CR694 (5.53-16.94) ATS C#1</u> Applicant / Owner: <u>New Jersey Department of Transportation</u> Investigator: <u>J. Baker</u>	Date: <u>3/26/2021</u> County: <u>Morris</u> State: <u>New Jersey</u>
Do normal circumstances exist on the site? Yes <u>X</u> No <u> </u> Is the site significantly disturbed (Atypical situation)? Yes <u> </u> No <u>X</u> Is the area a potential problem area? Yes <u> </u> No <u>X</u> (explain on reverse if needed)	Wetland Flag: Plot ID: <u>jbj wet</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u><i>Typha latifolia</i></u>	Herb	OBL	9		
2			10		
3			11		
4			12		
5			13		
6			14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 100%

Remarks: Hydrophytic vegetation is dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): <u> </u> Stream, Lake, or Tide Gauge <u> </u> Aerial Photographs <u> </u> Other X <u> </u> No Recorded Data Available Field Observations: Depth of Surface Water: <u>1-8</u> (in.) Depth to Free Water in Pit: <u>0</u> (in.) Depth to Saturated Soil: <u>0</u> (in.)	Wetland Hydrology Indicators Primary Indicators: <u>X</u> <u> </u> Inundated <u>X</u> <u> </u> Saturated in Upper 12" <u> </u> Water Marks <u> </u> Drift Lines <u> </u> Sediment Deposits <u> </u> Drainage Patterns in Wetlands Secondary Indicators: <u> </u> Oxidized Roots Channels in Upper 12" <u>X</u> <u> </u> Water-Stained Leaves <u> </u> Local Soil Survey Data <u> </u> FAC-Neutral Test <u>X</u> <u> </u> Other (Explain in Remarks)
Remarks: <u>Buttressed trunks observed. Signs of wetland hydrology present.</u>	

SOILS

Map Unit Name (Series and Phase): <u>UR - Urban land</u> Drainage Class: <u>Not classified</u>					
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☒					
Profile Description:					
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-5		10YR 3/1	10YR 4/2	D M 3%	silt loam
5-15		10YR 4/2	10YR 6/8	C M 5%	silt loam
			5YR 3/4	C PL 5%	
15-20+		10YR 5/1	10YR 6/8	C PL 5%	silt loam
			10YR 4/2	D M 5%	
Hydric Soil Indicators:					
☐ Histosol		☐ Concretions			
☐ Histic Epipedon		☐ High Organic Content in Surface Layer in Sandy Soils			
☐ Sulfidic Odor		☐ Organic Streaking in Sandy Soils			
☐ Aquic Moisture Regime		☐ Listed On Local Hydric Soils List			
☒ Reducing Conditions		☐ Listed on National Hydric Soils List			
☐ Gleyed or Low-Chroma Colors		☐ Other (Explain in Remarks)			
Remarks: Meets hydric soil indicator F3 - Depleted Matrix as described in USDA NRCS Field Indicators of Hydric Soils in the United States, Version 8.2.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	_____	Is the Sampling Point Within a Wetland?	Yes	<u>X</u>	No	_____
Wetland Hydrology Present?	Yes	<u>X</u>	No	_____					
Hydric Soils Present?	Yes	<u>X</u>	No	_____					
Remarks: Area meets all three wetland criteria and is considered a PEM wetland									

DATA FORM
ROUTINE WETLAND DETERMINATION

Project / Site: <u>Route 23, I-80 to CR694 (5.53-16.94) ATS C#1</u> Applicant / Owner: <u>New Jersey Department of Transportation</u> Investigator: <u>J. Baker</u>	Date: <u>3/26/2021</u> County: <u>Morris</u> State: <u>New Jersey</u>
Do normal circumstances exist on the site? Yes ☒ No ☐ Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☒ Is the area a potential problem area? Yes ☐ No ☒ (explain on reverse if needed)	Wetland Flag: Plot ID: <u>jbm wet</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Phalaris arundinacea</i>	Herb	FACW	9		
2 <i>Rumex verticillatus</i>	Herb	OBL	10		
3			11		
4			12		
5			13		
6			14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 100%

Remarks: Hydrophytic vegetation is dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): ☐ Stream, Lake, or Tide Gauge ☐ Aerial Photographs ☐ Other ☒ No Recorded Data Available Field Observations: Depth of Surface Water: <u>3</u> (in.) Depth to Free Water in Pit: <u>--</u> (in.) Depth to Saturated Soil: <u>0</u> (in.)	Wetland Hydrology Indicators Primary Indicators: ☒ Inundated ☒ Saturated in Upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetlands Secondary Indicators: ☐ Oxidized Roots Channels in Upper 12" ☐ Water-Stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other (Explain in Remarks)
Remarks: <u>Signs of wetland hydrology present.</u>	

SOILS

Map Unit Name (Series and Phase): <u>UR - Urban land</u>					Drainage Class: <u>Not classified</u>				
Taxonomy (Subgroup): _____					Confirm Mapped Type? Yes ☐ No ☒				
Profile Description:									
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.				
0-5		10YR 4/2			silt loam				
5-14		10YR 4/2	10YR 6/8	C M 5%	silt loam				
			5YR 3/4	C PL 5%					
14-18		10YR 4/1	10YR 6/8	C M 5%	silt loam				
			10YR 5/2	D M 5%					
18+	refusal - rocks								
Hydric Soil Indicators:									
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☐ Aquic Moisture Regime ☒ Reducing Conditions ☐ Gleyed or Low-Chroma Colors					☐ Concretions ☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed On Local Hydric Soils List ☐ Listed on National Hydric Soils List ☐ Other (Explain in Remarks)				
Remarks: Meets hydric soil indicator F3 - Depleted Matrix as described in USDA NRCS Field Indicators of Hydric Soils in the United States, Version 8.2.									

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	_____	Is the Sampling Point Within a Wetland?	Yes	<u>X</u>	No	_____
Wetland Hydrology Present?	Yes	<u>X</u>	No	_____					
Hydric Soils Present?	Yes	<u>X</u>	No	_____					
Remarks: Area meets all three wetland criteria and is considered a PEM wetland									

DATA FORM
ROUTINE WETLAND DETERMINATION

Project / Site: <u>Route 23, I-80 to CR694 (5.53-16.94) ATS C#1</u> Applicant / Owner: <u>New Jersey Department of Transportation</u> Investigator: <u>J. Baker</u>	Date: <u>3/26/2021</u> County: <u>Morris</u> State: <u>New Jersey</u>
Do normal circumstances exist on the site? Yes <u>X</u> No <u> </u> Is the site significantly disturbed (Atypical situation)? Yes <u> </u> No <u>X</u> Is the area a potential problem area? Yes <u> </u> No <u>X</u> (explain on reverse if needed)	Wetland Flag: Plot ID: <u>jbm upl</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Poa pratensis</i>	Herb	FACU	9		
2 <i>Panicum virgatum</i>	Herb	FAC	10		
3 <i>Trifolium repens</i>	Herb	FACU	11		
4			12		
5			13		
6			14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 33%

Remarks: Hydrophytic vegetation is not dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): <u> </u> Stream, Lake, or Tide Gauge <u> </u> Aerial Photographs <u> </u> Other X <u> </u> No Recorded Data Available Field Observations: Depth of Surface Water: <u> </u> -- (in.) Depth to Free Water in Pit: <u> </u> -- (in.) Depth to Saturated Soil: <u> </u> -- (in.)	Wetland Hydrology Indicators Primary Indicators: <u> </u> Inundated <u> </u> Saturated in Upper 12" <u> </u> Water Marks <u> </u> Drift Lines <u> </u> Sediment Deposits <u> </u> Drainage Patterns in Wetlands Secondary Indicators: <u> </u> Oxidized Roots Channels in Upper 12" <u> </u> Water-Stained Leaves <u> </u> Local Soil Survey Data <u> </u> FAC-Neutral Test <u> </u> Other (Explain in Remarks)
Remarks: No signs of wetland hydrology were observed.	

SOILS

[illegible]

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes	<u> </u>	No	<u> X </u>	Is the Sampling Point		
Wetland Hydrology Present?	Yes	<u> </u>	No	<u> X </u>	Within a Wetland?	Yes	<u> </u>
Hydric Soils Present?	Yes	<u> </u>	No	<u> X </u>		No	<u> X </u>
Remarks: Area does not meet wetland indicators and is considered upland.							

DATA FORM

ROUTINE WETLAND DETERMINATION

Project / Site: <u>Route 23, I-80 to CR694 (5.53-16.94) ATS C#1</u>		Date: <u>3/26/2021</u>
Applicant / Owner: <u>New Jersey Department of Transportation</u>		County: <u>Morris</u>
Investigator: <u>J. Baker</u>		State: <u>New Jersey</u>
Do normal circumstances exist on the site?	Yes <u>X</u> No <u> </u>	Wetland Flag: Plot ID: <u>jbp wet</u>
Is the site significantly disturbed (Atypical situation)?	Yes <u> </u> No <u>X</u>	
Is the area a potential problem area? (explain on reverse if needed)	Yes <u> </u> No <u>X</u>	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u><i>Alnus incana</i></u>	Shrub	FACW	9		
2			10		
3			11		
4			12		
5			13		
6			14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 100%

Remarks: Hydrophytic vegetation is dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): <u> </u> Stream, Lake, or Tide Gauge <u> </u> Aerial Photographs <u> </u> Other <u>X</u> No Recorded Data Available		Wetland Hydrology Indicators Primary Indicators: <u> </u> Inundated <u>X</u> Saturated in Upper 12" <u> </u> Water Marks <u> </u> Drift Lines <u> </u> Sediment Deposits <u>X</u> Drainage Patterns in Wetlands Secondary Indicators: <u> </u> Oxidized Roots Channels in Upper 12" <u> </u> Water-Stained Leaves <u> </u> Local Soil Survey Data <u> </u> FAC-Neutral Test <u> </u> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u> </u> -- (in.) Depth to Free Water in Pit: <u> </u> -- (in.) Depth to Saturated Soil: <u> </u> 0 (in.)		
Remarks: <u>Signs of wetland hydrology present.</u>		

SOILS

Map Unit Name (Series and Phase): <u>USROCC - Urban land-Rockaway complex, 3 to 15 % slopes</u> Drainage Class: <u>well drained</u>					
Taxonomy (Subgroup): _____			Confirm Mapped Type? Yes ☐ No ☒		
Profile Description:					
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-10		10YR 3/1			silt loam
10-14		10YR 4/1	10YR 3/1	C M 10%	silt loam
14+		refusal - rocks			
Hydric Soil Indicators:					
☐ Histosol		☐ Concretions			
☐ Histic Epipedon		☐ High Organic Content in Surface Layer in Sandy Soils			
☐ Sulfidic Odor		☐ Organic Streaking in Sandy Soils			
☐ Aquic Moisture Regime		☐ Listed On Local Hydric Soils List			
☒ Reducing Conditions		☐ Listed on National Hydric Soils List			
☐ Gleyed or Low-Chroma Colors		☐ Other (Explain in Remarks)			
Remarks: Meets hydric soil indicator F3 - Depleted Matrix as described in USDA NRCS Field Indicators of Hydric Soils in the United States, Version 8.2.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☒	No ☐	Is the Sampling Point
Wetland Hydrology Present?	Yes ☒	No ☐	Within a Wetland?
Hydric Soils Present?	Yes ☒	No ☐	Yes ☒ No ☐
Remarks: Area meets all three wetland criteria and is considered a PEM wetland. Stormwater basin.			

DATA FORM
ROUTINE WETLAND DETERMINATION

Project / Site: <u>Route 23, I-80 to CR694 (5.53-16.94) ATS C#1</u> Applicant / Owner: <u>New Jersey Department of Transportation</u> Investigator: <u>D. Flynn, T. Shinskey</u>	Date: <u>3/30/2021</u> County: <u>Morris</u> State: <u>New Jersey</u>
Do normal circumstances exist on the site? Yes <u>X</u> No <u> </u> Is the site significantly disturbed (Atypical situation)? Yes <u> </u> No <u>X</u> Is the area a potential problem area? Yes <u> </u> No <u>X</u> (explain on reverse if needed)	Wetland Flag: Plot ID: <u>dfa wet</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Salix discolor</i>	Shrub	FACW	9		
2 <i>Ulmus rubra</i>	Tree	FAC	10		
3 <i>Epilobium coloratum</i>	Herb	OBL	11		
4 <i>Typha latifolia</i>	Herb	OBL	12		
5 <i>Persicaria pensylvanica</i>	Herb	FACW	13		
6 <i>Artemisia vulgaris</i>	Herb	UPL	14		
7 <i>Lythrum salicaria</i>	Herb	OBL	15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 86%

Remarks: Hydrophytic vegetation is dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): <u> </u> Stream, Lake, or Tide Gauge <u> </u> Aerial Photographs <u> </u> Other X <u> </u> No Recorded Data Available Field Observations: Depth of Surface Water: <u>1-2</u> (in.) Depth to Free Water in Pit: <u>--</u> (in.) Depth to Saturated Soil: <u>0</u> (in.)	Wetland Hydrology Indicators Primary Indicators: <u>X</u> <u> </u> Inundated <u>X</u> <u> </u> Saturated in Upper 12" <u> </u> Water Marks <u> </u> Drift Lines <u> </u> Sediment Deposits <u>X</u> <u> </u> Drainage Patterns in Wetlands Secondary Indicators: <u> </u> Oxidized Roots Channels in Upper 12" <u> </u> Water-Stained Leaves <u> </u> Local Soil Survey Data <u> </u> FAC-Neutral Test <u> </u> Other (Explain in Remarks)
Remarks: <u>Wetland hydrology indicators are present.</u>	

SOILS

Map Unit Name (Series and Phase): <u>RkgBb - Ridgebury loam, 0 to 8 percent slopes, very stony</u> Drainage Class: <u>poorly drained</u>					
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☒					
Profile Description:					
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-4		2.5Y 4/2	10YR 4/6	C PL 10%	sandy loam
			10YR 4/1	D M 5%	sandy loam
4+		Rip-rap			
Hydric Soil Indicators:					
☐ Histosol		☐ Concretions			
☐ Histic Epipedon		☐ High Organic Content in Surface Layer in Sandy Soils			
☐ Sulfidic Odor		☐ Organic Streaking in Sandy Soils			
☐ Aquic Moisture Regime		☐ Listed On Local Hydric Soils List			
☒ Reducing Conditions		☐ Listed on National Hydric Soils List			
☐ Gleyed or Low-Chroma Colors		☐ Other (Explain in Remarks)			
Remarks: Meets hydric soil indicator F3 - Depleted Matrix as described in USDA NRCS Field Indicators of Hydric Soils in the United States, Version 8.2.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes	☒	No	☐	Is the Sampling Point Within a Wetland?	Yes	☒	No	☐
Wetland Hydrology Present?	Yes	☒	No	☐					
Hydric Soils Present?	Yes	☒	No	☐					
Remarks: Area meets all three wetland criteria. Site is a manmade retention basin/wetland in Route 23 U-Turn cloverleaf.									

DATA FORM
ROUTINE WETLAND DETERMINATION

Project / Site: <u>Route 23, I-80 to CR694 (5.53-16.94) ATS C#1</u> Applicant / Owner: <u>New Jersey Department of Transportation</u> Investigator: <u>D. Flynn, T. Shinskey</u>	Date: <u>3/30/2021</u> County: <u>Morris</u> State: <u>New Jersey</u>
Do normal circumstances exist on the site? Yes <u>X</u> No <u> </u> Is the site significantly disturbed (Atypical situation)? Yes <u> </u> No <u>X</u> Is the area a potential problem area? Yes <u> </u> No <u>X</u> (explain on reverse if needed)	Wetland Flag: Plot ID: <u>dfa/b upl</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Platanus occidentalis</i>	Tree	FACW	9		
2 <i>Pinus strobus</i>	Tree	FACU	10		
3 <i>Quercus rubra</i>	Tree	FACU	11		
4 <i>Quercus palustris</i>	Tree	FACW	12		
5 <i>Alliaria petiolata</i>	Herb	FACU	13		
6 <i>Allium vineale</i>	Herb	FACU	14		
7 <i>Lonicera japonica</i>	Herb	FACU	15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 29%

Remarks: Hydrophytic vegetation is not dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): <u> </u> Stream, Lake, or Tide Gauge <u> </u> Aerial Photographs <u> </u> Other X <u> </u> No Recorded Data Available Field Observations: Depth of Surface Water: <u> </u> -- (in.) Depth to Free Water in Pit: <u> </u> -- (in.) Depth to Saturated Soil: <u> </u> -- (in.)	Wetland Hydrology Indicators Primary Indicators: <u> </u> Inundated <u> </u> Saturated in Upper 12" <u> </u> Water Marks <u> </u> Drift Lines <u> </u> Sediment Deposits <u> </u> Drainage Patterns in Wetlands Secondary Indicators: <u> </u> Oxidized Roots Channels in Upper 12" <u> </u> Water-Stained Leaves <u> </u> Local Soil Survey Data <u> </u> FAC-Neutral Test <u> </u> Other (Explain in Remarks)
Remarks: <u>No signs of wetland hydrology were observed.</u>	

SOILS

[illegible]

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u> X </u>	Is the Sampling Point	
Wetland Hydrology Present?	Yes <u> </u>	No <u> X </u>	Within a Wetland?	Yes <u> </u> No <u> X </u>
Hydric Soils Present?	Yes <u> </u>	No <u> X </u>		
Remarks: Area does not meet wetland indicators and is considered upland.				

DATA FORM

ROUTINE WETLAND DETERMINATION

Project / Site: <u>Route 23, I-80 to CR694 (5.53-16.94) ATS C#1</u>		Date: <u>3/30/2021</u>
Applicant / Owner: <u>New Jersey Department of Transportation</u>		County: <u>Morris</u>
Investigator: <u>D. Flynn, T. Shinsky</u>		State: <u>New Jersey</u>
Do normal circumstances exist on the site?	Yes <u>X</u> No <u> </u>	Wetland Flag: Plot ID: <u>dfb wet</u>
Is the site significantly disturbed (Atypical situation)?	Yes <u> </u> No <u>X</u>	
Is the area a potential problem area? (explain on reverse if needed)	Yes <u> </u> No <u>X</u>	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Fraxinus pennsylvanica</i>	Tree	FACW	9		
2 <i>Acer rubrum</i>	Tree	FAC	10		
3 <i>Platanus occidentalis</i>	Tree	FACW	11		
4 <i>Cornus alba</i>	Shrub	FACW	12		
5 <i>Alnus incana</i>	Shrub	FACW	13		
6 <i>Phragmites australis</i>	Herb	FACW	14		
7 <i>Scirpus cyperinus</i>	Herb	OBL	15		
8 <i>Poa</i> sp.	Herb	n/a	16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 100%

Remarks: Hydrophytic vegetation is dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): <u> </u> Stream, Lake, or Tide Gauge <u> </u> Aerial Photographs <u> </u> Other <u>X</u> No Recorded Data Available Field Observations: Depth of Surface Water: <u>1</u> (in.) Depth to Free Water in Pit: <u>1</u> (in.) Depth to Saturated Soil: <u>0</u> (in.)	Wetland Hydrology Indicators Primary Indicators: <u>X</u> Inundated <u>X</u> Saturated in Upper 12" <u> </u> Water Marks <u> </u> Drift Lines <u> </u> Sediment Deposits <u>X</u> Drainage Patterns in Wetlands Secondary Indicators: <u> </u> Oxidized Roots Channels in Upper 12" <u>X</u> Water-Stained Leaves <u> </u> Local Soil Survey Data <u> </u> FAC-Neutral Test <u> </u> Other (Explain in Remarks)
Remarks: <u>Wetland hydrology indicators present.</u>	

SOILS

[illegible]

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	<u> </u>	Is the Sampling Point		
Wetland Hydrology Present?	Yes	<u>X</u>	No	<u> </u>	Within a Wetland?	Yes	<u>X</u>
Hydric Soils Present?	Yes	<u>X</u>	No	<u> </u>		No	<u> </u>
Remarks: Area meets all three wetland criteria.							

DATA FORM

ROUTINE WETLAND DETERMINATION

Project / Site: <u>Route 23, I-80 to CR694 (5.53-16.94) ATS C#1</u>		Date: <u>3/30/2021</u>
Applicant / Owner: <u>New Jersey Department of Transportation</u>		County: <u>Morris</u>
Investigator: <u>D. Flynn, T. Shinsky</u>		State: <u>New Jersey</u>
Do normal circumstances exist on the site?	Yes <u>X</u> No <u> </u>	Wetland Flag: Plot ID: <u>dff & h wet</u>
Is the site significantly disturbed (Atypical situation)?	Yes <u> </u> No <u>X</u>	
Is the area a potential problem area? (explain on reverse if needed)	Yes <u> </u> No <u>X</u>	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Fraxinus pennsylvanica</i>	Tree	FACW	9		
2 <i>Acer rubrum</i>	Tree	FAC	10		
3 <i>Lindera benzoin</i>	Shrub	FACW	11		
4 <i>Osmunda cinnamomea</i>	Herb	FACW	12		
5 <i>Symplocarpus foetidus</i>	Herb	OBL	13		
6 <i>Phragmites australis</i>	Herb	FACW	14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 100%

Remarks: Hydrophytic vegetation is dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): <u> </u> Stream, Lake, or Tide Gauge <u> </u> Aerial Photographs <u> </u> Other <u>X</u> No Recorded Data Available Field Observations: Depth of Surface Water: <u>1-3</u> (in.) Depth to Free Water in Pit: <u>3</u> (in.) Depth to Saturated Soil: <u>0</u> (in.)	Wetland Hydrology Indicators Primary Indicators: <u>X</u> Inundated <u>X</u> Saturated in Upper 12" <u> </u> Water Marks <u> </u> Drift Lines <u> </u> Sediment Deposits <u>X</u> Drainage Patterns in Wetlands Secondary Indicators: <u> </u> Oxidized Roots Channels in Upper 12" <u>X</u> Water-Stained Leaves <u> </u> Local Soil Survey Data <u> </u> FAC-Neutral Test <u> </u> Other (Explain in Remarks)
Remarks: <u>Wetland hydrology indicators present.</u>	

SOILS

Map Unit Name					
(Series and Phase):		RkgBc - Ridgebury stony loam, New Jersey Highlands,		Drainage Class:	poorly drained
Taxonomy (Subgroup):			Confirm Mapped Type?	Yes ___ No <u>X</u>	
Profile Description:					
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-3		10YR 2/1			muck
3-10		10YR 2/1	7.5YR 4/6	C PL 5%	silt loam
10-20+		10YR 2/1	7.5YR 4/6	C M 15%	silt loam
Hydric Soil Indicators:					
___ Histosol			___ Concretions		
___ Histic Epipedon			___ High Organic Content in Surface Layer in Sandy Soils		
___ Sulfidic Odor			___ Organic Streaking in Sandy Soils		
___ Aquic Moisture Regime			___ Listed On Local Hydric Soils List		
<u>X</u> Reducing Conditions			___ Listed on National Hydric Soils List		
___ Gleyed or Low-Chroma Colors			___ Other (Explain in Remarks)		
Remarks: Meets hydric soil indicator F6 - Redox Dark Surface as described in USDA NRCS Field Indicators of Hydric Soils in the United States, Version 8.2.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	<u> </u>	Is the Sampling Point		
Wetland Hydrology Present?	Yes	<u>X</u>	No	<u> </u>	Within a Wetland?	Yes	<u>X</u>
Hydric Soils Present?	Yes	<u>X</u>	No	<u> </u>		No	<u> </u>
Remarks: Area meets all three wetland criteria.							

DATA FORM
ROUTINE WETLAND DETERMINATION

Project / Site: <u>Route 23, I-80 to CR694 (5.53-16.94) ATS C#1</u> Applicant / Owner: <u>New Jersey Department of Transportation</u> Investigator: <u>D. Flynn, T. Shinskey</u>	Date: <u>3/30/2021</u> County: <u>Morris</u> State: <u>New Jersey</u>
Do normal circumstances exist on the site? Yes <u>X</u> No <u> </u> Is the site significantly disturbed (Atypical situation)? Yes <u> </u> No <u>X</u> Is the area a potential problem area? Yes <u> </u> No <u>X</u> (explain on reverse if needed)	Wetland Flag: Plot ID: <u>dff dfh upl</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u><i>Liriodendron tulipifera</i></u>	Tree	FACU	9		
2 <u><i>Quercus alba</i></u>	Tree	FACU	10		
3 <u><i>Acer saccharum</i></u>	Tree	FACU	11		
4 <u><i>Rosa multiflora</i></u>	Shrub	FACU	12		
5 <u><i>Celastrus orbiculatus</i></u>	Vine	UPL	13		
6 <u><i>Polystichum acrostichoides</i></u>	Herb	FACU	14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 0%

Remarks: Hydrophytic vegetation is absent.

HYDROLOGY

Recorded Data (Describe In Remarks): <u> </u> Stream, Lake, or Tide Gauge <u> </u> Aerial Photographs <u> </u> Other X <u> </u> No Recorded Data Available Field Observations: Depth of Surface Water: <u> </u> -- (in.) Depth to Free Water in Pit: <u> </u> -- (in.) Depth to Saturated Soil: <u> </u> -- (in.)	Wetland Hydrology Indicators Primary Indicators: <u> </u> Inundated <u> </u> Saturated in Upper 12" <u> </u> Water Marks <u> </u> Drift Lines <u> </u> Sediment Deposits <u> </u> Drainage Patterns in Wetlands Secondary Indicators: <u> </u> Oxidized Roots Channels in Upper 12" <u> </u> Water-Stained Leaves <u> </u> Local Soil Survey Data <u> </u> FAC-Neutral Test <u> </u> Other (Explain in Remarks)
Remarks: <u>Wetland hydrology indicators are absent.</u>	

SOILS

Map Unit Name		Drainage Class:	
(Series and Phase): RkgBc - Ridgebury stony loam, New Jersey Highlands,		poorly drained	
Taxonomy (Subgroup):		Confirm Mapped Type? Yes ☐ No ☒	
Profile Description:			
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)
0-1		10YR 2/1	
1-6		10YR 3/2	
6+		rock	
Hydric Soil Indicators:			
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☐ Aquic Moisture Regime ☐ Reducing Conditions ☐ Gleyed or Low-Chroma Colors		☐ Concretions ☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed On Local Hydric Soils List ☐ Listed on National Hydric Soils List ☐ Other (Explain in Remarks)	
Remarks: Hydric soil indicators are absent.			

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u> X </u>	Is the Sampling Point	
Wetland Hydrology Present?	Yes <u> </u>	No <u> X </u>	Within a Wetland?	Yes <u> </u> No <u> X </u>
Hydric Soils Present?	Yes <u> </u>	No <u> X </u>		
Remarks: Area does not meet any wetland criteria and is considered upland.				

DATA FORM

ROUTINE WETLAND DETERMINATION

Project / Site: <u>Route 23, I-80 to CR694 (5.53-16.94) ATS C#1</u> Applicant / Owner: <u>New Jersey Department of Transportation</u> Investigator: <u>D. Flynn, T. Shinsky</u>	Date: <u>3/30/2021</u> County: <u>Morris</u> State: <u>New Jersey</u>
Do normal circumstances exist on the site? Yes ☒ No ☐ Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☒ Is the area a potential problem area? Yes ☐ No ☒ (explain on reverse if needed)	Wetland Flag: Plot ID: <u>dfm wet</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Phragmites australis</i>	Herb	FACW	9		
2 <i>Microstegium vimineum</i>	Herb	FAC	10		
3 <i>Onoclea sensibilis</i>	Herb	FACW	11		
4 <i>Persicaria hydropiper</i>	Herb	OBL	12		
5 <i>Carex</i> sp.	Herb	FACW/OBL	13		
6			14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 100%

Remarks: Hydrophytic vegetation is dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): ☐ Stream, Lake, or Tide Gauge ☐ Aerial Photographs ☐ Other ☒ No Recorded Data Available Field Observations: Depth of Surface Water: <u>1</u> (in.) Depth to Free Water in Pit: <u> </u> (in.) Depth to Saturated Soil: <u>0</u> (in.)	Wetland Hydrology Indicators Primary Indicators: ☒ Inundated ☒ Saturated in Upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☒ Drainage Patterns in Wetlands Secondary Indicators: ☐ Oxidized Roots Channels in Upper 12" ☐ Water-Stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other (Explain in Remarks)
Remarks: Signs of wetland hydrology were observed.	

SOILS

Map Unit Name (Series and Phase): <u>RomE - Rockaway-Rock outcrop complex, 25 to 45% slo</u>						Drainage Class: <u>moderately well drained</u>	
Taxonomy (Subgroup): _____				Confirm Mapped Type?		Yes ☐	No ☒
Profile Description:							
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.		
0-8		10YR 4/2	7.5YR 4/6	C PL 20%	sandy loam		
8-12		10YR 5/2	7.5YR 4/6	C PL 2%	loamy sand		
			10YR 4/4	C M 10%			
12-16		10YR 4/1	10YR 4/6	C M 30%	loamy sand/gravel		
Hydric Soil Indicators:							
☐ Histosol				☐ Concretions			
☐ Histic Epipedon				☐ High Organic Content in Surface Layer in Sandy Soils			
☐ Sulfidic Odor				☐ Organic Streaking in Sandy Soils			
☐ Aquic Moisture Regime				☐ Listed On Local Hydric Soils List			
☒ Reducing Conditions				☐ Listed on National Hydric Soils List			
☒ Gleyed or Low-Chroma Colors				☐ Other (Explain in Remarks)			
Remarks: Meets hydric soil indicator F3 - Depleted Matrix as described in USDA NRCS Field Indicators of Hydric Soils in the United States, Version 8.2.							

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☒	No ☐	Is the Sampling Point Within a Wetland?	Yes ☒	No ☐
Wetland Hydrology Present?	Yes ☒	No ☐			
Hydric Soils Present?	Yes ☒	No ☐			
Remarks: Area meets all three wetland criteria.					

DATA FORM

ROUTINE WETLAND DETERMINATION

Project / Site: <u>Route 23, I-80 to CR694 (5.53-16.94) ATS C#1</u>		Date: <u>4/1/2021</u>
Applicant / Owner: <u>New Jersey Department of Transportation</u>		County: <u>Morris</u>
Investigator: <u>D. Flynn, T. Shinsky</u>		State: <u>New Jersey</u>
Do normal circumstances exist on the site?	Yes <u>X</u> No <u> </u>	Wetland Flag: Plot ID: <u>upl pt 1</u>
Is the site significantly disturbed (Atypical situation)?	Yes <u> </u> No <u>X</u>	
Is the area a potential problem area? (explain on reverse if needed)	Yes <u> </u> No <u>X</u>	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u><i>Liriodendron tulipifera</i></u>	Tree	FACU	9 <u> </u>		
2 <u><i>Fagus grandifolia</i></u>	Tree	FACU	10 <u> </u>		
3 <u><i>Lindera benzoin</i></u>	Shrub	FACW	11 <u> </u>		
4 <u><i>Reynoutria japonica</i></u>	Herb	FACU	12 <u> </u>		
5 <u><i>Symplocarpus foetidus</i></u>	Herb	OBL	13 <u> </u>		
6 <u><i>Rosa multiflora</i></u>	Shrub	FACU	14 <u> </u>		
7 <u> </u>			15 <u> </u>		
8 <u> </u>			16 <u> </u>		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 33%

Remarks: Hydrophytic vegetation is not dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): <u> </u> Stream, Lake, or Tide Gauge <u> </u> Aerial Photographs <u> </u> Other <u>X</u> No Recorded Data Available Field Observations: Depth of Surface Water: <u>1</u> (in.) Depth to Free Water in Pit: <u>2</u> (in.) Depth to Saturated Soil: <u>0</u> (in.)	Wetland Hydrology Indicators Primary Indicators: <u>X</u> Inundated <u>X</u> Saturated in Upper 12" <u> </u> Water Marks <u> </u> Drift Lines <u> </u> Sediment Deposits <u> </u> Drainage Patterns in Wetlands Secondary Indicators: <u> </u> Oxidized Roots Channels in Upper 12" <u> </u> Water-Stained Leaves <u> </u> Local Soil Survey Data <u> </u> FAC-Neutral Test <u> </u> Other (Explain in Remarks)
Remarks: <u>Area meets wetland hydrology criteria. Standing water present - raining at time of survey.</u>	

SOILS

Map Unit Name		Drainage Class:	
(Series and Phase): PrkAt - Preakness sandy loam, 0 to 3 % slopes, frequently flooded		poorly drained	
Taxonomy (Subgroup):		Confirm Mapped Type? Yes ☐ No ☒	
Profile Description:			
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)
0-6		10YR 3/3	
6-16		10YR 4/4	10YR 5/3
			10YR 3/2
Hydric Soil Indicators:			
☐ Histosol	☐ Concretions		
☐ Histic Epipedon	☐ High Organic Content in Surface Layer in Sandy Soils		
☐ Sulfidic Odor	☐ Organic Streaking in Sandy Soils		
☐ Aquic Moisture Regime	☐ Listed On Local Hydric Soils List		
☐ Reducing Conditions	☐ Listed on National Hydric Soils List		
☐ Gleyed or Low-Chroma Colors	☐ Other (Explain in Remarks)		
Remarks: Area does not meet hydric soil indicators.			

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes	<u> </u>	No	<u> X </u>	Is the Sampling Point		
Wetland Hydrology Present?	Yes	<u> X </u>	No	<u> </u>	Within a Wetland?	Yes	<u> </u>
Hydric Soils Present?	Yes	<u> </u>	No	<u> X </u>		No	<u> X </u>
Remarks: Despite the presence of skunk cabbage and wetland hydrology during rain event, the area does not meet soil or hydrophytic vegetation criteria, and is considered upland.							

DATA FORM
ROUTINE WETLAND DETERMINATION

Project / Site: <u>Route 23, I-80 to CR694 (5.53-16.94) ATS C#1</u> Applicant / Owner: <u>New Jersey Department of Transportation</u> Investigator: <u>D. Flynn, T. Shinskey</u>	Date: <u>4/1/2021</u> County: <u>Morris</u> State: <u>New Jersey</u>
Do normal circumstances exist on the site? Yes <u>X</u> No <u> </u> Is the site significantly disturbed (Atypical situation)? Yes <u> </u> No <u>X</u> Is the area a potential problem area? Yes <u> </u> No <u>X</u> (explain on reverse if needed)	Wetland Flag: Plot ID: <u>dfq wet</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Phragmites australis</i>	Herb	FACW	9		
2 <i>Acer rubrum</i>	Tree	FAC	10		
3 <i>Salix nigra</i>	Tree	OBL	11		
4			12		
5			13		
6			14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 100%

Remarks: Hydrophytic vegetation is dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): <u> </u> Stream, Lake, or Tide Gauge <u> </u> Aerial Photographs <u> </u> Other X <u> </u> No Recorded Data Available Field Observations: Depth of Surface Water: <u>1-12</u> (in.) Depth to Free Water in Pit: <u>--</u> (in.) Depth to Saturated Soil: <u>0</u> (in.)	Wetland Hydrology Indicators Primary Indicators: <u>X</u> <u> </u> Inundated <u>X</u> <u> </u> Saturated in Upper 12" <u> </u> Water Marks <u> </u> Drift Lines <u> </u> Sediment Deposits <u> </u> Drainage Patterns in Wetlands Secondary Indicators: <u> </u> Oxidized Roots Channels in Upper 12" <u> </u> Water-Stained Leaves <u> </u> Local Soil Survey Data <u> </u> FAC-Neutral Test <u> </u> Other (Explain in Remarks)
Remarks: <u>Signs of wetland hydrology were observed.</u>	

SOILS

Map Unit Name					
(Series and Phase): USRHVB - Urban land-Riverhead complex, 3 to 8 % slope			Drainage Class: well drained		
Taxonomy (Subgroup):			Confirm Mapped Type? Yes No X		
Profile Description:					
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-8		10YR 4/1	10YR 5/6	C PL 5%	silt loam
8-18		10YR 5/1	10YR 4/4	C PL 10%	clay loam
			10YR 5/3	C M 15%	
			7.5YR 4/6	C M 2%	
Hydric Soil Indicators:					
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☐ Aquic Moisture Regime ☒ Reducing Conditions ☒ Gleyed or Low-Chroma Colors			☐ Concretions ☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed On Local Hydric Soils List ☐ Listed on National Hydric Soils List ☐ Other (Explain in Remarks)		
Remarks: Meets hydric soil indicator F3 - Depleted Matrix as described in USDA NRCS Field Indicators of Hydric Soils in the United States, Version 8.2.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	<u> </u>	Is the Sampling Point		
Wetland Hydrology Present?	Yes	<u>X</u>	No	<u> </u>	Within a Wetland?	Yes	<u>X</u>
Hydric Soils Present?	Yes	<u>X</u>	No	<u> </u>		No	<u> </u>
Remarks: Area meets all three wetland criteria.							

DATA FORM

ROUTINE WETLAND DETERMINATION

Project / Site: <u>Route 23, I-80 to CR694 (5.53-16.94) ATS C#1</u>		Date: <u>4/1/2021</u>
Applicant / Owner: <u>New Jersey Department of Transportation</u>		County: <u>Morris</u>
Investigator: <u>D. Flynn, T. Shinsky</u>		State: <u>New Jersey</u>
Do normal circumstances exist on the site? Yes <u>X</u> No <u> </u>		Wetland Flag: Plot ID: <u>dfs wet</u>
Is the site significantly disturbed (Atypical situation)? Yes <u> </u> No <u>X</u>		
Is the area a potential problem area? Yes <u> </u> No <u>X</u> (explain on reverse if needed)		

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Populus deltoides</u>	Tree	FAC	9 <u> </u>		
2 <u>Acer saccharinum</u>	Tree	FACW	10 <u> </u>		
3 <u>Toxicodendron radicans</u>	Vine	FAC	11 <u> </u>		
4 <u>Juncus effusus</u>	Herb	OBL	12 <u> </u>		
5 <u>Eleocharis</u> sp.	Herb	FACW/OBL	13 <u> </u>		
6 <u>Carex</u> sp.	Herb	OBL	14 <u> </u>		
7 <u> </u>			15 <u> </u>		
8 <u> </u>			16 <u> </u>		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 100%

Remarks: Hydrophytic vegetation is dominant.

HYDROLOGY

<u> </u> Recorded Data (Describe In Remarks): <u> </u> Stream, Lake, or Tide Gauge <u> </u> Aerial Photographs <u> </u> Other <u>X</u> No Recorded Data Available		Wetland Hydrology Indicators Primary Indicators: <u> X</u> Inundated <u> X</u> Saturated in Upper 12" <u> </u> Water Marks <u> </u> Drift Lines <u> </u> Sediment Deposits <u> </u> Drainage Patterns in Wetlands Secondary Indicators: <u> </u> Oxidized Roots Channels in Upper 12" <u> X</u> Water-Stained Leaves <u> </u> Local Soil Survey Data <u> </u> FAC-Neutral Test <u> </u> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u>1-4</u> (in.) Depth to Free Water in Pit: <u>3</u> (in.) Depth to Saturated Soil: <u>0</u> (in.)		
Remarks: <u>Signs of wetland hydrology were observed.</u>		

SOILS

Map Unit Name		Drainage Class:	
(Series and Phase): UR - Urban land		Not Classified	
Taxonomy (Subgroup):		Confirm Mapped Type? Yes ☐ No ☒	
Profile Description:			
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)
0-6		10YR 3/1	
6+		gravel/rip-rap fill	
Texture, Concretions, Structure, etc.			
sandy loam			
Hydric Soil Indicators:			
☐ Histosol	☐ Concretions		
☐ Histic Epipedon	☐ High Organic Content in Surface Layer in Sandy Soils		
☐ Sulfidic Odor	☐ Organic Streaking in Sandy Soils		
☐ Aquic Moisture Regime	☐ Listed On Local Hydric Soils List		
☐ Reducing Conditions	☐ Listed on National Hydric Soils List		
☐ Gleyed or Low-Chroma Colors	☐ Other (Explain in Remarks)		
Remarks: Area does not meet any hydric soil indicators, but depth of soil available for sample is limited due to the rock layer beneath. Wetland is located in a cloverleaf.			

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	<u> </u>	Is the Sampling Point		
Wetland Hydrology Present?	Yes	<u>X</u>	No	<u> </u>	Within a Wetland?	Yes	<u>X</u> No <u> </u>
Hydric Soils Present?	Yes	<u> </u>	No	<u> </u>			
Remarks: Despite the lack of hydric soil indicators, the presence of wetland hydrology indicators and hydrophytic vegetation indicate that the area is wetland, especially due to its geomorphology in the landscape and retention capabilities in a roadway cloverleaf.							

DATA FORM
ROUTINE WETLAND DETERMINATION

Project / Site: Route 23, I-80 to CR694 (5.53-16.94) ATS C#1 Applicant / Owner: New Jersey Department of Transportation Investigator: D. Flynn, T. Shinskey	Date: 4/1/2021 County: Morris State: New Jersey
Do normal circumstances exist on the site? Yes ☒ No ☐ Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☒ Is the area a potential problem area? Yes ☐ No ☒ (explain on reverse if needed)	Wetland Flag: Plot ID: dfs upl

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Acer rubrum</i>	Tree	FAC	9		
2 <i>Fraxinus americana</i>	Tree	FACU	10		
3 <i>Poa pratensis</i>	Herb	FACU	11		
4			12		
5			13		
6			14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 33%

Remarks: Hydrophytic vegetation is not dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): ☐ Stream, Lake, or Tide Gauge ☐ Aerial Photographs ☐ Other ☒ No Recorded Data Available Field Observations: Depth of Surface Water: -- (in.) Depth to Free Water in Pit: -- (in.) Depth to Saturated Soil: -- (in.)	Wetland Hydrology Indicators Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetlands Secondary Indicators: ☐ Oxidized Roots Channels in Upper 12" ☐ Water-Stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other (Explain in Remarks)
Remarks: No signs of wetland hydrology were observed.	

SOILS

[illegible]

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u> X </u>	Is the Sampling Point	
Wetland Hydrology Present?	Yes <u> </u>	No <u> X </u>	Within a Wetland?	Yes <u> </u> No <u> X </u>
Hydric Soils Present?	Yes <u> </u>	No <u> X </u>		
Remarks: Area does not meet all three wetland criteria and is considered upland.				

DATA FORM

ROUTINE WETLAND DETERMINATION

Project / Site: Route 23, I-80 to CR694 (5.53-16.94) ATS C#1		Date: 4/5/2021
Applicant / Owner: New Jersey Department of Transportation		County: Morris
Investigator: D. Flynn, T. Shinsky		State: New Jersey
Do normal circumstances exist on the site?	Yes ☒ No ☐	Wetland Flag: Plot ID: upl pt 2
Is the site significantly disturbed (Atypical situation)?	Yes ☐ No ☒	
Is the area a potential problem area? (explain on reverse if needed)	Yes ☐ No ☒	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Fagus grandifolia</i>	Tree	FACU	9		
2 <i>Acer rubrum</i>	Tree	FAC	10		
3 <i>Quercus rubra</i>	Tree	FACU	11		
4 <i>Berberis thunbergii</i>	Shrub	FACU	12		
5 <i>Lindera benzoin</i>	Shrub	FACW	13		
6 <i>Allium vineale</i>	Herb	FACU	14		
7 <i>Microstegium vimineum</i>	Herb	FAC	15		
8 <i>Alliaria petiolata</i>	Herb	FACU	16		
Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 38%					
Remarks: Hydrophytic vegetation is not dominant.					

HYDROLOGY

Recorded Data (Describe In Remarks): ☐ Stream, Lake, or Tide Gauge ☐ Aerial Photographs ☐ Other ☒ No Recorded Data Available Field Observations: Depth of Surface Water: -- (in.) Depth to Free Water in Pit: -- (in.) Depth to Saturated Soil: -- (in.)	Wetland Hydrology Indicators Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetlands Secondary Indicators: ☐ Oxidized Roots Channels in Upper 12" ☐ Water-Stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other (Explain in Remarks)
Remarks: No signs of wetland hydrology were observed.	

SOILS

Map Unit Name		Drainage Class:	
(Series and Phase): USROCC - Urban land-Rockaway complex, 3 to 15 % slopes		well drained	
Taxonomy (Subgroup):		Confirm Mapped Type? Yes ☐ No ☒	
Profile Description:			
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)
0-3		10YR 2/2	
3-8		10YR 4/4	
8-18		7.5YR 4/6	
Hydric Soil Indicators:			
☐ Histosol	☐ Concretions		
☐ Histic Epipedon	☐ High Organic Content in Surface Layer in Sandy Soils		
☐ Sulfidic Odor	☐ Organic Streaking in Sandy Soils		
☐ Aquic Moisture Regime	☐ Listed On Local Hydric Soils List		
☐ Reducing Conditions	☐ Listed on National Hydric Soils List		
☐ Gleyed or Low-Chroma Colors	☐ Other (Explain in Remarks)		
Remarks: Hydric soil indicators were not observed.			

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☐	No ☒	Is the Sampling Point Within a Wetland?	Yes ☐	No ☒
Wetland Hydrology Present?	Yes ☐	No ☒			
Hydric Soils Present?	Yes ☐	No ☒			
Remarks: Area did not meet all three wetland criteria and is considered upland.					

DATA FORM
ROUTINE WETLAND DETERMINATION

Project / Site: <u>Route 23, I-80 to CR694 (5.53-16.94) ATS C#1</u> Applicant / Owner: <u>New Jersey Department of Transportation</u> Investigator: <u>D. Flynn, T. Shinsky</u>	Date: <u>4/5/2021</u> County: <u>Passaic</u> State: <u>New Jersey</u>
Do normal circumstances exist on the site? Yes <u>X</u> No <u> </u> Is the site significantly disturbed (Atypical situation)? Yes <u> </u> No <u>X</u> Is the area a potential problem area? Yes <u> </u> No <u>X</u> (explain on reverse if needed)	Wetland Flag: Plot ID: <u>dfw wet</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Acer rubrum</i>	Tree	FAC	9		
2 <i>Ulmus rubra</i>	Tree	FAC	10		
3 <i>Juncus effusus</i>	Herb	OBL	11		
4 <i>Phragmites australis</i>	Herb	FACW	12		
5 <i>Carex scoparia</i>	Herb	FACW	13		
6 <i>Lonicera japonica</i>	Herb	FACU	14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 83%

Remarks: Hydrophytic vegetation is dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): <u> </u> Stream, Lake, or Tide Gauge <u> </u> Aerial Photographs <u> </u> Other X <u> </u> No Recorded Data Available Field Observations: Depth of Surface Water: <u>1-4</u> (in.) Depth to Free Water in Pit: <u>4</u> (in.) Depth to Saturated Soil: <u>0</u> (in.)	Wetland Hydrology Indicators Primary Indicators: <u>X</u> <u> </u> Inundated <u>X</u> <u> </u> Saturated in Upper 12" <u> </u> Water Marks <u> </u> Drift Lines <u> </u> Sediment Deposits <u> </u> Drainage Patterns in Wetlands Secondary Indicators: <u> </u> Oxidized Roots Channels in Upper 12" <u>X</u> <u> </u> Water-Stained Leaves <u> </u> Local Soil Survey Data <u> </u> FAC-Neutral Test <u> </u> Other (Explain in Remarks)
Remarks: <u>Signs of wetland hydrology were observed.</u>	

SOILS

[illegible]

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	<u> </u>	Is the Sampling Point	Yes	<u>X</u>	No	<u> </u>
Wetland Hydrology Present?	Yes	<u>X</u>	No	<u> </u>	Within a Wetland?	Yes	<u>X</u>	No	<u> </u>
Hydric Soils Present?	Yes	<u>X</u>	No	<u> </u>					
Remarks: Area meets all three wetland criteria.									

DATA FORM
ROUTINE WETLAND DETERMINATION

Project / Site: <u>Route 23, I-80 to CR694 (5.53-16.94) ATS C#1</u> Applicant / Owner: <u>New Jersey Department of Transportation</u> Investigator: <u>D. Flynn, T. Shinskey</u>	Date: <u>4/5/2021</u> County: <u>Passaic</u> State: <u>New Jersey</u>
Do normal circumstances exist on the site? Yes <u>X</u> No <u> </u> Is the site significantly disturbed (Atypical situation)? Yes <u> </u> No <u>X</u> Is the area a potential problem area? Yes <u> </u> No <u>X</u> (explain on reverse if needed)	Wetland Flag: Plot ID: <u>dfx wet</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Acer rubrum</i>	Tree	FAC	9		
2 <i>Platanus occidentalis</i>	Tree	FACW	10		
3 <i>Fraxinus pennsylvanica</i>	Tree	FACW	11		
4 <i>Ulmus rubra</i>	Tree	FAC	12		
5 <i>Carpinus caroliniana</i>	Tree	FAC	13		
6 <i>Cornus amomum</i>	Shrub	FACW	14		
7 <i>Juncus effusus</i>	Herb	OBL	15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 100%

Remarks: Hydrophytic vegetation is dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): <u> </u> Stream, Lake, or Tide Gauge <u> </u> Aerial Photographs <u> </u> Other X <u> </u> No Recorded Data Available Field Observations: Depth of Surface Water: <u> </u> -- (in.) Depth to Free Water in Pit: <u> </u> 8 (in.) Depth to Saturated Soil: <u> </u> 0 (in.)	Wetland Hydrology Indicators Primary Indicators: <u> </u> Inundated <u> </u> X Saturated in Upper 12" <u> </u> Water Marks <u> </u> Drift Lines <u> </u> Sediment Deposits <u> </u> Drainage Patterns in Wetlands Secondary Indicators: <u> </u> Oxidized Roots Channels in Upper 12" <u> </u> X Water-Stained Leaves <u> </u> Local Soil Survey Data <u> </u> FAC-Neutral Test <u> </u> Other (Explain in Remarks)
Remarks: <u>Signs of wetland hydrology were observed.</u>	

SOILS

Map Unit Name					
(Series and Phase): HakBb - Haledon loam, 0 to 8 % slopes, very stony			Drainage Class: somewhat poorly drained		
Taxonomy (Subgroup): _____			Confirm Mapped Type? Yes ____ No <u>x</u>		
Profile Description:					
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-5		10YR 3/1	10YR 4/3	C M 3%	silt loam
			10YR 5/6	C PL 1%	
5-10		10YR 3/1	10YR 4/3	C PL10%	clay loam
10-18		10YR 5/1	10YR 4/1	D M 5%	clay
			10YR 5/6	C M 15%	
			2.5Y 5/3	C M 10%	
Hydric Soil Indicators:					
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☐ Aquic Moisture Regime ☒ Reducing Conditions ☒ Gleyed or Low-Chroma Colors			☐ Concretions ☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed On Local Hydric Soils List ☐ Listed on National Hydric Soils List ☐ Other (Explain in Remarks)		
Remarks: Meets hydric soil indicator F6 - Redox Dark Surface as described in USDA NRCS Field Indicators of Hydric Soils in the United States, Version 8.2.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	_____	Is the Sampling Point Within a Wetland?	Yes	<u>X</u>	No	_____
Wetland Hydrology Present?	Yes	<u>X</u>	No	_____					
Hydric Soils Present?	Yes	<u>X</u>	No	_____					
Remarks: Area meets all three wetland criteria.									

DATA FORM
ROUTINE WETLAND DETERMINATION

Project / Site: Route 23, I-80 to CR694 (5.53-16.94) ATS C#1 Applicant / Owner: New Jersey Department of Transportation Investigator: D. Flynn, T. Shinskey	Date: 4/5/2021 County: Passaic State: New Jersey
Do normal circumstances exist on the site? Yes ☒ No ☐ Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☒ Is the area a potential problem area? Yes ☐ No ☒ (explain on reverse if needed)	Wetland Flag: Plot ID: dfw x upl

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Acer rubrum</i>	Tree	FAC	9		
2 <i>Quercus rubra</i>	Tree	FACU	10		
3 <i>Carya ovata</i>	Tree	FACU	11		
4 <i>Carpinus caroliniana</i>	Tree	FAC	12		
5 <i>Viburnum prunifolium</i>	Shrub	FACU	13		
6 <i>Smilax rotundifolia</i>	Shrub	FAC	14		
7 <i>Lonicera japonica</i>	Herb	FACU	15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 43%

Remarks: Hydrophytic vegetation is not dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): ☐ Stream, Lake, or Tide Gauge ☐ Aerial Photographs ☐ Other ☒ No Recorded Data Available Field Observations: Depth of Surface Water: -- (in.) Depth to Free Water in Pit: -- (in.) Depth to Saturated Soil: -- (in.)	Wetland Hydrology Indicators Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetlands Secondary Indicators: ☐ Oxidized Roots Channels in Upper 12" ☐ Water-Stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other (Explain in Remarks)
Remarks: No signs of wetland hydrology observed.	

SOILS

[illegible]

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes	<u> </u>	No	<u> X </u>	Is the Sampling Point		
Wetland Hydrology Present?	Yes	<u> </u>	No	<u> X </u>	Within a Wetland?	Yes	<u> </u>
Hydric Soils Present?	Yes	<u> </u>	No	<u> X </u>		No	<u> X </u>
Remarks: Area does not meet all three wetland criteria and is considered upland.							

DATA FORM

ROUTINE WETLAND DETERMINATION

Project / Site: <u>Route 23, I-80 to CR694 (5.53-16.94) ATS C#1</u>		Date: <u>4/5/2021</u>
Applicant / Owner: <u>New Jersey Department of Transportation</u>		County: <u>Passaic</u>
Investigator: <u>D. Flynn, T. Shinskey</u>		State: <u>New Jersey</u>
Do normal circumstances exist on the site?	Yes <u>X</u> No <u> </u>	Wetland Flag: Plot ID: <u>dfy wet</u>
Is the site significantly disturbed (Atypical situation)?	Yes <u> </u> No <u>X</u>	
Is the area a potential problem area? (explain on reverse if needed)	Yes <u> </u> No <u>X</u>	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u><i>Ulmus rubra</i></u>	Tree	FAC	9 <u> </u>		
2 <u><i>Acer rubrum</i></u>	Tree	FAC	10 <u> </u>		
3 <u><i>Carpinus caroliniana</i></u>	Tree	FAC	11 <u> </u>		
4 <u><i>Viburnum prunifolium</i></u>	Shrub	FACU	12 <u> </u>		
5 <u><i>Juncus effusus</i></u>	Herb	OBL	13 <u> </u>		
6 <u><i>Carex</i> sp.</u>	Herb	FACW	14 <u> </u>		
7 <u> </u>			15 <u> </u>		
8 <u> </u>			16 <u> </u>		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 83%

Remarks: Hydrophytic vegetation is dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): <u> </u> Stream, Lake, or Tide Gauge <u> </u> Aerial Photographs <u> </u> Other <u>X</u> No Recorded Data Available Field Observations: Depth of Surface Water: <u>1-2</u> (in.) Depth to Free Water in Pit: <u>5</u> (in.) Depth to Saturated Soil: <u>0</u> (in.)	Wetland Hydrology Indicators Primary Indicators: <u>X</u> Inundated <u>X</u> Saturated in Upper 12" <u> </u> Water Marks <u> </u> Drift Lines <u> </u> Sediment Deposits <u> </u> Drainage Patterns in Wetlands Secondary Indicators: <u> </u> Oxidized Roots Channels in Upper 12" <u>X</u> Water-Stained Leaves <u> </u> Local Soil Survey Data <u> </u> FAC-Neutral Test <u> </u> Other (Explain in Remarks)
Remarks: <u>Signs of wetland hydrology were observed.</u>	

SOILS

Map Unit Name (Series and Phase): USROCC - Urban land-Rockaway complex, 3 to 15 % slopes						Drainage Class: well drained	
Taxonomy (Subgroup): _____					Confirm Mapped Type? Yes ____ No <u>x</u>		
Profile Description:							
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.		
0-3		10YR 3/1	10YR 3/2	C PL 5%	silt loam		
3-9		10YR 4/1	10YR 3/4	C PL 5%	clay loam		
			10YR 6/3	C M 2%			
9-18		10YR 6/1	10YR 5/8	C M 25%	clay		
			10YR 3/1	C M 2%			
Hydric Soil Indicators:							
☐ Histosol				☐ Concretions			
☐ Histic Epipedon				☐ High Organic Content in Surface Layer in Sandy Soils			
☐ Sulfidic Odor				☐ Organic Streaking in Sandy Soils			
☐ Aquic Moisture Regime				☐ Listed On Local Hydric Soils List			
☒ Reducing Conditions				☐ Listed on National Hydric Soils List			
☒ Gleyed or Low-Chroma Colors				☐ Other (Explain in Remarks)			
Remarks: Meets hydric soil indicator F3 - Depleted Matrix as described in USDA NRCS Field Indicators of Hydric Soils in the United States, Version 8.2.							

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes <u>X</u>	No ____	Is the Sampling Point	
Wetland Hydrology Present?	Yes <u>X</u>	No ____	Within a Wetland?	Yes <u>X</u> No ____
Hydric Soils Present?	Yes <u>X</u>	No ____		
Remarks: Area meets all three wetland criteria.				

DATA FORM
ROUTINE WETLAND DETERMINATION

Project / Site: Route 23, I-80 to CR694 (5.53-16.94) ATS C#1 Applicant / Owner: New Jersey Department of Transportation Investigator: D. Flynn, T. Shinskey	Date: 4/5/2021 County: Passaic State: New Jersey
Do normal circumstances exist on the site? Yes ☒ No ☐ Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☒ Is the area a potential problem area? Yes ☐ No ☒ (explain on reverse if needed)	Wetland Flag: Plot ID: dfy upl

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Platanus occidentalis</i>	Tree	FACW	9		
2 <i>Acer saccharum</i>	Tree	FACU	10		
3 <i>Ulmus rubra</i>	Tree	FAC	11		
4 <i>Viburnum prunifolium</i>	Tree	FACU	12		
5 <i>Allium vineale</i>	Herb	FACU	13		
6 <i>Erythronium americanum</i>	Herb	UPL	14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 33%

Remarks: Hydrophytic vegetation is not dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): ☐ Stream, Lake, or Tide Gauge ☐ Aerial Photographs ☐ Other ☒ No Recorded Data Available Field Observations: Depth of Surface Water: -- (in.) Depth to Free Water in Pit: -- (in.) Depth to Saturated Soil: -- (in.)	Wetland Hydrology Indicators Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetlands Secondary Indicators: ☐ Oxidized Roots Channels in Upper 12" ☐ Water-Stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other (Explain in Remarks)
Remarks: No signs of wetland hydrology observed.	

SOILS

Map Unit Name		Drainage Class:	
(Series and Phase): USROCC - Urban land-Rockaway complex, 3 to 15 % slopes		well drained	
Taxonomy (Subgroup):		Confirm Mapped Type? Yes ☐ No ☒	
Profile Description:			
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)
0-4		10YR 3/2	
4+		refusal/rocks	
Hydric Soil Indicators:			
☐ Histosol	☐ Concretions		
☐ Histic Epipedon	☐ High Organic Content in Surface Layer in Sandy Soils		
☐ Sulfidic Odor	☐ Organic Streaking in Sandy Soils		
☐ Aquic Moisture Regime	☐ Listed On Local Hydric Soils List		
☐ Reducing Conditions	☐ Listed on National Hydric Soils List		
☐ Gleyed or Low-Chroma Colors	☐ Other (Explain in Remarks)		
Remarks: No hydric soil indicators were observed.			

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☐	No ☒	Is the Sampling Point Within a Wetland?	Yes ☐	No ☒
Wetland Hydrology Present?	Yes ☐	No ☒			
Hydric Soils Present?	Yes ☐	No ☒			
Remarks: Area does not meet all three wetland criteria and is considered upland.					

DATA FORM

ROUTINE WETLAND DETERMINATION

Project / Site: <u>Route 23, I-80 to CR694 (5.53-16.94) ATS C#1</u>		Date: <u>10/19/2022</u>
Applicant / Owner: <u>New Jersey Department of Transportation</u>		County: <u>Passaic</u>
Investigator: <u>D. Flynn, T. Shinskey</u>		State: <u>New Jersey</u>
Do normal circumstances exist on the site?	Yes <u>X</u> No <u> </u>	Wetland Flag: Plot ID: <u>dfax wet</u>
Is the site significantly disturbed (Atypical situation)?	Yes <u> </u> No <u>X</u>	
Is the area a potential problem area? (explain on reverse if needed)	Yes <u> </u> No <u>X</u>	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Acer rubrum</u>	Tree	FAC	9 <u> </u>		
2 <u>Ulmus rubra</u>	Tree	FAC	10 <u> </u>		
3 <u>Fraxinus pennsylvanica</u>	Tree	FACW	11 <u> </u>		
4 <u>Liquidambar styraciflua</u>	Tree	FAC	12 <u> </u>		
5 <u> </u>			13 <u> </u>		
6 <u> </u>			14 <u> </u>		
7 <u> </u>			15 <u> </u>		
8 <u> </u>			16 <u> </u>		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 100%

Remarks: Hydrophytic vegetation is dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): <u> </u> Stream, Lake, or Tide Gauge <u> </u> Aerial Photographs <u> </u> Other <u>X</u> No Recorded Data Available Field Observations: Depth of Surface Water: <u> </u> -- (in.) Depth to Free Water in Pit: <u> </u> -- (in.) Depth to Saturated Soil: <u> </u> 6 (in.)	Wetland Hydrology Indicators Primary Indicators: <u> </u> Inundated <u>X</u> Saturated in Upper 12" <u> </u> Water Marks <u> </u> Drift Lines <u> </u> Sediment Deposits <u> </u> Drainage Patterns in Wetlands Secondary Indicators: <u> </u> Oxidized Roots Channels in Upper 12" <u>X</u> Water-Stained Leaves <u> </u> Local Soil Survey Data <u> </u> FAC-Neutral Test <u>X</u> Other (Explain in Remarks)
Remarks: <u>Trees have moss trim lines and buttressed trunks. Depressional swale in cloverleaf. Wetland hydrology indicators are present.</u>	

SOILS

Map Unit Name		Drainage Class:	
(Series and Phase): Urban land - Riverhead complex, 3-8% slopes		Not classified	
Taxonomy (Subgroup):		Confirm Mapped Type? Yes ☐ No ☒	
Profile Description:			
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)
0-2		10YR 2/1	
2-8		10YR 4/1	7.5YR 4/6
8-12		7.5YR 4/2	7.5YR 4/4
12+		gravel/fill layer	
Texture, Concretions, Structure, etc.			
silt loam			
sandy loam			
sandy loam			
Hydric Soil Indicators:			
☐ Histosol	☐ Concretions		
☐ Histic Epipedon	☐ High Organic Content in Surface Layer in Sandy Soils		
☐ Sulfidic Odor	☐ Organic Streaking in Sandy Soils		
☐ Aquic Moisture Regime	☐ Listed On Local Hydric Soils List		
☒ Reducing Conditions	☐ Listed on National Hydric Soils List		
☐ Gleyed or Low-Chroma Colors	☐ Other (Explain in Remarks)		
Remarks: Meets hydric soil indicator F3 - Depleted Matrix as described in USDA NRCS Field Indicators of Hydric Soils in the United States, Version 8.2.			

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	<u> </u>	Is the Sampling Point		
Wetland Hydrology Present?	Yes	<u>X</u>	No	<u> </u>	Within a Wetland?	Yes	<u>X</u>
Hydric Soils Present?	Yes	<u>X</u>	No	<u> </u>		No	<u> </u>
Remarks: Area meets all three wetland criteria.							
Site is located in a forested Route 23 U-Turn cloverleaf.							

DATA FORM

ROUTINE WETLAND DETERMINATION

Project / Site: Route 23, I-80 to CR694 (5.53-16.94) ATS C#1		Date: 10/19/2022
Applicant / Owner: New Jersey Department of Transportation		County: Passaic
Investigator: D. Flynn, T. Shinskey		State: New Jersey
Do normal circumstances exist on the site?	Yes ☒ No ☐	Wetland Flag: Plot ID: dfax upl
Is the site significantly disturbed (Atypical situation)?	Yes ☐ No ☒	
Is the area a potential problem area? (explain on reverse if needed)	Yes ☐ No ☒	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Acer platanoides</i>	Tree	UPL	9		
2 <i>Acer rubrum</i>	Tree	FAC	10		
3 <i>Alliaria petiolata</i>	Herb	FACU	11		
4			12		
5			13		
6			14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 33%

Remarks: Hydrophytic vegetation is not dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): ☐ Stream, Lake, or Tide Gauge ☐ Aerial Photographs ☐ Other ☒ No Recorded Data Available Field Observations: Depth of Surface Water: -- (in.) Depth to Free Water in Pit: -- (in.) Depth to Saturated Soil: -- (in.)	Wetland Hydrology Indicators Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetlands Secondary Indicators: ☐ Oxidized Roots Channels in Upper 12" ☐ Water-Stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other (Explain in Remarks)
Remarks: No signs of wetland hydrology were observed.	

SOILS

Map Unit Name		Drainage Class:	
(Series and Phase): Urban land - Riverhead complex, 3-8% slopes		Not classified	
Taxonomy (Subgroup):		Confirm Mapped Type? Yes ☐ No ☒ X	
Profile Description:			
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)
0-6		10YR 3/2	
6-10		10YR 4/2	
10+		10YR 4/2	10YR 5/3
			C M 10%
Hydric Soil Indicators:			
☐ Histosol	☐ Concretions		
☐ Histic Epipedon	☐ High Organic Content in Surface Layer in Sandy Soils		
☐ Sulfidic Odor	☐ Organic Streaking in Sandy Soils		
☐ Aquic Moisture Regime	☐ Listed On Local Hydric Soils List		
☐ Reducing Conditions	☐ Listed on National Hydric Soils List		
☐ Gleyed or Low-Chroma Colors	☐ Other (Explain in Remarks)		
Remarks: Meets hydric soil indicator F3 - Depleted Matrix as described in USDA NRCS Field Indicators of Hydric Soils in the United States, Version 8.2.			

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☐	No ☒	Is the Sampling Point Within a Wetland?	Yes ☐	No ☒
Wetland Hydrology Present?	Yes ☐	No ☒			
Hydric Soils Present?	Yes ☒	No ☐			
Remarks: Area does not meet all three wetland indicators and is considered upland.					

DATA FORM

ROUTINE WETLAND DETERMINATION

Project / Site: <u>Route 23, I-80 to CR694 (5.53-16.94) ATS C#1</u>		Date: <u>10/19/2022</u>
Applicant / Owner: <u>New Jersey Department of Transportation</u>		County: <u>Passaic</u>
Investigator: <u>D. Flynn, T. Shinsky</u>		State: <u>New Jersey</u>
Do normal circumstances exist on the site?	Yes <u>X</u> No <u> </u>	Wetland Flag: Plot ID: <u>dfcx wet</u>
Is the site significantly disturbed (Atypical situation)?	Yes <u> </u> No <u>X</u>	
Is the area a potential problem area? (explain on reverse if needed)	Yes <u> </u> No <u>X</u>	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Fraxinus pennsylvanica</u>	Tree	FACW	9 <u> </u>		
2 <u>Acer negundo</u>	Tree	FAC	10 <u> </u>		
3 <u>Phragmites australis</u>	Herb	FACW	11 <u> </u>		
4 <u>Mikania scandens</u>	Herb	OBL	12 <u> </u>		
5 <u> </u>			13 <u> </u>		
6 <u> </u>			14 <u> </u>		
7 <u> </u>			15 <u> </u>		
8 <u> </u>			16 <u> </u>		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 100%

Remarks: Hydrophytic vegetation is dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): <u> </u> Stream, Lake, or Tide Gauge <u> </u> Aerial Photographs <u> </u> Other <u>X</u> No Recorded Data Available Field Observations: Depth of Surface Water: <u> </u> (in.) Depth to Free Water in Pit: <u> </u> (in.) Depth to Saturated Soil: <u>0</u> (in.)	Wetland Hydrology Indicators Primary Indicators: <u> </u> Inundated <u>X</u> Saturated in Upper 12" <u> </u> Water Marks <u> </u> Drift Lines <u> </u> Sediment Deposits <u>X</u> Drainage Patterns in Wetlands Secondary Indicators: <u> </u> Oxidized Roots Channels in Upper 12" <u>X</u> Water-Stained Leaves <u> </u> Local Soil Survey Data <u> </u> FAC-Neutral Test <u> </u> Other (Explain in Remarks)
Remarks: <u>Wetland hydrology indicators present.</u>	

SOILS

Map Unit Name (Series and Phase): Parsippany silt loam, sandy loam substratum, 0-3% slopes, frequently flooded						Drainage Class: Poorly drained	
Taxonomy (Subgroup): _____					Confirm Mapped Type? Yes ____ No ☒		
Profile Description:							
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.		
0-6		7.5YR 2.5/1	5YR 4/6	C M 3%	silt		
6-15		7.5YR 2.5/1	5YR 4/6	C M 15%	silt loam		
15-18		7.5YR 2.5/1	5YR 4/6	C M 10%	silt loam		
			10YR 4/3	C M 25%			
Hydric Soil Indicators:							
☐ Histosol				☐ Concretions			
☐ Histic Epipedon				☐ High Organic Content in Surface Layer in Sandy Soils			
☐ Sulfidic Odor				☐ Organic Streaking in Sandy Soils			
☐ Aquic Moisture Regime				☐ Listed On Local Hydric Soils List			
☒ Reducing Conditions				☐ Listed on National Hydric Soils List			
☐ Gleyed or Low-Chroma Colors				☐ Other (Explain in Remarks)			
Remarks: Meets hydric soil indicator F6 - Depleted Dark Surface as described in USDA NRCS Field Indicators of Hydric Soils in the United States, Version 8.2.							

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☒	No ☐	Is the Sampling Point Within a Wetland?	Yes ☒	No ☐
Wetland Hydrology Present?	Yes ☒	No ☐			
Hydric Soils Present?	Yes ☒	No ☐			
Remarks: Area meets all three wetland criteria.					

DATA FORM

ROUTINE WETLAND DETERMINATION

Project / Site: <u>Route 23, I-80 to CR694 (5.53-16.94) ATS C#1</u>		Date: <u>10/19/2022</u>
Applicant / Owner: <u>New Jersey Department of Transportation</u>		County: <u>Passaic</u>
Investigator: <u>D. Flynn, T. Shinsky</u>		State: <u>New Jersey</u>
Do normal circumstances exist on the site?	Yes <u>X</u> No <u> </u>	Wetland Flag: Plot ID: <u>dfcx upl</u>
Is the site significantly disturbed (Atypical situation)?	Yes <u> </u> No <u>X</u>	
Is the area a potential problem area? (explain on reverse if needed)	Yes <u> </u> No <u>X</u>	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Fagus grandifolia</i>	Tree	FACU	9		
2 <i>Acer rubrum</i>	Tree	FAC	10		
3 <i>Ilex opaca</i>	Tree	FACU	11		
4			12		
5			13		
6			14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 33%

Remarks: Hydrophytic vegetation is not dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): <u> </u> Stream, Lake, or Tide Gauge <u> </u> Aerial Photographs <u> </u> Other <u>X</u> No Recorded Data Available Field Observations: Depth of Surface Water: <u> </u> (in.) Depth to Free Water in Pit: <u> </u> (in.) Depth to Saturated Soil: <u> </u> (in.)	Wetland Hydrology Indicators Primary Indicators: <u> </u> Inundated <u> </u> Saturated in Upper 12" <u> </u> Water Marks <u> </u> Drift Lines <u> </u> Sediment Deposits <u> </u> Drainage Patterns in Wetlands Secondary Indicators: <u> </u> Oxidized Roots Channels in Upper 12" <u> </u> Water-Stained Leaves <u> </u> Local Soil Survey Data <u> </u> FAC-Neutral Test <u> </u> Other (Explain in Remarks)
Remarks: <u>No signs of wetland hydrology were observed.</u>	

SOILS

[illegible]

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u> X </u>	Is the Sampling Point	
Wetland Hydrology Present?	Yes <u> </u>	No <u> X </u>	Within a Wetland?	Yes <u> </u> No <u> X </u>
Hydric Soils Present?	Yes <u> </u>	No <u> X </u>		
Remarks: Area does not meet wetland indicators and is considered upland.				

DATA FORM

ROUTINE WETLAND DETERMINATION

Project / Site: <u>Route 23, I-80 to CR694 (5.53-16.94) ATS C#1</u>		Date: <u>10/19/2022</u>
Applicant / Owner: <u>New Jersey Department of Transportation</u>		County: <u>Passaic</u>
Investigator: <u>D. Flynn, T. Shinskey</u>		State: <u>New Jersey</u>
Do normal circumstances exist on the site?	Yes <u>X</u> No <u> </u>	Wetland Flag: Plot ID: <u>dfex wet</u>
Is the site significantly disturbed (Atypical situation)?	Yes <u> </u> No <u>X</u>	
Is the area a potential problem area? (explain on reverse if needed)	Yes <u> </u> No <u>X</u>	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Fraxinus pennsylvanica</i>	Herb	FACW	9		
2 <i>Phragmites australis</i>	Herb	FACW	10		
3			11		
4			12		
5			13		
6			14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 100%

Remarks: Hydrophytic vegetation is dominant. Green ash seedlings/saplings present.

HYDROLOGY

Recorded Data (Describe In Remarks): <u> </u> Stream, Lake, or Tide Gauge <u> </u> Aerial Photographs <u> </u> Other <u>X</u> No Recorded Data Available Field Observations: Depth of Surface Water: <u>1</u> (in.) Depth to Free Water in Pit: <u>8</u> (in.) Depth to Saturated Soil: <u>0</u> (in.)	Wetland Hydrology Indicators Primary Indicators: <u>X</u> Inundated <u>X</u> Saturated in Upper 12" <u> </u> Water Marks <u> </u> Drift Lines <u> </u> Sediment Deposits <u> </u> Drainage Patterns in Wetlands Secondary Indicators: <u> </u> Oxidized Roots Channels in Upper 12" <u>X</u> Water-Stained Leaves <u> </u> Local Soil Survey Data <u> </u> FAC-Neutral Test <u> </u> Other (Explain in Remarks)
Remarks: <u>Wetland hydrology indicators present.</u>	

SOILS

[illegible]

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampling Point	
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>	Within a Wetland?	Yes <u>X</u> No <u> </u>
Hydric Soils Present?	Yes <u>X</u>	No <u> </u>		
Remarks: Area meets all three wetland criteria.				

DATA FORM
ROUTINE WETLAND DETERMINATION

Project / Site: <u>Route 23, I-80 to CR694 (5.53-16.94) ATS C#1</u> Applicant / Owner: <u>New Jersey Department of Transportation</u> Investigator: <u>D. Flynn, T. Shinskey</u>	Date: <u>10/24/2022</u> County: <u>Passaic</u> State: <u>New Jersey</u>
Do normal circumstances exist on the site? Yes ☒ No ☐ Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☒ Is the area a potential problem area? Yes ☐ No ☒ (explain on reverse if needed)	Wetland Flag: Plot ID: <u>dffx wet</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Solidago sempervirens</i>	Herb	FACW	9		
2 <i>Phragmites australis</i>	Herb	FACW	10		
3 <i>Quercus palustris</i>	Shrub	FACW	11		
4 <i>Liquidambar styraciflua</i>	Shrub	FAC	12		
5 <i>Carex vulpinoidea</i>	Herb	OBL	13		
6			14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 100%

Remarks: Hydrophytic vegetation is dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): ☐ Stream, Lake, or Tide Gauge ☐ Aerial Photographs ☐ Other ☒ No Recorded Data Available Field Observations: Depth of Surface Water: <u>1</u> (in.) Depth to Free Water in Pit: <u>--</u> (in.) Depth to Saturated Soil: <u>0</u> (in.)	Wetland Hydrology Indicators Primary Indicators: ☒ Inundated ☒ Saturated in Upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetlands Secondary Indicators: ☐ Oxidized Roots Channels in Upper 12" ☒ Water-Stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other (Explain in Remarks)
Remarks: <u>Wetland hydrology indicators present.</u>	

SOILS

Map Unit Name (Series and Phase): <u>Pompton fine sandy loam, 0-3% slopes</u> Drainage Class: <u>Somewhat poorly drained</u>					
Taxonomy (Subgroup): _____			Confirm Mapped Type? Yes ____ No <u>X</u>		
Profile Description:					
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-6		10YR 3/2			sandy loam
6-10		10YR 3/2	10YR 4/3	C M 15%	sandy loam
10+		gravel/fill layer			
Hydric Soil Indicators:					
☐ Histosol		☐ Concretions			
☐ Histic Epipedon		☐ High Organic Content in Surface Layer in Sandy Soils			
☐ Sulfidic Odor		☐ Organic Streaking in Sandy Soils			
☐ Aquic Moisture Regime		☐ Listed On Local Hydric Soils List			
☐ Reducing Conditions		☐ Listed on National Hydric Soils List			
☒ Gleyed or Low-Chroma Colors		☐ Other (Explain in Remarks)			
Remarks: Meets hydric soil indicator F6 - Depleted Dark Surface as described in USDA NRCS Field Indicators of Hydric Soils in the United States, version 8.2.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes <u>X</u>	No ____	Is the Sampling Point		
Wetland Hydrology Present?	Yes <u>X</u>	No ____	Within a Wetland?	Yes <u>X</u>	No ____
Hydric Soils Present?	Yes <u>X</u>	No ____			
Remarks: Area meets all three wetland criteria.					

DATA FORM
ROUTINE WETLAND DETERMINATION

Project / Site: Route 23, I-80 to CR694 (5.53-16.94) ATS C#1 Applicant / Owner: New Jersey Department of Transportation Investigator: D. Flynn, T. Shinskey	Date: 10/24/2022 County: Passaic State: New Jersey
Do normal circumstances exist on the site? Yes ☒ No ☐ Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☒ Is the area a potential problem area? Yes ☐ No ☒ (explain on reverse if needed)	Wetland Flag: Plot ID: dffx upl

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Quercus palustris</i>	Tree	FACW	9		
2 <i>Pinus strobus</i>	Tree	FACU	10		
3 <i>Juniperus virginiana</i>	Tree	FACU	11		
4 <i>Quercus velutina</i>	Shrub	UPL	12		
5 <i>Carex pensylvanica</i>	Herb	UPL	13		
6 <i>Schizachyrium scoparium</i>	Herb	FACU	14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 17%

Remarks: Hydrophytic vegetation is not dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): ☐ Stream, Lake, or Tide Gauge ☐ Aerial Photographs ☐ Other ☒ No Recorded Data Available Field Observations: Depth of Surface Water: -- (in.) Depth to Free Water in Pit: -- (in.) Depth to Saturated Soil: -- (in.)	Wetland Hydrology Indicators Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetlands Secondary Indicators: ☐ Oxidized Roots Channels in Upper 12" ☐ Water-Stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other (Explain in Remarks)
Remarks: No signs of wetland hydrology were observed.	

SOILS

Map Unit Name		Drainage Class:			
(Series and Phase):		Somewhat poorly drained			
Taxonomy (Subgroup):		Confirm Mapped Type?			
		Yes No X			
Profile Description:					
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-8		10YR 4/4	10YR 4/6	C M 5%	silt loam
8-12		10YR 4/4	10YR 4/3	C M 20%	silt loam
Hydric Soil Indicators:					
☐ Histosol			☐ Concretions		
☐ Histic Epipedon			☐ High Organic Content in Surface Layer in Sandy Soils		
☐ Sulfidic Odor			☐ Organic Streaking in Sandy Soils		
☐ Aquic Moisture Regime			☐ Listed On Local Hydric Soils List		
☐ Reducing Conditions			☐ Listed on National Hydric Soils List		
☐ Gleyed or Low-Chroma Colors			☐ Other (Explain in Remarks)		
Remarks: Does not meet any hydric soil indicators					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u> X </u>	Is the Sampling Point	
Wetland Hydrology Present?	Yes <u> </u>	No <u> X </u>	Within a Wetland?	Yes <u> </u> No <u> X </u>
Hydric Soils Present?	Yes <u> </u>	No <u> X </u>		
Remarks: Area does not meet wetland indicators and is considered upland.				

DATA FORM
ROUTINE WETLAND DETERMINATION

Project / Site: <u>Route 23, I-80 to CR694 (5.53-16.94) ATS C#1</u> Applicant / Owner: <u>New Jersey Department of Transportation</u> Investigator: <u>D. Flynn, T. Shinskey</u>	Date: <u>10/24/2022</u> County: <u>Passaic</u> State: <u>New Jersey</u>
Do normal circumstances exist on the site? Yes ☒ No ☐ Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☒ Is the area a potential problem area? Yes ☐ No ☒ (explain on reverse if needed)	Wetland Flag: Plot ID: <u>dfgx wet</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Solidago sempervirens</i>	Herb	FACW	9		
2 <i>Phragmites australis</i>	Herb	FACW	10		
3 <i>Juncus bufonius</i>	Herb	FACW	11		
4			12		
5			13		
6			14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 100%

Remarks: Hydrophytic vegetation is dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): ☐ Stream, Lake, or Tide Gauge ☐ Aerial Photographs ☐ Other ☒ No Recorded Data Available Field Observations: Depth of Surface Water: <u>1-2</u> (in.) Depth to Free Water in Pit: <u>1</u> (in.) Depth to Saturated Soil: <u>0</u> (in.)	Wetland Hydrology Indicators Primary Indicators: ☒ Inundated ☒ Saturated in Upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetlands Secondary Indicators: ☐ Oxidized Roots Channels in Upper 12" ☐ Water-Stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other (Explain in Remarks)
Remarks: Wetland hydrology indicators present.	

SOILS

Map Unit Name		Drainage Class:	
(Series and Phase): Pompton fine sandy loam, 0-3% slopes		Somewhat poorly drained	
Taxonomy (Subgroup):		Confirm Mapped Type? Yes ☐ No ☒	
Profile Description:			
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)
0-8		10YR 4/2	7.5YR 4/4
8+		gravel/fill layer	
Hydric Soil Indicators:			
☐ Histosol	☐ Concretions		
☐ Histic Epipedon	☐ High Organic Content in Surface Layer in Sandy Soils		
☐ Sulfidic Odor	☐ Organic Streaking in Sandy Soils		
☐ Aquic Moisture Regime	☐ Listed On Local Hydric Soils List		
☐ Reducing Conditions	☐ Listed on National Hydric Soils List		
☒ Gleyed or Low-Chroma Colors	☐ Other (Explain in Remarks)		
Remarks: Meets hydric soil indicator F3 - Depleted Matrix as described in USDA NRCS Field Indicators of Hydric Soils in the United States, version 8.2.			

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	<u> </u>	Is the Sampling Point		
Wetland Hydrology Present?	Yes	<u>X</u>	No	<u> </u>	Within a Wetland?	Yes	<u>X</u>
Hydric Soils Present?	Yes	<u>X</u>	No	<u> </u>		No	<u> </u>
Remarks: Area meets all three wetland criteria.							

DATA FORM
ROUTINE WETLAND DETERMINATION

Project / Site: <u>Route 23, I-80 to CR694 (5.53-16.94) ATS C#1</u> Applicant / Owner: <u>New Jersey Department of Transportation</u> Investigator: <u>D. Flynn, T. Shinsky</u>	Date: <u>10/24/2022</u> County: <u>Passaic</u> State: <u>New Jersey</u>
Do normal circumstances exist on the site? Yes <u>X</u> No <u> </u> Is the site significantly disturbed (Atypical situation)? Yes <u> </u> No <u>X</u> Is the area a potential problem area? Yes <u> </u> No <u>X</u> (explain on reverse if needed)	Wetland Flag: Plot ID: <u>dfix wet</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u><i>Phragmites australis</i></u>	Herb	FACW	9 <u> </u>		
2 <u><i>Persicaria hydropiper</i></u>	Herb	OBL	10 <u> </u>		
3 <u><i>Cinna arundinacea</i></u>	Herb	FACW	11 <u> </u>		
4 <u><i>Carex</i> sp.</u>	Herb	n/a	12 <u> </u>		
5 <u><i>Lythrum salicaria</i></u>	Herb	OBL	13 <u> </u>		
6 <u> </u>			14 <u> </u>		
7 <u> </u>			15 <u> </u>		
8 <u> </u>			16 <u> </u>		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 100%

Remarks: Hydrophytic vegetation is dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): <u> </u> Stream, Lake, or Tide Gauge <u> </u> Aerial Photographs <u> </u> Other X <u> </u> No Recorded Data Available Field Observations: Depth of Surface Water: <u> </u> -- <u> </u> (in.) Depth to Free Water in Pit: <u> </u> -- <u> </u> (in.) Depth to Saturated Soil: <u> </u> 0 <u> </u> (in.)	Wetland Hydrology Indicators Primary Indicators: <u> </u> Inundated <u> </u> X <u> </u> Saturated in Upper 12" <u> </u> Water Marks <u> </u> Drift Lines <u> </u> Sediment Deposits <u> </u> Drainage Patterns in Wetlands Secondary Indicators: <u> </u> Oxidized Roots Channels in Upper 12" <u> </u> X <u> </u> Water-Stained Leaves <u> </u> Local Soil Survey Data <u> </u> FAC-Neutral Test <u> </u> Other (Explain in Remarks)
Remarks: <u>Wetland hydrology indicators present.</u>	

SOILS

Map Unit Name (Series and Phase): <u>Urban land-Boonton complex, 0-8% slopes</u> Drainage Class: <u>Not classified</u>					
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☒					
Profile Description:					
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-8		10YR 4/1	10YR 4/3	C PL 15%	loamy clay
8-12		10YR 4/1	10YR 5/1	D M 2%	loamy clay
			10YR 4/4	C PL 15%	
			10YR 3/2	C M 5%	
			10YR 5/8	C M 2%	
12-18		10YR 6/1	10YR 5/8	C M 10%	clay
Hydric Soil Indicators:					
☐ Histosol			☐ Concretions		
☐ Histic Epipedon			☐ High Organic Content in Surface Layer in Sandy Soils		
☐ Sulfidic Odor			☐ Organic Streaking in Sandy Soils		
☐ Aquic Moisture Regime			☐ Listed On Local Hydric Soils List		
☒ Reducing Conditions			☐ Listed on National Hydric Soils List		
☒ Gleyed or Low-Chroma Colors			☐ Other (Explain in Remarks)		
Remarks: Meets hydric soil indicator F3 - Depleted Matrix as described in USDA NRCS Field Indicators of Hydric Soils in the United States, version 8.2.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☒ No ☐	Is the Sampling Point	
Wetland Hydrology Present?	Yes ☒ No ☐	Within a Wetland?	Yes ☒ No ☐
Hydric Soils Present?	Yes ☒ No ☐		
Remarks: Area meets all three wetland criteria.			

DATA FORM

ROUTINE WETLAND DETERMINATION

Project / Site: Route 23, I-80 to CR694 (5.53-16.94) ATS C#1		Date: 10/24/2022
Applicant / Owner: New Jersey Department of Transportation		County: Passaic
Investigator: D. Flynn, T. Shinsky		State: New Jersey
Do normal circumstances exist on the site? Yes ☒ No ☐		Wetland Flag: Plot ID: dfix upl
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☒		
Is the area a potential problem area? (explain on reverse if needed) Yes ☐ No ☒		

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Lonicera tatarica</i>	Shrub	FACU	9		
2 <i>Liquidambar styraciflua</i>	Tree	FAC	10		
3 <i>Lonicera japonica</i>	Herb	FACU	11		
4 <i>Catalpa bignonioides</i>	Tree	FACU	12		
5 <i>Ulmus rubra</i>	Tree	FAC	13		
6 <i>Toxicodendron radicans</i>	Herb	FAC	14		
7 <i>Phragmites australis</i>	Herb	FACW	15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 57%

Remarks: Hydrophytic vegetation is dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): ☐ Stream, Lake, or Tide Gauge ☐ Aerial Photographs ☐ Other ☒ No Recorded Data Available Field Observations: Depth of Surface Water: -- (in.) Depth to Free Water in Pit: -- (in.) Depth to Saturated Soil: -- (in.)	Wetland Hydrology Indicators Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetlands Secondary Indicators: ☐ Oxidized Roots Channels in Upper 12" ☐ Water-Stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other (Explain in Remarks)
Remarks: No signs of wetland hydrology were observed.	

SOILS

Map Unit Name (Series and Phase): <u>Urban land-Boonton complex, 0-8% slopes</u>					Drainage Class: <u>Poorly drained</u>				
Taxonomy (Subgroup): _____					Confirm Mapped Type? Yes ____ No <u>X</u>				
Profile Description:									
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.				
0-3		10YR 3/3			silt loam with gravel				
3+		gravel/road fill							
Hydric Soil Indicators:									
☐ Histosol					☐ Concretions				
☐ Histic Epipedon					☐ High Organic Content in Surface Layer in Sandy Soils				
☐ Sulfidic Odor					☐ Organic Streaking in Sandy Soils				
☐ Aquic Moisture Regime					☐ Listed On Local Hydric Soils List				
☐ Reducing Conditions					☐ Listed on National Hydric Soils List				
☐ Gleyed or Low-Chroma Colors					☐ Other (Explain in Remarks)				
Remarks: Does not meet any hydric soil indicators									

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes <u>X</u>	No ____	Is the Sampling Point		
Wetland Hydrology Present?	Yes ____	No <u>X</u>	Within a Wetland?	Yes ____	No <u>X</u>
Hydric Soils Present?	Yes ____	No <u>X</u>			
Remarks: Area does not meet all three wetland indicators and is considered upland.					

DATA FORM
ROUTINE WETLAND DETERMINATION

Project / Site: Route 23, I-80 to CR694 (5.53-16.94) ATS C#1 Applicant / Owner: New Jersey Department of Transportation Investigator: D. Flynn, T. Shinsky	Date: 10/24/2022 County: Passaic State: New Jersey
Do normal circumstances exist on the site? Yes ☒ No ☐ Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☒ Is the area a potential problem area? Yes ☐ No ☒ (explain on reverse if needed)	Wetland Flag: Plot ID: dfkx wet

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Ulmus rubra</i>	Tree	FAC	9		
2 <i>Liquidambar styraciflua</i>	Tree	FAC	10		
3 <i>Toxicodendron radicans</i>	Herb	FAC	11		
4 <i>Fraxinus pennsylvanica</i>	Tree	FACW	12		
5 <i>Phalaris arundinacea</i>	Herb	FACW	13		
6 <i>Persicaria hydropiper</i>	Herb	OBL	14		
7 <i>Symphytotrichum lanceolatum</i>	Herb	FACW	15		
8 <i>Phragmites australis</i>	Herb	FACW	16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 100%

Remarks: Hydrophytic vegetation is dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): ☐ Stream, Lake, or Tide Gauge ☐ Aerial Photographs ☐ Other ☒ No Recorded Data Available Field Observations: Depth of Surface Water: 1-2 (in.) Depth to Free Water in Pit: 5 (in.) Depth to Saturated Soil: 0 (in.)	Wetland Hydrology Indicators Primary Indicators: ☒ Inundated ☒ Saturated in Upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetlands Secondary Indicators: ☐ Oxidized Roots Channels in Upper 12" ☒ Water-Stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other (Explain in Remarks)
Remarks: Wetland hydrology indicators present.	

SOILS

Map Unit Name (Series and Phase): <u>Urban land-Riverhead complex, 3-8% slopes</u> Drainage Class: <u>Not classified</u>					
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☒					
Profile Description:					
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-1		10YR 2/1			muck
1-10		10YR 5/2	10YR 5/8	C M 20%	silt loam
			10YR 4/1	C M 3%	
10-14		10YR 3/1	10YR 4/4	C M 20%	sandy loam
Hydric Soil Indicators:					
☐ Histosol		☐ Concretions			
☐ Histic Epipedon		☐ High Organic Content in Surface Layer in Sandy Soils			
☐ Sulfidic Odor		☐ Organic Streaking in Sandy Soils			
☐ Aquic Moisture Regime		☐ Listed On Local Hydric Soils List			
☒ Reducing Conditions		☐ Listed on National Hydric Soils List			
☒ Gleyed or Low-Chroma Colors		☐ Other (Explain in Remarks)			
Remarks: Meets hydric soil indicator F3 - Depleted Matrix as described in USDA NRCS Field Indicators of Hydric Soils in the United States, version 8.2.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes	☒	No	☐	Is the Sampling Point Within a Wetland?	Yes	☒	No	☐
Wetland Hydrology Present?	Yes	☒	No	☐					
Hydric Soils Present?	Yes	☒	No	☐					
Remarks: Area meets all three wetland criteria.									

DATA FORM
ROUTINE WETLAND DETERMINATION

Project / Site: Route 23, I-80 to CR694 (5.53-16.94) ATS C#1 Applicant / Owner: New Jersey Department of Transportation Investigator: D. Flynn, T. Shinskey	Date: 10/24/2022 County: Passaic State: New Jersey
Do normal circumstances exist on the site? Yes ☒ No ☐ Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☒ Is the area a potential problem area? Yes ☐ No ☒ (explain on reverse if needed)	Wetland Flag: Plot ID: dfkx upl

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Campsis radicans</i>	Vine	FAC	9		
2 <i>Alliaria petiolata</i>	Herb	FACU	10		
3 <i>Lonicera japonica</i>	Herb	FACU	11		
4 <i>Rubus phoenicolasius</i>	Shrub	FACU	12		
5 <i>Ulmus rubra</i>	Tree	FAC	13		
6 <i>Ageratina altissima</i>	Herb	FACU	14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 40%

Remarks: Hydrophytic vegetation is not dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): ☐ Stream, Lake, or Tide Gauge ☐ Aerial Photographs ☐ Other ☒ No Recorded Data Available Field Observations: Depth of Surface Water: -- (in.) Depth to Free Water in Pit: -- (in.) Depth to Saturated Soil: -- (in.)	Wetland Hydrology Indicators Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetlands Secondary Indicators: ☐ Oxidized Roots Channels in Upper 12" ☐ Water-Stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other (Explain in Remarks)
Remarks: No signs of wetland hydrology were observed.	

SOILS

Map Unit Name		Drainage Class:	
(Series and Phase): Urban land-Riverhead complex, 3-8% slopes		Not classified	
Taxonomy (Subgroup):		Confirm Mapped Type? Yes No X	
Profile Description:			
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)
0-3		10YR 2/2	
3+		gravel/road fill	
Hydric Soil Indicators:			
☐ Histosol	☐ Concretions		
☐ Histic Epipedon	☐ High Organic Content in Surface Layer in Sandy Soils		
☐ Sulfidic Odor	☐ Organic Streaking in Sandy Soils		
☐ Aquic Moisture Regime	☐ Listed On Local Hydric Soils List		
☐ Reducing Conditions	☐ Listed on National Hydric Soils List		
☐ Gleyed or Low-Chroma Colors	☐ Other (Explain in Remarks)		
Remarks: Does not meet any hydric soil indicators			

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u> X </u>	Is the Sampling Point	
Wetland Hydrology Present?	Yes <u> </u>	No <u> X </u>	Within a Wetland?	Yes <u> </u> No <u> X </u>
Hydric Soils Present?	Yes <u> </u>	No <u> X </u>		
Remarks: Area does not meet wetland indicators and is considered upland.				

DATA FORM

ROUTINE WETLAND DETERMINATION

Project / Site: <u>Route 23, I-80 to CR694 (5.53-16.94) ATS C#1</u>		Date: <u>10/24/2022</u>
Applicant / Owner: <u>New Jersey Department of Transportation</u>		County: <u>Passaic</u>
Investigator: <u>D. Flynn, T. Shinsky</u>		State: <u>New Jersey</u>
Do normal circumstances exist on the site?	Yes <u>X</u> No <u> </u>	Wetland Flag: Plot ID: <u>dflix wet</u>
Is the site significantly disturbed (Atypical situation)?	Yes <u> </u> No <u>X</u>	
Is the area a potential problem area? (explain on reverse if needed)	Yes <u> </u> No <u>X</u>	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Acer saccharinum</u>	Tree	FACW	9 <u> </u>		
2 <u>Acer rubrum</u>	Tree	FAC	10 <u> </u>		
3 <u>Viburnum prunifolium</u>	Shrub	FACU	11 <u> </u>		
4 <u>Carex scoparia</u>	Herb	FACW	12 <u> </u>		
5 <u>Cinna arundinacea</u>	Herb	FACW	13 <u> </u>		
6 <u> </u>			14 <u> </u>		
7 <u> </u>			15 <u> </u>		
8 <u> </u>			16 <u> </u>		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 80%

Remarks: Hydrophytic vegetation is dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): <u> </u> Stream, Lake, or Tide Gauge <u> </u> Aerial Photographs <u> </u> Other <u>X</u> No Recorded Data Available Field Observations: Depth of Surface Water: <u> </u> (in.) Depth to Free Water in Pit: <u> </u> (in.) Depth to Saturated Soil: <u> </u> (in.)	Wetland Hydrology Indicators Primary Indicators: <u> </u> Inundated <u> </u> Saturated in Upper 12" <u> </u> Water Marks <u> </u> Drift Lines <u> </u> Sediment Deposits <u> </u> Drainage Patterns in Wetlands Secondary Indicators: <u> </u> Oxidized Roots Channels in Upper 12" <u>X</u> Water-Stained Leaves <u> </u> Local Soil Survey Data <u> </u> FAC-Neutral Test <u>X</u> Other (Explain in Remarks)
Remarks: <u>Geomorphic position - depression in cloverleaf. Wetland hydrology indicators present.</u>	

SOILS

Map Unit Name		Drainage Class:	
(Series and Phase): Pompton fine sandy loam, 0-3% slopes		Somewhat poorly drained	
Taxonomy (Subgroup):		Confirm Mapped Type? Yes ☐ No ☒ X	
Profile Description:			
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)
0-14		10YR 4/1	10YR 4/3
14-17		10YR 2/2	
17+		10YR 7/1	10YR 7/3
Hydric Soil Indicators:			
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☐ Aquic Moisture Regime ☒ Reducing Conditions ☒ Gleyed or Low-Chroma Colors		☐ Concretions ☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed On Local Hydric Soils List ☐ Listed on National Hydric Soils List ☐ Other (Explain in Remarks)	
Remarks: Meets hydric soil indicator F3 - Depleted Matrix as described in USDA NRCS Field Indicators of Hydric Soils in the United States, version 8.2.			

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	<u> </u>	Is the Sampling Point	Yes	<u>X</u>	No	<u> </u>
Wetland Hydrology Present?	Yes	<u>X</u>	No	<u> </u>	Within a Wetland?	Yes	<u>X</u>	No	<u> </u>
Hydric Soils Present?	Yes	<u>X</u>	No	<u> </u>					
Remarks: Area meets all three wetland criteria.									

DATA FORM

ROUTINE WETLAND DETERMINATION

Project / Site: Route 23, I-80 to CR694 (5.53-16.94) ATS C#1		Date: 10/24/2022
Applicant / Owner: New Jersey Department of Transportation		County: Passaic
Investigator: D. Flynn, T. Shinsky		State: New Jersey
Do normal circumstances exist on the site?	Yes ☒ No ☐	Wetland Flag: Plot ID: dflx upl
Is the site significantly disturbed (Atypical situation)?	Yes ☐ No ☒	
Is the area a potential problem area? (explain on reverse if needed)	Yes ☐ No ☒	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Acer rubrum</i>	Tree	FAC	9		
2 <i>Ilex opaca</i>	Tree	FACU	10		
3 <i>Lonicera japonica</i>	Herb	FACU	11		
4 <i>Rubus phoenicolasius</i>	Shrub	FACU	12		
5 <i>Prunus serotina</i>	Tree	FACU	13		
6 <i>Berberis thunbergii</i>	Shrub	FACU	14		
7 <i>Cinna arundinacea</i>	Herb	FACW	15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 29%

Remarks: Hydrophytic vegetation is not dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): ☐ Stream, Lake, or Tide Gauge ☐ Aerial Photographs ☐ Other ☒ No Recorded Data Available Field Observations: Depth of Surface Water: -- (in.) Depth to Free Water in Pit: -- (in.) Depth to Saturated Soil: -- (in.)	Wetland Hydrology Indicators Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetlands Secondary Indicators: ☐ Oxidized Roots Channels in Upper 12" ☐ Water-Stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other (Explain in Remarks)
Remarks: No signs of wetland hydrology were observed.	

SOILS

[illegible]

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u> X </u>	Is the Sampling Point	
Wetland Hydrology Present?	Yes <u> </u>	No <u> X </u>	Within a Wetland?	Yes <u> </u> No <u> X </u>
Hydric Soils Present?	Yes <u> </u>	No <u> X </u>		
Remarks: Area does not meet wetland indicators and is considered upland.				

DATA FORM

ROUTINE WETLAND DETERMINATION

Project / Site: Route 23, I-80 to CR694 (5.53-16.94) ATS C#1		Date: 10/20/2022
Applicant / Owner: New Jersey Department of Transportation		County: Passaic
Investigator: T. Shinsky		State: New Jersey
Do normal circumstances exist on the site?	Yes ☒ No ☐	Wetland Flag: Plot ID: tsa upl
Is the site significantly disturbed (Atypical situation)?	Yes ☐ No ☒	
Is the area a potential problem area? (explain on reverse if needed)	Yes ☐ No ☒	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Malus</i> sp.	Tree	n/a	9		
2 <i>Juniperus virginiana</i>	Tree	FACU	10		
3 <i>Lonicera japonica</i>	Herb	FACU	11		
4 <i>Rosa multiflora</i>	Shrub	FACU	12		
5 <i>Toxicodendron radicans</i>	Vine	FAC	13		
6 <i>Quercus alba</i>	Shrub	FACU	14		
7 <i>Quercus rubra</i>	Shrub	FACU	15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 17%

Remarks: Hydrophytic vegetation is not dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): ☐ Stream, Lake, or Tide Gauge ☐ Aerial Photographs ☐ Other ☒ No Recorded Data Available Field Observations: Depth of Surface Water: -- (in.) Depth to Free Water in Pit: -- (in.) Depth to Saturated Soil: -- (in.)	Wetland Hydrology Indicators Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetlands Secondary Indicators: ☐ Oxidized Roots Channels in Upper 12" ☐ Water-Stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other (Explain in Remarks)
Remarks: No signs of wetland hydrology were observed.	

SOILS

Map Unit Name (Series and Phase): <u>Urban land-Riverhead complex, 3-8% slopes</u>					Drainage Class: <u>Not classified</u>				
Taxonomy (Subgroup): _____					Confirm Mapped Type? Yes ☐ No ☒				
Profile Description:									
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.				
0-5		10YR 2/2			sandy silt				
5+	road fill/gravel layer								
Hydric Soil Indicators:									
☐ Histosol					☐ Concretions				
☐ Histic Epipedon					☐ High Organic Content in Surface Layer in Sandy Soils				
☐ Sulfidic Odor					☐ Organic Streaking in Sandy Soils				
☐ Aquic Moisture Regime					☐ Listed On Local Hydric Soils List				
☐ Reducing Conditions					☐ Listed on National Hydric Soils List				
☐ Gleyed or Low-Chroma Colors					☐ Other (Explain in Remarks)				
Remarks: Does not meet any hydric soil indicators									

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☐	No ☒	Is the Sampling Point
Wetland Hydrology Present?	Yes ☐	No ☒	Within a Wetland?
Hydric Soils Present?	Yes ☐	No ☒	Yes ☐ No ☒
Remarks: Area does not meet wetland indicators and is considered upland.			

DATA FORM

ROUTINE WETLAND DETERMINATION

Project / Site: Route 23, I-80 to CR694 (5.53-16.94) ATS C#1		Date: 10/20/2022
Applicant / Owner: New Jersey Department of Transportation		County: Passaic
Investigator: T. Shinsky		State: New Jersey
Do normal circumstances exist on the site? Yes ☒ No ☐ Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☒ Is the area a potential problem area? Yes ☐ No ☒ (explain on reverse if needed)		Wetland Flag: Plot ID: tsa wet

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Schoenoplectus pungens</i>	Herb	OBL	9		
2 <i>Echinochloa crus-galli</i>	Herb	FAC	10		
3 <i>Erechtites hieraciifolius</i>	Herb	NI	11		
4 <i>Lythrum salicaria</i>	Herb	OBL	12		
5			13		
6			14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 75%

Remarks: Hydrophytic vegetation is dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): ☐ Stream, Lake, or Tide Gauge ☐ Aerial Photographs ☐ Other ☒ No Recorded Data Available Field Observations: Depth of Surface Water: -- (in.) Depth to Free Water in Pit: -- (in.) Depth to Saturated Soil: 0 (in.)	Wetland Hydrology Indicators Primary Indicators: ☒ Inundated ☒ Saturated in Upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☒ Drainage Patterns in Wetlands Secondary Indicators: ☐ Oxidized Roots Channels in Upper 12" ☒ Water-Stained Leaves ☐ Local Soil Survey Data ☒ FAC-Neutral Test ☐ Other (Explain in Remarks)
Remarks: Wetland hydrology indicators present.	

SOILS

Map Unit Name		Drainage Class:	
(Series and Phase): Urban land-Riverhead complex, 3-8% slopes		Not classified	
Taxonomy (Subgroup):		Confirm Mapped Type?	Yes ☐ No ☒ X
Profile Description:			
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)
0-12		10YR 2/2	2.5YR 3/6
12-18		5YR 3/4	10YR 3/2
Hydric Soil Indicators:			
☐ Histosol	☐ Concretions		
☐ Histic Epipedon	☐ High Organic Content in Surface Layer in Sandy Soils		
☐ Sulfidic Odor	☐ Organic Streaking in Sandy Soils		
☐ Aquic Moisture Regime	☐ Listed On Local Hydric Soils List		
☒ Reducing Conditions	☐ Listed on National Hydric Soils List		
☐ Gleyed or Low-Chroma Colors	☐ Other (Explain in Remarks)		
Remarks: Meets hydric soil indicator F6 - Redox Dark Surface as described in USDA NRCS Field Indicators of Hydric Soils in the United States, version 8.2.			

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	<u> </u>	Is the Sampling Point		
Wetland Hydrology Present?	Yes	<u>X</u>	No	<u> </u>	Within a Wetland?	Yes	<u>X</u>
Hydric Soils Present?	Yes	<u>X</u>	No	<u> </u>		No	<u> </u>
Remarks: Area meets all three wetland criteria.							

DATA FORM

ROUTINE WETLAND DETERMINATION

Project / Site: <u>Route 23, I-80 to CR694 (5.53-16.94) ATS C#1</u>		Date: <u>10/20/2022</u>
Applicant / Owner: <u>New Jersey Department of Transportation</u>		County: <u>Passaic</u>
Investigator: <u>T. Shinsky</u>		State: <u>New Jersey</u>
Do normal circumstances exist on the site? Yes <u>X</u> No <u> </u>		Wetland Flag: Plot ID: <u>tsb tsc upl</u>
Is the site significantly disturbed (Atypical situation)? Yes <u> </u> No <u>X</u>		
Is the area a potential problem area? Yes <u> </u> No <u>X</u> (explain on reverse if needed)		

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Acer saccharum</u>	Tree	FACU	9 <u> </u>		
2 <u>Lonicera tatarica</u>	Shrub	FACU	10 <u> </u>		
3 <u>Artemisia vulgaris</u>	Herb	UPL	11 <u> </u>		
4 <u>Setaria</u> sp.	Herb	n/a	12 <u> </u>		
5 <u> </u>			13 <u> </u>		
6 <u> </u>			14 <u> </u>		
7 <u> </u>			15 <u> </u>		
8 <u> </u>			16 <u> </u>		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 0%

Remarks: Hydrophytic vegetation is absent.

HYDROLOGY

Recorded Data (Describe In Remarks): <u> </u> Stream, Lake, or Tide Gauge <u> </u> Aerial Photographs <u> </u> Other <u>X</u> No Recorded Data Available Field Observations: Depth of Surface Water: <u> -- </u> (in.) Depth to Free Water in Pit: <u> -- </u> (in.) Depth to Saturated Soil: <u> -- </u> (in.)	Wetland Hydrology Indicators Primary Indicators: <u> </u> Inundated <u> </u> Saturated in Upper 12" <u> </u> Water Marks <u> </u> Drift Lines <u> </u> Sediment Deposits <u> </u> Drainage Patterns in Wetlands Secondary Indicators: <u> </u> Oxidized Roots Channels in Upper 12" <u> </u> Water-Stained Leaves <u> </u> Local Soil Survey Data <u> </u> FAC-Neutral Test <u> </u> Other (Explain in Remarks)
Remarks: <u>No signs of wetland hydrology were observed.</u>	

SOILS

[illegible]

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u> X </u>	Is the Sampling Point	
Wetland Hydrology Present?	Yes <u> </u>	No <u> X </u>	Within a Wetland?	Yes <u> </u> No <u> X </u>
Hydric Soils Present?	Yes <u> </u>	No <u> X </u>		
Remarks: Area does not meet wetland indicators and is considered upland.				

DATA FORM
ROUTINE WETLAND DETERMINATION

Project / Site: <u>Route 23, I-80 to CR694 (5.53-16.94) ATS C#1</u> Applicant / Owner: <u>New Jersey Department of Transportation</u> Investigator: <u>T. Shinskey</u>	Date: <u>10/20/2022</u> County: <u>Passaic</u> State: <u>New Jersey</u>
Do normal circumstances exist on the site? Yes ☒ No ☐ Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☒ Is the area a potential problem area? Yes ☐ No ☒ (explain on reverse if needed)	Wetland Flag: Plot ID: <u>tsb tsc wet</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u><i>Phragmites australis</i></u>	Herb	FACW	9		
2 <u><i>Solidago sempervirens</i></u>	Herb	FACW	10		
3 <u><i>Lythrum salicaria</i></u>	Herb	OBL	11		
4			12		
5			13		
6			14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 100%

Remarks: Hydrophytic vegetation is dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): <u> </u> Stream, Lake, or Tide Gauge <u> </u> Aerial Photographs <u> </u> Other ☒ No Recorded Data Available Field Observations: Depth of Surface Water: <u> </u> -- (in.) Depth to Free Water in Pit: <u> </u> -- (in.) Depth to Saturated Soil: <u> </u> 0 (in.)	Wetland Hydrology Indicators Primary Indicators: <u> </u> Inundated ☒ Saturated in Upper 12" <u> </u> Water Marks <u> </u> Drift Lines <u> </u> Sediment Deposits ☒ Drainage Patterns in Wetlands Secondary Indicators: <u> </u> Oxidized Roots Channels in Upper 12" ☒ Water-Stained Leaves <u> </u> Local Soil Survey Data <u> </u> FAC-Neutral Test <u> </u> Other (Explain in Remarks)
Remarks: Wetland hydrology indicators present.	

SOILS

Map Unit Name		Drainage Class:	
(Series and Phase): Urban land-Riverhead complex, 3-8% slopes		Not classified	
Taxonomy (Subgroup):		Confirm Mapped Type? Yes ☐ No ☒	
Profile Description:			
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)
0-4		10YR 3/2	2.5YR 3/6
4+		rock refusal	
Hydric Soil Indicators:			
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☐ Aquic Moisture Regime ☒ Reducing Conditions ☐ Gleyed or Low-Chroma Colors		☐ Concretions ☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed On Local Hydric Soils List ☐ Listed on National Hydric Soils List ☐ Other (Explain in Remarks)	
Remarks: Meets hydric soil indicator F6 - Redox Dark Surface as described in USDA NRCS Field Indicators of Hydric Soils in the United States, version 8.2.			

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	<u> </u>	Is the Sampling Point		
Wetland Hydrology Present?	Yes	<u>X</u>	No	<u> </u>	Within a Wetland?	Yes	<u>X</u>
Hydric Soils Present?	Yes	<u>X</u>	No	<u> </u>		No	<u> </u>
Remarks: Area meets all three wetland criteria.							

DATA FORM
ROUTINE WETLAND DETERMINATION

Project / Site: Route 23, I-80 to CR694 (5.53-16.94) ATS C#1 Applicant / Owner: New Jersey Department of Transportation Investigator: T. Shinsky	Date: 10/20/2022 County: Passaic State: New Jersey
Do normal circumstances exist on the site? Yes ☒ No ☐ Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☒ Is the area a potential problem area? Yes ☐ No ☒ (explain on reverse if needed)	Wetland Flag: Plot ID: tsd tse upl

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Securigera varia</i>	Herb	UPL	9		
2 <i>Euthamia graminifolia</i>	Herb	FAC	10		
3 <i>Artemisia vulgaris</i>	Herb	UPL	11		
4 <i>Echinochloa crus-galli</i>	Herb	FAC	12		
5 <i>Eupatorium serotinum</i>	Herb	FAC	13		
6			14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 60%

Remarks: Hydrophytic vegetation is dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): ☐ Stream, Lake, or Tide Gauge ☐ Aerial Photographs ☐ Other ☒ No Recorded Data Available Field Observations: Depth of Surface Water: -- (in.) Depth to Free Water in Pit: -- (in.) Depth to Saturated Soil: -- (in.)	Wetland Hydrology Indicators Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetlands Secondary Indicators: ☐ Oxidized Roots Channels in Upper 12" ☐ Water-Stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other (Explain in Remarks)
Remarks: No signs of wetland hydrology were observed.	

SOILS

[illegible]

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampling Point	
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>	Within a Wetland?	Yes <u> </u> No <u>X</u>
Hydric Soils Present?	Yes <u> </u>	No <u>X</u>		
Remarks: Area does not meet all three wetland indicators and is considered upland.				

DATA FORM
ROUTINE WETLAND DETERMINATION

Project / Site: <u>Route 23, I-80 to CR694 (5.53-16.94) ATS C#1</u> Applicant / Owner: <u>New Jersey Department of Transportation</u> Investigator: <u>T. Shinsky</u>	Date: <u>10/20/2022</u> County: <u>Passaic</u> State: <u>New Jersey</u>
Do normal circumstances exist on the site? Yes ☒ No ☐ Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☒ Is the area a potential problem area? Yes ☐ No ☒ (explain on reverse if needed)	Wetland Flag: Plot ID: <u>tsd tse wet</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u><i>Phragmites australis</i></u>	Herb	FACW	9		
2 <u><i>Solidago sempervirens</i></u>	Herb	FACW	10		
3 <u><i>Panicum dichotomiflorum</i></u>	Herb	FACW	11		
4			12		
5			13		
6			14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 100%

Remarks: Hydrophytic vegetation is dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): <u> </u> Stream, Lake, or Tide Gauge <u> </u> Aerial Photographs <u> </u> Other ☒ No Recorded Data Available Field Observations: Depth of Surface Water: <u> </u> -- (in.) Depth to Free Water in Pit: <u> </u> -- (in.) Depth to Saturated Soil: <u> </u> 0 (in.)	Wetland Hydrology Indicators Primary Indicators: <u> </u> Inundated ☒ Saturated in Upper 12" <u> </u> Water Marks <u> </u> Drift Lines <u> </u> Sediment Deposits ☒ Drainage Patterns in Wetlands Secondary Indicators: <u> </u> Oxidized Roots Channels in Upper 12" ☒ Water-Stained Leaves <u> </u> Local Soil Survey Data <u> </u> FAC-Neutral Test <u> </u> Other (Explain in Remarks)
Remarks: <u>Wetland hydrology indicators present.</u>	

SOILS

Map Unit Name		Drainage Class:	
(Series and Phase): Urban land-Riverhead complex, 3-8% slopes		Not classified	
Taxonomy (Subgroup):		Confirm Mapped Type? Yes ☐ No ☒	
Profile Description:			
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)
0-4		10YR 3/2	10YR 2/1
			2.5YR 3/6
4-6		10YR 3/3	2.5YR 2.5/3
6+		rock refusal	
Hydric Soil Indicators:			
☐ Histosol	☐ Concretions		
☐ Histic Epipedon	☐ High Organic Content in Surface Layer in Sandy Soils		
☐ Sulfidic Odor	☐ Organic Streaking in Sandy Soils		
☐ Aquic Moisture Regime	☐ Listed On Local Hydric Soils List		
☒ Reducing Conditions	☐ Listed on National Hydric Soils List		
☐ Gleyed or Low-Chroma Colors	☐ Other (Explain in Remarks)		
Remarks: Meets hydric soil indicator F6 - Redox Dark Surface as described in USDA NRCS Field Indicators of Hydric Soils in the United States, version 8.2.			

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	<u> </u>	Is the Sampling Point	Yes	<u>X</u>	No	<u> </u>
Wetland Hydrology Present?	Yes	<u>X</u>	No	<u> </u>	Within a Wetland?	Yes	<u>X</u>	No	<u> </u>
Hydric Soils Present?	Yes	<u>X</u>	No	<u> </u>					
Remarks: Area meets all three wetland criteria.									

DATA FORM

ROUTINE WETLAND DETERMINATION

Project / Site: Route 23, I-80 to CR694 (5.53-16.94) ATS C#1		Date: 10/20/2022
Applicant / Owner: New Jersey Department of Transportation		County: Passaic
Investigator: T. Shinsky		State: New Jersey
Do normal circumstances exist on the site?	Yes ☒ No ☐	Wetland Flag: Plot ID: tsf upl
Is the site significantly disturbed (Atypical situation)?	Yes ☐ No ☒	
Is the area a potential problem area? (explain on reverse if needed)	Yes ☐ No ☒	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Liquidambar styraciflua</i>	Tree	FAC	9 <i>Microstegium vimineum</i>	Herb	FAC
2 <i>Quercus rubra</i>	Tree	FACU	10		
3 <i>Fraxinus pennsylvanica</i>	Tree	FACW	11		
4 <i>Lonicera tatarica</i>	Shrub	FACU	12		
5 <i>Berberis thunbergii</i>	Shrub	FACU	13		
6 <i>Lindera benzoin</i>	Shrub	FACW	14		
7 <i>Lonicera japonica</i>	Herb	FACU	15		
8 <i>Ageratina altissima</i>	Herb	FACU	16		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 44%

Remarks: Hydrophytic vegetation is not dominant.

HYDROLOGY

Recorded Data (Describe In Remarks): ☐ Stream, Lake, or Tide Gauge ☐ Aerial Photographs ☐ Other ☒ No Recorded Data Available Field Observations: Depth of Surface Water: -- (in.) Depth to Free Water in Pit: -- (in.) Depth to Saturated Soil: -- (in.)	Wetland Hydrology Indicators Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetlands Secondary Indicators: ☐ Oxidized Roots Channels in Upper 12" ☐ Water-Stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other (Explain in Remarks)
Remarks: No signs of wetland hydrology were observed.	

SOILS

Map Unit Name				
(Series and Phase): Parsippany silt loam, sandy loam substratum, 0-3% slopes, frequently flooded			Drainage Class: Poorly drained	
Taxonomy (Subgroup): _____			Confirm Mapped Type? Yes ____ No <u>X</u>	

Profile Description:				
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast Texture, Concretions, Structure, etc.
0-4		10YR 3/3		loamy sand
4-8		10YR 3/3	5YR 4/6	C M 10% loamy sand
8+		rock refusal		

Hydric Soil Indicators:	
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☐ Aquic Moisture Regime ☐ Reducing Conditions ☐ Gleyed or Low-Chroma Colors	☐ Concretions ☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed On Local Hydric Soils List ☐ Listed on National Hydric Soils List ☐ Other (Explain in Remarks)

Remarks: Does not meet any hydric soil indicators
--

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ____	No <u>X</u>	Is the Sampling Point
Wetland Hydrology Present?	Yes ____	No <u>X</u>	Within a Wetland? Yes ____ No <u>X</u>
Hydric Soils Present?	Yes ____	No <u>X</u>	

Remarks: Area does not meet wetland indicators and is considered upland.

DATA FORM

ROUTINE WETLAND DETERMINATION

Project / Site: <u>Route 23, I-80 to CR694 (5.53-16.94) ATS C#1</u>		Date: <u>10/20/2022</u>
Applicant / Owner: <u>New Jersey Department of Transportation</u>		County: <u>Passaic</u>
Investigator: <u>T. Shinsky</u>		State: <u>New Jersey</u>
Do normal circumstances exist on the site?	Yes <u>X</u> No <u> </u>	Wetland Flag: Plot ID: <u>tsf wet</u>
Is the site significantly disturbed (Atypical situation)?	Yes <u> </u> No <u>X</u>	
Is the area a potential problem area? (explain on reverse if needed)	Yes <u> </u> No <u>X</u>	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Liquidambar styraciflua</u>	Tree	FAC	9 <u> </u>		
2 <u>Acer rubrum</u>	Tree	FAC	10 <u> </u>		
3 <u>Fraxinus pennsylvanica</u>	Tree	FACW	11 <u> </u>		
4 <u>Persicaria hydropiperoides</u>	Herb	OBL	12 <u> </u>		
5 <u>Phragmites australis</u>	Herb	FACW	13 <u> </u>		
6 <u>Microstegium vimineum</u>	Herb	FAC	14 <u> </u>		
7 <u>Carex stricta</u>	Herb	OBL	15 <u> </u>		
8 <u>Pilea pumila</u>	Herb	FACW	16 <u> </u>		
Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). <u>100%</u>					
Remarks: <u>Hydrophytic vegetation is dominant.</u>					

HYDROLOGY

<u> </u> Recorded Data (Describe In Remarks): <u> </u> Stream, Lake, or Tide Gauge <u> </u> Aerial Photographs <u> </u> Other <u>X</u> No Recorded Data Available		Wetland Hydrology Indicators Primary Indicators: <u>X</u> Inundated <u>X</u> Saturated in Upper 12" <u>X</u> Water Marks <u> </u> Drift Lines <u> </u> Sediment Deposits <u>X</u> Drainage Patterns in Wetlands Secondary Indicators: <u> </u> Oxidized Roots Channels in Upper 12" <u>X</u> Water-Stained Leaves <u> </u> Local Soil Survey Data <u> </u> FAC-Neutral Test <u> </u> Other (Explain in Remarks)	
Field Observations: Depth of Surface Water: <u>1</u> (in.) Depth to Free Water in Pit: <u>--</u> (in.) Depth to Saturated Soil: <u>0</u> (in.)			
Remarks: <u>Wetland hydrology indicators present.</u>			

SOILS

[illegible]

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	<u> </u>	Is the Sampling Point	Yes	<u>X</u>	No	<u> </u>
Wetland Hydrology Present?	Yes	<u>X</u>	No	<u> </u>	Within a Wetland?	Yes	<u>X</u>	No	<u> </u>
Hydric Soils Present?	Yes	<u>X</u>	No	<u> </u>					
Remarks: Area meets all three wetland criteria.									

Appendix D

IPaC and NJ Natural Heritage Letters

<https://njdep.maps.arcgis.com/apps/webappviewer/index.html?id=0e6a44098c524ed99bf739953cb4d4c7>, or contact the Division of Fish and Wildlife, Endangered and Nongame Species Program at (609) 292-9400.

For additional information regarding any Federally listed plant or animal species, please contact the U.S. Fish & Wildlife Service, New Jersey Field Office at <http://www.fws.gov/northeast/njfieldoffice/endangered/consultation.html>.

PLEASE SEE 'CAUTIONS AND RESTRICTIONS ON NHP DATA', which can be downloaded from <http://www.state.nj.us/dep/parksandforests/natural/heritage/newcaution2008.pdf>.

Thank you for consulting the Natural Heritage Program. The attached invoice details the payment due for processing this data request. Feel free to contact us again regarding any future data requests.

Sincerely,

A handwritten signature in blue ink, appearing to read 'R. Cartica', with a long horizontal flourish extending to the right.

Robert J. Cartica
Administrator

c: NHP File No. 21-4007483-21976

Table 1: On Site Data Request Search Results (6 Possible Reports)

<u>Report Name</u>	<u>Included</u>	<u>Number of Pages</u>
1. Possibly on Project Site Based on Search of Natural Heritage Database: Rare Plant Species and Ecological Communities Currently Recorded in the New Jersey Natural Heritage Database	No	0 pages included
2. Natural Heritage Priority Sites On Site	Yes	See emailed attachments
3. Rare Wildlife Species or Wildlife Habitat on the Project Site Based on Search of Landscape Project 3.3 Species Based Patches	Yes	4 page(s) included
4. Vernal Pool Habitat on the Project Site Based on Search of Landscape Project 3.3	No	0 pages included
5. Rare Wildlife Species or Wildlife Habitat on the Project Site Based on Search of Landscape Project 3.3 Stream Habitat File	No	0 pages included
6. Other Animal Species On the Project Site Based on Additional Species Tracked by Endangered and Nongame Species Program	No	0 pages included

Rare Wildlife Species or Wildlife Habitat on the Project Site Based on Search of Landscape Project 3.3 Species Based Patches

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
<i>Amphibia</i>								
	Fowler's Toad	Anaxyrus fowleri	Occupied Habitat	2	NA	Special Concern	G5	S3
<i>Aves</i>								
	Bald Eagle	Haliaeetus leucocephalus	Foraging	4	NA	State Endangered	G5	S1B,S2N
	Bald Eagle	Haliaeetus leucocephalus	Nest	4	NA	State Endangered	G5	S1B,S2N
	Bald Eagle	Haliaeetus leucocephalus	Wintering	3	NA	State Threatened	G5	S1B,S2N
	Barred Owl	Strix varia	Breeding Sighting	3	NA	State Threatened	G5	S2B,S2N
	Barred Owl	Strix varia	Non-breeding Sighting	3	NA	State Threatened	G5	S2B,S2N
	Black-billed Cuckoo	Coccyzus erythrophthalmus	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Blackburnian Warbler	Dendroica fusca	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Black-throated Blue Warbler	Dendroica caerulescens	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Black-throated Green Warbler	Dendroica virens	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Broad-winged Hawk	Buteo platypterus	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N

Rare Wildlife Species or Wildlife Habitat on the Project Site Based on Search of Landscape Project 3.3 Species Based Patches

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
	Cooper's Hawk	Accipiter cooperii	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Cooper's Hawk	Accipiter cooperii	Nest	2	NA	Special Concern	G5	S3B,S4N
	Golden-winged Warbler	Vermivora chrysoptera	Breeding Sighting	4	NA	State Endangered	G4	S1B,S3N
	Great Blue Heron	Ardea herodias	Foraging	2	NA	Special Concern	G5	S3B,S4N
	Great Blue Heron	Ardea herodias	Nesting Colony	2	NA	Special Concern	G5	S3B,S4N
	Hooded Warbler	Wilsonia citrina	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Kentucky Warbler	Oporornis formosus	Breeding Sighting	2	NA	Special Concern	G5	S3B,S3N
	Northern Goshawk	Accipiter gentilis	Breeding Sighting	4	NA	State Endangered	G5	S1B,S3N
	Northern Goshawk	Accipiter gentilis	Nest	4	NA	State Endangered	G5	S1B,S3N
	Red-shouldered Hawk	Buteo lineatus	Breeding Sighting	4	NA	State Endangered	G5	S1B,S3N
	Red-shouldered Hawk	Buteo lineatus	Non-breeding Sighting	2	NA	Special Concern	G5	S1B,S3N
	Veery	Catharus fuscescens	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Wood Thrush	Hylocichla mustelina	Breeding Sighting	2	NA	Special Concern	G4	S3B,S4N
	Worm-eating Warbler	Helmitheros vermivorum	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N

Insecta

Rare Wildlife Species or Wildlife Habitat on the Project Site Based on Search of Landscape Project 3.3 Species Based Patches

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
<i>Mammalia</i>	Harris' Checkerspot	Chlosyne harrisii	Casual Flyby	2	NA	Special Concern	G5	S3
	Bobcat	Lynx rufus	Capture Location	4	NA	State Endangered	G5	S2
	Bobcat	Lynx rufus	Live Individual Sighting	4	NA	State Endangered	G5	S2
	Bobcat	Lynx rufus	On Road	4	NA	State Endangered	G5	S2
	Bobcat	Lynx rufus	Physical evidence	4	NA	State Endangered	G5	S2
	Bobcat	Lynx rufus	Telemetry: Home Range	4	NA	State Endangered	G5	S2
	Indiana Bat	Myotis sodalis	Active Season Sighting	5	Federally Listed Endangered	State Endangered	G2	S1
	Indiana Bat	Myotis sodalis	Hibernaculum	5	Federally Listed Endangered	State Endangered	G2	S1
	Northern Myotis	Myotis septentrionalis	Active Season Sighting	5	Federally Listed Threatened	NA	G1G2	S1
	Northern Myotis	Myotis septentrionalis	Hibernaculum	5	Federally Listed Threatened	NA	G1G2	S1
	Northern Myotis	Myotis septentrionalis	Roost Site	5	Federally Listed Threatened	NA	G1G2	S1

Rare Wildlife Species or Wildlife Habitat on the Project Site Based on Search of Landscape Project 3.3 Species Based Patches
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Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
<i>Reptilia</i>								
	Eastern Box Turtle	Terrapene carolina carolina	Occupied Habitat	2	NA	Special Concern	G5T5	S3
	Northern Copperhead	Agkistrodon contortrix mokasen	Occupied Habitat	2	NA	Special Concern	G5T5	S3
	Timber Rattlesnake	Crotalus horridus horridus	Occupied Habitat	4	NA	State Endangered	G4T4	S1
	Wood Turtle	Glyptemys insculpta	Occupied Habitat	3	NA	State Threatened	G3	S2

Table 2: Vicinity Data Request Search Results (6 possible reports)

<u>Report Name</u>	<u>Included</u>	<u>Number of Pages</u>
1. Immediate Vicinity of the Project Site Based on Search of Natural Heritage Database: Rare Plant Species and Ecological Communities Currently Recorded in the New Jersey Natural Heritage Database	Yes	1 page(s) included
2. Natural Heritage Priority Sites within the Immediate Vicinity	Yes	See emailed attachments
3. Rare Wildlife Species or Wildlife Habitat Within the Immediate Vicinity of the Project Site Based on Search of Landscape Project 3.3 Species Based Patches	Yes	4 page(s) included
4. Vernal Pool Habitat In the Immediate Vicinity of Project Site Based on Search of Landscape Project 3.3	Yes	1 page(s) included
5. Rare Wildlife Species or Wildlife Habitat In the Immediate Vicinity of the Project Site Based on Search of Landscape Project 3.3 Stream Habitat File	No	0 pages included
6. Other Animal Species In the Immediate Vicinity of the Project Site Based on Additional Species Tracked by Endangered and Nongame Species Program	No	0 pages included

Immediate Vicinity of the Project Site Based on Search of Natural Heritage Database Rare Plant Species and Ecological Communities Currently Recorded in the New Jersey Natural Heritage Database

Scientific Name	Common Name	Federal Protection Status	State Protection Status	Regional Status	Grank	Srank	Identified	Last Observed	Location
<i>Vascular Plants</i>									
Lipocarpha micrantha	Small-flower Halfchaff Sedge		E	LP, HL	G5	S1	Y	1939-09-23	POMPTON RIVER, EAST OF POMPTON PLAINS.
Lipocarpha micrantha	Small-flower Halfchaff Sedge		E	LP, HL	G5	S1	Y	1961-09-15	WEST SIDE OF POMPTON RIVER BELOW A WESTWARD BEND, POMPTON PLAINS.
Total number of records:		2							

Rare Wildlife Species or Wildlife Habitat Within the Immediate Vicinity of the Project Site Based on Search of Landscape Project 3.3 Species Based Patches

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Strank
Amphibia								
	Fowler's Toad	Anaxyrus fowleri	Occupied Habitat	2	NA	Special Concern	G5	S3
Aves								
	Bald Eagle	Haliaeetus leucocephalus	Foraging	4	NA	State Endangered	G5	S1B,S2N
	Bald Eagle	Haliaeetus leucocephalus	Nest	4	NA	State Endangered	G5	S1B,S2N
	Bald Eagle	Haliaeetus leucocephalus	Wintering	3	NA	State Threatened	G5	S1B,S2N
	Barred Owl	Strix varia	Breeding Sighting	3	NA	State Threatened	G5	S2B,S2N
	Barred Owl	Strix varia	Non-breeding Sighting	3	NA	State Threatened	G5	S2B,S2N
	Black-billed Cuckoo	Coccyzus erythrophthalmus	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Blackburnian Warbler	Dendroica fusca	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Black-throated Blue Warbler	Dendroica caerulescens	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Black-throated Green Warbler	Dendroica virens	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Broad-winged Hawk	Buteo platypterus	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Brown Thrasher	Toxostoma rufum	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Cooper's Hawk	Accipiter cooperii	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N

Rare Wildlife Species or Wildlife Habitat Within the Immediate Vicinity of the Project Site Based on Search of Landscape Project 3.3 Species Based Patches

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
	Cooper's Hawk	Accipiter cooperii	Nest	2	NA	Special Concern	G5	S3B,S4N
	Golden-winged Warbler	Vermivora chrysoptera	Breeding Sighting	4	NA	State Endangered	G4	S1B,S3N
	Great Blue Heron	Ardea herodias	Foraging	2	NA	Special Concern	G5	S3B,S4N
	Great Blue Heron	Ardea herodias	Nesting Colony	2	NA	Special Concern	G5	S3B,S4N
	Hooded Warbler	Wilsonia citrina	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Kentucky Warbler	Oporornis formosus	Breeding Sighting	2	NA	Special Concern	G5	S3B,S3N
	Northern Goshawk	Accipiter gentilis	Breeding Sighting	4	NA	State Endangered	G5	S1B,S3N
	Northern Goshawk	Accipiter gentilis	Nest	4	NA	State Endangered	G5	S1B,S3N
	Red-shouldered Hawk	Buteo lineatus	Breeding Sighting	4	NA	State Endangered	G5	S1B,S3N
	Red-shouldered Hawk	Buteo lineatus	Non-breeding Sighting	2	NA	Special Concern	G5	S1B,S3N
	Veery	Catharus fuscescens	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Wood Thrush	Hylocichla mustelina	Breeding Sighting	2	NA	Special Concern	G4	S3B,S4N
	Worm-eating Warbler	Helmitheros vermivorum	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
<i>Insecta</i>								
	Harris' Checkerspot	Chlosyne harrisii	Casual Flyby	2	NA	Special Concern	G5	S3
<i>Mammalia</i>								

Rare Wildlife Species or Wildlife Habitat Within the Immediate Vicinity of the Project Site Based on Search of Landscape Project 3.3 Species Based Patches

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Strank
	Bobcat	Lynx rufus	Capture Location	4	NA	State Endangered	G5	S2
	Bobcat	Lynx rufus	Live Individual Sighting	4	NA	State Endangered	G5	S2
	Bobcat	Lynx rufus	On Road	4	NA	State Endangered	G5	S2
	Bobcat	Lynx rufus	Physical evidence	4	NA	State Endangered	G5	S2
	Bobcat	Lynx rufus	Telemetry: Home Range	4	NA	State Endangered	G5	S2
	Indiana Bat	Myotis sodalis	Active Season Sighting	5	Federally Listed Endangered	State Endangered	G2	S1
	Indiana Bat	Myotis sodalis	Hibernaculum	5	Federally Listed Endangered	State Endangered	G2	S1
	Northern Myotis	Myotis septentrionalis	Active Season Sighting	5	Federally Listed Threatened	NA	G1G2	S1
	Northern Myotis	Myotis septentrionalis	Hibernaculum	5	Federally Listed Threatened	NA	G1G2	S1
	Northern Myotis	Myotis septentrionalis	Roost Site	5	Federally Listed Threatened	NA	G1G2	S1
Reptilia	Eastern Box Turtle	Terrapene carolina carolina	Occupied Habitat	2	NA	Special Concern	G5T5	S3

Rare Wildlife Species or Wildlife Habitat Within the Immediate Vicinity of the Project Site Based on Search of Landscape Project 3.3 Species Based Patches
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Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
	Northern Copperhead	Agkistrodon contortrix mokasen	Occupied Habitat	2	NA	Special Concern	G5T5	S3
	Timber Rattlesnake	Crotalus horridus horridus	Occupied Habitat	4	NA	State Endangered	G4T4	S1
	Wood Turtle	Glyptemys insculpta	Occupied Habitat	3	NA	State Threatened	G3	S2

**Vernal Pool Habitat
In the Immediate Vicinity of
Project Site Based on Search of
Landscape Project 3.3**

Vernal Pool Habitat Type

Vernal Pool Habitat ID

Vernal habitat area	3062
Potential vernal habitat area	2212
Total number of records:	2

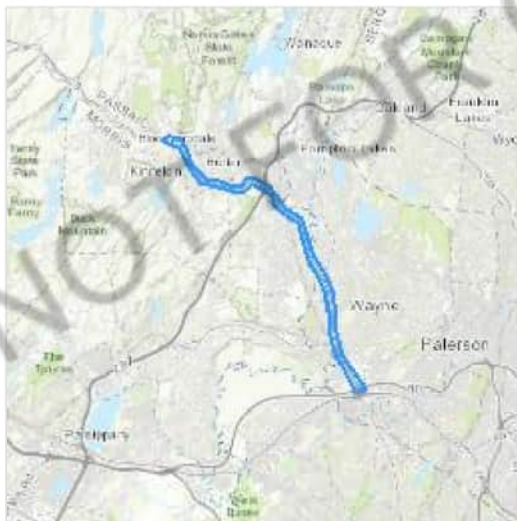
IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Morris and Passaic counties, New Jersey



Local office

New Jersey Ecological Services Field Office

☎ (609) 646-9310

4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> Wherever found This species only needs to be considered if the following condition applies: The specified area occurs within the range of the northern long-eared bat. No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9045	Threatened
Tricolored Bat <i>Perimyotis subflavus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

Reptiles

NAME	STATUS
Bog Turtle <i>Glyptemys muhlenbergii</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6962	Threatened

Insects

NAME	STATUS
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Monarch Butterfly *Danaus plexippus*

Candidate

Wherever found

This species only needs to be considered if the following condition applies:

- The monarch is a candidate species and not yet listed or proposed for listing. There are generally no section 7 requirements for candidate species (FAQ found here: <https://www.fws.gov/savethemonarch/FAQ-Section7.html>).

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/9743>

Flowering Plants

NAME	STATUS
Small Whorled Pogonia <i>Isotria medeoloides</i>	Threatened
No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1890	

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>

- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Sep 1 to Aug 31
Bicknell's Thrush <i>Catharus bicknelli</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/606	Breeds Jun 10 to Aug 20
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10

Black-capped Chickadee <i>Poecile atricapillus praticus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Apr 10 to Jul 31
Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
Cerulean Warbler <i>Dendroica cerulea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/2974	Breeds Apr 27 to Jul 20
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Eastern Whip-poor-will <i>Antrostomus vociferus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20
Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds elsewhere
Golden-winged Warbler <i>Vermivora chrysoptera</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8745	Breeds May 1 to Jul 20
Kentucky Warbler <i>Oporornis formosus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 20

Northern Saw-whet Owl *Aegolius acadicus acadicus*

Breeds Mar 1 to Jul 31

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Prairie Warbler *Dendroica discolor*

Breeds May 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Prothonotary Warbler *Protonotaria citrea*

Breeds Apr 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Red-headed Woodpecker *Melanerpes erythrocephalus*

Breeds May 10 to Sep 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Rusty Blackbird *Euphagus carolinus*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Wood Thrush *Hylocichla mustelina*

Breeds May 10 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

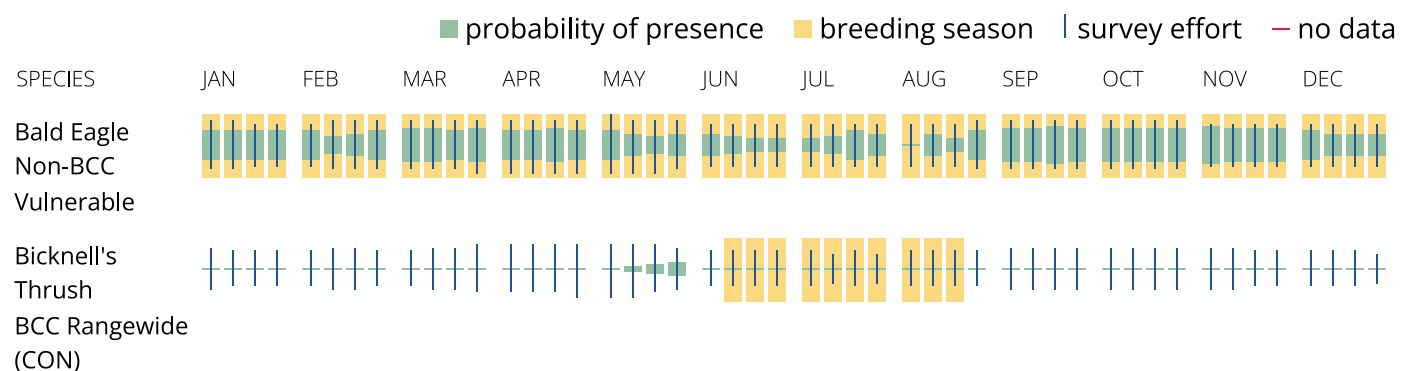
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

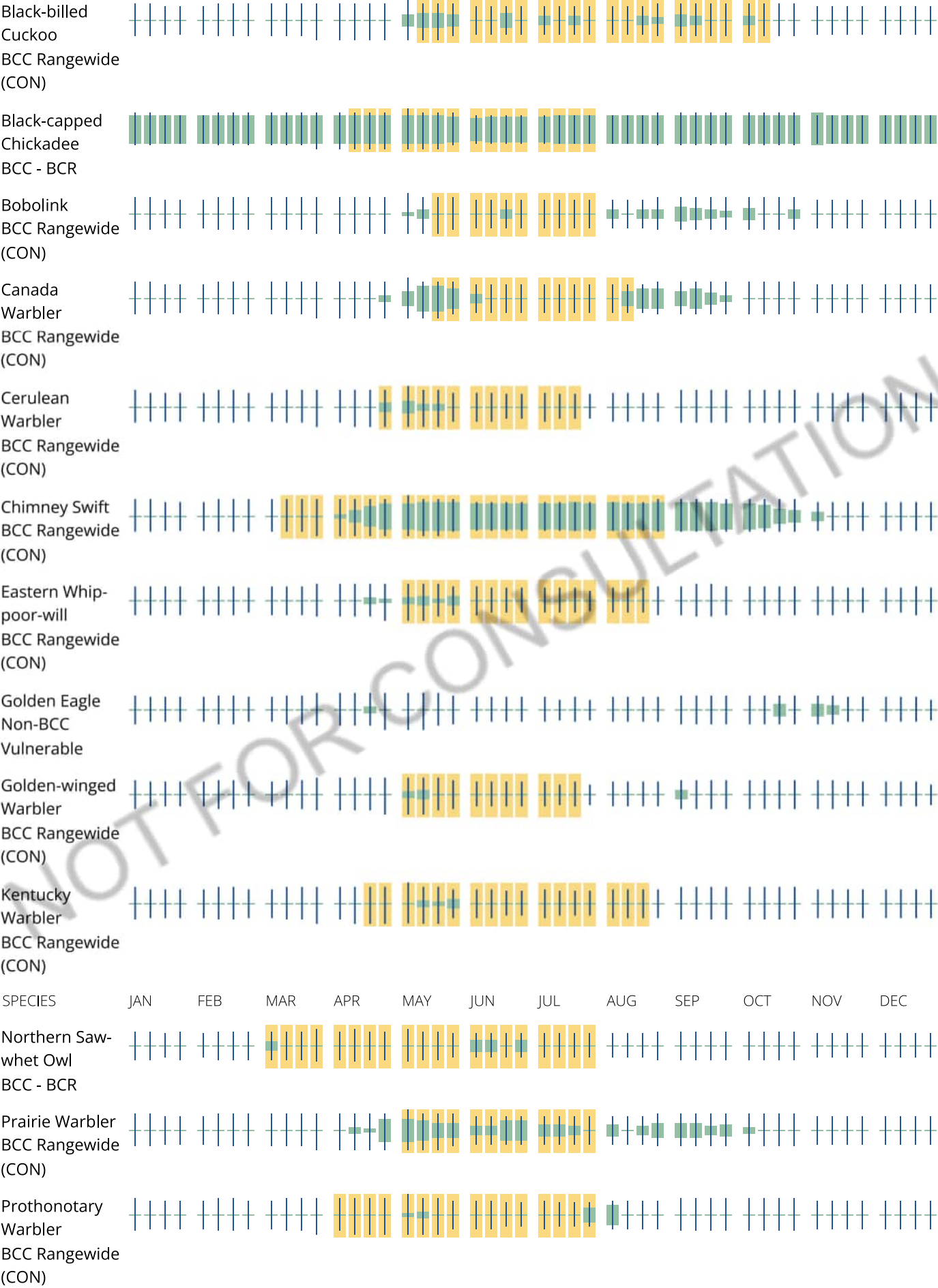
No Data (-)

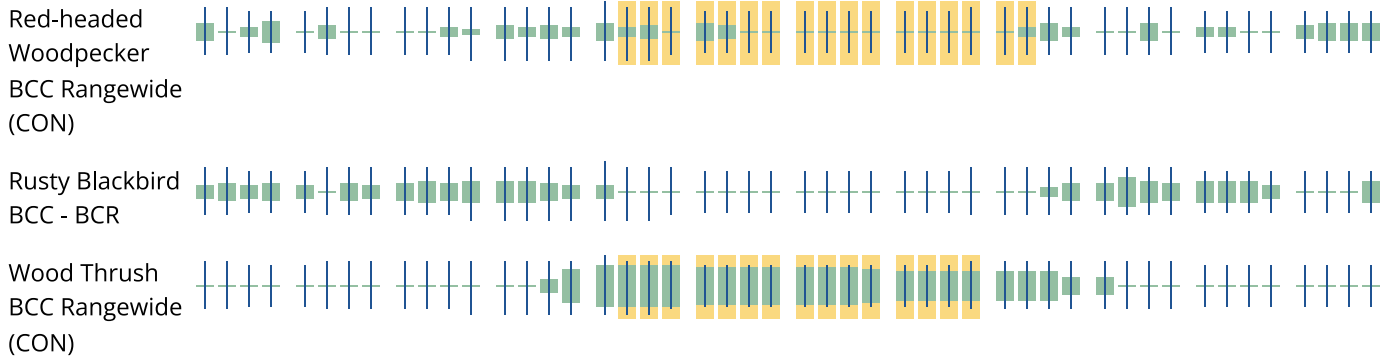
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.







Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory

birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Coastal Barrier Resources System

Projects within the [John H. Chafee Coastal Barrier Resources System](#) (CBRS) may be subject to the restrictions on Federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local [Ecological Services Field Office](#) or visit the [CBRA Consultations website](#). The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

There are no known coastal barriers at this location.

Data limitations

The CBRS boundaries used in IPaC are representations of the controlling boundaries, which are depicted on the [official CBRS maps](#). The boundaries depicted in this layer are not to be considered authoritative for in/out determinations close to a CBRS boundary (i.e., within the "CBRS Buffer Zone" that appears as a hatched area on either side of the boundary). For projects that are very close to a CBRS boundary but do not clearly intersect a unit, you may contact the Service for an official determination by following the instructions here: <https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation>

Data exclusions

CBRS units extend seaward out to either the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS data, therefore projects in the offshore areas of units (e.g., dredging, breakwaters, offshore wind energy or oil and gas projects) may be subject to CBRA even if they do not intersect the CBRS data. For additional information, please contact CBRA@fws.gov.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

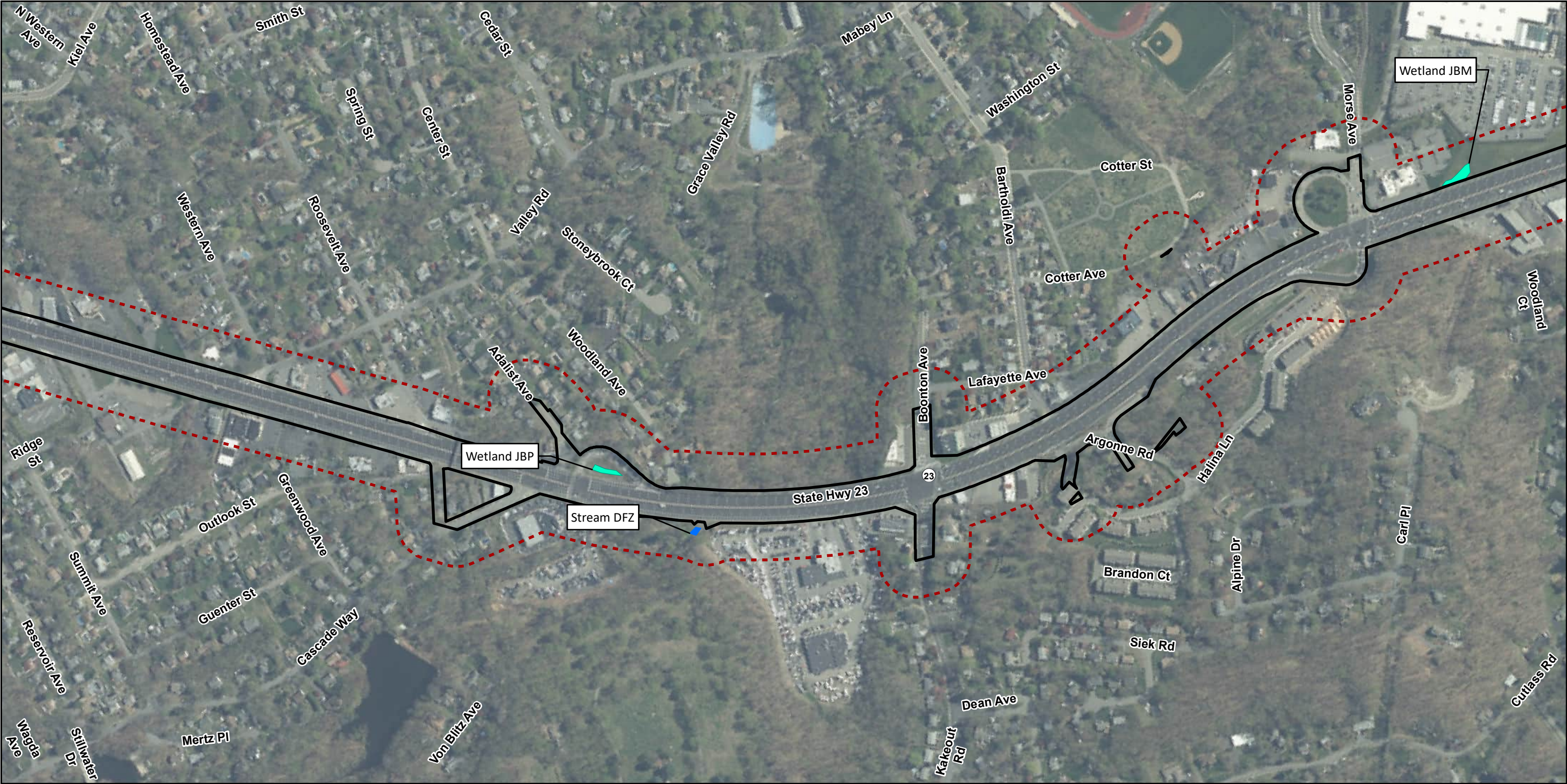
Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Appendix E

Wetland Delineation Mapping

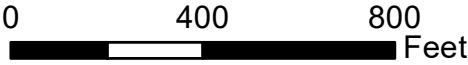


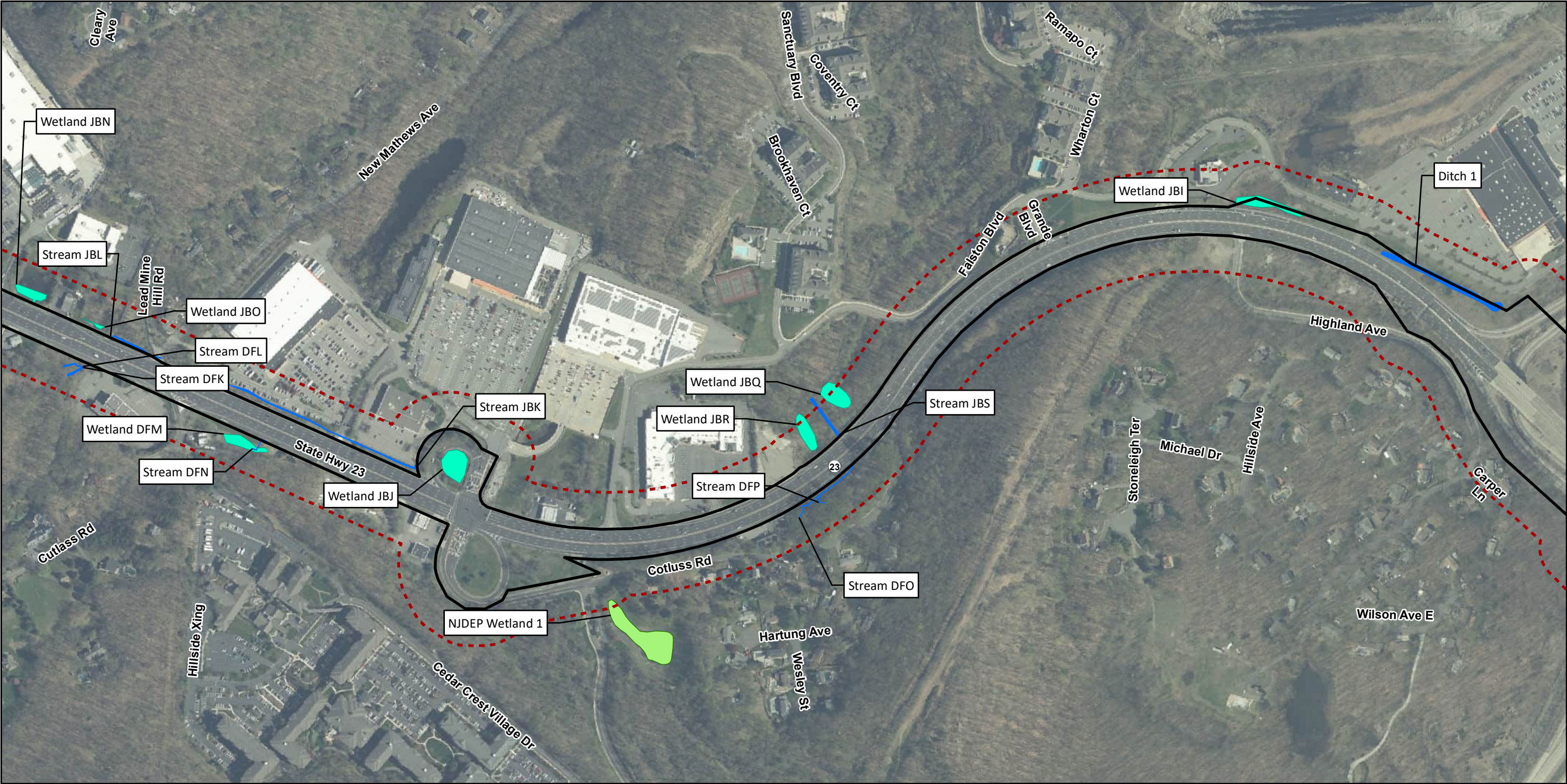
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|---|--|
|  Roadway ROW |  Delineated Stream |
|  Study Area |  NJDEP Stream |
| |  Delineated Wetland |
| |  NJDEP Wetland |



NJDOT ROUTE 23, RT 80 TO CR 694
(PATERSON HAMBURG TURNPIKE)
ATS C#1 MILEPOST 5.53 TO 16.94

Figure 6. Wetland Delineation





- | | | | |
|--|-------------|--|--------------------|
| | Roadway ROW | | Delineated Stream |
| | Study Area | | NJDEP Stream |
| | | | Delineated Wetland |
| | | | NJDEP Wetland |

Page 3 of 9

Sources:
Imagery (ESRI)

Coordinate System:
State Plane New Jersey
NAD 1983

November 18, 2022



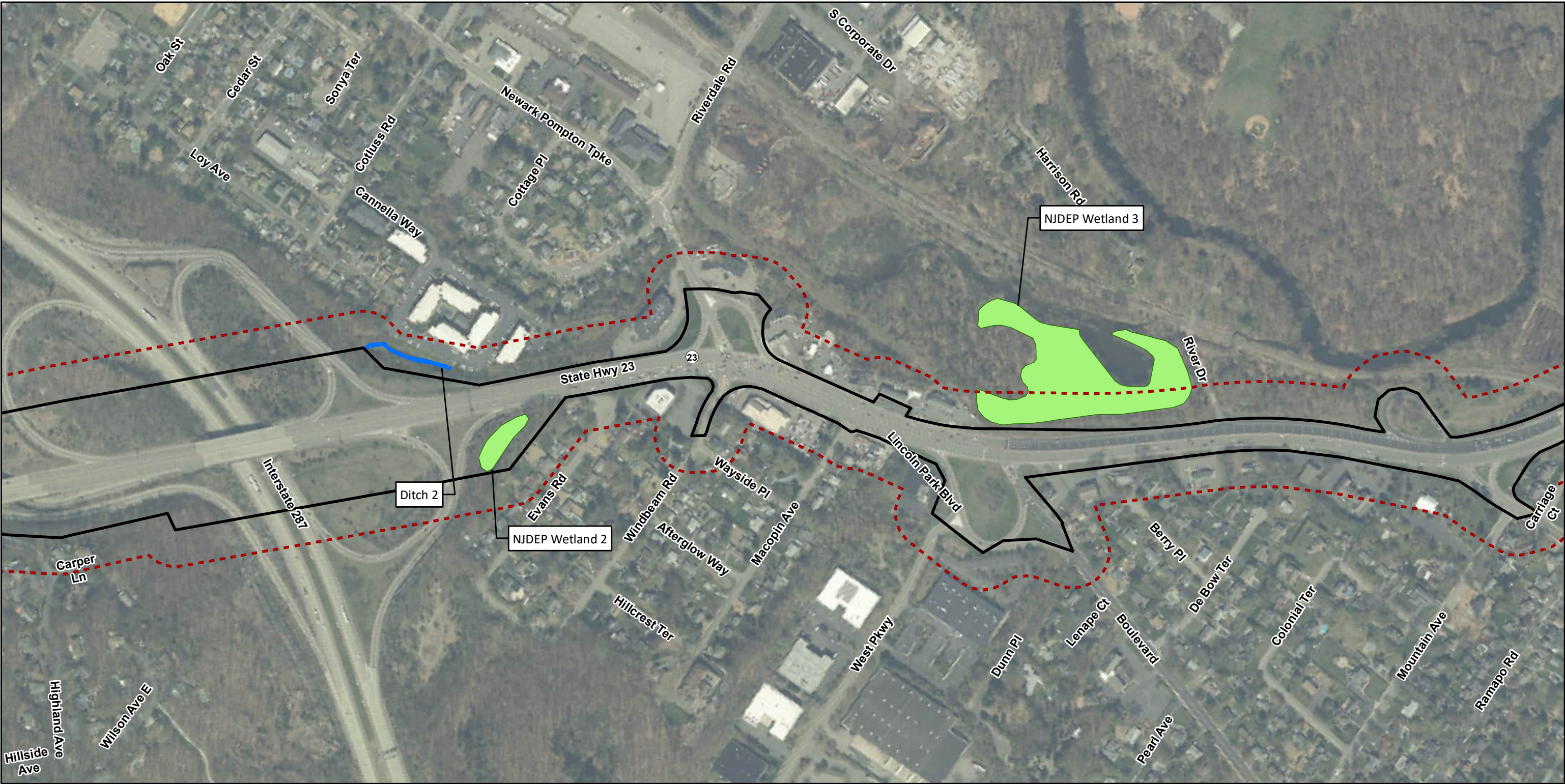
NJDOT ROUTE 23, RT 80 TO CR 694
(PATERSON HAMBURG TURNPIKE)
ATS C#1 MILEPOST 5.53 TO 16.94

Figure 6. Wetland Delineation

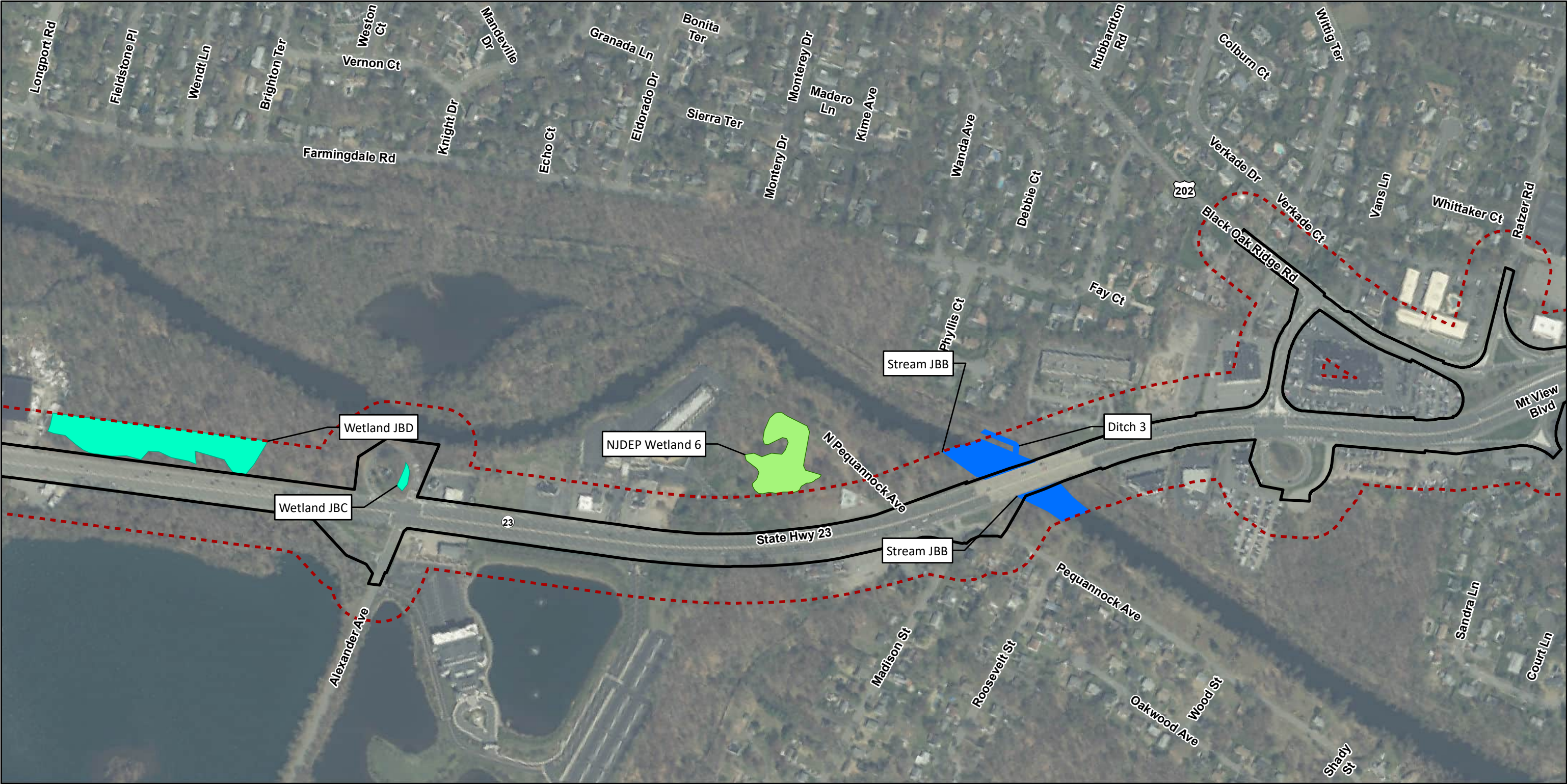


0 400 800 Feet





Roadway ROW Study Area Delineated Stream NJDEP Stream Delineated Wetland NJDEP Wetland	Page 4 of 9		NJDOT ROUTE 23, RT 80 TO CR 694 (PATERSON HAMBURG TURNPIKE) ATS C#1 MILEPOST 5.53 TO 16.94 Figure 6. Wetland Delineation 0 400 800 Feet
	Sources: Imagery (ESRI)		
	Coordinate System: State Plane New Jersey NAD 1983		
	November 18, 2022		



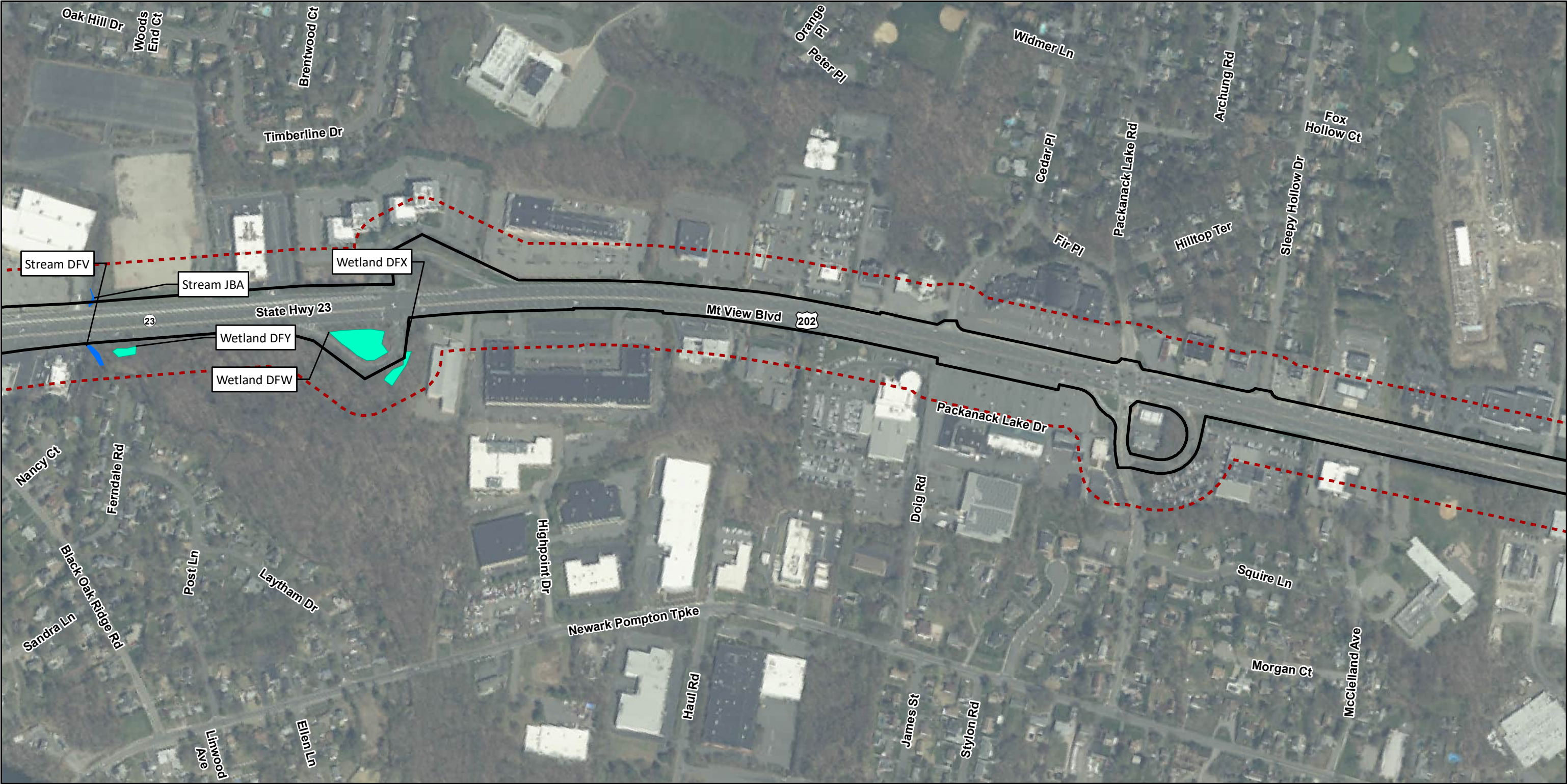
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- Study Area
- Delineated Stream
- NJDEP Stream
- Delineated Wetland
- NJDEP Wetland



NJDOT ROUTE 23, RT 80 TO CR 694
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ATS C#1 MILEPOST 5.53 TO 16.94

Figure 6. Wetland Delineation



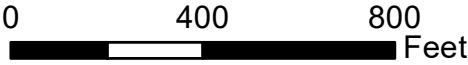


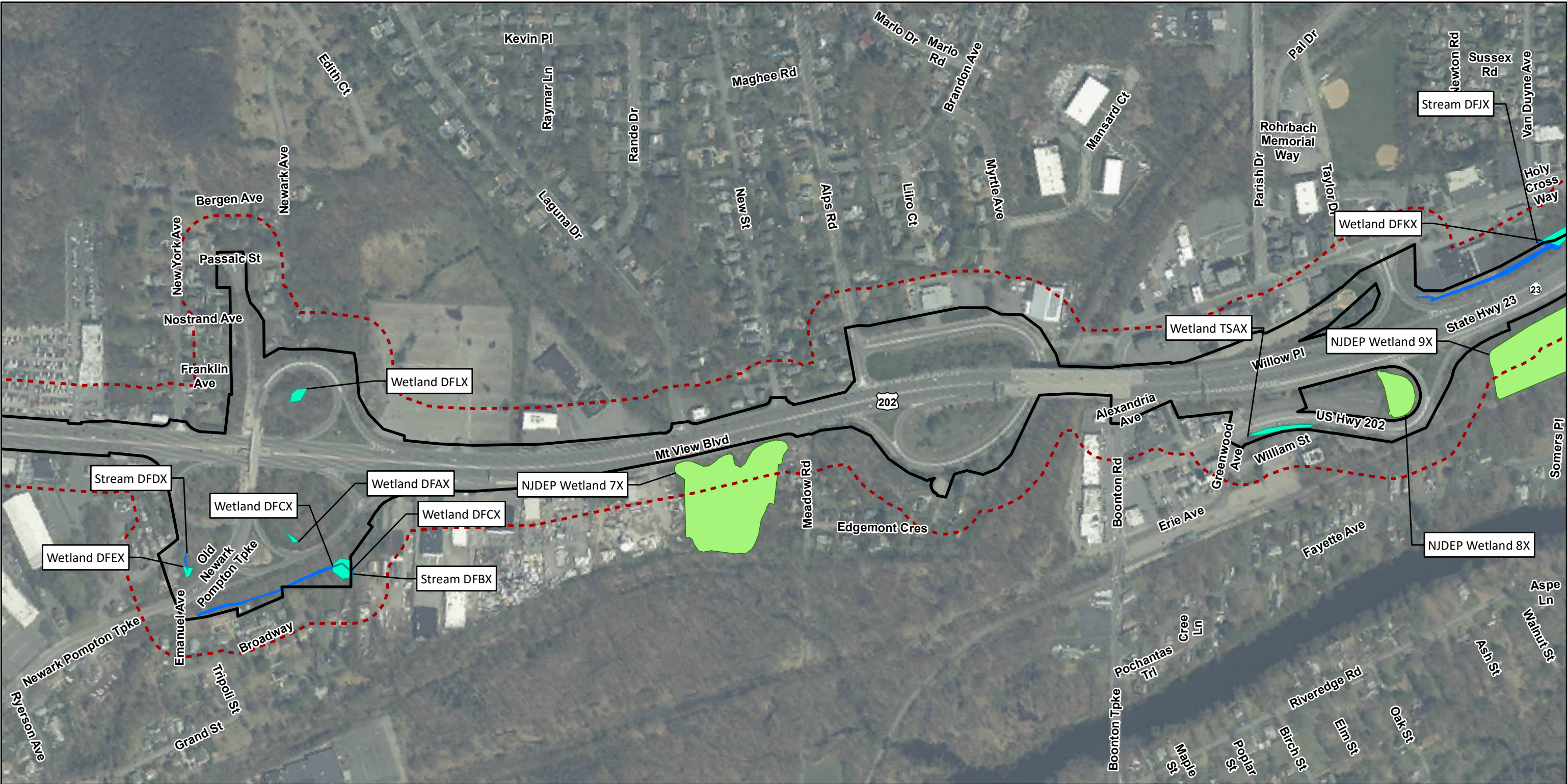
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|  Study Area |  NJDEP Stream |
| |  Delineated Wetland |
| |  NJDEP Wetland |



NJDOT ROUTE 23, RT 80 TO CR 694
(PATERSON HAMBURG TURNPIKE)
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Figure 6. Wetland Delineation



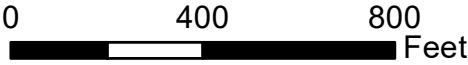


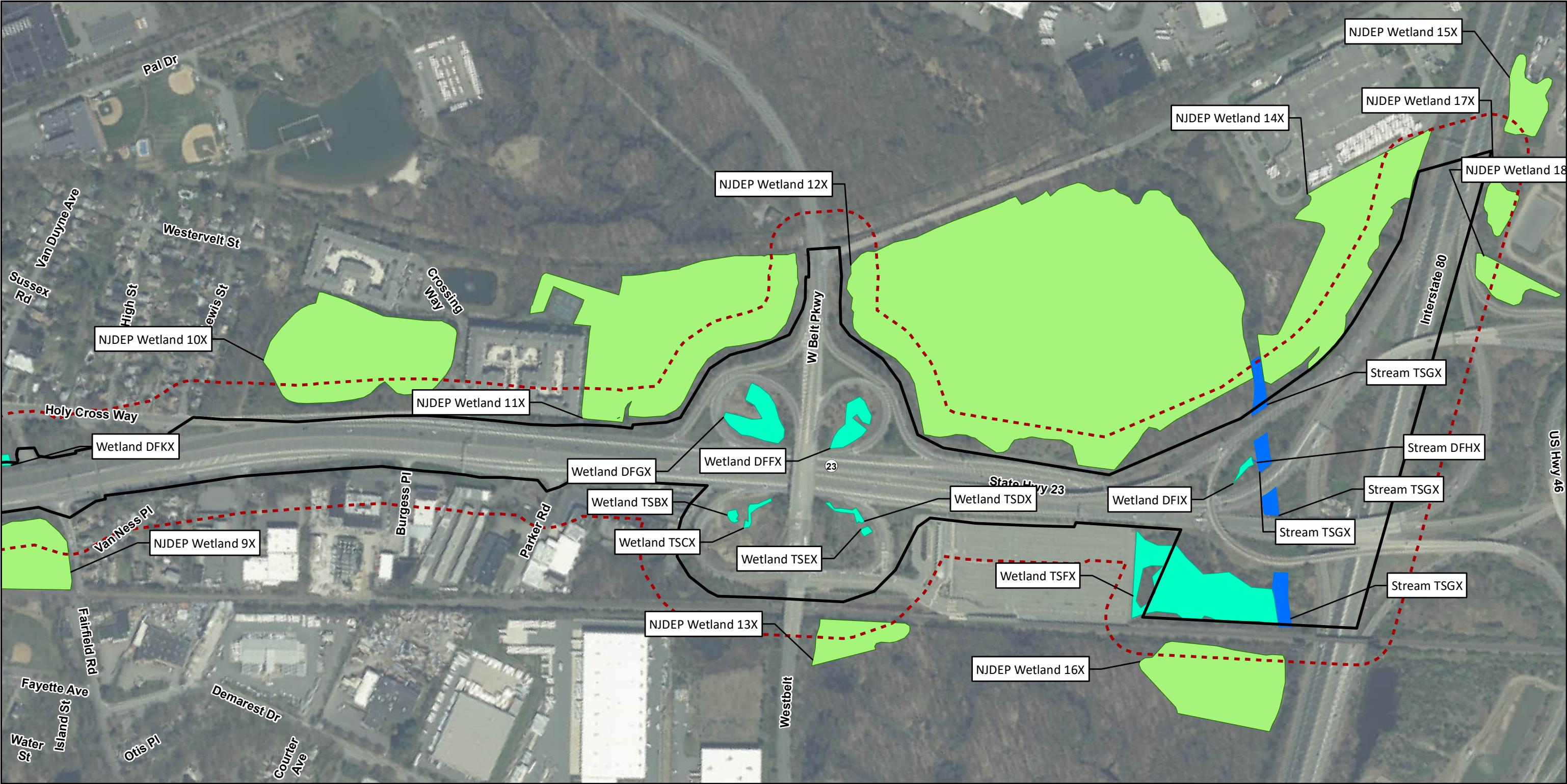
- Roadway ROW
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- Delineated Wetland
- NJDEP Wetland



NJDOT ROUTE 23, RT 80 TO CR 694
(PATERSON HAMBURG TURNPIKE)
ATS C#1 MILEPOST 5.53 TO 16.94

Figure 6. Wetland Delineation





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|-------------|--------------------|
| Roadway ROW | Delineated Stream |
| Study Area | NJDEP Stream |
| | Delineated Wetland |
| | NJDEP Wetland |



NJDOT ROUTE 23, RT 80 TO CR 694
(PATERSON HAMBURG TURNPIKE)
ATS C#1 MILEPOST 5.53 TO 16.94

Figure 6. Wetland Delineation



0 400 800 Feet

