

Transfer of Development Rights 5-Year Review Report

For Township of Woolwich



December 13, 2018

Prepared For

**Township of Woolwich
120 Village Green Drive
Woolwich Township, NJ 08085**

Prepared By

**Maser Consulting P.A.
500 Scarborough Drive, Suite 108
Egg Harbor, NJ 08234
609.910.4068**

and

**Urban Partners
325 Chestnut Street, Suite 506
Philadelphia, PA 19106**

MC PROJECT No. WOT-007

Customer Loyalty *through* Client Satisfaction

**Township of Woolwich
Gloucester County, New Jersey**

**Transfer of Development Rights
5-Year Review Report**

December 2018



A handwritten signature in blue ink, appearing to read 'J. Timothy Kernan', is positioned above a horizontal line.

J. Timothy Kernan, P.E., P.P., C.M.E.
Maser Consulting P.A.
500 Scarborough Drive, Suite 108
Egg Harbor, NJ 08234
609.910.4068

URBAN PARTNERS
COMMUNITY & ECONOMIC DEVELOPMENT

James E. Hartling, Partner
Urban Partners
325 Chestnut Street, Suite 506
Philadelphia, PA 19106

ACKNOWLEDGEMENTS

TDR Work Group Committee

Mayor Jordan Schlump

Matthew Blake

Jane DiBella

Vernon Marino

John Juliano

Dan Battisti

Julie Iacovelli

James E. Hartling

J. Timothy Kernan

Michael Aimino

Michelle S. Young

Special recognition also goes to the following Agencies:

State Agriculture Development Committee

State Transfer of Development Rights Bank (TDR Bank)

The New Jersey Water Bank - NJWB (formerly New Jersey Environmental Infrastructure Financing Program
- NJEIFP)

Table of Contents

Part 1: Performance in Transferring/Retiring Development Credits	1
Part 2: Remaining Credits to Utilize	4
Part 3: Sewer Service	7
Part 4: Revisions to Receiving Area #1	8

Appendices

Appendix 1	Preserved, Open Space, and TDR Sending Area Parcels Map
Appendix 2	Sewer Update Documents
Appendix 3	2018 Zoning Map & Ordinance 2018-13
Appendix 4	2016 Real Estate Market Analysis

Part 1: Performance in Transferring/Retiring Development Credits

Woolwich Township's 2013 Transfer of Development Rights 5-Year Review Report identified 94 remaining parcels in the Sending Area with 967.25 credits to be transferred. Reviews of development capacity and parcel eligibility determined that there needed to be adjustments in allocated credits to five parcels (2/23; 24/4.14; 2/12; 31.01/12 and 43/3) bringing the actual total of remaining credits to 966.25 (see **Table 1**).

During 2015, Woolwich Township established a TDR Credit Bank to purchase credits from property owners for future development purposes. Utilizing \$7 million in funds, this bank acquired 275.50 credits from 19 parcels in 2016. In addition, during the 2013-2018 period, three parcels with a total of 70 credits entered the Farmland Preservation program. Finally, the development approvals on one parcel expired, reducing development and credit capacity by 14.25 credits.

As a result, 359.75 credits were retired from the private pool of credits during the 2013 to 2018 period. This group of 359.75 credits represents 37.23% of all designated development credits remaining as of the 2013 Update, thereby meeting the statutory test for substantial progress in retiring or utilizing development credits.

Table 1
Sending Area Parcels--Credits Retired 2013-2018--Part 1

Credits Remaining 2013

Credits Retired

Block Lot	Owner	Owner Address	City	Acres	Zoning	Credits Outstanding --2013	Purchased By Credit Bank	Farmland Preservation	Expired Approvals
14	28 GAROZZA, CATHERINE MRS	140 MILL ROAD	WOOLWICH TWP, NJ 0808	11.65	R-1	3.00			
14	29 GAROZZA, CATHERINE MRS	140 MILL ROAD	WOOLWICH TWP, NJ	5.32	R-1	1.00			
14	30 DESANTIS, MARY ANN	156 MILL ROAD	WOOLWICH TWP, NJ 0808	18.00	R-1	2.50			
31	3.01 SWEDESBORO INC	2387 KINGS HIGHWAY	WOOLWICH TWP, NJ	50.06	R-1	17.50			
31	4 SWEDESBORO INC	2387 KINGS HIGHWAY	WOOLWICH TWP, NJ	62.00	R-1	17.75	17.75		
31.01	12 SWEDESBORO INC	2387 KINGS HIGHWAY	WOOLWICH TWP, NJ	14.81	R-1	2.50			
38	4 RUSSELL MILL LLC	126 MARLTON ROAD	PIESGROVE, NJ 08098	66.38	R-1	Approved for 31	31.00	31.00	
38	5 SCHMIDT, FRANCES A & DONALD W	600 WOODSTOWN RD	WOOLWICH TWP, NJ	12.46	R-1	3.00			
39	1 SORBELLO, THOMAS A & MARIE	216 PORCHES MILL ROAD	WOODSTOWN, NJ	10.18	R-1	4.25			
39	5 1001 RUSSELL MILL LLC	126 MARLTON ROAD	PIESGROVE, NJ 08098	18.99	R-1	Above 38/4			
40	9 ESNER M STEVEN	2330 KINGS HIGHWAY	WOOLWICH TWP, NJ 0808	9.88	R-1	2.50			
40	10 FICHERA ESTATE C/O FRANK FICHERA	349 WOODSTOWN RD	WOOLWICH TWP, NJ 0808	37.3	R-1	19.50	5.25		14.25
40	11 FICHERA, FRANK ETAL	268 WOODSTOWN RD	WOOLWICH TWP, NJ 0808	6.76	R-1	1.00			
40	12 SWEDESBORO INC	2387 KINGS HIGHWAY	WOOLWICH TWP, NJ	25.36	R-1	4.50	3.50		
40	14 SWEDESBORO INC	2387 KINGS HIGHWAY	WOOLWICH TWP, NJ	67.22	R-1	16.25	16.25		
41	1 ROBERTS, ARTHUR C JR & MARION E	141 HARRISONVILLE RD.	WOOLWICH TWP, NJ	47.73	R-1	16.75			
41	8 SORBELLO, THOMAS & MARIE ETALS	216 PORCHES MILL ROAD	SWEDESBORO, NJ	42.65	R-1	9.25			
41	10 SORBELLO, THOMAS A	857 RUSSELL MILL ROAD	WOOLWICH TWP, NJ 0808	34.32	R-1	4.75			
42	2 SORBELLO, FRANK M & JENNIE L	1015 OLDMANS CREEK RD.	WOOLWICH TWP, NJ	24.03	R-1	9.50	8.50		
42	2.03 SORBELLO, FRANK M & JENNIE L	1015 OLDMANS CREEK RD.	WOOLWICH TWP, NJ	16.30	R-1	5.75	5.75		
43	10 ROBERTS, ARTHUR C JR & MARION E	141 HARRISONVILLE RD.	WOOLWICH TWP, NJ	36.78	R-1	8.75			
43	3 KING, DAVID & FELUCHT, CAROLINE	107 DAVIDSON ROAD	WOOLWICH TWP, NJ	16.12	R-1	1.00	6.00		
43	5 B&T GROUP PROPERTIES	45 N MAIN ST	WOOSTOWN, NJ 08098	9.64	R-1	1.00			
46	11 FINNOCHIARO, JOSEPHINE TRUSTEE	290 MONROEVILLE RD.	WOOLWICH TWP, NJ	14.04	R-1	5.50			
46	11.02 FINNOCHIARO, JOSEPHINE TRUSTEE	290 MONROEVILLE RD.	WOOLWICH TWP, NJ	13.91	R-1	5.50			
46	11.03 FINNOCHIARO, JOSEPHINE TRUSTEE	290 MONROEVILLE RD.	WOOLWICH TWP, NJ	14.02	R-1	5.50			
46	12 CHEN, DIDI	2401 S 10TH ST	PHILADELPHIA PA 19148	6.00	R-1	1.25			
46	12.01 JAMESON, KATHERINE A & SMITH, ALEX	461 INDIAN CREEK ROAD	HARLEYVILLE, PA 19438	17.47	R-1	6.75			
47	2 HORNER, WILLIAM C	263 FRANKLINVILLE RD	WOOLWICH TWP, NJ	29.61	R-1	10.50			
47	2.01 HORNER, WILLIAM C	263 FRANKLINVILLE RD	WOOLWICH TWP, NJ	10.89	R-1	4.75			
47	5.04 FINNOCHIARO, MARY LOUISE	343 RUSSELL MILL ROAD	WOOLWICH TWP, NJ	8.82	R-1	4.00			
48	1 AVSEC, TIMOTHY & DIANE	431 FRANKLINVILLE RD.	WOOLWICH TWP, NJ	33.00	R-1	4.25	4.25		
48	9.01 SUIT, CURTIS & CHRISTINE	480 MONROEVILLE RD.	WOOLWICH TWP, NJ 0808	12.05	R-1	2.50			
48	10 SUIT, CURTIS D & CHRISTINE O	480 MONROEVILLE RD.	WOOLWICH TWP, NJ	10.03	R-1	2.25			
48	4.02 PETRONGOLO EVEGREEN PLANTATION	7541 WEYMOUTH ROAD	HAMMONTON, NJ	45.55	R-1	19.75			
50	2 BENNY A SORBELLO	1127 RTE 45	PIESGROVE, NJ 08098	20.60	R-1	4.75			
50	4 EASTLACK, WILLARD L, LINDA L & ETAL	112 ST JOHNS WAY	APPOLO BEACH, FL 33572	14.56	R-1	1.00			
55	3 VANDERGRACHT, TRACIE	240 FRANKLINVILLE RD.	WOOLWICH TWP, NJ	18.08	R-1	Approved for 8	8.00	8.00	
55	4.02 HORNER, WILLIAM C	263 FRANKLINVILLE RD.	WOOLWICH TWP, NJ	9.00	R-1	3.75			
55	7 DORSETT, LAWRENCE & ANN	169 RUSSELL MILL ROAD	WOOLWICH TWP, NJ	70.38	R-1	18.25			
56	1 RUSSELL MILL INVESTMENTS LP	522 KINGS HWY	MICKLETON, NJ 08085	106.00	R-1	18.25			
56	3 CARDILLO, JOSEPH & CONSTANCE	3226 S SYDENHAM ST	PHILADELPHIA PA 19145	25.73	R-1	4.75			
1	1 RAPISARDI, ROSARIO J	2251 TWP LINE RD	LOGAN TWP, NJ 08085	10.00	R-2	2.75			
1	2 HOMESTEAD II LLC	1991 OLDMANS CREEK RD	WOOLWICH TWP, NJ	77.40	R-2	29.25			
1	3 MACCARONE, SUSAN	2601 LEXINGTON MEWS	WOOLWICH TWP, NJ	124.00	R-2	57.25	57.25		
1	5 WHISKEY MILL LLC	PO BOX 1187	BEAR, DE 19701	6.68	R-2	3.00			
1	5.01 SORBELLO, THOMAS EXECUTOR & ETALS	216 PORCHES MILL ROAD	SWEDESBORO, NJ	28.02	R-2	15.25			
1	6 MINNITI, MARIE & MARK	2036 OLDMANS CREEK RD.	WOOLWICH TWP, NJ 0808	200.96	R-2	53.75			
1	8 RIZZI, JOSEPH H & FLORENCE	2012 OLDMANS CREEK RD	WOOLWICH TWP, NJ	129.06	R-2	34.25			
1	11 MAUGERI BROTHERS LAND HOLDINGS LLC	1991 OLDMANS CREEK RD	WOOLWICH TWP, NJ 0808	10.54	R-2	3.75			
2	12 MAUGERI BROTHERS LAND HOLDINGS LLC	1991 OLDMANS CREEK RD	WOOLWICH TWP, NJ	96.35	R-2	37.25			
2	13 NICOLOSI BROS	2063 OLDMANS CREEK RD.	WOOLWICH TWP, NJ	83.56	R-2	29.25			
2	14 SORBELLO, THOMAS A & ETALS	216 PORCHES MILL ROAD	WOOLWICH TWP, NJ	15.86	R-2	6.00			
2	15 SORBELLO, THOMAS A & ETALS	216 PORCHES MILL ROAD	WOOLWICH TWP, NJ	68.55	R-2	20.25			
2	18 HARVEST FARM LLC	782 CHELSEA GLENN RD	CLARKSBORO, NJ 08020	33.27	R-2	7.50	6.50		
2	23 HARVEST FARM LLC	782 CHELSEA GLENN RD	CLARKSBORO, NJ 08020	56.01	R-2	15.25	14.00		
11	1 MACCARONE, SAMUEL	341 STONE MTG. HOUSE RD.	WOOLWICH TWP, NJ	35.46	R-2	9.00			

Table 1
Sending Area Parcels--Credits Retired 2013-2018--Part 2

Credits Remaining 2013

Credits Retired

Block	Lot	Owner	Owner Address	City	Acres	Zoning	Credits Outstanding --2013	Purchased By Credit Bank	Farmland Preservation	Expired Approvals
12	6	VIREECK, LARRY E & DAVID W	110 VIREECK ROAD	WOOLWICH TWP, NJ	47.00	R-2	26.50	26.50		
13	2	VIREECK, DAVID W & LARRY E	110 VIREECK ROAD	WOOLWICH TWP, NJ 08088	53.23	R-2	21.00	21.00		
13	2.02	VIREECK, LARRY E & DAVID W	110 VIREECK ROAD	WOOLWICH TWP, NJ	11.96	R-2	6.00	6.00		
13	3	RACITE, KATHLEEN ADERS	481 STONE MEETING HOUSE RD	WOOLWICH TWP, NJ 08088	21.80	R-2	9.50			
13	4	SARBELLO, ROSE M & JOSEPH ETAL	80 PANCOAST ROAD	WOOLWICH TWP, NJ	17.66	R-2	9.00			
13	5	EASTLACK, CONCETTA	361 PAULSBORO ROAD	WOOLWICH TWP, NJ	8.97	R-2	4.50			
14	5	SANDY HILL FARMS @ C EASTLACK	361 PAULSBORO ROAD	WOOLWICH TWP, NJ	6.28	R-2	3.50			
14	5.01	SANDY HILL FARMS @ C EASTLACK	361 PAULSBORO ROAD	WOOLWICH TWP, NJ	33.82	R-2	15.75			
14	5.03	BELFIORE @ C EASTLACK	361 PAULSBORO ROAD	WOOLWICH TWP, NJ	4.41	R-2	2.50			
14	6.02	BEAIL FARKAS, MAUREEN	439 PAULSBORO ROAD	WOOLWICH TWP, NJ 08088	15.42	R-2	9.00			
14	9	MUSUMECI TRST & MUSUMECI, P & A	92 EMERALD RIDGE DR	BEAR, DE 19701	7.75	R-2	4.25			
14	12	PREVITERA, ALFIO & CATHLEEN	191 MILL RD	WOOLWICH NJ 08085	57.10	R-2	Approved for 31	31.00		31.00
14	13	STILES, LYNNE H & ETALS	388 GRISCOM DRIVE	SALEM, NJ	79.00	R-2	32.50			
17	6	GAROZZA, CATHERINE	140 MILL ROAD	WOOLWICH TWP, NJ	60.25	R-2	21.00	21.00		
19	1	PREVITERA, ALFIO & CATHLEEN	191 MILL ROAD	WOOLWICH TWP, NJ	32.00	R-2	3.00			
19	2	ADERS, DAVID & MCLAVERY, KRISTA	382 ASBURY STATION ROAD	WOOLWICH TWP, NJ	8.49	R-2	2.00			
19	4	GAROZZA, CATHERINE MRS	140 MILL ROAD	WOOLWICH TWP, NJ	35.30	R-2	7.00			
20	1	TESTERMAN DIANE E REVOCABLE TRUST	34034 PINEHURST DR	YUCAIPA, CA 92399	32.82	R-2	3.25	3.25		
20	3	CURIALE, ANTHONY & CHRISTINA	369 ASBURY STATION RD	WOOLWICH TWP, NJ	18.00	R-2	2.00			
20	4	HELM, WM W & EILEEN	15 MILL ROAD	WOOLWICH TWP, NJ	42.80	R-2	15.25			
20	6	HELM, WM W & EILEEN	15 MILL ROAD	WOOLWICH TWP, NJ	25.00	R-2	6.50			
21	1	KING'S VIEW ESTATES LLC	PO BOX 750	SEWELL, NJ 08080	46.20	R-2	23.50	22.50		
21	2	KING'S VIEW ESTATES LLC	PO BOX 750	SEWELL, NJ 08080	13.00	R-2	1.25			
21	3	KING'S VIEW ESTATES LLC	PO BOX 750	SEWELL, NJ 08080	15.30	R-2	7.00	6.00		
21	4	KING'S VIEW ESTATES LLC	PO BOX 750	SEWELL, NJ 08080	55.60	R-2	24.25	24.25		
21	5	BEIER, ERNEST III & DIANE	825 KINGS HIGHWAY	MICKLETON, NJ 08020	13.00	R-2	5.50			
24	4.14	MERCER, CHRISTOPHER T & TIFFANY C	22 VICTORIA DRIVE	WOOLWICH TWP, NJ	10.09	R-2	1.25			
54	3	LAUGHLIN JR, JOSEPH D & JOANN	PO BOX 276	WOOLWICH TWP, NJ 08088	15.66	R-2	4.25			
54	9.01	THOMAS, WILBERT A III & MARGUERITE	110 FRANKLINVILLE RD	WOOLWICH TWP, NJ 08088	11.20	R-2	5.75			
57	7	CAVALLARO, ALFRED L, ETAL	167 COUNTY HOUSE ROAD	MT ROYAL, NJ 08061	16.17	R-2	8.75			
5	6.05	CASEY, ASHLEY & SCHURR, ANTHONY II	231 HIGH HILL RD	WOOLWICH TWP, NJ 08088	11.79	R-3	1.75			
5	6.06	HASSLER, SUSAN S	233 HIGH HILL ROAD	WOOLWICH TWP, NJ 08088	11.12	R-3	1.75			
25	5	MOXLEY, MILTON R & ELMA L	2061 KINGS HIGHWAY	WOOLWICH TWP, NJ	7.63	5AC	1.00			
26	1	ARROYO, EFRAIN, JR. & NEREIDA	2027 OLDMANS CREEK ROAD	WOOLWICH TWP, NJ 08088	22.30	5AC	2.50			
36	4	BERGEN SQUARE COMMUNITY DEVELOPMENT	PO BOX 445	CAMDEN, NJ 08101	23.51	5AC	1.50			
36	5	HARGRAVE, JAMES D & IRENE B	20 OLIPHANTS MILL ROAD	WOOLWICH TWP, NJ 08088	31.60	5AC	3.25			
36	10	SCHMIDT, FRANCES & DONALD ETALS	600 WOODSTOWN ROAD	WOOLWICH TWP, NJ 08088	10.24	5AC	1.00			
Total					Acres		Credits			
R-1 TOTAL					1123.68					
R-2 TOTAL					1791.00					
R-3 TOTAL					22.91					
5AC TOTAL					95.28					
GRAND TOTAL					3032.87		897.25	70.00		
							967.25			
Adjustment of 2/23 from 15.25 credits to 14.00 credits							-1.25			
Determination that 24/4.14 w as ineligible							-1.25			
Removal of 31.01/12 from Sending Area							-2.50			
Adjustment of 2/12 from 37.25 credits to 36.25 credits							-1.00			
Adjustment of 43/3 from 1.00 credit to 6.00 credits							5.00			
Total Remaining Credits As Of 2013							966.25			
Credits Retired 2013 to 2018										
Credit Bank								275.50		
Open Space/Farmland Preservation									70.00	
Expired Approvals										14.25
Total Credits Retired							359.75			
Credits Retired As % of 2013 Remaining Credits							37.23%			

Part 2: Remaining Credits to Utilize

In addition to the 275.50 credits being held in the Woolwich Credit Bank, another 606.50 credits remain to be utilized. This pool of 606.50 credits, however, needs to be adjusted for four factors. First, administrative review of the development capacity of parcel 1/8 has reset its allocated credits from 34.25 to 60.00. Second, a new parcel—Block 22, Lot 3—has been added to the Sending Area, adding 12.75 credits to remaining capacity. Thirdly, the owner of parcel 46/12.01 has severed 5.75 credits from the parcel with the Township and is holding them for sale. Finally, five of the properties selling their credits to the TDR Credit Bank chose to retain one credit to facilitate development of an on-site house, as did the parcel 46/12.01 from which 5.75 credits were severed. It was determined that these six credits are no longer available for credit transfer and the Sending Area has been adjusted to remove these parcels and their credits from the remaining pool (see **Table 2** for these adjustments).

Table 2

Sending Area Parcels--Remaining Credits After 2018 Update

Block Lot	Owner	Owner Address	City	Acres	Zoning	Credits Outstanding--2018
14	28 GAROZZA, CATHERINE MRS	140 MILL ROAD	WOOLWICH TWP, NJ 08081	11.65	R-1	3.00
14	29 GAROZZA, CATHERINE MRS	140 MILL ROAD	WOOLWICH TWP, NJ	5.32	R-1	1.00
14	30 DESANTIS, MARY ANN	156 MILL ROAD	WOOLWICH TWP, NJ 08081	18.00	R-1	2.50
31	3.01 SWEDESBORO INC	2387 KINGS HIGHWAY	WOOLWICH TWP, NJ	50.06	R-1	17.50
38	5 SCHMIDT, FRANCES A & DONALD W	600 WOODSTOWN RD	WOOLWICH TWP, NJ	12.46	R-1	3.00
39	1 SORBELLO, THOMAS & MARIE	216 PORCHES MILL ROAD	WOODSTOWN, NJ	10.18	R-1	4.25
40	9 EISNER M STEVEN	230 KINGS HIGHWAY	WOOLWICH TWP, NJ 08081	9.88	R-1	2.50
40	11 FICHERA, FRANK ETAL	349 WOODSTOWN RD	WOOLWICH TWP, NJ 08081	0.00	R-1	0.00 ^
40	12 SWEDESBORO INC	2387 KINGS HIGHWAY	WOOLWICH TWP, NJ	25.36	R-1	1.00
41	1 ROBERTS, ARTHUR C JR & MARION E	141 HARRISONVILLE RD.	WOOLWICH TWP, NJ	47.73	R-1	16.75
41	8 SORBELLO, THOMAS & MARIE ETALS	216 PORCHES MILL ROAD	SWEDESBORO, NJ	42.65	R-1	9.25
41	10 SORBELLO, THOMAS A	857 RUSSELL MILL RD	WOOLWICH, NJ 08085	34.32	R-1	4.75
42	2 SORBELLO, FRANK M & JENNIE L	1015 OLDMANS CREEK RD	WOOLWICH TWP, NJ	0.00	R-1	0.00 ^
43	10 ROBERTS, ARTHUR C JR & MARION E	141 HARRISONVILLE RD.	WOOLWICH TWP, NJ	36.78	R-1	8.75
43	5 B & T GROUP ENTERPRISES	45 N MAIN STREET	WOODSTOWN, NJ 08098	9.64	R-1	1.00
46	11 FINNOCHIARO, JOSEPHINE TRUSTEE	290 MONROEVILLE RD.	WOOLWICH TWP, NJ	14.04	R-1	5.50
46	11.02 FINNOCHIARO, JOSEPHINE TRUSTEE	290 MONROEVILLE RD.	WOOLWICH TWP, NJ	13.91	R-1	5.50
46	11.03 FINNOCHIARO, JOSEPHINE TRUSTEE	290 MONROEVILLE RD.	WOOLWICH TWP, NJ	14.02	R-1	5.50
46	12 CHEN DIDI	2401 S 10TH ST	PHILADELPHIA, PA 19148	6.00	R-1	1.25
47	2 HORNER, WILLIAM C	263 FRANKLINVILLE RD	WOOLWICH TWP, NJ	29.61	R-1	10.50
47	2.01 HORNER, WILLIAM C	263 FRANKLINVILLE RD	WOOLWICH TWP, NJ	10.89	R-1	4.75
47	5.04 FINOCCHIARO, MARY LOUISE	343 RUSSELL MILL ROAD	WOOLWICH TWP, NJ	8.82	R-1	4.00
48	9.01 SUIT, CURTIS & CHRISTINE	480 MONROEVILLE RD.	WOOLWICH TWP, NJ 08081	12.05	R-1	2.50
48	10 SUIT, CURTIS D & CHRISTINE O	480 MONROEVILLE RD.	WOOLWICH TWP, NJ	10.03	R-1	2.25
48	4.01 PETRONGOLO EVERGREEN PLANTATION	7541 WEYMOUTH ROAD	HAMMONTON, NJ	47.01	R-1	19.75
50	2 BENNY A SORBELLO	1127 RTE 45	PIESGROVE, NJ 08098	20.60	R-1	4.75
50	4 EASTLACK, WILLARD L, LINDA L & ETAL	112 ST JOHN'S WAY	APPOLO BEACH, FL 33572	14.56	R-1	1.00
55	4.02 HORNER, WILLIAM C	263 FRANKLINVILLE RD.	WOOLWICH TWP, NJ	9.00	R-1	3.75
55	7 DORSETT, LAWRENCE & ANN	169 RUSSELL MILL ROAD	WOOLWICH TWP, NJ	70.38	R-1	18.25
56	1 RUSSELL MILL INVESTMENT LP	522 KINGS HWY	MCKLETON, NJ 08085	106.00	R-1	18.25
56	3 CARDILLO, JOSEPH & CONSTANCE	3226 SYNDENHAM ST	PHILADELPHIA, PA 19145	25.73	R-1	4.75
1	1 RAPSARDI, ROSARIO J	2251 TWP LINE ROAD	LOGAN TWP, NJ 08085	10.00	R-2	2.75
1	2 HOMESTEAD II LLC	1991 OLDMANS CREEK RD	WOOLWICH TWP, NJ	77.40	R-2	29.25
1	5 WHISKEY MILL LLC	PO BOX 1187	BEAR, DE 19701	6.68	R-2	3.00
1	5.01 SORBELLO, THOMAS EXECUTOR & ETALS	216 PORCHES MILL ROAD	SWEDESBORO, NJ	28.02	R-2	15.25
1	6 MINITI, MARIE & MARK	2036 OLDMANS CREEK ROAD	WOOLWICH TWP, NJ 08081	200.96	R-2	53.75
1	8 RIZZI, JOSEPH H & FLORENCE	2012 OLDMANS CREEK RD	WOOLWICH TWP, NJ	129.06	R-2	60.00 *
1	11 MAUGERI BROTHERS LAND HOLDINGS LLC	1991 OLDMANS CREEK RD	WOOLWICH TWP, NJ 08081	10.54	R-2	3.75
2	12 MAUGERI BROTHERS LAND HOLDINGS LLC	1991 OLDMANS CREEK RD	WOOLWICH TWP, NJ	96.35	R-2	37.25
2	13 NICOLOSI BROS	2063 OLDMANS CREEK RD.	WOOLWICH TWP, NJ	83.56	R-2	29.25
2	14 SORBELLO, THOMAS A & ETALS	216 PORCHES MILL ROAD	WOOLWICH TWP, NJ	15.86	R-2	6.00
2	15 SORBELLO, THOMAS A & ETALS	216 PORCHES MILL ROAD	WOOLWICH TWP, NJ	68.55	R-2	20.25
2	18 HARVEST FARMS LLC	782 CHELSEA GLENN ROAD	CLARKSBORO, NJ 08020	0.00	R-2	0.00 ^
11	1 MACCARONE, SAMUEL	341 STONE MTG. HOUSE RD.	WOOLWICH TWP, NJ	35.46	R-2	9.00
13	3 RACITE, KATHLEEN ADERS	481 STONE MEETING HOUSE RD	LOGAN TWP, NJ	21.80	R-2	9.50
13	4 SARBELLO, ROSE M & JOSEPH ETAL	80 PANCOAST ROAD	WOOLWICH TWP, NJ	17.66	R-2	9.00
13	5 BELFIORE @ C EASTLACK	361 PAULSBORO ROAD	WOOLWICH TWP, NJ	8.97	R-2	4.50
14	5 EASTLACK, CONCETTA	361 PAULSBORO ROAD	WOOLWICH TWP, NJ	6.28	R-2	3.50
14	5.01 SANDY HILL FARMS @ C EASTLACK	361 PAULSBORO ROAD	WOOLWICH TWP, NJ	33.82	R-2	15.75
14	5.03 BELFIORE @ C EASTLACK	361 PAULSBORO ROAD	WOOLWICH TWP, NJ	4.41	R-2	2.50
14	6.02 BEAIL FARKAS, MAUREEN	439 PAULSBORO ROAD	WOOLWICH TWP, NJ 08081	15.42	R-2	9.00
14	9 MUSUMECI TRUST & MUSUMECI, P & A	92 EMERALD RIDGE DRIVE	WOOLWICH TWP, NJ	7.75	R-2	4.25
14	13 STILES, LYNNE H & ETALS	388 GRISCOM DRIVE	SALEM, NJ	79.00	R-2	32.50
19	1 PREVITERA, ALFIO & CATHLEEN	191 MILL ROAD	WOOLWICH TWP, NJ	32.00	R-2	3.00
19	2 ADERS, DAVID & MC LAVERTY, KRISTA	382 ASBURY STATION ROAD	WOOLWICH TWP, NJ	8.49	R-2	2.00
19	4 GAROZZA, CATHERINE MRS	140 MILL ROAD	WOOLWICH TWP, NJ	35.30	R-2	7.00
20	3 CURIALE, ANTHONY & CHRISTINA	369 ASBURY STATION RD	WOOLWICH TWP, NJ	18.00	R-2	2.00
20	4 HELM, WM W & EILEEN	15 MILL ROAD	WOOLWICH TWP, NJ	42.80	R-2	15.25
20	6 HELM, WM W & EILEEN	15 MILL ROAD	WOOLWICH TWP, NJ	25.00	R-2	6.50
21	1 KING'S VIEW ESTATES LLC	700 LANTERN WAY	SEWELL, NJ	0.00	R-2	0.00 ^
21	2 KING'S VIEW ESTATES LLC	570 MANTUA BLVD	SEWELL, NJ	13.00	R-2	1.25
21	3 KING'S VIEW ESTATES LLC	700 LANTERN WAY	SEWELL, NJ	0.00	R-2	0.00 ^
21	5 BEIER, ERNEST III & DIANE	825 KINGS HIGHWAY	MCKLETON, NJ	13.00	R-2	5.50
22	3 BEIER, ERNEST III & DIANE	825 KINGS HIGHWAY	MCKLETON, NJ 08020	32.00	R-2	12.75 *
54	3 LAUGHLIN JR, JOSEPH D & JOANN	PO BOX 37	SWEDESBORO, NJ 08085	15.66	R-2	4.25
54	9.01 THOMAS, WILBERT A III & MARGUERITE	110 FRANKLINVILLE RD	WOOLWICH TWP, NJ 08081	11.20	R-2	5.75
57	7 CAVALLARO, ALFRED L, ETAL	167 COUNTY HOUSE ROAD	MT ROYAL, NJ 08061	16.17	R-2	8.75
5	6.05 CASEY, ASHLEY & SCHURR, ANTHONY II	231 HIGH HILL ROAD	WOOLWICH TWP, NJ 08081	11.79	R-3	1.75
5	6.06 HASSLER, SUSAN S	233 HIGH HILL ROAD	WOOLWICH TWP, NJ 08081	11.12	R-3	1.75
25	5 MOXLEY, MILTON R & ELMA L	2061 KINGS HIGHWAY	WOOLWICH TWP, NJ	7.63	5AC	1.00
26	1 ARROYO, EFRAN, JR. & NEREDA	2027 OLDMANS CREEK ROAD	WOOLWICH TWP, NJ 08081	22.30	5AC	2.50
36	4 BERGEN SQUARE COMMUNITY DEVELOPMENT	PO BOX 445	CAMDEN, NJ 08101	23.51	5AC	1.50
36	5 HARGRAVE, JAMES D & IRENE B	20 OLIPHANTS MILL ROAD	WOOLWICH TWP, NJ 08081	31.60	5AC	3.25
36	10 SCHMIDT, FRANCES & DONALD ETALS	600 WOODSTOWN ROAD	WOOLWICH TWP, NJ 08081	10.24	5AC	1.00

Josephine DiBella has severed 5.75 credits from parcel 46/12.01 and deed restricted the parcel.

5.75 >^

* Adjustment of 1/8 from 34.25 credits to 60.00 credits based on administrative appeal & addition of 22/3 to Sending Area

^ Removal of 40/11, 42/2, 46/12.01, 2/18, 21/1, and 21/3 from TDR program due to each parcel retaining only one credit which is intended for on-site home construction

> Development Credits Severed & Retained By Individual

Taken together, there are now 70 remaining parcels in private ownership holding 634.25 development credits available for purchase by Receiving Area developers (see **Table 3**). In addition, there is one holder of 5.75 severed credits available for sale. The test of credit utilization performance for the 2018 to 2023 period will be based on the percentage utilization of these 640.00 credits.

Table 3
Summary of Remaining Credits After 2018 Update

Total	Parcels	Acres	Credits
R-1 TOTAL	30	758.96	
R-2 TOTAL	33	1220.17	
R-3 TOTAL	2	22.91	
5AC TOTAL	5	95.28	
Severed Credit Holders	1		
GRAND TOTAL	71	2097.32	640.00

Part 3: Sewer Service

Lack of sewer availability within the Regional Center (Receiving Area #1) has crippled the ability for further utilization of development credits beyond Receiving Area #2. The provision of sewer service to the Regional Center is critical to the implementation of Receiving Area #1.

In the 5 years since the last update, the Township of Woolwich has made significant progress in the development of sanitary sewer service along the US 322 corridor. The Township has been working with a redeveloper who has contracted the design and permitting of the proposed sewer system by Consulting Engineer Services (CES) and has applied for low-interest financing through the New Jersey Department of Environmental Protection (NJDEP) and the New Jersey Infrastructure Bank (NJIB) to fund the project construction (Appendix 2). A NJDEP Treatment Works Approval (TWA) application has been submitted and was approved on November 5, 2018 for the proposed sanitary construction.

Application to the New Jersey Environmental Infrastructure Financing Program (NJEIFP) was made October 1, 2018. A meeting with NJDEP, NJIB, Woolwich, and the Redeveloper teams was held October 18, 2018. Review comments have been received regarding cultural resources and engineering plans and specifications. A public hearing to comply with the Level 2 Environmental Review was held December 3, 2018.

Approval will be in the form of an Authorization to Construct, which is pending the environmental and cultural resources review process, NJDEP Office of Diversity, Equal Opportunity and Public Contract Assistance, NJ Office of the State Comptroller and determination by NJDEP and NJIB of the financing conditions.

Construction is anticipated to begin in 2019 upon Authorization to Construct and take approximately 12 months to complete, during and after which applications for new connections to the system can be made and development within the US 322 Corridor can commence.

See Appendix 2 for documents regarding the loan application and TWA.

Part 4: Revisions to Receiving Area #1

Since the last 5-year review in 2013, only minor development has occurred with the Woolwich Regional Center including a small retail center and changes in use/expansions of existing developments throughout the corridor. The New Jersey Department of Transportation will commence construction of intersection improvements at US 322 and Kings Highway in February 2019. Aside from these developments, no significant development or transfer of credits to the receiving areas has occurred due primarily to the lack of sanitary sewer infrastructure. However, the Township has been receiving inquiries from several commercial and residential developers over this period whom have expressed interest in several properties within the corridor. Based on the sanitary sewer status summarized in Part 3 above, development in the Regional Center and Receiving Area #1 should accelerate over the next several years.

Based on the adjustments detailed in Parts 1 and 2 above, there are 915.5 development credits remaining in the Sending Area for purchase by receiving area developers, exclusive of those held by the developer of the Auburn Road Receiving Area #2. 34.25 of these credits are required to complete Receiving Area #2. The remaining 915.5 credits are adequate to support substantial development in Receiving Area #1, albeit less than envisioned in the 2008 TDR plan.

During the 5-year review process in 2013, the TDR Work Group considered major changes to land uses proposed within the Regional Center. Many concepts were examined and explored. The recommendations of the 2013 5-year review drove the Township to reexamine their Master Plan which was completed in 2016. The Master Plan Re-examination resulted in changes to the TDR Plan including the Land Use Plan was adopted by the Joint Land Use Board in 2016. The revised zoning code and zoning map was adopted by Township Committee (Ordinance 2018-13) on August 6, 2018.

The Master Plan and zoning update now shifts the focus of the town center away from Paulsboro-Swedesboro Road to the eastern portion of the corridor including the lands associated with the Woolwich Adult Settlement Agreement. Moving part of the receiving areas to this side of the corridor relocated the proposed homes around the approved General Development Plan (GDP) areas referred to as Woolwich Commons, Woolwich Crossing, and Main Street at Woolwich which proposes 1,498,288 square feet of commercial/retail and restaurant uses. Additional areas within the central and western portions of the corridor were also identified as residential receiving areas with flexible housing type standards that allow developers to create a mix of housing types within the identified areas. See Map 2 in the enclosed 2016 Real Estate Market Analysis Update (REMA) (Appendix 4).

According to the 2016 REMA, the receiving areas proposed in the 2016 TDR update create demand for 954 credits, exceeding the sending area credits remaining in 2018. The Township intends to update the REMA in early 2019.

In addition to the above, progress in relation to the Township's affordable housing obligation has been made. The Township has worked with the Fair Share Housing Center on a draft settlement agreement and hopes to execute the agreement by the end of the year or in early 2019. The agreement will establish

both the number of affordable houses to be built by 2025 and the mechanisms to produce said housing. With the exception of the affordable housing requirement in the Woolwich Adult Settlement Agreement (in zones RR-BD and MU) and a 100% affordable development proposed by Fair Share Housing Corporation, affordable housing obligations will be achieved outside of the Regional Center/Receiving Areas. Therefore, the receiving area housing will not require an inclusionary set-aside for affordable housing and will be 100% market rate. This should help stimulate credits transfers. In lieu of inclusionary development, a 1.5% development fee will be required.

Recommendations for the next 5-year period include consideration of: relocation of commercially vs. residentially zoned areas, additional receiving area parcels to diversify ownership, and/or the introduction of increased floor area ratio for commercial development by utilizing TDR credits. In general, the Township should continue to look at proposed land uses within the Regional Center as developers approach the Township with potential projects and be flexible depending on the interest of developers or as the landscape of the Regional Center takes shape. Tools including rezoning and utilization of redevelopment laws should be considered.

Part 3: Sewer Service

Lack of sewer availability within the Regional Center (Receiving Area #1) has crippled the ability for further utilization of development credits beyond Receiving Area #2. The provision of sewer service to the Regional Center is critical to the implementation of Receiving Area #1.

In the 5 years since the last update, the Township of Woolwich has made significant progress in the development of sanitary sewer service along the US 322 corridor. The Township has been working with a redeveloper who has contracted the design and permitting of the proposed sewer system by Consulting Engineer Services (CES) and has applied for low-interest financing through the New Jersey Department of Environmental Protection (NJDEP) and the New Jersey Infrastructure Bank (NJIB) to fund the project construction (Appendix 2). A NJDEP Treatment Works Approval (TWA) application has been submitted and was approved on November 5, 2018 for the proposed sanitary construction.

Application to the New Jersey Environmental Infrastructure Financing Program (NJEIFP) was made October 1, 2018. A meeting with NJDEP, NJIB, Woolwich, and the Redeveloper teams was held October 18, 2018. Review comments have been received regarding cultural resources and engineering plans and specifications. A public hearing to comply with the Level 2 Environmental Review was held December 3, 2018.

Approval will be in the form of an Authorization to Construct, which is pending the environmental and cultural resources review process, NJDEP Office of Diversity, Equal Opportunity and Public Contract Assistance, NJ Office of the State Comptroller and determination by NJDEP and NJIB of the financing conditions.

Construction is anticipated to begin in 2019 upon Authorization to Construct and take approximately 12 months to complete, during and after which applications for new connections to the system can be made and development within the US 322 Corridor can commence.

See Appendix 2 for documents regarding the loan application and TWA.

Part 4: Revisions to Receiving Area #1

Since the last 5-year review in 2013, only minor development has occurred with the Woolwich Regional Center including a small retail center and changes in use/expansions of existing developments throughout the corridor. The New Jersey Department of Transportation will commence construction of intersection improvements at US 322 and Kings Highway in February 2019. Aside from these developments, no significant development or transfer of credits to the receiving areas has occurred due primarily to the lack of sanitary sewer infrastructure. However, the Township has been receiving inquiries from several commercial and residential developers over this period whom have expressed interest in several properties within the corridor. Based on the sanitary sewer status summarized in Part 3 above, development in the Regional Center and Receiving Area #1 should accelerate over the next several years.

Based on the adjustments detailed in Parts 1 and 2 above, there are 918 development credits remaining in the Sending Area for purchase by receiving area developers, exclusive of those held by the developer of the Auburn Road Receiving Area #2. 34.25 of these credits are required to complete Receiving Area #2. The remaining 918 credits are adequate to support substantial development in Receiving Area #1, albeit less than envisioned in the 2008 TDR plan.

During the 5-year review process in 2013, the TDR Work Group considered major changes to land uses proposed within the Regional Center. Many concepts were examined and explored. The recommendations of the 2013 5-year review drove the Township to reexamine their Master Plan which was completed in 2016. The Master Plan Re-examination resulted in changes to the TDR Plan including the Land Use Plan was adopted by the Joint Land Use Board in 2016. The revised zoning code and zoning map was adopted by Township Committee (Ordinance 2018-13) on August 6, 2018.

The Master Plan and zoning update now shifts the focus of the town center away from Paulsboro-Swedesboro Road to the eastern portion of the corridor including the lands associated with the Woolwich Adult Settlement Agreement. Moving part of the receiving areas to this side of the corridor relocated the proposed homes around the approved General Development Plan (GDP) areas referred to as Woolwich Commons, Woolwich Crossing, and Main Street at Woolwich which proposes 1,498,288 square feet of commercial/retail and restaurant uses. Additional areas within the central and western portions of the corridor were also identified as residential receiving areas with flexible housing type standards that allow developers to create a mix of housing types within the identified areas. See Map 2 in the enclosed 2016 Real Estate Market Analysis Update (REMA) (Appendix 4).

According to the 2016 REMA, the receiving areas proposed in the 2016 TDR update create demand for 954 credits, exceeding the sending area credits remaining in 2018. The Township intends to update the REMA in early 2019.

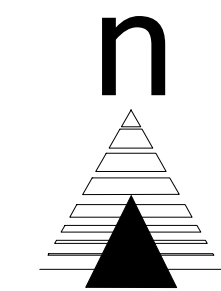
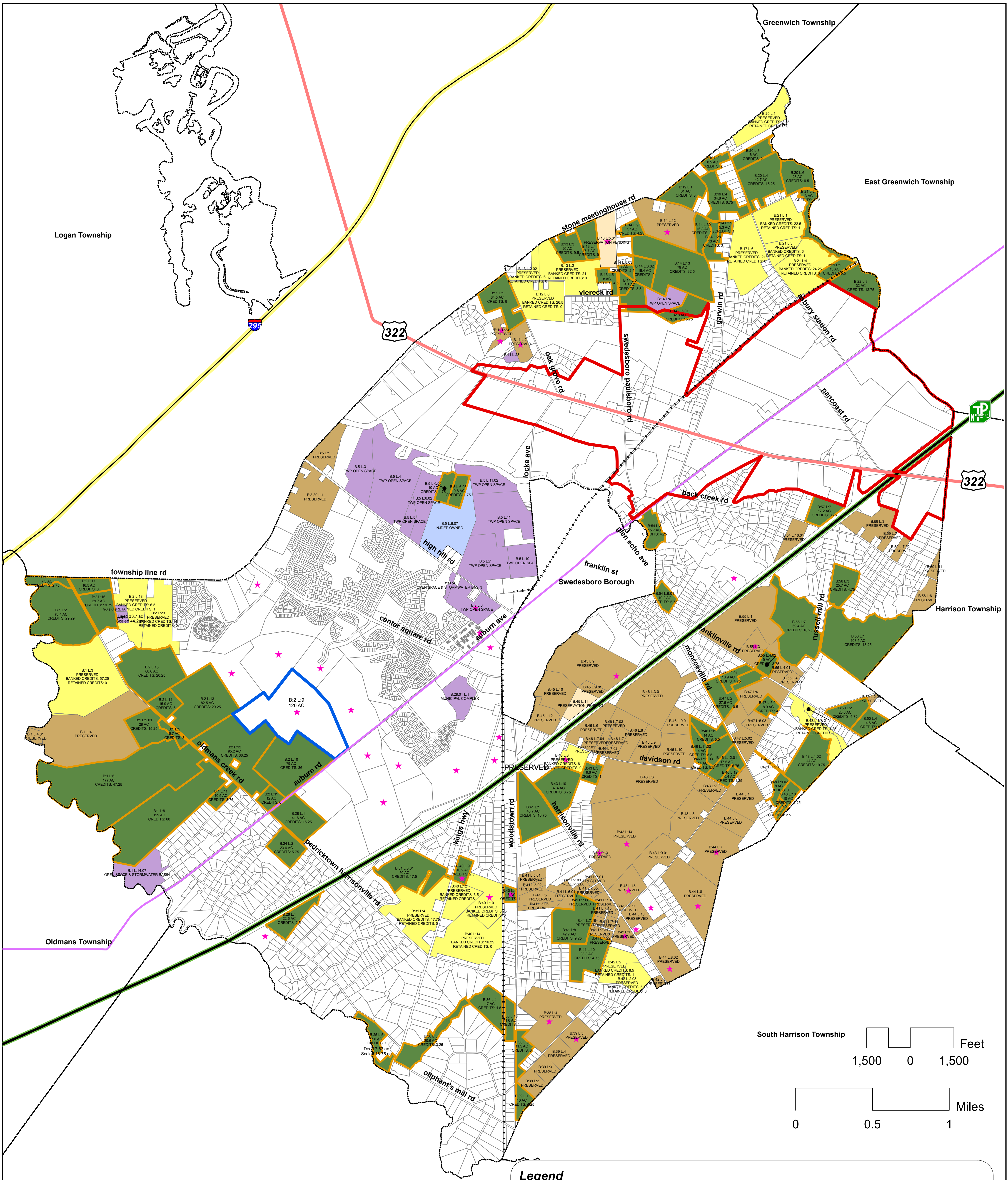
In addition to the above, progress in relation to the Township's affordable housing obligation has been made. The Township has worked with the Fair Share Housing Center on a draft settlement agreement and hopes to execute the agreement by the end of the year or in early 2019. The agreement will establish

both the number of affordable houses to be built by 2025 and the mechanisms to produce said housing. With the exception of the affordable housing requirement in the Woolwich Adult Settlement Agreement (in zones RR-BD and MU) and a 100% affordable development proposed by Fair Share Housing Corporation, affordable housing obligations will be achieved outside of the Regional Center/Receiving Areas. Therefore, the receiving area housing will not require an inclusionary set-aside for affordable housing and will be 100% market rate. This should help stimulate credits transfers. In lieu of inclusionary development, a 1.5% development fee will be required.

Recommendations for the next 5-year period include consideration of: relocation of commercially vs. residentially zoned areas, additional receiving area parcels to diversify ownership, and/or the introduction of increased floor area ratio for commercial development by utilizing TDR credits. In general, the Township should continue to look at proposed land uses within the Regional Center as developers approach the Township with potential projects and be flexible depending on the interest of developers or as the landscape of the Regional Center takes shape. Tools including rezoning and utilization of redevelopment laws should be considered.

Appendix 1

Preserved, Open Space, and TDR Sending Area Parcels Map



Preserved, Open Space, and TDR Sending Area Parcels

Woolwich Township
Gloucester County, New Jersey

- Legend
- Sending Area Parcels
 - Preserved Parcels with Credits Purchased & Held by Woolwich TDR Bank
 - Township Open Space, Recreation, or Conservation
 - State Open Space
 - Preserved Parcels
 - Pending Preservation
 - Approved Subdivisions
 - Woolwich Regional Center
 - Auburn Road Village Receiving Area
 - Parcels
 - Municipal Boundaries

-Parcel lines from 2015 GIS data provided by Civil Solutions.
-"Preserved" & "Preservation Pending" based on preserved lots from SADC GIS data, preserved lots from Gloucester County and Township lists.
-Sending area parcels from 2007 TDR and modified per 2013 5-year review, 2016 Master Plan Reexamination, and 2016 TDR Update (adopted in 2018).
-Receiving areas & Regional Center from 2007 TDR.

Date: October 15, 2014
Revised: December 14, 2016, December 2017, December 2018
Drawn By: MSY
File Name: \\Hqfas1\survey\GIS\GISPROJECTS\Municipal\U-ZWOPWOP014\Preserved Lots\181127_Sending & Preserved Lots.mxd



Appendix 2

Sewer Update Documents



Engineers
Planners
Surveyors
Landscape Architects
Environmental Scientists

500 Scarborough Drive, Suite 108
Egg Harbor Township, NJ 08234
T: 609.910.4068
F: 609.390.0040
www.maserconsulting.com

October 1, 2018

VIA HAND DELIVERY

Mr. Raj Shah
Mail Code 401-03D
Bureau of Environmental and Engineering Reviews
NJ Department of Environmental Protection
Municipal Finance & Construction Element
3rd Floor West Wing
401 East State Street
P.O. Box 420
Trenton, New Jersey 08625-0420

Re: New Jersey Environmental Infrastructure Financing Program (NJEIFP)
Woolwich Township Route 322, Wastewater Collection and Conveyance System
NJDEP Project No. S340432-01
Township of Woolwich, Gloucester County, New Jersey
MC Project No. WOT-003

Dear Mr. Shah:

On behalf of the Township of Woolwich, Maser Consulting P.A. is pleased to provide this correspondence in response to the submittal of the project's loan application.

Enclosed please find:

- 1) Two (2) signed and sealed sets of plans revised September 19, 2018;
- 2) Two (2) signed and sealed sets of specifications revised September 19, 2018; and
- 3) Two (2) signed and sealed engineer's report revised September 21, 2018. Please note that the cost estimate in Appendix G has been revised and is paperclipped to the report. The applicable construction estimate totals \$14,410,782.



Mr. Raj Shah
MC Project No. WOT-003
October 1, 2018
Page 2 of 2

Should you have any questions or need additional information, please contact Kelsey Howard of this office at 732-383-1955 ext. 3496.

Very truly yours,

MASER CONSULTING P.A.

A handwritten signature in blue ink, appearing to read 'J. Timothy Kernan'.

J. Timothy Kernan, P.E., P.P., C.M.E.
Geographic Discipline Leader and Principal Associate

TJK/KAH/msd

Enclosures

Cc: Jordan A. Schlump Sr., Mayor
Jane DiBella, Administrator/Clerk
Matthew Blake, Director of Community Development
William Pine, CFO
Mark B. Shoemaker, Esq.
Tim Larson, Precision Land Development
Norman K. Rodgers, PE, PLS, CME, CES

\\HQFAS1\General\Projects\Wot\WOT-003\Correspondence\OUT\181001_jtk_njdep_plansspec.docx

From: [H2Loans Notifications](#)
To: [John Cantalupo](#); [Erin Law](#); [Sue Brasefield](#); [Kelsey Howard](#); [Maria Scotto-D'Aniello](#); [Jane Dibella](#); [Hester Agudosi](#); [Scott Shymon](#); [Paul Hauch](#); [Gautam Patel](#); [Charles Jenkins](#); [Karen Cole](#); [Kevin Power](#); [David Shu](#)
Subject: Submission Confirmation - Water Bank Loan Application: Woolwich Township S340432-01
Date: Monday, October 01, 2018 9:37:10 AM

This email confirms the submission of your Water Bank Loan Application for the following project:

Project Sponsor: Woolwich Township
Project Number: S340432-01
Project Name: New Collection System & Treatment

Submitted: 2018-10-01 9:36 am

Next Steps:

- **Please mail two (2) signed and sealed originals of the following documents no later than one week after receipt of this E-mail** to the Bureau of Environmental and Engineering Reviews at the following address:

Documents:

- Plans and Specifications
- Technical Design Documents
- No Paper Application will be accepted

Mail:

If mailing by USPS:

*Mail Code 401-03D
Bureau of Environmental and Engineering
Reviews
NJ Department of Environmental Protection
Municipal Finance & Construction Element
P.O. Box 420 - 3rd Floor West Wing
Trenton, New Jersey 08625-0420*

If mailing by UPS/FedEx:

*Mail Code 401-03D
Bureau of Environmental and Engineering
Reviews
NJ Department of Environmental Protection
Municipal Finance & Construction Element
401 East State Street - 3rd Floor West Wing
Trenton, New Jersey 08625-0420*

- **Please ensure you complete the below listed form in H2Loans:**

SED Participation During Planning and Design for Contracting Agencies (Application Step 5) in H2LOans through this [link](#).

- Your Engineering Reviewer has been notified of your submission.
- The Engineering Reviewer will contact you with initial comments regarding your application, plans and specifications in the coming weeks to request additional information necessary to complete his/her review.
- If you have not been contacted in the next 30 days, please contact your Engineering Reviewer. If his/her contact information is not on your Projects Details page at that time, please call Charles Jenkins at 609-633-1170.

Thanks,
-The H2LOans Team
<https://www.h2loans.com/>

Date Generated: 2018-10-01 13:37:14

Project Information

Project Sponsor:	Woolwich Township
Project Number:	S340432-01
Project Name:	New Collection System & Treatment
Description:	The project serves a smart growth regional center and a TDR receiving area. This project consists of the extension of sanitary sewer service to residential and commercial properties within the TDR receiving area designated along Route 322 and commercial and industrial properties along Route 322. A gravity sewer extension will be installed within the Route 322 rights-of-ways and a sanitary pumping station will be located at the border of Woolwich and Logan Townships. A force main will extend along Route 322 and through an easement to convey the flows from the proposed Woolwich pump station to an existing LTMUA pump station which will convey the flow to the Water Reclamation Facility.
Service Area:	Woolwich Township
Water Quality Need:	Water quality is the main concern for this project. The treatment facility upgrades will be in compliance with N.J.A.C. 79B (New Jersey Surface Water Quality Standards). A centralized wastewater system will provide an environmentally effective way to satisfy the significant quantity of wastewater to be generated by the growth area. The advantages of the use of centralized wastewater system provides reliable protection to surface and groundwater (drinking water) resources and prevents toxic substances from entering groundwater through the on-site wastewater stream and compliance with regulated laws through NPJPDES. This proposed system will not rely primarily on individual ownerusers actions to provide proper conveyance and treatment.
Additional Sponsor(s):	None
NJPDES #	NJ0027545
Blocks & Lots:	N/A
Letter of Intent Amount	N/A
Loan Application Amount	N/A
Appropriation Amount	N/A

Form Status

Form	Status
Project Information (Application Step 2)	Date Submitted: 2017-03-16 2:56 pm
Clean Water Letter of Intent (Application Step 3 - Environmental Planning Document)	Date Submitted: 2017-03-17 4:12 pm
Clean Water Loan Application (Application Step 4 - Engineering Design and Specifications)	Date Submitted: 2018-10-01 9:36 am
Short-Term FAF (STFAF)	Date Submitted: 2018-06-27 11:00 am
LP-6A (Line of Credit Loan)	Date Submitted: 2018-06-08 8:17 am
Long-Term FAF (Municipal)	Not Started.

Project Contacts

Role	Name	Address	Email Address	Phone Number
Authorized Representative	Jane Dibella	120 Village Green Drive Woolwich, NJ 08085-3180	jdibella@woolwichtwp.org	Work: 856-467-2666 x3101
Bond Counsel	John Michael Cantalupo	Riverview Plaza 10 Highway 35 Red Bank, NJ 07701-5902	jcantalupo@archerlaw.com	Work: 732-268-8009
Conduit Recipient Counsel	Erin K. Law	75 Livingston Ave, Second Floor Roseland, NJ 07068-3737	elaw@msbnj.com	Work: 973-622-4866
Consulting Engineer	Susan Brasefield	331 Newman Springs Road, Suite 203 Red Bank, N/A, NJ 00000-0770	sbrasefield@maserconsulting.com	Work: 732-383-1950
Consulting Engineer	Kelsey Howard	331 Newman Springs Road Suite 203 Red Bank, NJ 07701-0000	khoward@maserconsulting.com	Work: 732-383-1955 x3496
Consulting Engineer	Maria Scotto-D'Aniello	Maser Consulting P.A. 331 Newman Springs Road Suite 203 Red Bank, NJ 07701-0000	mdaniello@maserconsulting.com	Work: 732-383-1950 x3438
Cultural Resource Reviewer	Cregg Madrigal	NJDEP-DWQ-MF&CE 401 East State Street Mail Code 401-03D PO Box 420	cregg.madrigal@dep.nj.gov	Work: 609-633-1170

Trenton, NJ 08625-0420				
Engineering Reviewer	Raj Shah	401 E State Street Trenton, NJ 08625-1501	raj.shah@dep.nj.gov	Work: 609-292-9397
Environmental Review Reviewer	Dawn Perry-Dunnam	401 East State Street P.O. Box 420 Mail Code 401-03D Trenton, NJ 08608-0420	dawn.perry-dunnam@dep.nj.gov	Work: 609-633-1170
Payment Section Chief	Paul Hauch	401 East State Street Trenton, NJ 18625	paul.hauch@dep.nj.gov	Work: 609-633-1180 x60984657
SED Reviewer (South)	Lisa M Price	428 East Street/1st floor P.O. Box 420 - Mail Code:428-01 Office of Equal Opportunity and Public Contract Assistance Melanie L. Armstrong, Esq., Director Trenton, NJ 08625-0420	lisa.price@dep.nj.gov	Work: 609-984-9742
SED Reviewer (South)	Vanessa Rosia	401 East State Street/ 3rd Floor Mail Code: 420-03D Division of Water Quality, MFCE, Bureau of Construction, Payments and Administration Janice Brogle, Director - DWQ Trenton, NJ 08625-0420	vanessa.rosia@dep.nj.gov	Work: 609-292-3114
SED Reviewer (South)	Joe Genovay	401 East State Street Trenton, NJ 08625-0420	joe.genovay@dep.nj.gov	Work: 609-984-9742

Location Info

Project Location Description: Woolwich Township is located in north western Gloucester County and is bounded by the Townships of Logan, Greenwich and East Greenwich on the north, Township of Harrison on the east, Township of South Harrison and Piles grove on the south, Township of Oldmans on the west and the Borough of Swedesboro in the center. This project consists of the extension of sanitary sewer service to residential and commercial properties located within the TDR receiving area designated along Route 322.

Block And Lot: N/A

General Information (LP-2A)

Have any project scope revisions been included in this Loan Application (Application Step 4) and associated design documents, that have not been previously identified in the Letter of Intent (Application Step 3) and/or Project Planning Document/Report?

☒ Yes

Describe the project scope revision

The Letter of Intent project report indicated that the proposed sewer would extend along Route 322, South Bridgeport Road, Jefferson Street, through an easement within an industrial lot, and would include Horizontal Directional Drilling (HDD) underneath Raccoon Creek. The report also indicated the pumping station would be located near the border of Woolwich and Logan Townships, but the exact location was not specified. Revisions were made to the location of the project. The project starts approx. 1,800 ft west of Pancoast Rd (CR 672) on Route 322 and extends within the eastbound side of Route 322 ROW to Lock Ave (CR 671), turns south on Locke Ave for approx. 750 ft. The proposed pump station will be installed here, on Block 7, Lot 4.01. The project area continues north on Route 322 then west towards Route 130 to tie into the existing LTMUA manhole #MS-001 on the west side of Route 322 located near the intersection of Main St, Church St and Route 322.

☐ No

Does the applicant intend to or has already applied for (or received) other funding from State or Federal Agency/Agencies for the project?

☐ Yes

☒ No

Project Description

The project consists of the extension of sanitary sewer service to residential, commercial, and industrial properties in Woolwich Township, Gloucester County, New Jersey. Service will be extended to properties located within the TDR receiving area and along US Highway 322. The proposed project, per the final September 2018 Design Plans, consists of the construction of gravity sewer in Woolwich Township along Route 322, a pump station on Locke Avenue in Woolwich Township, and a force main that will run from the pump station, north on Locke Avenue, and then along Route 322 in Woolwich Township and into Logan Township. Connection will be made to an existing 24" sanitary sewer that flows to an existing pump station in Logan Township. The flow is treated at the Logan Township Municipal Utilities Authority (LTMUA) Water Reclamation Facility.

Authorizing Resolution (LP-2B)

Do you have an Authorizing Resolution readily available to upload?

☒ Yes

Please upload it now:

resolution 2018-167_signed.pdf

☐ No

Statement of Assurance (LP-3)

General

As an Authorized Representative of **Woolwich Township**, I, **Jane Dibella** certify that **Woolwich Township** agrees to comply with the laws, rules, policies, requirements and conditions relating to the New Jersey Environmental Infrastructure Financing Program for this project.

Administrative Requirements

1. Has the legal, institutional, managerial, technical and financial capability to ensure adequate construction and operation and maintenance (including replacement) of the environmental infrastructure facilities, and has analyzed the local share of the costs of the proposed environmental infrastructure facilities, including the financial impact on the service area.
2. Will give the New Jersey Department of Environmental Protection (DEP) and the New Jersey Environmental Infrastructure Trust (Trust) through any Authorized

- Representative, access to and the right to examine all records, books, papers, or documents related to the loan, and will establish an accounting system in accordance with generally accepted accounting principles and auditing standards.
3. Has a fee simple title or such other estate or interest in the site of the project, including necessary easements and rights-of-way as the DEP finds sufficient to assure undisturbed use and possession for the purposes of construction and operation for the estimated life of the project, and will not dispose of, modify the use of, or change the terms of the real property title, or other interest in the site and facilities without permission and instructions from DEP.
 4. For local government units, will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or gives the appearance of constituting a personal or organizational conflict of interest, and shall otherwise comply with the DEP's minimum standards of conduct found in N.J.A.C. 7:22-8.1 et seq.
 5. Will ensure that the facilities under its ownership, lease or supervision used to accomplish the project are not listed on the U. S. Environmental Protection Agency's (EPA) list of Violating Facilities, and will notify the DEP of the receipt of any communication from the Director of the EPA Office of Federal Activities indicating that a facility to be used in the project is under consideration for such listing by EPA.
 6. Has not or shall not enter into any contract and has not or shall not award any subcontract to any person(s) included on EPA's or the New Jersey State Treasurer's List of Debarred, Suspended or Disqualified Bidders as a result of action by any Federal or State agency for the building of the project.
 7. Has not violated any Federal, State or local law pertaining to fraud, bribery, graft or collusion.

Programmatic Requirements

1. Will obtain approval by DEP of the final design drawings and specifications before the project is advertised for bidding, and will complete the project in accordance with the application, facilities plan/project report, plans and specifications and other documents or amendments thereto approved by the DEP.
2. Will provide and maintain competent and adequate engineering supervision under the direction of a Professional Engineer, licensed in the State of New Jersey, who shall ensure that the construction conforms with the accepted plans and specifications, who shall furnish progress reports and such other information as DEP may require and who shall certify to the DEP that the completed work is in conformance with accepted plans and specifications.
3. Will operate and maintain the environmental infrastructure facilities in accordance with the minimum standards as required by the pertinent Federal, State and local agencies for the maintenance and operation of such facilities; and in accordance with all permits.
4. Will retain sufficient qualified operation and management personnel from the time of completion of construction or initiation of operation, whichever, is earlier, until such time as the operation of the facility is discontinued, and the applicant shall retain a qualified chief operating officer or executive director.
5. Will initiate procurement action for building all significant elements of the project within 12 months of the loan closing; and will diligently pursue completion of the project.
6. Will assure that, if assistance is for a new system which is allowable, the existing population will connect to the system within a reasonable time after project completion.
7. Will assure that the environmental infrastructure facilities, for which this application is requesting funds, are made operational according to the project schedule submitted herewith, regardless of whether additional funding is received.
8. Will have available sufficient funds to pay that portion of the project costs not covered by the financial assistance being applied for with this application, and shall use these funds to make such payments.
9. For projects sponsored by local government units, will require the contractor to provide bonds in compliance with N.J.S.A. 2A:44-123 et seq., and ensure that the actual construction work is performed by the lump sum (fixed price) or unit contract method or combination thereof.
10. Will require the facilities to be designed to comply with the American National Specifications for Making Building and Facilities Accessible to, and Usable by, the Physically Handicapped, Number A117-1-196.
11. Has completed the required cost and effectiveness analysis and that it has selected, to the maximum extent practicable, a project or activity that maximizes the potential for water and energy conservation. At a minimum, the cost and effectiveness analysis includes: (1) the study and evaluation of the cost and effectiveness of the processes, materials, techniques, and technologies for carrying out the proposed project or activity for which assistance is sought, (2) the selection, to the maximum extent practicable, of a project or activity that maximizes the potential for efficient water use, reuse, recapture, and conservation, and energy conservation, taking into account
 - a. The cost of constructing the project or activity;
 - b. The cost of operating and maintaining the project or activity over the life of the project or activity; and
 - c. The cost of replacing the project or activity.

Statutory Requirements

1. Will comply with the provision of Executive Order 11988 relating to evaluation of potential effects of any actions in a floodplain, and Executive Order 11190 relating to minimizing harm to wetlands.
2. Will comply, or have already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provides for fair and equitable treatment of persons displaced or whose property is acquired as a result of assisted programs.
3. Will comply with the provisions of the Hatch Act, which limits the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.
4. Will comply with the provisions of the Davis-Bacon Act (not applicable to drinking water projects), the Copeland Act, and the Contract Work Hours and Safety Standards Act, all of which govern labor standards for federally assisted construction sub agreements, where applicable.
5. Will comply with the flood insurance purchase requirements of N.J.S.A. 58:16A-50 et seq., N.J.A.C. 7:13-2.1 et seq., and Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires loan recipients in a special flood hazard area, as a loan condition, to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more. (See 40 CFR 30.600(b) and 44 CFR Parts 59 through 79.)
6. Will assist the DEP to comply with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. 470), Executive Order 11593, the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. 469a-1 et seq.), the Act Establishing the New Jersey Register of Historic Places and Executive Order No. 215 Environmental Assessment.
7. Will comply with Section 13 of the Federal Water Pollution Control Act of 1972, which provides that no person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in any program under the Act.
8. Will comply with Title VI of the Civil Rights Act of 1964, with the New Jersey Law Against Discrimination, N.J.S.A. 10:5-1 et seq. and with the Anti-Discrimination and Affirmative Action Provisions of N.J.S.A. 10:2-1 to 10:2-4.
9. Will comply with all applicable requirements of Federal, State and local laws, ordinances, executive orders, policies, rules and regulations governing this program, including N.J.A.C. 7:22-3, 4, 5, 9, and 10.
10. Will establish, for wastewater treatment projects, an effective regulatory program for pretreatment pursuant to N.J.S.A. 58:10A-6 et seq. and 40 CFR Part 403.
11. For local government units, will comply with applicable procurement requirements of the Local Public Contracts Law, N.J.S.A. 40A: 11-1 et seq.

Certification

I certify that I am duly authorized representative of the within named applicant, and that I have read and understand these requirements and assurances.

I further certify that the foregoing statement made by me are true. I am aware that if any of the foregoing statements made by me are willfully false, I am subject to punishment.

Assurance of Compliance (LP-4)

Sponsor: **Woolwich Township**

HEREBY AGREES THAT it shall comply with Title VI of the Civil Rights Act of 1964 (P.L. 88-352) and all requirements imposed pursuant to that title, as well as the New Jersey "Law Against Discrimination" as set forth in Title 10, Chapter 5 of the New Jersey Statutes Annotated, to the end that, in accordance with Title VI of the Act and the Regulations no person in the United States shall, on the ground of race, creed, color, national origin, ancestry, age, marital status, affectional or sexual orientation or sex, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the Applicant receives financial assistance from the State of New Jersey; nor shall any person, on the ground of race, creed, color, national origin, ancestry, age, marital status, affectional or sexual orientation or sex, be denied the benefits of, or be otherwise subjected to discrimination under any program for which the Applicant receives financial assistance from the State of New Jersey; and HEREBY GIVES ASSURANCE THAT it shall immediately take any measures necessary to effectuate this agreement.

If any real property or structure thereon is provided or improved with the aid of State financial assistance extended to the Applicant by the State of New Jersey, this assurance shall obligate the Applicant, or in the case of any transfer of such property, any transferee, for the period during which the real property or structure is used for a purpose involving the provision of similar services or benefits. If any personal property is so provided, this assurance shall obligate the Applicant for the period during which the State financial assistance is extended.

THIS ASSURANCE is given in consideration of and for the purpose of obtaining any and all State grants, loans, contracts, property, discounts, or other State financial assistance extended after the date hereof to the Applicant by the State of New Jersey; including installment payments after which date on account of applications for State financial assistance which were approved before such date. The Applicant recognizes and agrees that such State financial assistance shall be extended in reliance on the representative and agreements made in this assurance, and that the State of New Jersey shall have the right to seek judicial enforcement of this assurance.

The assurance is binding on the Applicant, its successors, transferees, and assignees, and the person or persons whose signatures appear below are authorized to sign this assurance behalf of the Applicant.

Authorized Representative of **Woolwich Township**
Jane Dibella

Building Costs (LP-5A/LP-5C) - Clean Water

Green reference: <https://d8lomzvei8y8s.cloudfront.net/h2loans/application/gpr.pdf>

Resiliency reference: https://d8lomzvei8y8s.cloudfront.net/h2loans/application/draa_eligible_projects.pdf

	Building Cost Categories	Estimated Building Cost	Green %	Resiliency %
I	Secondary Wastewater Treatment	\$0	%	%
II	Advanced Wastewater Treatment	\$0	%	%
III-A	Infiltration/Inflow (I/I) Correction	\$0	%	%
III-B	Sewer Replacement/Rehabilitation	\$0	%	%
IV-A	New Collector Sewers and Appurtenances	\$14,410,782	%	%
IV-B	New Interceptor Sewers and Appurtenances	\$0	%	%
V-A	Combined Sewer Overflow (CSO) Traditional Infrastructure	\$0	%	%
V-B	Combined Sewer Overflow (CSO) Green Infrastructure	\$0	%	%
VI-A	Stormwater Conveyance Infrastructure	\$0	%	%
VI-B	Stormwater Treatment Systems	\$0	%	%
VI-C	Stormwater Green Infrastructure	\$0	%	%
VI-D	General Stormwater Management	\$0	%	%
VII-A	NPS Control: Agriculture (Cropland)	\$0	%	%
VII-B	NPS Control: Agriculture (Animals)	\$0	%	%
VII-C	NPS Control: Silviculture	\$0	%	%
VII-E	NPS Control: Ground Water Protection (Unknown Source) (Includes Open Space Land Acquisitions)	\$0	%	%
VII-F	NPS Control: Marinas	\$0	%	%
VII-G	NPS Control: Resource Extraction	\$0	%	%
VII-H	NPS Control: Brownfields	\$0	%	%
VII-I	NPS Control: Storage Tanks	\$0	%	%
VII-J	NPS Control: Sanitary Landfills	\$0	%	%
VII-K	NPS Control: Hydromodification	\$0	%	%
VII-M	NPS Control: Other Estuary Management Activities	\$0	%	%
X	Recycled Water Distribution	\$0	%	%
XII	Decentralized Wastewater Treatment Systems	\$0	%	%
	Building Costs (Total)	\$14,410,782		

Total Project Cost During Construction

1. Building Costs (Total)	\$14,410,782
2. Soft Costs - Contingencies (Up to 5% of line No. 1)	\$720,539
3. Soft Costs - Administrative Expenses (Up to 3% of Line No. 1)	\$432,323
4. Soft Costs - Engineering Fees (Up to 12% of Line No. 1)	\$817,995
5. Soft Costs - Planning and Design Funds will only be disbursed based on actual invoices received	\$948,412
6. Other Costs	\$0
7. Total Project Costs	\$17,330,052

Explanation for Other Costs

Basis of cost estimate

CES Engineer's Estimate dated September 25, 2018 .

Cost estimation date

2018-09-25

Please upload most recent documentation (draft / revision / final) to support your building cost estimates

3655 Engineers Estimate 20180919.pdf

Contracts (LP-6A)

Construction Contracts Contract Nature

Name

Allowable Cost

\$0

Contract Description

Total Cost

\$0

☐ This contract is for Force Account work

Engineering Contracts (Plans and/or Specifications) Contract Nature

Name

CES Proposal for: Route 322

Corridor Waste Water

Collection Conveyance System

Contract Description

Allowable Cost

\$629,812

Portions of contract for planning and design activities include Phase 1 Land Surveying, Phase 2 Geotechnical Engineering, Phase 3 Project Kick Off Meeting, Phase 4 Design Engineering Services, Phase 5 Permitting, Phase 6 Deliverables Allowance, and Phase 7 Coordination and Meeting Attendance Allowance.

Total Cost

\$629,812

☐ This contract is for Force

Account work

Name

CES Migratory Bird Breeding Study

Allowable Cost

\$9,700

Contract Description

Portion of contract for planning and design activities include Phase 1 Initial Migratory Bird Breeding Study

Total Cost

\$9,700

☐ This contract is for Force Account work

Name

Maser

Consulting

Sanitary Sewer

Extension

NJEIFP Services

Contract Description

Allowable Cost

\$308,900

Portion of contract for planning and design activities include Phase 1 NJEIFP Loan Application, Phase 2 Level 2 Environmental Planning Document, Phase 3 Phase IA Cultural Resources Investigation, Phase 4 Tree Inventory, Phase 6 Meetings, Phase 7 Reimbursables, Phase 8 Phase IB Archeological Fieldwork, PPhase 9 hase II Archeological Evaluations, Phase 10 Value Engineering, Phase 11 Plan Review and Pump Station Report Review

Total Cost

\$308,900

☐ This

contract is for

Force Account

work

Engineering Contracts (Construction Management) Contract Nature

Name

CES Proposal for: Route 322 Corridor Waste Water

Collection Conveyance System

Contract Description

Allowable Cost

\$75,295

Portions of contract for engineering during construction activities include Phase 8 Engineering During Construction and Phase 9 Asbuilt Plans.

Total Cost

\$75,295

☐ This contract is for Force Account work

Name

CES Migratory Bird Breeding Study

Allowable Cost

\$9,700

Contract Description

Portions of contract for engineering during construction activities include Phase 2 Pre-Construction Migratory Bird

Total Cost Breeding Study (If Required)

\$9,700

☐ This contract is for Force

Account work

Name

Maser Consulting Sanitary Sewer Extension NJEIFP

Services

Allowable Cost

\$75,000

Total Cost

\$75,000

☐ This contract is for Force Account work

Contract Description

Portions of contract for engineering during construction activities include Phase 5 Construction Phase

Name

Alaimo Route 322 Wastewater Collection and Conveyance System

Allowable Cost

\$658,000

Total Cost

\$658,000

☐ This contract is for Force Account work

Contract Description

Construction Inspection

Land Preservation/Conservation Contracts (Clean Water Only) Contract Nature

Name

Allowable Cost

\$0

Total Cost

\$0

☐ This contract is for Force Account work

Contract Description

Architect Contracts Contract Nature

Name

Allowable Cost

\$0

Total Cost

\$0

☐ This contract is for Force Account work

Contract Description

Upload Associated Contract Documentation

170921_ces design_signed_R 180719.pdf

171208_maser pm env_signed.pdf

171213_alaimo inspection_signed.pdf

171206_ces bird_signed_breakdown.pdf

171206_ces bird_signed.pdf

Contract Type

Total Allowable Cost Total Cost

Construction Contracts

\$0

\$0

Engineering Contracts (Plans and/or Specifications)

\$948,412

\$948,412

Engineering Contracts (Construction Management)

\$817,995

\$817,995

Land Preservation/Conservation Contracts

\$0

\$0

Architect Contracts

\$0

\$0

Project Disbursement Schedule (LP-6B)

Please enter the following default values for Project Milestones below:

- Advertisement of Contract
- Notice to Proceed
- Initiation of Operation
- Construction Completion
- Bid Opening
- Advertisement for Construction
- Equipment Purchase
- None

You may enter in your own values if they do not fit within the list above.

Date Project Milestone Disbursement Amount Remove

2018-10-15 Planning & Design \$400,000

2018-11-15 Planning & Design \$300,000

2018-12-15 Planning & Design \$300,000

2019-01-15 Notice to Proceed \$1,200,000

2019-02-15 Construction \$1,200,000

2019-03-15 Construction \$1,200,000

2019-04-15	Construction	\$1,200,000
2019-05-15	Construction	\$1,200,000
2019-06-15	Construction	\$1,200,000
2019-07-15	Construction	\$1,200,000
2019-08-15	Construction	\$1,200,000
2019-09-15	Construction	\$1,200,000
2019-10-15	Construction	\$1,100,000
2019-11-15	Construction	\$1,100,000
2019-12-15	Construction	\$1,100,000
2020-01-15	Construction	\$1,100,000
2020-02-15	Punchlist Items	\$600,000
2020-03-15	Construction Completion	\$330,052
2020-04-15	Initiation of Operation	\$100,000
2020-05-15	Project Performance Certification	\$100,000

Total Funds for Disbursement

\$17,330,052

Plans, Specifications, and Associated Documentation (LP-6C)

If any of the following are applicable to your project, please upload the associated documentation:

- Upload Plans and Specifications Documentation (Required for all projects, excludes equipment purchases (no construction element) and land acquisition projects).
- Construction Schedule
- Certificate (legal opinion) from counsel as to title or mechanism to obtain title for project site and easement
- Statement indicating no Federal, State or local law has been violated pertaining to fraud, bribery, graft, kickbacks, collusion or conflict of interest relating to or in connection with planning and design of the proposed project.
- Statement indicating that no services of a person whose name appears on EPA's or the New Jersey State Treasurer's list of debarment, suspensions, and voluntary exclusions were used for planning and design
- Service Agreement and/or Deficiency Agreement and all other relevant Intermunicipal agreements
- Draft Engineering Agreement for Building Services
- Statement on other related Federal or State assistance (previous, pending or anticipated) on this project
- Statement whether the applicant has any State loan(s) and/or is delinquent in repayments
- Project Report/Facilities Plan
- Sewer System Evaluation Survey (Wastewater Projects Only)
- Public Participation Process (transcripts/responsiveness summary for public hearing)
- Planning and Design SED Utilization Report (N.J.A.C. 7:22-9.12(a)) / SED Utilization Plan (N.J.A.C. 7:22-9.4)
- Administrative and Judicial Consent Order (If any)
- Sewer Use Ordinance (Wastewater Projects Only); User Charge System for environmental infrastructure facilities (and/or other means to repay loan)
- Value Engineering (\$10 million or more; Wastewater Projects Only)
- Infiltration/Inflow Information (Wastewater Projects Only)

[statement_fraud_signed.pdf](#)
[statement_debarment_signed.pdf](#)
[statement_default_signed.pdf](#)
[statement_repayment_signed.pdf](#)
[attorney opinion Shah.ltr.exh.a.18.6.22.pdf](#)
[Woolwich Sewer - Final Plans 20180921.zip](#)
[3655_Engineers Report-20180926.pdf](#)
[September-2018_Phase_I-II_Report.pdf](#)
[March_2018_Phase_IA_Arch_Inv.pdf](#)
[1808_wot003_level 2 planning report final.pdf](#)
[180810_ValueEngineeringReport.pdf](#)
[Pump Station No 1 Upgrade Evaluation Tech Memo Final.pdf](#)

Applicable Permit(s) / Approval (s) (LP-7)

LP-7: AFFIDAVIT OF COMPLIANCE

I, **Jane Dibella**, the undersigned authorized representative for a Fund Loan pursuant to N.J.A.C. 7:22-3.1 et seq. and a New Jersey Environmental Infrastructure Trust Loan pursuant to N.J.A.C. 7:22-4.1 being duly sworn according to law, upon my oath depose and say that:

1. The applicant has applied (or will apply) for all of the permits and approvals required for this project as listed in **Attachment A**.
2. The applicant has attached to this Affidavit copies of all the required permits and approvals listed in **Attachment A**.
3. The applicant will comply with all the terms and conditions of all the required permits and approvals listed in **Attachment A**.

The foregoing statements made by me are true and the attached copies of documents are true and correct copies of the documents contained in the applicant's files.

ATTACHMENT A

Permit Type Permit Number NJEMS Facility Number Permit Submission Date Permit Approval Date Remove Permit

Water Quality: Treatment Works Approval	18-0368	2018-09-26
N.J. Dept. of Transportation: Road Opening Permit		2018-07-19
Local: Township Road Opening Permit	2018-07-11	
Other: CSX Crossing	2018-06-18	

Upload associated Permit Documentation (e.g. Permit Application, Correspondences for Permits)

TWA submission.pdf
L-NJDOT NNL_revised.pdf
L_NJDOT-UtilityOpening_20180709.pdf
L_LT-RoadOpening_20180711.pdf
CONRAIL ENTRY PERMIT_20180618.pdf
L-Application_salem w-attachments.pdf
L-COLONIAL.pdf
L-TRANSCANADA-COLUMBIA.pdf
L-SOUTHJERSEYINDUSTRIES.pdf
L_G-Transcontinental_20180710.pdf

Other State Approvals (Specify)

NJDOT Utility Opening Permit

Other Federal Approvals (Specify)

Other Local Approvals (Specify)

Gloucester County Road Opening Permit, Conrail Railroad Occupancy Permit, Gas Transmission Line Crossing (Sunoco Pipeline, Transcontinental Pipeline, Colonial Pipe, South Jersey Gas Pipeline, Columbia Pipeline), Gloucester County Soil Conservation District (submittal anticipated September/October 2018)

YOU WILL BE REQUIRED TO PROVIDE WRITTEN DOCUMENTATION AND CONCURRENCE FROM THE APPLICABLE PERMIT/APPROVAL AGENCIES FOR YOUR PROPOSED PROJECT, SHOULD YOU DISAGREE WITH ANY OF THE ABOVE PERMIT(S)/APPROVAL(S) NOTED.

☒ All information regarding permit(s) and approval(s) has been provided to the best of the applicant's knowledge.

Comments

Additional Information (LP-9)

Does the assistance requested serve a State or Federal installation?

- ☐ Yes
☒ No

Is the project for which assistance is required on State or Federal land or installation?

- ☐ Yes
☒ No

Does the assistance requested serve industrial users?

- ☐ Yes
☒ No

Has the project for which assistance is requested caused, or will cause, the displacement of any individual, family, business, or farm?

- ☐ Yes
☒ No

Is the project in a designated special flood hazard area?

- ☒ Yes
☐ No

Has the applicant obtained the necessary land?

- ☒ Yes

Indicate how:

- ☐ Fee Simple Title
☐ Leasehold Interest
☒ Other
Option for the Purchase of an Easement
☐ No

Professional Services (LP-11)

Name of Professional Services Firm	Maser Consulting PA
Address Line 1	331 Newman Springs Rd
Address Line 2	Suite 203
Address Line 3	
Address Line 4	
City	Red Bank
State	New Jersey
Zip Code	07701
Zip+4	1010
Firm Telephone Number	732-383-1950
Firm Principal Officer	Richard M. Maser

The firm will perform the following services

Loan application coordination and preparation, Level 2 Environmental Planning Document, Cultural Resources Investigation, Value Engineering, Plan Review and Pump Station Report Review

Compensation not to exceed

\$383,900

Has a contract for this professional service been executed on or before October 1, 2014?

- ☐ Yes
☒ No

If no, has (or will) the procurement of such services be completed in a manner consistent with the following:

- Public announcement of the solicitation (e.g., a Request for Qualifications);
- Evaluation and ranking of the submitted qualifications statements based on established, publicly available criteria (e.g., identified in the solicitation);
- Evaluation criteria should be based on demonstrated competence and qualification for the type of professional services required (e.g., past performance, specialized experience, and technical competence in the type of work required);
- Discussion with at least three firms to consider anticipated concepts and compare alternative methods for furnishing services;
- Selection of at least three firms considered to be the most highly qualified to provide the services required; and
- Contract negotiation with the most highly qualified firm to determine compensation that is fair and reasonable based on a clear understanding of the project scope, complexity, professional nature, and the estimated value of the services to be rendered;
- In the event that a contract cannot be negotiated with the most highly qualified firm, negotiation continues in order of qualification

- ☐ Yes
☒ No



State of New Jersey

Department of Environmental Protection
Division of Water Quality
Municipal Finance and Construction Element
P.O. Box 420, Mail Code 401-03D
Trenton, NJ 08625-0420
Fax: (609) 633-8165
www.state.nj.us/dep/dwq

PHILIP D. MURPHY
Governor

SHEILA Y. OLIVER
Lt. Governor

CATHERINE R. McCABE
Commissioner

Woolwich Township
120 Village Green Drive
Woolwich Twp, NJ 08085

NOVEMBER 5, 2018

Re: Treatment Works Approval No. 18-0368
NJDOT Route 322 Corridor
Woolwich Twp, Gloucester County

Gentlemen:

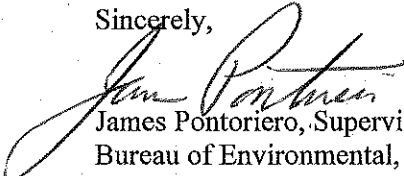
There is enclosed a Treatment Works Approval issued to you pursuant to Title 58 of the Revised Statutes of New Jersey and in consideration of your application received on 09/26/2018 signed by Christopher Whalen, Superintendent, and Norman K. Rodgers Iii, P.E.

This approval is valid for a period of two (2) years from the issuance date, unless otherwise stated in the attached approval document. This approval shall expire unless building, installing or modifying of the treatment works has begun within the initial approval period. Treatment works approvals may be extended beyond the original two year approval date, to a maximum period of five years from the original issuance date, in accordance with the terms and conditions contained in N.J.A.C. 7:14A-22.12. A time extension request must be received by the Department prior to the permit's expiration date. Time extension requests shall be submitted to the Bureau of Environmental, Engineering & Permitting (BEEP) at the address noted in the heading of this letter.

Within 30 days of completion of the treatment works approved herein, the permittee shall submit an executed Form WQM005 (Certification of Completion) to BEEP and to the receiving sewage treatment plant, as indicated in the Treatment Works Approval under Part II - "General Conditions for Treatment Works Approvals", Section B.

If you have any questions regarding the permit, please contact Rajul Shah of this office by calling (609) 984-4429.

Sincerely,


James Pontoriero, Supervisor
Bureau of Environmental, Engineering & Permitting

18-0368
Enclosure
cc: Consulting Engineer Services, Sicklerville, NJ 08081
LTMUA

Let's protect our earth



STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
P.O. Box 402, TRENTON, NJ 08625-0402

PERMIT TO CONSTRUCT AND OPERATE* TREATMENT WORKS

**Local Agency approval required prior to operation*

The New Jersey Department of Environmental Protection grants this approval in accordance with your application, attachments accompanying same application, and applicable laws and regulation.

PERMIT NO.	ISSUANCE DATE	EXPIRATION DATE	DESIGN FLOW
18-0368	10/31/2018	10/30/2020	0 M.G.D.

NAME AND ADDRESS OF APPLICANT

Woolwich Township
120 Village Green Drive
Woolwich Twp, NJ 08085

LOCATION OF ACTIVITY

Woolwich Twp
Gloucester County

This permit grants permission to:

Construct and operate the Woolwich Pump Station 1, along with a supplemental wet well, 19,259 L.F. of dual 6 and 14 inch HDPE Force Mains, 1448 LF of 8 inch PVC, 192 L.F. of 15 inch PVC, 3,366 LF of 18 inch PVC, 550 LF of 20 inch DIP, 2,684 LF of 21 inch PVC, 3,402 L.F. of 24 inch PVC, and 940 L.F. of 24 inch DIP sanitary sewers along the Route 322 corridor to serve existing and future residential and commercial properties located in Woolwich Township.

According to the plans entitled:


"Woolwich Township Route 322 Corridor, Wastewater Collection And Conveyance System, Gloucester County, New Jersey, Final Design Plans", sheet 1 to 57, last revised on September 19, 2018, prepared by CES.

and according to the specifications entitled:

"Technical Specifications for Woolwich Township Route 322 Corridor Wastewater Collection and Conveyance System, Township of Woolwich, Gloucester County, NJ", dated September 26, 2018, prepared by CES, Sicklerville, NJ.

APPROVED by the Department of Environmental Protection


Tracy Sheylin, P.E., Section Chief


Gautam Patel, Chief
Bureau of Environmental, Engineering & Permitting

This permit is also subject to special provisos and general conditions stipulated on the attached page(s) which are agreed to by the permittee upon acceptance of the permit.

PART I

PROVISOS

A. Project Specific Provisos

1. That pursuant to N.J.A.C. 7:10A-1 et. seq., an appropriate public wastewater collection system licensed operator will be required for your system.
2. That watertight manhole covers must be provided for manholes that may be subject to street flooding or located within a flood hazard area.
3. That no unpermitted discharge of raw sewage and/or untreated wastewater is to occur as a result of the construction approved herein.
4. That this permit is granted specifically from manhole 1 in Woolwich Township to Doghouse manhole 56 in Logan Township and does not include any treatment works for other sections shown on the plans identified herein.
5. That except as provided in N.J.A.C. 7:14A-22.4, any future sewer connections into the sanitary sewer system approved herein will require a treatment works approval from the N.J.D.E.P.
6. That all septic tanks, dosing tanks, seepage pits, dry wells and cesspools which are to be abandoned shall be emptied of wastes and removed or filled completely with gravel, stones or soil material in a manner which is acceptable to the administrative authority.
7. That for the purposes of design flow, the design capacity of the pump station approved herein is considered to be 350 gallons per minute with the largest pump out of service.
8. That the owner and/or applicant shall be responsible for ensuring that operational and/or odor problems do not occur at the pump station and force main during the initial stages of development when low sewage flows will be generated.
9. That this permit is issued for zero flow and does not guarantee the Department's approval of future connections into the sewer system approved herein. Our decision on future sewer connection applications contributory to this project would depend upon the rules, regulations, policies, and circumstances in force at the time the upstream applications are submitted.
10. That the facility approved herein may become operational only after the Bureau of Construction, Payments and Administration, Construction Section, grants its written concurrence to the operation of the sanitary sewer system approved herein.
11. That the issuance of this treatment works approval does not exempt nor shall it be construed to exempt the applicant from obtaining a stream encroachment permit, if required pursuant to the provisions of N.J.S.A. 58:16A-50 et. seq. and the regulations adopted for implementation of the same.
12. The issuance of this permit does not exempt the applicant of the responsibility to comply with all other permitting and regulatory requirements of the Department's Land Use Regulation Program, as applicable.

B. Custom Requirement

1. When the average daily flow to the Woolwich Pump Station No. 1 approaches 201,600 gpd, a new TWA permit will be required to upgrade the existing pumps.
2. That the 14 inch force main shall not be utilized until such time as there is adequate flow to achieve a cleansing velocity of 2 feet per second in that line.

GENERAL CONDITIONS FOR TREATMENT WORKS APPROVALS**Section A. GENERAL CONDITIONS**

1. This permit is revocable, or subject to modification or change, at any time, when in the judgement of the Department of Environmental Protection of the State of New Jersey such revocation, modification or change shall be necessary.
2. The issuance of this permit shall not be deemed to affect in any way action by the Department of Environmental Protection of the State of New Jersey on any future application.
3. The works, facilities, and/or activities shown by plans and/or other engineering data, which are this day approved, subject to the conditions herewith established, shall be constructed and/or executed in conformity with such plans and/or engineering data and the said conditions.
4. No change in plans or specifications shall be made except with the prior written permission of the Department of Environmental Protection of the State of New Jersey.
5. The granting of this permit shall not be construed to in any way affect the title or ownership of property, and shall not make the Department of Environmental Protection or the State a party in any suit or question of property.
6. This permit does not waive the obtaining of Federal or other State or local government consent when necessary. This permit is not valid and no work shall be undertaken until such time as all other required approvals and permits have been obtained.
7. A copy of this permit shall be kept at the work site, and shall be exhibited upon request of any person.
8. No treatment unit or conveyance system may be by-passed which would result in the discharge of untreated sewage into any of the waters of the state.
9. The full responsibility for adequate design, construction and operation of the treatment works, and the full responsibility for successful collection, treatment, and discharge of pollutants shall be on the applicant.
10. The issuance of approval by the Department shall not relieve the applicant of the continuing responsibility for the successful collection, treatment, or discharge of pollutants for the continuing compliance with any applicable effluent limitations, permits, regulations, statute, or other law.
11. Review and approval is based solely upon the information contained in the application and the contents of the engineer's report as certified by the licensed professional engineer as being in compliance with the Department's Rules and Regulations.

Section B. CONSTRUCTION COMPLETION CERTIFICATION

1. Within 30 days of completion of the treatment works approved herein, the permittee shall submit an executed WQM005 Certification of Completion, to the receiving sewage treatment plant (STP) and to the appropriate Bureau and address noted on the cover page of this approval. Failure to submit the certification within 30 days of completion of the project may be grounds for revocation of the permit. Should partial operation be required prior to completion, approval will be under local jurisdiction.
2. In cases where the project and the receiving treatment facility are one in the same, the WQM005 Certification of Completion form must be submitted to the Bureau and address noted on the cover page of this approval within 30 days of completion of the treatment works. Failure to submit the certification within this time period may be grounds for revocation of the permit.

Section C. PERMIT EXPIRATION AND EXTENSIONS OF TIME

1. This permit shall remain in force for a period of only two years from the date of approval unless stated otherwise within the special provisos, or construction of said works has begun within the approved time frame. Interruption of construction of said works for a period of more than two years may serve as a basis for permit revocation.
2. Treatment works approvals may be extended beyond the original two year approval date, to a maximum of five years from the original issuance date, in accordance with the terms and conditions in N.J.A.C. 7:14A-22.12, unless stated otherwise within the special provisos. A time extension request must be received by the Department prior to the permit's expiration date. Requests must be submitted to the Bureau and address noted on the cover page.

Section D. ADJUDICATORY HEARING REQUESTS

1. Pursuant to N.J.A.C. 7:14A-22.24 et seq., any interested person who considers himself or herself aggrieved by this action, may, within 10 days of publication of notice of the decision in the DEP Bulletin, request a hearing by addressing a written request for such hearing to the:

Office of Legal Affairs
Attention: Adjudicatory Hearing Requests
Department of Environmental Protection
P.O. Box 420, Mail Code 401-04L
Trenton, NJ 08625-0420

Such a request should include a completed Administrative Hearing Request Checklist and Tracking form for Approvals or Denials (enclosed herein for Denials). This form is required, as DEP is the transmitting agency to the Office of Administrative Law, pursuant to N.J.A.C. 1:1-8.2.

Appendix 3
2018 Zoning Map & Ordinance 2018-13

LEGEND

Woolwich Regional Center

Weatherby Planned Unit Development

Weatherby Commercial Overlay

RC-3 Overlay

5A, Residential

R-1, Residential

R-2, Residential

R-3, Residential

RR, Residential Receiving

RR-BD, Residential Receiving w/ Base Density

AR-1, Auburn Road Village Center

PUD, Planned Unit Development

MU, Mixed Use

CC, Corridor Commercial

NC, Neighborhood Commercial

CON, Conservation

BBR, Big Box Retail

RHO, Regional Hotel/Office

FOC, Flexible Office Commercial

LIO, Light Industry Office

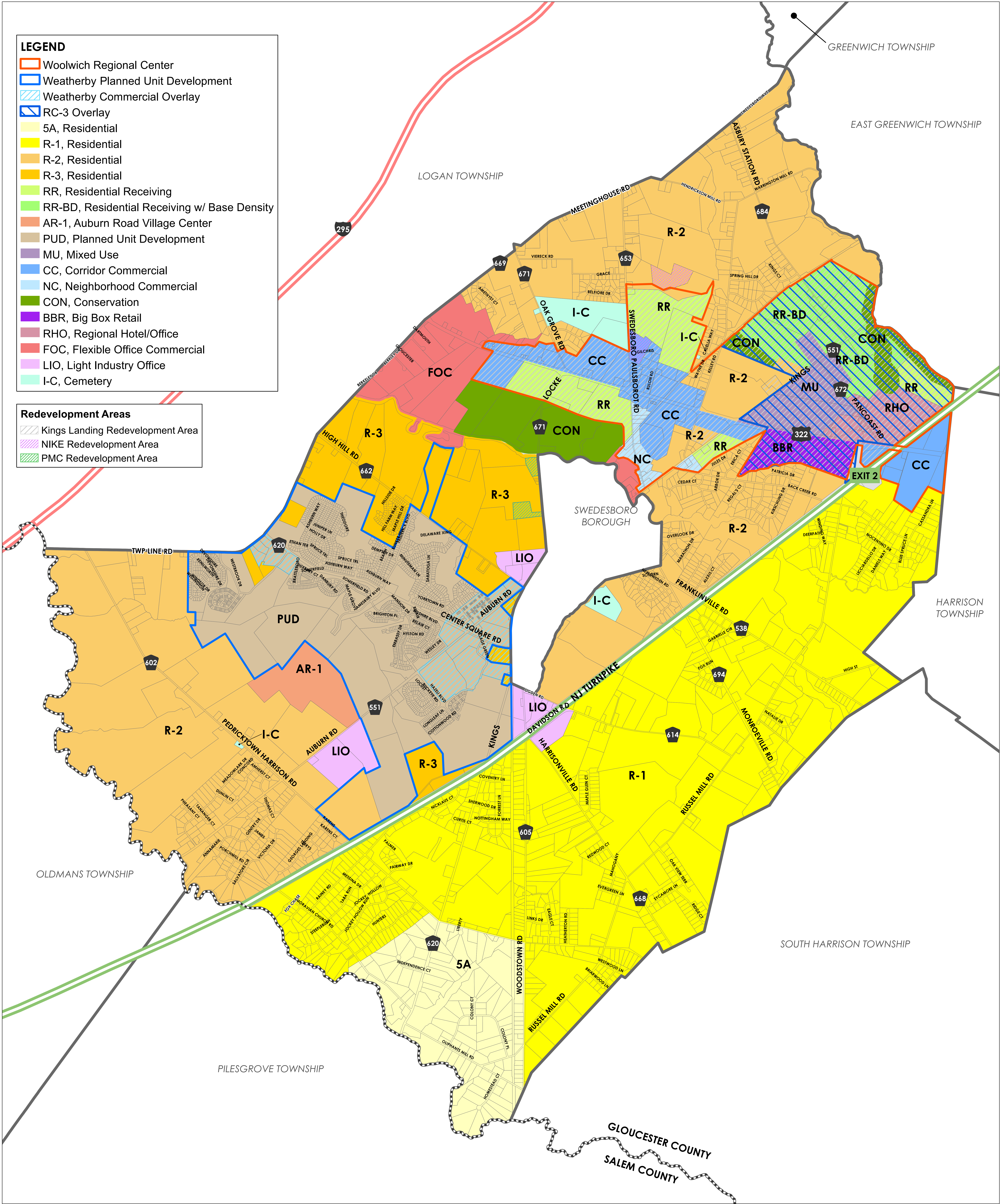
I-C, Cemetery

Redevelopment Areas

Kings Landing Redevelopment Area

NIKE Redevelopment Area

PMC Redevelopment Area

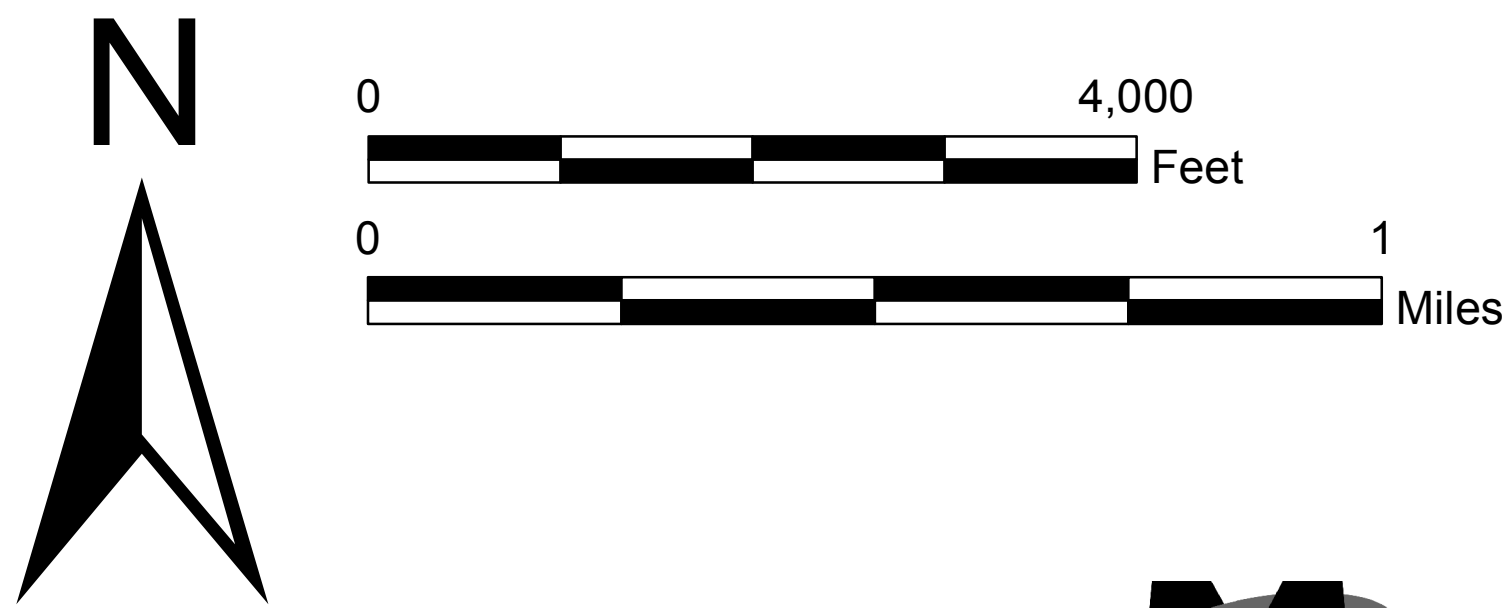


Woolwich Township
Gloucester County, New Jersey

ZONING MAP

August 2018 - Adopted by Ordinance 2018-13

DATA SOURCES:
Parcels - Gloucester County via Civil Solutions (2015)
Roads - Gloucester County Planning Dept. (2009)
Municipal Boundaries - Gloucester County via Civil Solutions (2015)
County Boundaries - NJ Bureau of Geographic Information Systems (2010)



**AN ORDINANCE OF THE TOWNSHIP OF WOOLWICH, COUNTY OF
GLOUCESTER, STATE OF NEW JERSEY IMPLEMENTING ZONING CHANGES
NECESSARY TO COMPLY WITH THE DULY AMENDED MASTER PLAN**

2018-13

WHEREAS, the Woolwich Township Joint Land Use Board conducted a Statutory Master Plan Reexamination; and

WHEREAS, following the necessary public hearing, as properly noticed pursuant to the Municipal Land Use Law, the Joint Land Use Board adopted the Master Plan Reexamination Report and Updates to the Transfer of Development Rights Plan Elements by way of Resolution #2016-21, adopted on June 2, 2016, which memorialized the actions of the Board on May 19, 2016; and

WHEREAS, the Joint Land Use Board conducted a subsequent public hearing on July 21, 2016 and adopted Resolution #2016-26 adopting minor revisions to the documents approved by way of Resolution #2016-21; and

WHEREAS, the Joint Land Use Board adopted Resolution #2016-25 recommending that the Township Committee adopt an appropriate Ordinance implementing the changes to the Township Zoning Code and Zoning Map to comply with the Statutory Master Plan Reexamination Report; and

WHEREAS, the Woolwich Township Committee has reviewed the Master Plan Reexamination Report, including the associated appendices, maps, and the like; and

WHEREAS, the Township Committee has given due consideration to the recommendations from the Joint Land Use Board per the terms and conditions of the Municipal land Use Law; and

WHEREAS, the Township Committee, in the interests of the health, safety, and welfare of the property owners in the Township desires to adopt an Ordinance implementing changes to the Zoning Code and revision of the Municipal Zoning map as recommended by the Joint Land Use Board;

NOW, THEREFORE, BE IT ORDAINED by the Mayor and Township Committee of the Township of Woolwich that, upon the recommendation of the Joint Land Use Board, the Township Committee hereby adopts the following amendments to the Zoning Code, including the adoption of a revised Municipal Zoning Map:

1. The Amended Woolwich Township Zoning Map, attached hereto as **Exhibit A**, is hereby adopted and shall supersede and replace the existing Zoning Map.
2. Article VI Voluntary TDR is hereby rescinded and replaced by new provisions as attached hereto as **Exhibit B**.

3. § 203-39 5A Five Acre Residential District is hereby rescinded and replaced by new provisions as attached hereto as **Exhibit C**.
4. A new Section, §203-184 Big Box Retail, is hereby adopted as attached hereto as **Exhibit D**.
5. §203-43 RLM Residential District is hereby rescinded, renamed and replaced by new §203-43 CON Conservation District with provisions as attached hereto as **Exhibit E**.
6. Article XVIII Gateway Highway Service (RC-2) and Gateway East (RC-4) Districts are hereby rescinded and replaced by Article XVIII Corridor Commercial (CC) §203-137 with new provisions as attached hereto as **Exhibit F**.
7. §203-5 Definitions and Word Usage is hereby rescinded and replaced by new provisions as attached hereto as **Exhibit G**.
8. §203-34 District designations is hereby rescinded and replaced by new provisions as attached hereto as **Exhibit H**.
9. §203-46 FOC Flexible Office Commercial District is hereby rescinded and replaced by new provisions as attached hereto as **Exhibit I**.
10. §203-48 Light Industrial/Office District is hereby rescinded and replaced by new provisions as attached hereto as **Exhibit J**.
11. §203-78 Mixed Use is hereby rescinded and replaced by new provisions as attached hereto as **Exhibit K**.
12. §203-186 Neighborhood Commercial District is hereby rescinded and replaced by new provisions as attached hereto as **Exhibit L**.
13. §203-45 PUD Planned Unit Development District is hereby rescinded and replaced by new provisions as attached hereto as **Exhibit M**.
14. §203-41 R-2 Residential District is hereby rescinded and replaced by new provisions as attached hereto as **Exhibit N**.
15. Article XIX Large-Format Retail, Big Box Retail, Office and Hotel, Neo-Traditional Senior Community (RC-3) District §203-139 is hereby rescinded, redesignated and replaced by Article XVII Large-Format Retail, Big Box Retail, Office and Hotel, Neo-

Traditional Senior Community (RC-3 Overlay District) §203-139 as attached hereto as **Exhibit O**.

16. Article XXVI Regional Hotel and Office, §203-185 Regional hotel and office is hereby added as attached hereto as **Exhibit P**.
17. Article XVII District Woolwich Newton District (RC-1), §203-130 is hereby rescinded, redesignated and replaced by Article XVII Residential Receiving (RR) §203-130 as attached hereto as **Exhibit Q**.
18. Article XXIV Residential Receiving – Base Density (RR-BD), §§ 203-179 (Residential Receiving – Base density (RR-BD)), 203-180 (Single-family detached units with or without alley), 203-181 (Twin units, with or without alley), 203-182 (Townhouse and Court Townhouse Units), and 203-183 (Residential Flats) is hereby added as attached hereto as **Exhibit R**.
19. Article XV District Designations and Uses, §203-127 Land Uses in Route 322 Regional Center is hereby rescinded.

BE IT FURTHER ORDAINED that all prior Ordinances which are inconsistent with the provisions of this Ordinance are hereby repealed to the extent of such inconsistency.

BE IT FURTHER ORDAINED that this Ordinance shall become effective immediately upon final passage and publication as required by law.

TOWNSHIP OF WOOLWICH

Jordan Schlump, Mayor

ATTEST: _____
Jane DiBella, Clerk

CERTIFICATION

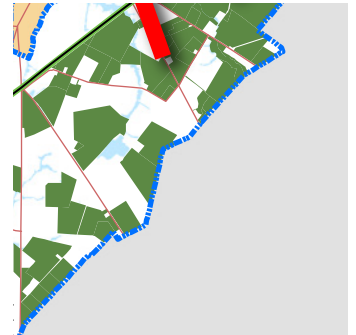
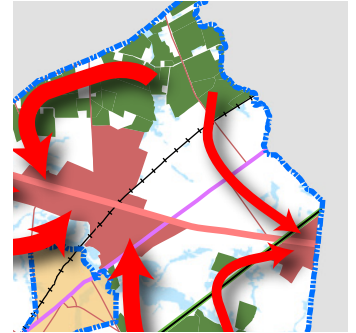
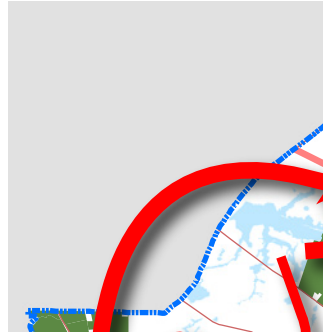
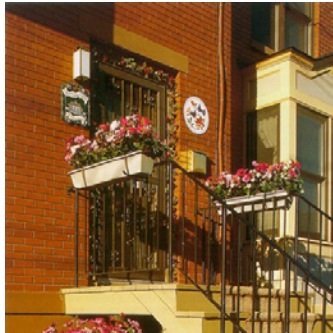
The foregoing Ordinance was introduced upon first reading by the Township Committee of the Township of Woolwich at a meeting held on the 6th day of August, 2018. It will be further considered for final adoption upon a second reading and subsequent to a public hearing to be held on such ordinance at which time any interested person(s) may be heard. Said meeting to be conducted on the 20th day of August, 2018 at the Woolwich Township Municipal Building, 120 Village Green Drive, Woolwich Township, New Jersey, and beginning at 7:00 p.m.

Jane DiBella, Clerk

Appendix 4

2016 Real Estate Market Analysis

REAL ESTATE MARKET ANALYSIS



July 2016 Update

URBAN PARTNERS
325 Chestnut Street, Suite 506 | Philadelphia, PA 19106

URBAN PARTNERS

COMMUNITY & ECONOMIC DEVELOPMENT / HOUSING / POLICY RESEARCH

325 Chestnut Street, Suite 506
Philadelphia, PA 19106
215 829-1902
215 829-1908 (fax)
jhartling@urbanpartners.us

Letter of Transmittal

To: Woolwich Township
From: Urban Partners
Re: Transfer of Development Rights Real Estate Market Analysis Update
Date: June 30, 2016

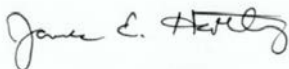
We have prepared the attached updated real estate market analysis to support the 2016 update to the Transfer of Development Rights Element of the Woolwich Township Comprehensive Plan. This market analysis is intended to establish and document updated land values in the Sending and Receiving Areas, to estimate the land value component of the proposed development in the Receiving Areas under the updated zoning, and to determine the economic relationship of development rights in the Sending Area to development rights in the Receiving Area.

Land prices in the Woolwich Sending Area are currently in the range of \$48,000 to \$60,000 per developable lot, at 2016 pricing, for homesites on 1 to 2 acres. These prices are for unimproved sites with development approval. After sale of development credits, the residual value of the land for farming purposes is estimated to be \$4,500 per acre. The average valuation for a development credit in the Sending Area is estimated at \$40,000. However, this is an average since pricing will vary within a range based on the location of the parcel, the yield of developable lots per acre, the value of the residual parcel as farmland, and other factors.

Under the proposed zoning, typical land values in the non-settlement areas of the Route 322 Receiving Area #1 are likely to range between \$32,000 and \$40,000 per acre. Receiving Area land in the previous "Settlement Areas" is valued based on the Settlement Agreement; incremental TDR-based development is in addition to by-right development. Similarly, underlying by-right development in the Auburn Road Receiving Area #2 defines the value of this Receiving Area property; incremental TDR-based development is in addition to by-right development.

After the TDR program is implemented, land values in both Receiving Areas are estimated to range between \$12,000 and \$38,000 per housing unit depending on the type of unit constructed. Average land values for small-lot single-family detached homes are estimated at \$38,000, twins at \$24,000, townhomes at \$19,000, and multi-family flats at \$12,000 per unit. This analysis and estimation is based on current market conditions and may not reflect futures values, which can be affected by different market conditions. All valuations are at 2016 pricing.

Sincerely,



James E. Hartling, Partner

Real Estate Market Analysis

Summary

Woolwich Township is a rapidly growing community in Gloucester County which has faced and continues to face strong development pressures. Population in the 1990s grew from 1,459 to 3,032, a 108% increase. Similarly, total housing units grew from 498 to 1,026, a 106% increase. Between 2000 and 2006, Woolwich issued building permits for 2,007 units, tripling the size of the community in six years and totaling a sixfold increase since 1990. With the softening of the economy beginning in 2007, development pressures have weakened, but not disappeared. During this nine-year period (2007-2015), Woolwich has issued permits for 1,042 units. By 2010, the census reported that Woolwich had a population of 10,200 in 3,171 households. Total housing units in 2010 were 3,275, indicating a low 3.2% housing vacancy rate.

The Delaware Valley Regional Planning Commission (DVRPC) estimated population growth of 612 persons to 10,812 by 2015 for Woolwich. DVRPC's further population forecasts for Woolwich through 2040 indicate on-going population growth to 23,098, which, with a forecasted decline in average household size, will reside in 9,200 households. Using a typical 5% vacancy rate, these 9,200 households will support a total housing stock of 9,700 units—requiring construction of more than 5,800 units during the 2015 to 2040 period.

To better manage this growth, Woolwich incorporated a Transfer of Development Rights (TDR) element into its Master Plan. In 2016, Woolwich is preparing an update to that element of the Master Plan dealing with the evolution of property and economic circumstances since the initial adoption of the TDR Element. The updated TDR Program deals with the residual Sending Area of 3,159.5 acres, an undeveloped area of farmlands and open space. The Township wishes this area to remain in these uses and desires development rights of the Sending Area to be transferred to two Receiving Areas: the Route 322 Receiving Area # 1, modified in this 2016 update to 722.2 acres, and the 125-acre Auburn Road Receiving Area # 2.

At the time of original adoption of the TDR Element, the Township chose to not incorporate into the Route 322 Receiving Area #1 a collection of parcels which had been the subject of a law suit and settlement. That settlement provided the owner of those parcels with the right to construct a mixed-use development with 1,029 housing units and more than 1,500,000 SF of commercial space. Originally, the Township could not effectively anticipate the timing of this development relative to the implementation of the TDR program. However, as the Township updates this TDR Element, the timing of this development has become imminent and the Township has decided that it is appropriate, in the TDR update, to reposition much of the residential core of its Route 322 Receiving Area #1 onto parcels within easy walking distance of this mass of retail activity.

This real estate market analysis update is intended to update and document land values in the Sending and Receiving Areas, to estimate the land value component of the proposed development in the Receiving Areas under the updated zoning, and to determine the economic relationship of development rights in the Sending Area to development rights in the Receiving Area for various use categories.

Development Potential

As described in the updated Development Transfer Element of the Plan, zoning in both Receiving Areas is undertaken to accommodate the Township's anticipated residential pressures detailed above and the Township's desire to preserve open space and farmland in the Sending Area. The 100 remaining parcels in the Sending Area have been allocated 1,009 development credits, based on the total potential buildout of the residual Sending Area at 1,009 single-family units. Development potential for the Receiving Areas under updated zoning regulations includes:

Route 322 Receiving Area # 1:

Based on absorption analysis and assuming current development patterns continue, there appears to be sufficient demand to absorb 3,689 units of single-family, twins, townhome, and multi-family building units during the 2016 to 2040 period.

Auburn Road Receiving Area # 2:

Based on recent development patterns and adjacency of the Auburn Road Receiving Area #2 to the Weatherby development, there appears to be sufficient demand to absorb 502 single-family, twin, and townhome units during the 2016 to 2040 period.

Land Values

For the purposes of estimating land values, we assume that infrastructure costs for roadways, utilities, and site preparation will be equivalent to costs elsewhere in Woolwich. Also, we note that the costs of providing affordable housing under COAH (Fair Housing) requirements are currently unknown due to on-going court actions and some modifications to the economic assumption in this real estate market analysis may be necessary once those factors are decided.

Sending Area

Land prices in the Sending Area are currently in the range of \$48,000 to \$60,000 per developable lot, at 2016 pricing, for homesites on 1 to 2 acres. These prices are for unimproved sites with development approval. After the transfer of development rights, the residual value of the land for farming purposes is estimated to be \$4,500 per acre. The average valuation for a development credit in the Sending Area is estimated at \$40,000. However, this is an average since pricing will vary within a range based on the location of the parcel, the yield of developable lots per acre, the value of the residual parcel as farmland, and other factors.

Route 322 Receiving Area # 1

Under the proposed zoning, typical land values in the non-settlement areas of the Route 322 Receiving Area #1 are likely to range between \$32,000 and \$40,000 per acre. Receiving Area land in the previous "Settlement Areas" is valued based on the Settlement Agreement; incremental TDR-based development is in addition to by-right development. For the uses proposed under the TDR program, land values are estimated for the following:

- Single-family detached units (7,500 SF average lot): \$34,000-\$42,000 per developable lot (\$38,000 used for analysis purposes)
- Twins (5,000 SF average lot): \$22,000 to \$26,000 per developable lot (\$24,000 used for analysis purposes)

- Townhomes (2,500 SF average lot): \$16,000 to \$22,000 per developable lot (\$19,000 used for analysis purposes)
- Multi-family flats (1,200 to 1,800 SF): \$9,000 to \$15,000 per developable lot (\$12,000 used for analysis purposes).

Auburn Road Receiving Area # 2

As in the “Settlement Areas,” land prices are based on the by-right development; incremental TDR-based development is in addition to by-right development. After the TDR program is implemented, land values are estimated for the following:

- Twins (5,000 SF average lot): \$22,000 to \$26,000 per developable lot (\$24,000 used for analysis purposes)
- Townhomes (2,500 SF average lot): \$16,000 to \$22,000 per developable lot (\$19,000 used for analysis purposes).

The total development program for the Route 322 Receiving Area #1 includes 3,689 units of housing. By-right development in this Receiving Area--in some cases based on proposed zoning and with property owners participating in TDR--supports 1,731 units, leaving a shortfall of 1,958 development credits which must be purchased from the Sending Area or provided through “bonus” credits. In the Auburn Road Receiving Area #2, the increment of development for which development rights would need to be transferred is 268 units. Development credits will need to be secured for all these units since these 268 units are in addition to a modified ‘by right’ development program in this Receiving Area.

Development Credit Bonuses

To create additional financial incentives to developers to purchase these development credits, the TDR program proposes development credit bonuses – that is, additional units that can be built within the Receiving Areas when credits are purchased from the Sending Area. With the addition of bonus ratios, the cost of buying development credits for use in the Receiving Area is less than the cost of the land that is currently available for development in the sending area. The proposed bonus ratios are 0.30 for single-family detached housing; 1.25 for twins; 1.95 for townhomes; and 2.40 for multi-family building flats, etc.

Viability of TDR Program

There are 1,009 credits that need to be transferred in order to preserve open space and farmland in the Sending Area. Based on “by right” zoning and the proposed bonus ratios, the purchase of 1,051 development credits is required for full buildout of the two Receiving Areas. This total potential demand exceeds the total 1,009 development credits desired to be transferred from the Sending Area. The sufficient level of residential demand, coupled with the proposed bonus credits, will provide adequate market to support needed sales of the desired 1,009 credits in the Sending Area. This demand will assure that all Sending Area credits can find buyers from the Receiving Areas. Therefore, we conclude that *the proposed TDR program is based upon sufficient market demand and provides sufficient economic incentive to development credit buyers to support the needed sales of the development credits in the Sending Area.*

General Information

Purpose of the Market Analysis

This real estate market analysis has been prepared to support the update to the Transfer of Development Rights (TDR) Element of the Master Plan for Woolwich Township, Gloucester County, New Jersey. The updated TDR Plan Element is intended to achieve several major objectives of the Master Plan, including: (1) the preservation of open space and farmland in areas of the Township currently undeveloped; (2) the encouragement of development in the Route 322 Corridor which already benefits from substantial roadway infrastructure; and (3) the creation of a compact mixed-use center along the Route 322 Corridor by adding a variety of residential types in close proximity to the currently under-development retail concentration (Woolwich Commons, Woolwich Crossing, and Main Street At Woolwich) between Kings Highway and the New Jersey Turnpike entrance.

To further these objectives, this updated TDR Plan Element modifies the original Sending Area to reflect adjustments since 2008 including (1) properties removed from the Sending Area since development credits have been retired through participation in farmland preservation and other programs and (2) properties added to the Sending Area based on new Township analysis and policies. As a result, the adjusted Sending Area now includes 3,159.50 acres of current farmland and open space which the Township desires to remain in these farming and open space uses and from which the Township desires development rights to be transferred. The TDR Plan Element further establishes two Receiving Areas—one of 722.20 acres that contributes to the desired Center along the Route 322 Corridor and a second, smaller area of 125 acres that is immediately adjacent to the Weatherby Planned Residential Community, which is in mid-development. Under the TDR Receiving Area zoning, the potential for more intensive residential development is subject to developers purchasing development rights from property-owners in the Sending Area.

This real estate market analysis update is intended to establish and document land values in the Sending and Receiving Areas, to estimate the land value component of the proposed development in the Receiving Areas under the TDR zoning, and to determine the economic relationship of development rights in the Sending Area to development rights in the Receiving Area for various use categories.

The analysis presented below estimates the relationship in value of (a) 1,009.25 Development Credits—the rights to construct 1,009 single-family detached houses in the Sending Area on one to two acre lots without sewer—with (b) the right to construct a range of types of residential units totaling up to 1,958 units in the Route 322 Receiving Zone #1 and up to 268 twins and townhomes in the Auburn Road Receiving Area #2.

Definition of Legal and Technical Terms

The following is a definition list of legal and technical terms used throughout this market analysis:

1. Base Zoning: the zoning in place as of one year prior to the municipal enactment of a transfer of development rights ordinance or the zoning in place less than one year prior to the municipal enactment of the transfer of development rights ordinance provided that the zoning was adopted by the municipality for purposes of achieving consistency with a master plan that has received initial or advanced plan endorsement from the State Planning Commission pursuant to N.J.A.C. 5:85-7.1 et seq.
2. Bonus Density: in a receiving zone either the amount by which development can exceed base zoning or the right to develop a use not permitted under the base zoning with the use of TDR credits.
3. Development Right: an interest in land, less than fee simple absolute title, which enables the owner to develop the land for any purpose allowed by ordinance.
4. Environmentally Constrained Area: an area in which development is precluded or significantly limited by existing environmental statutes or regulations.
5. Market Value Restricted: the value of a property based on its agricultural, environmental or historical resource and its other remaining property rights, but does not allow the owner to develop the land for any other purpose except as expressly authorized by the transfer of development rights ordinance.
6. Real Estate Market Analysis or Market Analysis: the Report required pursuant to Subchapter 2 of N.J. A.C. 5:86-1.1 et seq.
7. Receiving Zone: an area or areas designated in a master plan and zoning ordinance, adopted pursuant to N.J.S.A. 40:55D-1 et seq., within which development may be increased, and which is otherwise consistent with the provisions of N.J.S.A. 40:55D-145.
8. Sending Zone: an area or areas in a master plan and zoning ordinance, adopted pursuant to N.J.S.A. 40:55D-1 et seq., within which development may be restricted and which is otherwise consistent with the provisions of N.J.S.A. 40:55D-144.
9. TDR Credit: the development right can be utilized in a receiving zone to achieve the bonus density, the number of TDR credits is determined based on the transfer ratio and the number of development rights being transferred from the sending zone to the receiving zone.
10. TDR Zoning: zoning authorized in the receiving zone when TDR credits are utilized or in the sending zone once development credits have been relinquished.
11. Transferable Development Right: a unit of development permitted by the base zoning which can be transferred from a property in the sending zone.

12. Transfer Ratio: the number of transferable development rights that can be transferred from a sending zone property divided by the additional units of development that can be built on the receiving zone property through the use of TDR credits.
13. Unit of Development: an additional right to build on a particular piece of property as determined by zoning ordinance; which may include, but is not limited to acre, square foot, residential unit, floor, height etc.

Assumptions and Limitations

The validity of the real estate market analysis incorporated in this report and the determination in this report of the viability of the Transfer of Development Rights program proposed for Woolwich Township are dependent on a number of assumptions concerning overall economic conditions and policies at the national, state, regional, county, and local level. Most critical among these assumptions are the following:

- that the overall growth of the national economy remain generally consistent with patterns of the past fifteen years.
- that interest rates remain within the ranges of rates seen in the past fifteen years;
- that the Philadelphia region will continue to maintain the moderate pace of economic growth that has prevailed during the past fifteen years;
- that New Jersey and Gloucester County tax and public services policies will remain consistent relative to other regional counties; and
- that Woolwich Township will remain a location of choice for new housing development until full buildout is achieved.

In addition, this real estate market analysis relies on calculations of buildout potential produced by planners for Woolwich Township, as well as on the completeness of documentation provided by the Township concerning property parcels, development applications and approvals, zoning regulations, infrastructure requirements, and other land configuration and development requirement items.

Identification of the Sending and Receiving Zones

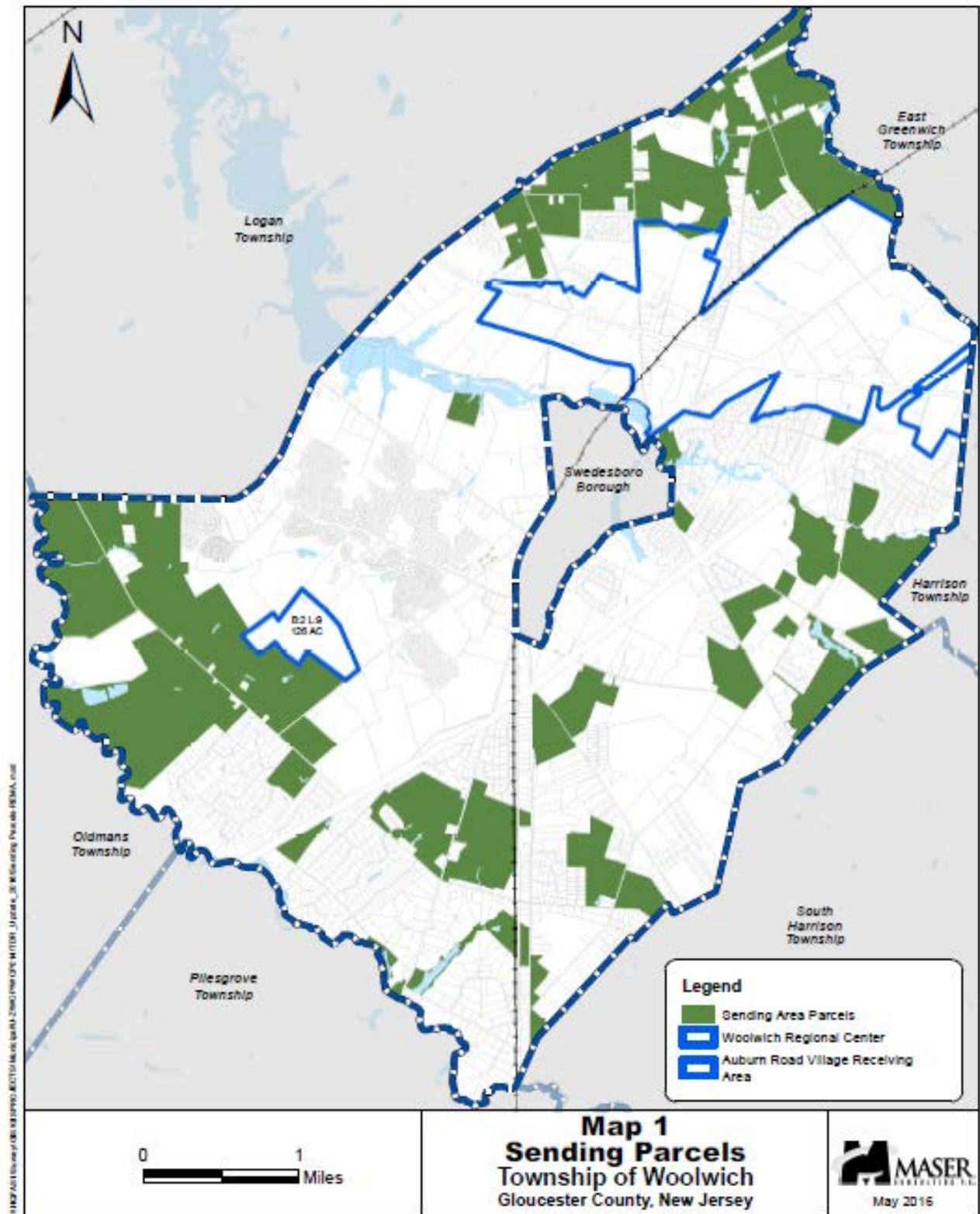
The proposed Sending Area includes 100 parcels (see **Map 1**). About one-third of these parcels are located east of the New Jersey Turnpike; one-third in the far northern portion of the Township abutting Logan & East Greenwich Townships; and one-third in the far western portion of the Township along either side of Oldman's Creek Road. These 100 parcels range in size from 2 to 201 acres and include a total of 3,159.5 acres. The current uses in the Sending Area are farms, woodlands, wetlands, and open space. **Table 1** identifies the parcels included in the Sending Area by tax map block & lot number, ownership, zoning, and size.

Table 1
Sending Area Parcels--2016--Part 1

Block	Lot	Owner	Owner Address	City	Acres	Zoning	Credits
14	28	GAROZZA, CATHERINE MRS	140 MILL ROAD	WOOLWICH TWP, NJ 08081	11.65	R-1	3.00
14	29	GAROZZA, CATHERINE MRS	140 MILL ROAD	WOOLWICH TWP, NJ	5.32	R-1	1.00
14	30	DESANTIS, MARY ANN	154 MILL ROAD	WOOLWICH TWP, NJ 08081	18.00	R-1	2.50
31	3.01	SWEDESBO INC	2387 KINGS HIGHWAY	WOOLWICH TWP, NJ	50.06	R-1	17.50
31	4	SWEDESBO INC	2387 KINGS HIGHWAY	WOOLWICH TWP, NJ	62.00	R-1	17.75
31.01	12	SWEDESBO INC	2387 KINGS HIGHWAY	WOOLWICH TWP, NJ	14.81	R-1	2.50
38	5	SCHMIDT, FRANCES A & DONALD W	600 WOODSTOWN RD	WOOLWICH TWP, NJ	12.46	R-1	3.00
39	1	SORBELLO, THOMAS & MARIE	216 PORCHES MILL ROAD	WOOLWICH TWP, NJ 08081	10.18	R-1	4.25
40	9	EISNER M STEVEN	230 KINGS HIGHWAY	WOOLWICH TWP, NJ 08081	9.88	R-1	2.50
40	10	FRICHERA FRANK	349 WOODSTOWN RD	WOOLWICH TWP, NJ 08081	37.30	R-1	5.25
40	11	FRICHERA FRANK	349 WOODSTOWN RD	WOOLWICH TWP, NJ 08081	6.76	R-1	1.00
40	12	SWEDESBO INC	2387 KINGS HIGHWAY	WOOLWICH TWP, NJ	25.36	R-1	4.50
40	14	SWEDESBO INC	2387 KINGS HIGHWAY	WOOLWICH TWP, NJ	67.22	R-1	16.25
41	1	ROBERTS, KENNETH A & WHITE, HELEN A	RR2 BOX 34	MEMPHIS, MO 63555	47.73	R-1	16.75
41	8	SORBELLO, THOMAS & MARIE ETALS	216 PORCHES MILL ROAD	WOOLWICH, NJ 08085	42.65	R-1	9.25
41	10	SORBELLO, THOMAS	216 PORCHES MILL ROAD	WOOLWICH, NJ 08085	34.32	R-1	4.75
42	2	SORBELLO, FRANK M & JENNIE L	1015 OLDMANS CREEK RD.	WOOLWICH TWP, NJ	24.03	R-1	10.50
42	2.03	SORBELLO, FRANK M & JENNIE L	1015 OLDMANS CREEK RD.	WOOLWICH TWP, NJ	16.30	R-1	5.75
43	10	ROBERTS, ARTHUR C JR & MARION E	RR2 BOX 34	MEMPHIS, MO 63555	36.78	R-1	8.75
43	3	KING, DAVID & FEUCHT, CAROLINE	107 DAVIDSON ROAD	WOOLWICH TWP, NJ	16.12	R-1	6.00
43	5	ROBERTS, KENNETH A & WHITE, HELEN A	RR2 BOX 34	MEMPHIS, MO 63555	9.64	R-1	1.00
46	11	FINNOCHIARO, ALFRED	173 APFLEGARTH RD.	HIGHTSTOWN, NJ 08831	14.04	R-1	5.50
46	11.02	MARIAN FINNOCHIARO, ALFRED	203 OAK STREET	HALLIFAX, MA 08085	13.91	R-1	5.50
46	11.03	ROSANNE FINOCCHIARO BUSHY	290 MONROEVILLE RD.	WOOLWICH TWP, NJ	14.02	R-1	5.50
46	12	DIBELLA, CARMEN A & JOSEPHINE	525 RUSSELL MILL ROAD	WOOLWICH TWP, NJ	6.00	R-1	1.25
46	12.01	DIBELLA, CARMEN A & JOSEPHINE	525 RUSSELL MILL ROAD	WOOLWICH TWP, NJ	17.47	R-1	6.75
47	2	HORNER, WILLIAM C	263 FRANKLINVILLE RD	WOOLWICH TWP, NJ	29.61	R-1	10.50
47	2.01	HORNER, WILLIAM C	263 FRANKLINVILLE RD	WOOLWICH TWP, NJ	10.89	R-1	4.75
47	5.04	FINOCCHIARO, MARY LOUISE	343 RUSSELL MILL ROAD	WOOLWICH TWP, NJ	8.82	R-1	4.00
48	1	AVSEC, TIMOTHY & DIANE	431 FRANKLINVILLE RD.	WOOLWICH TWP, NJ	33.00	R-1	4.25
48	9.01	SUIT, CURTIS & CHRISTINE	480 MONROEVILLE RD.	WOOLWICH TWP, NJ 08081	12.05	R-1	2.50
48	10	SUIT, CURTIS D & CHRISTINE O	480 MONROEVILLE RD.	WOOLWICH TWP, NJ	10.03	R-1	2.25
48	4.02	PETRONGOLO EVEGREEN PLANTATION	7541 WEYMOUTH ROAD	HAMMONTON, NJ	47.01	R-1	19.75
50	2	BENNY, A SORBELLO FAMILY	1127 RTE 45	PILES GROVE, NJ 08098	20.60	R-1	4.75
50	4	BUTLER, MARTHA	304 FRANKLINVILLE RD.	WOOLWICH TWP, NJ	14.56	R-1	1.00
55	4.02	HORNER, WILLIAM C	263 FRANKLINVILLE RD.	WOOLWICH TWP, NJ	9.00	R-1	3.75
55	7	DORSETT, LAWRENCE & ANN	169 RUSSELL MILL ROAD	WOOLWICH TWP, NJ	70.38	R-1	18.25
56	1	RUSSEL MILL INVESTMENTS LP	522 KINGS HIGHWAY	MICKLETON, NJ 08056	106.00	R-1	18.25
56	3	CARDILLO, RUSSELL ESTATE OF	3226 S. SYDENHAM ST	PHILADELPHIA, PA 19145	25.73	R-1	4.75
1	1	RAPISARDI, THE ESTATE OF ROSARIO	2251 TOWNSHIP LINE ROAD	LOGAN TWP, NJ 08085	10.00	R-2	2.75
1	2	HOMESTEAD II LLC	1991 OLDMANS CREEK RD	WOOLWICH TWP, NJ	77.40	R-2	29.25
1	3	MACCARONE, SUSAN	145 LAUREL TRAIL	WOOLWICH TWP, NJ	124.00	R-2	57.25
1	5	WHISKEY MILL LLC	4185 KIRKWOOD ROAD	BEAR, DE 19701	6.68	R-2	3.00
1	5.01	SORBELLO, THOMAS EXECUTOR & ETALS	123 MILLSTONE WAY	MONROEVILLE, NJ 08343	28.02	R-2	15.25
1	6	MARK & MARIE MINNITI	2036 OLDMANS CREEK RD	WOOLWICH TWP, NJ 08081	200.96	R-2	53.75
1	8	RIZZI, JOSEPH H & FLORENCE	1051 RUSSELL MILL RD	WOOLWICH TWP, NJ	129.06	R-2	34.25
1	11	MAUGERI, ANNA R	1991 OLDMANS CREEK RD	WOOLWICH TWP, NJ 08081	10.54	R-2	3.75
2	10	WMP REALTY CO.	PO BOX 2170	BOOTHWYN, PA	79.00	R-2	36.00
2	11	WMP REALTY CO.	PO BOX 2170	BOOTHWYN, PA	12.00	R-2	6.00
2	12	MAUGERI, ANNA R	1991 OLDMANS CREEK RD	WOOLWICH TWP, NJ	96.35	R-2	36.25
2	13	NICOLOSI BROS	2063 OLDMANS CREEK RD.	WOOLWICH TWP, NJ	83.56	R-2	29.25
2	14	SORBELLO, THOMAS A	123 MILLSTONE WAY	MONROEVILLE, NJ 08343	15.86	R-2	6.00
2	15	SORBELLO, THOMAS A. & ETALS	123 MILLSTONE WAY	MONROEVILLE, NJ 08343	68.15	R-2	20.25
2	16	CJR REALTY CO	P O BOX 2170	BOOTHWYN, PA.	46.20	R-2	19.75
2	18	NANKERVIS, VERNA	168 DORIAN DRIVE	WILLIAMSTOWN, NJ 08094	33.27	R-2	7.50
2	23	DESTEFANO, EDWARD & KATHLINE	1310 TOWNSHIP LINE RD.	WOOLWICH TWP, NJ	56.38	R-2	14.00

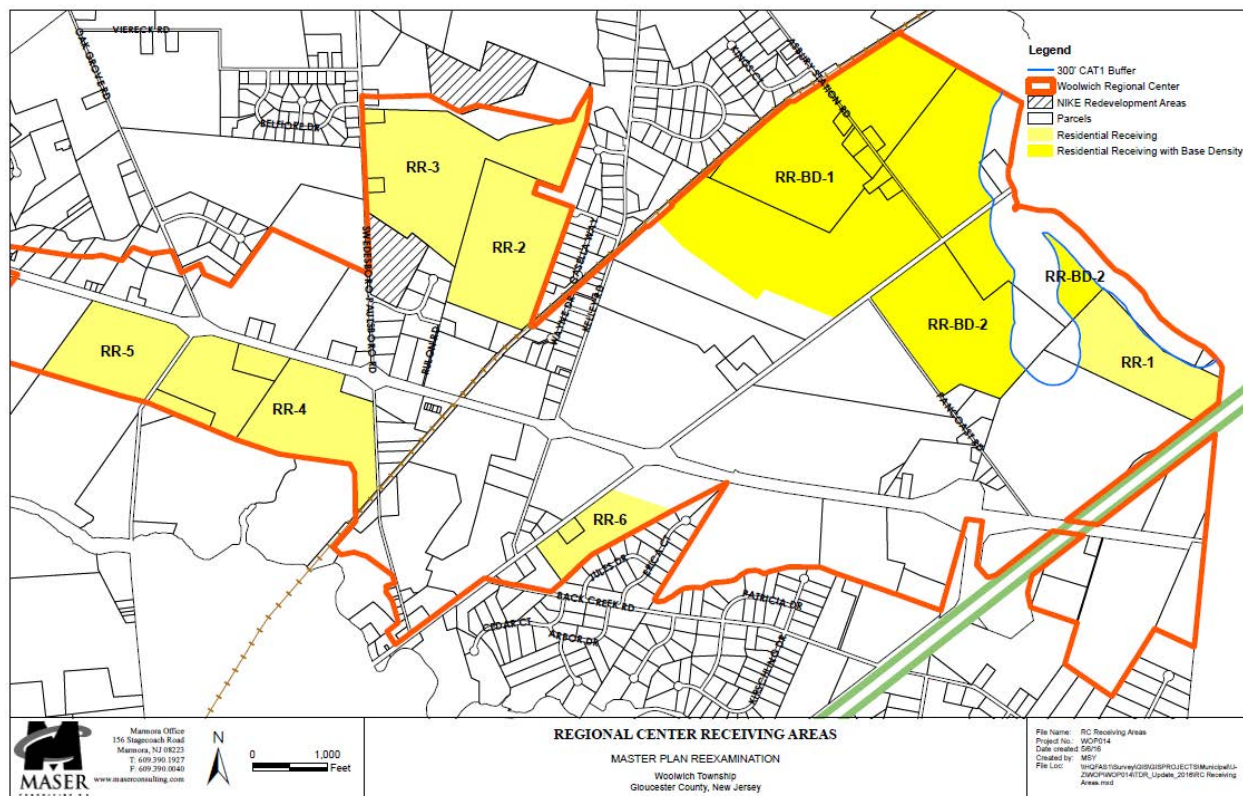
Table 1
Sending Area Parcels--2016--Part 2

Block	Lot	Owner	Owner Address	City	Acres	Zoning	Credits
11	1	MACCARONE, SAMUEL	341 STONE MTG. HOUSE RD.	WOOLWICH TWP, NJ	35.46	R-2	9.00
11	2				16.16	R-2	Approved for 13 13.00
11	24				7.69	R-2	Above 11/2
11	24.01				2.11	R-2	Above 11/2
12	6	VIERECK, LARRY E & DAVID W	110 VIERECK ROAD	WOOLWICH TWP, NJ	47.00	R-2	26.50
13	2	CLENDENING, V. ESTATE OF JEAN	7 MERKLING ROAD	SWEDSBORO, NJ 08085	53.23	R-2	21.00
13	2.02	VIERECK, LARRY E & DAVID W	110 VIERECK ROAD	WOOLWICH TWP, NJ	11.96	R-2	6.00
13	3	RACITE, DOMINIC	1586 CENTER SQUARE ROAD	LOGAN TWP, NJ	21.80	R-2	9.50
13	4	SARBELLO, ROSE M & JOSEPH ETAL	19 LANGOLLEN LANE	NEWTON SQUARE, PA 190	17.66	R-2	9.00
13	5	BELFIORE @ C EASTLACK	361 PAULSBORO ROAD	WOOLWICH TWP, NJ	8.97	R-2	4.50
13	5.01				27.86	R-2	Approved for 14 14.00
14	5	SANDY HILL FARMS @ C EASTLACK	361 PAULSBORO ROAD	WOOLWICH TWP, NJ	6.28	R-2	3.50
14	5.01	SANDY HILL FARMS @ C EASTLACK	361 PAULSBORO ROAD	WOOLWICH TWP, NJ	33.82	R-2	15.75
14	5.03	BELFIORE @ C EASTLACK	361 PAULSBORO ROAD	WOOLWICH TWP, NJ	4.41	R-2	2.50
14	6.02	FARKAS, LADISLAV & MAUREEN	439 PAULSBORO ROAD	WOOLWICH TWP, NJ 0808	15.42	R-2	9.00
14	9	MUSUMECI, PETER & RENARD	92 EMERALD BRIDGE DRIVE	BEAR, DE 19701	7.75	R-2	4.25
14	13	STILES, LYNNE H & ETALS	388 GRISCOM DRIVE	SALEM, NJ	79.00	R-2	32.50
17	6	GAROZZA, CATHERINE	140 MILL ROAD	WOOLWICH TWP, NJ	60.25	R-2	21.00
19	1	PREVITERA, ALFIO & CATHLEEN	191 MILL ROAD	WOOLWICH TWP, NJ	32.00	R-2	3.00
19	2	GIESCHEN, DANIEL D & ALISON V	382 ASBURY STATION ROAD	WOOLWICH TWP, NJ	8.49	R-2	2.00
19	4	GAROZZA, CATHERINE MRS	140 MILL ROAD	WOOLWICH TWP, NJ	35.30	R-2	7.00
20	1	GARDNER, PHILLIP C/O ETHEL	11951 STOVAL WAY	YUCCAIPA, CA 92399	32.82	R-2	3.25
20	3	CURIALE, ANTHONY & CHRISTINA	369 ASBURY STATION RD	WOOLWICH TWP, NJ	18.00	R-2	2.00
20	4	HELM, WM W & EILEEN	15 MILL ROAD	WOOLWICH TWP, NJ	42.80	R-2	15.25
20	6	HELM, WM W & EILEEN	15 MILL ROAD	WOOLWICH TWP, NJ	25.00	R-2	6.50
21	1	KING'S VIEW ESTATES LLC	PO BOX 750	SEWELL, NJ	46.20	R-2	23.50
21	2	KING'S VIEW ESTATES LLC	PO BOX 750	SEWELL, NJ	13.00	R-2	1.25
21	3	KING'S VIEW ESTATES LLC	PO BOX 750	SEWELL, NJ	15.30	R-2	7.00
21	4	KING'S VIEW ESTATES LLC	PO BOX 750	SEWELL, NJ	55.60	R-2	24.25
21	5	BEIER, ERNEST JR & ELINOR	825 KINGS HIGHWAY	MICKLETON, N J	13.00	R-2	5.50
22	3				32.00	R-2	12.75
24	2	WMP REALTY, CO.	PO BOX 2170	BOOTHWYN, PA	22.73	R-2	5.75
24	4.14	MERCER, Tyler & TIFFANY C	22 VICTORIA DRIVE	WOOLWICH TWP, NJ	10.09	R-2	1.25
28	1	WMP REALTY CO	PO BOX 2170	BOOTHWYN, PA	40.00	R-2	15.25
54	3	LAUGHLIN JR, JOSEPH D & JOANN	PO BOX 276	WOOLWICH, NJ 08085	15.66	R-2	4.25
54	9.01	THOMAS, WILBERT A III & MARGUERITE	110 FRANKLINVILLE RD	WOOLWICH TWP, NJ 0808	11.20	R-2	5.75
57	7	CAVALLARO, ALFRED L. ETAL	167 COUNTY HOUSE ROAD	MT ROYAL, NJ 08061	16.17	R-2	8.75
5	6.05	FARE, CHARLES J. SR., & CAROL L	231 HIGH HILL ROAD	WOOLWICH TWP, NJ 0808	11.79	R-3	1.75
5	6.06	VILLANOVA, KENNETH R JR & SUSAN	233 HIGH HILL ROAD	WOOLWICH TWP, NJ 0808	11.12	R-3	1.75
25	5	MOXLEY, MILTON R & ELMA L	3661 KINGS HIGHWAY	WOOLWICH TWP, NJ	7.63	5AC	1.00
26	1	ARROYO, EFRAIN, JR. & NEREIDA	2027 OLDMANS CREEK ROAD	WOOLWICH TWP, NJ 0808	22.30	5AC	2.50
36	4	OCTS TAX LIEN I, LLC	600 WOODSTOWN ROAD	WOOLWICH TWP, NJ	23.51	5AC	1.50
36	5	HARGRAVE, JAMES D	20 OLIPHANTS MILL ROAD	WOOLWICH TWP, NJ 0808	31.60	5AC	3.25
36	10	SCHMDT, FRANCES & DONALD ETALS	1000 HADDONFIELD ROAD	VOORHEES, NJ 08043	10.24	5AC	1.00
Total					Acres	Credits	
R-1 TOTAL					1021.69	267.00	
R-2 TOTAL					2019.62	729.50	
R-3 TOTAL					22.91	3.50	
5AC TOTAL					95.28	9.25	
GRAND TOTAL					3159.50	1009.25 Total Credits	



Map 1. Sending Area Parcels and Auburn Road Receiving Area #2

The proposed Receiving Zone includes two separate Receiving Areas. The Route 322 Receiving Area #1 is located along the Route 322 Corridor (see **Map 2**). Route 322 traverses Woolwich Township for 3.5 miles from west to east through the northern portion of the Township. This portion of Route 322 is located between I-295, one mile to the west in Logan Township, and Exit 2 of the New Jersey Turnpike, which is located adjacent to the eastern end of the Receiving Area. This Receiving Area #1 includes a total of 722.20 acres of land immediately adjacent to and both north and south of Route 322.



Map 2. Route 322 Receiving Area #1

The Auburn Road Receiving Area #2 is located along Auburn Road just south of the Weatherby planned development (see Map 1). Receiving Area #2 involves a single 125-acre parcel of land.

The Route 322 Receiving Area #1 is divided into nine subareas with a total of 27 parcels in 18 ownerships. Four subareas (RR-BD-1, RR-BD-2, MU-1, and RR-1) were portions of a collection of parcels which had been the subject of a law suit and settlement. This settlement provided the owner of those parcels with the right to construct a mixed-use development with 925 units of age-restricted single-family housing, 104 affordable multi-family age-restricted housing units, and more than 1,500,000 SF of commercial space. After years of planning and pre-development activity, the Wolfson Group is poised to begin the commercial development at this location, including 1.5 million SF of retail stores--a home center, a supermarket, and department stores, as well as “lifestyle” village-like retail called Main Street at Woolwich. Preliminary plans for this lifestyle center include a pedestrian-oriented environment with parks and a clock tower, a restaurant row, convenience services (hair salons, dry cleaners, bank) as well as smaller shops.

Given the likely near term development of much of this walkable retail/commercial activity, Woolwich Township has decided that it is appropriate to reposition much of the residential core of its Center development onto parcels within easy walking distance of this mass of retail activity. As a result, subareas RR-BD-1, RR-BD-2, and RR-1 were designated as key receiving parcels for TDR purposes. As noted above, subareas RR-BD-1 and RR-BD-2 were subject to the settlement agreement and this TDR real estate market analysis is based on the assumption that by-right development on these parcels will allocate the 1,029 housing units previously agreed to in the settlement. Subarea RR-1 was limited in the Settlement Agreement to commercial uses.

These nine subareas include the following circumstances:

- Subarea MU-1 includes two parcels in a single ownership with a total of 120.10 acres. These parcels are subject to the Settlement Agreement noted above and by right can construct a variety of commercial uses. No residential uses are allowed by right under the Settlement Agreement for these two parcels. Under the proposed TDR program, these parcels can add up to 4.16 dus/acre of residential use (500 units) provided these additional units are in mixed use retail/residential buildings of at least 45 feet in height but no taller than 60 feet. Additional units can be added to these mixed use buildings with the transfer of development credits.
- Subarea RR-BD-1 includes all or portions of 11 parcels totaling 227.60 acres. Six of these parcels with 220.30 acres are in a single ownership and are subject to the Settlement Agreement. By-right development of these six parcels at 3.5 dus/acre provides for 771 units of residential development. The other five parcels with 7.3 acres are small properties encircled by the parcels participating in the Settlement Agreement. Prior zoning and planning has assumed that these parcels, if redeveloped, would be included in the larger planned residential development described in the Settlement Agreement. For consistency, proposed zoning allocates by-right development to these five parcels at the 3.5 dus/acre standard applied to the Settlement Agreement parcels. This provides for an additional 26 residential units by-right spread across the five parcels.
- Subarea RR-BD-2 includes two parcels with 74.60 acres, both subject to the Settlement Agreement. By-right development of these two parcels at 3.5 dus/acre provides for 261 units of residential development.
- Subarea RR-1 is a single parcel with 35.30 acres also immediately adjacent to the under-development retail/commercial center for which only hotel and office uses are allowed under the Settlement Agreement and subsequent zoning.
- Subareas RR-2, RR-3, RR-4, RR-5, and RR-6 include eleven parcels in nine ownerships totaling 264.60 acres, are proximate to the Route 322 corridor, and are adjacent to key factors supporting denser development such as the retail core, strong open space amenities or adjacent existing denser residential development.

Table 2 identifies the parcels included in the two Receiving Areas by tax map block & lot number, ownership, zoning, and size.

Table 2
Receiving Area Parcels 2016

Route 322 Receiving Area #1

Flex Area RR-BD-1

Block	Lot	Owner	Owner Address	City	Developable Acreage
18	4	WOOLWICH RESIDENTIAL LLC C/O WOLFSON	120 W GERMANTOWN PK #120	PLYMOUTH MEETING, PA	88.10
18	4.01	CASELLA, JOHN G & FELCH, SANDRA K	48 ASBURY STATION RD	WOOLWICH TWP, NJ	1.40
18	4.02	MARINO, RUSSELL H & KATHRYN I	38 ASBURY STATION RD	WOOLWICH TWP, NJ	1.20
18	5	ZIMMER, JONATHAN M	64 ASBURY STATION RD	WOOLWICH TWP, NJ	1.60
18	5.01	SPERA, STEVEN, JR & DANIELLE	52 ASBURY STATION RD	WOOLWICH TWP, NJ	2.00
18	6	WOOLWICH RESIDENTIAL LLC C/O WOLFSON	120 W GERMANTOWN PK #120	PLYMOUTH MEETING, PA	51.60
18	6.01	CASELLA, BENITO M & VIRGINIA L	86 ASBURY STATION RD	WOOLWICH TWP, NJ	1.10
18	7	WOOLWICH RESIDENTIAL LLC C/O WOLFSON	120 W GERMANTOWN PK #120	PLYMOUTH MEETING, PA	0.40
22	2	WOOLWICH RESIDENTIAL LLC C/O WOLFSON	120 W GERMANTOWN PK #120	PLYMOUTH MEETING, PA	33.90
22	2.01	WOOLWICH RESIDENTIAL LLC C/O WOLFSON	120 W GERMANTOWN PK #120	PLYMOUTH MEETING, PA	1.10
22	4	WOOLWICH RESIDENTIAL LLC C/O WOLFSON	120 W GERMANTOWN PK #120	PLYMOUTH MEETING, PA	45.20

Flex Area RR-BD-2

Block	Lot	Owner	Owner Address	City	Developable Acreage
61	1	WOOLWICH 322 LLC	ONE AIRPORT RD	LAKEWOOD, NJ	54.90
61	2	SORBELLO, FRED J & JOAN M	850 KINGS HIGHWAY	MICKLETON, NJ	19.70

Flex Area RR-1

Block	Lot	Owner	Owner Address	City	Developable Acreage
61	7	GARGIULO, FRANCES	515 KINGS HIGHWAY	MICKLETON, NJ	35.30

Flex Area RR-2

Block	Lot	Owner	Owner Address	City	Developable Acreage
14	17	PAYNE, NAOMI ESTATE % LILLIE PAYNE	PO BOX 342	WOOLWICH TWP, NJ	53.80

Flex Area RR-3

Block	Lot	Owner	Owner Address	City	Developable Acreage
14	3	MUSUMECI, JOSEPH & HELEN	339 PAULSBORO RD	WOOLWICH TWP, NJ	73.80
14	3.01	LANG, MARCUS P & JENNIFER A	301 PAULSBORO RD	WOOLWICH TWP, NJ	1.10
14	3.02	MUSUMECI, JOSEPH & HELEN	339 PAULSBORO RD	WOOLWICH TWP, NJ	1.30

Flex Area RR-4

Block	Lot	Owner	Owner Address	City	Developable Acreage
7	4	MUSUMECI, JOSEPH & HELEN	339 PAULSBORO RD	WOOLWICH TWP, NJ	5.30
7	4.01	LOCKE PARTNERS LLC C/O S EISNER	76 E EUCLID AVE STE 101	HADDONFIELD, NJ	25.20
7	4.02	MADMIK LANDSCAPE SUPPLY, LLC	251 LOCKE AVE	WOOLWICH TWP, NJ	4.40
7	5	BONACCORSI, CARMELA & MARY & CASELL	2020 US ROUTE 322	WOOLWICH TWP, NJ	43.40

Flex Area RR-5

Block	Lot	Owner	Owner Address	City	Developable Acreage
6	6	SAVOY FAMILY LP	52 CONCORD RD STE 5	ASTON, PA 19014	35.70

Flex Area RR-6

Block	Lot	Owner	Owner Address	City	Developable Acreage
57	3	CLENDINING INV LLC & VIREECK LLC	7 MERKLING ST	SWEDESBORO, NJ	19.10
57	3.02	CALTABIANO, ALFRED S, III	380 KINGS HIGHWAY	WOOLWICH TWP, NJ	1.50

Flex Area MU-1

Block	Lot	Owner	Owner Address	City	Developable Acreage
60	1	MAIN STREET AT WOOLWICH LLC #120	120 W GERMANTOWN PK #120	PLYMOUTH MEETING, PA	76.90
60	2	MAIN STREET AT WOOLWICH LLC	120 W GERMANTOWN PK #120	PLYMOUTH MEETING, PA	43.20

Auburn Road Receiving Area #2

Block	Lot	Owner	Owner Address	City	Total Parcel Acreage
2	9	WMP REALTY CO	PO BOX 2170	Boothwyn, PA	125.00

Sending & Receiving Area Zoning

Sending Area

Zoning in the Sending Area includes four classifications: R-1; R-2; R-3; and 5AC. The 3,159.5 acres of the sending area are divided among these four classifications in this manner:

➤ R-1	1,021.69 acres	39 parcels
➤ R-2	2,019.62 acres	54 parcels
➤ R-3	22.91 acres	2 parcels
➤ 5AC	95.28 acres	5 parcels

All four zoning classifications limit allowable uses to single-family detached dwellings; agriculture, horticulture, farmhouses, farm buildings, farm markets, and related uses; certain community residences; public and nonprofit park & recreation facilities; and Township buildings. As conditional uses, the R-1, R-2, and R-3 classifications allow for schools, libraries, museums, and certain utility facilities. The maximum allowed densities are:

➤ R-1	.50 dwelling units per acre
➤ R-2	.66 dwelling units per acre
➤ R-3	2.17 dwelling units per acre
➤ 5AC	.20 dwelling units per acre

The parcels zoned R-3 within the Sending Area are outside of the sewer service area; under this circumstance, zoning requires R-2 density, even though the parcel is within a R-3 district. More detailed descriptions of these allowable uses and other applicable portions of the Zoning Code for the Township of Woolwich can be found at: <http://ecode360.com/WO1602>.

Route 322 Receiving Area #1

Development rights in subareas MU-1, RR-BD-1, RR-BD-2, and RR-1 of the Route 322 Receiving Area #1 are dictated by the settlement agreement noted above. Proposed zoning in the other five sub-areas (264.6 acres) provides for by-right residential development of one unit per 1.5 acres if the property is participating in TDR and development of one unit per 15 acres (with required clustering) otherwise. The uses allowed by right for subarea RR-1 include hotel and/or office at a maximum density of .25 FAR.

Auburn Road Receiving Area #2

The 125-acre parcel in the Auburn Road Receiving Area #2 is zoned R-3, allowing for single-family detached dwellings; agriculture, horticulture, farmhouses, farm buildings, farm markets, and related uses; certain community residences; public and nonprofit park & recreation facilities; Township buildings, and certain community facilities as conditional uses. The maximum allowed density is 2.17 dwelling units per acre provided that sewer service is available.

Community Trends

Woolwich Township is a rapidly growing community in Gloucester County which currently faces strong development pressures. Population in the 1990s grew from 1,459 to 3,032, a 108% increase. Similarly, housing development increased the total housing units from 498 to 1,026, a 106% increase. Most of that growth occurred in the 1997-1999 period when 385 building permits for single-family homes were issued (see **Table 3**). Between 2000 and 2006, Woolwich issued building permits for 2,007 units, tripling the size of the community in six years and totaling a sixfold increase since 1990. With the softening of the economy beginning in 2007, development pressures have weakened, but not disappeared. During this nine-year period (2007-2015), Woolwich has issued permits for 1,042 units.

Table 3
Building Permit Activity

Year	Woolwich Permits Single-Family	Woolwich Permits Multi-Family	Gloucester County Permits Single-Family	Gloucester County Permits Multi-Family	Woolwich As Percent Of Gloucester County Single-Family	Woolwich As Percent Of Gloucester County Multi-Family
1996	32		1,018	39	3.14%	0.00%
1997	88		1,151	16	7.65%	0.00%
1998	83		1,238	128	6.70%	0.00%
1999	214		1,310	217	16.34%	0.00%
2000	225		1,294	43	17.39%	0.00%
2001	259		1,338	297	19.36%	0.00%
2002	342		1,689	113	20.25%	0.00%
2003	200		1,560	299	12.82%	0.00%
2004	285	229	1,638	412	17.40%	55.58%
2005	387		1,882	193	20.56%	0.00%
2006	102		1,021	120	9.99%	0.00%
2007	86		902	18	9.53%	0.00%
2008	124		771	17	16.08%	0.00%
2009	94	86	642	223	14.64%	38.57%
2010	63		504	212	12.50%	0.00%
2011	77	91	481	111	16.01%	81.98%
2012	54	56	475	59	11.37%	94.92%
2013	100	95	580	359	17.24%	26.46%
2014	71		491		14.46%	
2015	44		396	206	11.11%	0.00%
Total	2,930	557	20,381	3,082	14.38%	18.07%
Average 1996 -2006	202	21	1,376	171	14.64%	12.20%
Average Since 2007	79	36	582	134	13.60%	27.22%

Source: New Jersey Department of Labor; Urban Partners

By 2010, the census reported that Woolwich had a population of 10,200 in 3,171 households—an average of 3.22 persons per household. This compared to an average of 2.56 persons per household for the Philadelphia metropolitan region as a whole. Total housing units in 2010 were

3,275, indicating a low 3.2% housing vacancy rate (see **Table 4**). The Delaware Valley Regional Planning Commission (DVRPC) estimated population growth of 612 persons to 10,812 by 2015 for Woolwich. During this period, building permit data suggest that actual construction patterns grew the total number of housing units to 3,863 (see Table 4). Contrary to previous development patterns, 41% of these units were in buildings of three or more units, likely to house smaller households. As a result, we estimate that the average population per household dropped to 3.01 persons during that five-year period.

Table 4
Growth Trends: 2010 to 2015

Year	DVRPC Population	Occupied Housing Units	Total Housing Units	New Housing During Period	Population Per Household	Percentage of Units Occupied
2010	10,200	3,171	3,275		3.22	96.8%
2015	10,812	3,591	3,863	588	3.01	93.0%

Source: Delaware Valley Regional Planning Commission; Urban Partners

DVRPC's population forecasts for Woolwich through 2040 indicate on-going population growth to 23,098 (see Table 5). Assuming continued decline in average household size, this 2040 population will reside in 9,200 households. Using a typical 5% vacancy rate, these 9,200 households will support a total housing stock of 9,700 units—requiring construction of more than 5,800 units during the 2015 to 2040 period.

Table 5
Growth Forecasts: 2015 to 2040

Year	Population	Population Per Household	Households	Housing Units	New Housing During Period
2015	10,812	3.01	3,592	3,863	
2020	12,553	2.91	4,314	4,541	678
2025	16,649	2.81	5,925	6,237	1,696
2030	20,745	2.71	7,655	8,058	1,821
2035	22,486	2.61	8,615	9,069	1,011
2040	23,098	2.51	9,202	9,687	618
Total					5,824

Source: Delaware Valley Regional Planning Commission; Urban Partners

These 5,824 new housing units will be constructed in four major locations: (1) Weatherby; (2) various scattered locations throughout the Township that are outside of both the Sending and the Receiving Areas; (3) the Route 322 Receiving Area #1; and (4) the Auburn Road Receiving Area #2. The Weatherby development program includes 4,500 dwelling units, of which 2,300 have been constructed to date. Assuming that Weatherby is fully constructed by 2040, the remaining 3,624 units of housing demand will largely be met in the two Receiving Areas.

Receiving Zone Analysis

As noted above, the proposed Receiving Zone includes two separate Receiving Areas: Route 322 Receiving Area #1 located along the Route 322 Corridor with 722.20 acres and Auburn Road Receiving Area #2 located along Auburn Road just south of the Weatherby planned development with 125 acres.

Route 322 Receiving Area #1

As noted above, the Route 322 Receiving Area #1 is divided into nine subareas. Underlying development rights (by-right development) with and without TDR participation in each subarea include:

MU-1: commercial development plus 500 housing units in mixed-use retail/residential buildings
RR-BD-1: 797 units (Settlement Agreement & extension to five smaller parcels)
RR-BD-2: 261 units (Settlement Agreement)
RR-1: 385,000 SF of hotel and/or office (Settlement Agreement)
RR-2: Without TDR: 3 units on 15-acre lots (with clustering); with TDR: 35 units
RR-3: Without TDR: 5 units on 15-acre lots (with clustering); with TDR: 50 units
RR-4: Without TDR: 5 units on 15-acre lots (with clustering); with TDR: 52 units
RR-5: Without TDR: 2 units on 15-acre lots (with clustering); with TDR: 23 units
RR-6: Without TDR: 1 unit on a 15-acre lot; with TDR: 13 units.

Maximum residential buildout under this proposed zoning without TDR would allow for 1,574 housing units, of which 500 must be in mixed use retail/residential buildings between 45 feet and 60 feet in height.

Auburn Road Receiving Area #2

Auburn Road Receiving Area #2 includes one 125-acre parcel of land zoned R-3. Terrain in this Receiving Area #2 is flat and the parcel does not appear to have any environmental limitations. Maximum buildout under this zoning would allow for 130 units of single-family housing and 104 twins. The parcel is currently in agriculture and open space use.

Recent Subdivision and Site Plan Activity

Table 6 provides a list of all subdivision and site plan applications that have been submitted to the Township for land in these two receiving areas since April 1, 2011, and describes the action taken by the Township on these applications.

Table 6: Woolwich Site Plan Applications in TDR Receiving Areas

Site Plan	Block	Lot	Sq. Ft.	Status
Main Street @ Woolwich—Amended GDP	60	1 & 2		Approved 9/20/12
--Amended minor subdivision				Approved 6/20/13
--Preliminary & final site plan				Approved 12/19/13.

Recent Sales Activity

In the past six years there have been eight recorded sales transactions involving land in the Route 322 Receiving Area #1 and no transactions within the Auburn Road Receiving Area #2 (see **Table 7**). Two of these transactions have involved homes where the sales price appears to be based on continued use of the property as a home. Both of these properties are on parcels of one and one-half to two acres and both sold for \$282,500—one in 2010 and one in 2013.

Table 7
Recent Sales Transactions In Route 322 Receiving Area #1

Address	Owner	Owner Address		Current Use	Block	Lot	Sale Price	Developable Acres	Living Area	Price/Acre	Sale Date
Land Transactions											
57-101 Kings Hwy	Woolwich Residential LLC	120 W Germantown Pike	Plymouth Mtg Pa	Farms	18	4	\$2,004,975	88.10		\$22,758	08/11/2015
90 Asbury Station Rd	Woolwich Residential LLC	120 W Germantown Pike	Plymouth Mtg Pa	Farms	18	6	\$891,450	51.60		\$17,276	08/11/2015
81 Asbury Station Rd	Woolwich Residential LLC	120 W Germantown Pike	Plymouth Mtg Pa	Farms	22	2	\$603,050	35.00		\$17,230	08/11/2015
33 Asbury Station Rd	Woolwich Residential LLC	120 W Germantown Pike	Plymouth Mtg Pa	Farms	22	4	\$941,500	45.20		\$20,830	08/11/2015
190 Kings Highway	Main Street at Woolwich LLC	120 W Germantown Pike	Plymouth Mtg Pa	Farms	60	1	\$5,030,000	76.90		\$65,410	12/22/2011
144 Kings Highway	Main Street at Woolwich LLC	120 W Germantown Pike	Plymouth Mtg Pa	Farms	60	2	\$4,095,000	43.20		\$94,792	07/21/2015
Current Use Transactions										Price/SF	
64 Asbury Station Rd	Jonathan M. Zimmer	64 Asbury Station Rd	Woolwich, NJ	SFR	18	5	\$282,500	1.60	3,720	\$75.94	04/23/2013
52 Asbury Station Rd	Steven & Danielle Spera	52 Asbury Station Rd	Woolwich, NJ	SFR	18	5	\$282,500	2.00	1,563	\$180.74	06/25/2010

Source: W In2Data; Urban Partners

The remaining six transactions involve sales of farmland to development entities of the Wolfson Group. The two parcels that constitute the Receiving Subarea MU-1 sold for a total of \$9.125 million, one sale in 2011 for \$65,000 per acre; a second in 2015 for \$95,000 per acre. This pricing is clearly tied to the value of these parcels for commercial development under the Settlement Agreement. The other four transactions involve assembling land in the RR-BD-1 and MU-2 subareas for residential development—again tied to values provided by the Settlement Agreement. The four parcels all sold on 8/11/2015 for prices ranging from \$17,200 to \$22,800 per developable acre.

Development Potential for Receiving Area Property

Route 322 Receiving Area #1

The development potential of the Route 322 Receiving Area #1 is strongly impacted by three factors: (1) the very strong housing demand which has been placing residential development pressure on Woolwich Township for more than two decades; (2) the excellent regional access afforded parcels in the Route 322 Receiving Area #1 by U.S. Route 322 traversing the area, the presence of an entrance/exit to I-295 one mile to the west, and especially the location of Exit 2 of the New Jersey Turnpike within the Receiving Area; and (3) the planned concentration of 2.7 million SF of commercial development at the locations most proximate to the Turnpike Exit, which will likely capture nearly all retail development interest at this location.

These factors strongly suggest that, in association with the planned 2.7 million SF of commercial development under the Settlement Agreement, comparatively intense residential development is the highest and best use for land within this Receiving Area.

Uses proposed for this Route 322 Receiving Area #1 under the proposed Transfer of Development Rights program include:

- 956 units of single-family detached housing on 40', 60', and 80' wide lots
- 742 units of twins
- 983 units in townhomes and
- 1,008 units in multi-family buildings (apartments or condominiums).

Auburn Road Receiving Area #2

Auburn Road Receiving Area #2 includes one 125-acre parcel of land currently zoned R-3. Maximum buildout under this current zoning would allow for 130 units of single-family housing and 104 twins.

The development potential of the Auburn Road Receiving Area #2 is strongly impacted by its immediate adjacency to the 4,500-unit Weatherby development. Weatherby has already seen absorption of 2,300 units in 15-20 years in multiple housing products. Auburn Road Receiving Area #2 should benefit from similar market conditions.

These factors strongly suggest that moderately-dense residential development, supplemented by convenience retail services, is the highest and best use for land within this Receiving Area.

Uses proposed for this Auburn Road Receiving Area #2 under the proposed Transfer of Development Rights program include:

- 130 units of single-family detached housing
- 162 units of twins, of which 58 are through TDR and 104 are "by right" converted from 65 single-family detached units that could be constructed under previous zoning
- 210 units in townhomes
- 50,000 SF of retail or office in commercial buildings.

As noted above, the projected overall housing demand for Woolwich Township through 2040 anticipates 5,800 additional housing units. *Within this forecast there is sufficient capacity by 2040 to achieve 90% of the full buildout of all residential potential in the Township including Weatherby, the Route 322 Receiving Area #1, the Auburn Road Receiving Area #2, and the few remaining scattered development parcels in the Township.*

Sending Zone Analysis

As noted above, the proposed Sending Area includes 100 parcels (see **Map 1**). About one-third of these parcels are located east of the New Jersey Turnpike; one-third in the far northern portion of the Township abutting Logan & East Greenwich Townships; and one-third in the far western portion of the Township along either side of Oldman's Creek Road. These 100 parcels range in size from 2 to 201 acres and include a total of 3,159.50 acres.

The Sending Area includes 1,021.69 acres in R-1 zoning; 2,019.62 acres in R-2 zoning; 22.91 acres in R-3 zoning; and 95.28 acres in 5AC zoning. Based on current zoning, these 100 parcels could result in a maximum buildout of 1,009 units. Land use in the Sending Area is currently agriculture and various forms of open space.

Recent Subdivision and Site Plan Activity

Table 8 provides a list of all subdivision and site plan applications that have been submitted to the Township for land in the Sending Area since April 1, 2011, and describes the action taken by the Township on these applications.

Table 8: Woolwich Site Plan Applications in TDR Sending Area

<u>Site Plan</u>	<u>Block</u>	<u>Lot</u>	<u>Sq. Ft.</u>	<u>Status</u>
Horse Barn	56	3	4,932 SF	Denied 1/3/13
Use Variance—Sand & Gravel Storage/Sale	1	6		Approved 1/16/14

Recent Sales Activity

In the past six years, there have been several transactions involving properties in the Sending Area which have resulted in the retiring of the associated development credits and, hence, the removal of the parcels from the Sending Area. One transaction, however, concerns a parcel that remains in the Sending Area (see **Table 9**). That 2013 transaction--200.96 acres selling for \$625,000—appears to be largely a non-arms-length transfer within a family of the site of the former Woolwich Sand & Gravel business.

Table 9
Recent Sales Transactions In The Sending Area

Address	Owner	Owner Address	Current				Developable			
			Use	Block	Lot	Sale Price	Acres	Price/Acre	Sale Date	
Land Transactions										
2036 Oldmans Creek	Mark & Marie Minniti	2036 Oldmans Creek	Woolwich, NJ	Farms	1	6	\$625,000	200.96	\$3,110	10/18/2013

Source: Real Quest; Urban Partners

Development Potential for Sending Area Property

As noted above, based on current zoning and estimates of the soils and topographic conditions of the Sending Area parcels, the total potential buildout of the Sending Area is estimated at 1,009 units of single-family detached housing. The previously adopted Transfer of Development Rights program has assigned development credits in lieu of on-site development as noted in Table 1 above. These development rights provide the underlying value for the development potential for the Sending Area parcels.

Sending Area Land Values & Development Credit Value

Before undertaking an assessment of recent trends in land prices and likely current values of development credits, it is important to note that the analysis undertaken in the REMA is intended to estimate average values over relatively long periods of development. In any real estate related market, whether it be direct sales of land or sale of development credits, there will always be comparatively distressed sellers willing to accept lower than average pricing to assure a speedy transaction and comparatively patient sellers holding out for a period of market scarcity to receive above average prices.

It is also important to note that the specific value of development credits for individual parcels will vary within a range based on the location of the parcel, the yield of developable lots per acre, the value of the residual parcel as farmland, and other factors.

As noted above, there has been only one transaction in the past six years within the Sending Area and that transaction was not arms-length. However, there have been a number of transactions and other circumstances which provide a basis for assessing the likely value of Sending Area property and the value of a development credit over the next few years.

First, various properties have entered into participation in land preservation programs and restrictions have been placed on other parcels which have retired the development credits associated with those parcels. In addition, Atlantic Electric purchased a 60.93 acre Sending Area parcel in April 2013 and retired the 40 credits allocated to that parcel. In total, these activities have retired 307.50 credits. The most recent of these activities, involving 175 credits, are detailed on **Table 10**.

Table 10
Recent Sales of Parcels & Development Rights In Sending Area

Block	Lot	Acres	Zoning	Credits	Type of Sale	Price	Price/Credit	Year
46	6	30.43	R-1	Approved for 13.00	Development Rights	\$447,984	\$34,460	2010
43	13/14	127.79	R-1	Approved for 59.00	Development Rights	\$1,528,863	\$25,913	2011
44	7	55.12	R-1	Approved for 25.00	Development Rights	\$793,500	\$31,740	2011
44	8/8.02	94.15	R-1	Approved for 38.00	Development Rights	\$1,120,214	\$29,479	2011
49	2	60.93	R-1	Approved for 40.00	Property Sale	\$1,735,650	\$43,391	2013

Source: Woolwich Township

These activities suggest that the value of development parcels in the Sending Area during the 2011 to 2013 period were in the range of \$40,000 to \$45,000 per lot for unimproved land with development approvals. Further, this data suggests that the value of development credits during this period was in the range of \$25,000 to \$35,000. We should note that this pricing came during a slow development period and likely factored in the benefits to the seller of avoiding long delays in the closing of transactions with private developers.

Second, on March 29, 2016, Woolwich Township received bids in a reverse auction from Sending Area property holders indicating the price they would be willing to receive for their development credits. Bids were received from property owners holding 38% of the credits available from the Sending Area. Presumably, those not bidding prefer to wait for more favorable market conditions.

Based on the bids offered, the lowest priced 20% of all credits (200 credits) could be acquired for an average of \$20,800 per credit. Another 15% of credits were available at an average cost of \$33,500 per credit. This range of asking prices is similar to the range of prices noted in Table 10 above--\$25,000 to \$35,000 per credit. Again, this pricing is surely discounted for quick sale, not directly tied to the timing of use of these credits.

As noted below, several recent sales of development-restricted farmland have achieved average pricing of \$4,500 per acre. The average size of all Sending Area parcels (Table 1) is 3.13 acres per development credit. Therefore, the residual land value of Sending Area land per credit is \$14,000.

For purposes of this REMA analysis, we assume the value of a development credit is the price to be achieved at the time of purchase when a developer is prepared to utilize that credit. This means that Receiving Area approvals have been secured and the developer is prepared to begin construction. These prices will be higher than those recently seen with sales targeted to quick execution.

Based on these factors, for purposes of this real estate market analysis, we assume that:

- a discounted price of \$25,000 to \$35,000 per credit represents the current market for a large pool of available credits (25% to 40% of total supply) offered for reasonably quick sale (independent of a developer's capacity to quickly use those credits);
- that credits timed to transfer more closely aligned with developer needs (that is, after development approval in the Receiving Area) will be priced 30% to 45% above the discounted price; and
- the underlying residual land value in the Sending Area is \$14,000 per credit.

Incorporating these assumptions, we estimate land prices in the Sending Area in the range of \$48,000 to \$60,000 per developable lot, at 2016 pricing. These prices are for unimproved sites with development approval. The pricing of development credits under these same assumptions would be in the range of \$34,000 to \$46,000 per credit priced for exchange after development approvals in the Receiving Area have been achieved. Earlier credit sales will be at discounts of 30% to 45%. Again, all these factors are at 2016 pricing.

Sending Area Land Values After Transfer of Development Rights

After transfer of development rights, land in the sending area would have some residual value based on its use as farmland and based on its post-TDR development rights under the proposed zoning. The value of individual parcels as farmland varies depending on certain soil conditions, susceptibility to flooding, etc. During 2015, five parcels with restricted development rights were sold in Woolwich as detailed on **Table 11**.

Table 11
Recent Farmland Sales In Woolwich Township

Address	Sale Price	Lot Size (Acres)	Price/Acre	Sale Date
190 Mill Rd	\$128,000	60.17	\$2,127	03/17/2015
1001 Russell Mill Rd	\$350,000	65.00	\$5,385	12/29/2015
90 Davidson Rd	\$159,900	30.43	\$5,255	09/23/2015
291 Franklinville Rd	\$249,000	27.02	\$9,215	05/15/2015
824 Kings Hwy	\$300,000	81.88	\$3,664	05/20/2015
Totals/Average	\$1,186,900	264.50	\$4,487	

Source: Real Quest; Urban Partners

In general, sales prices range from \$2,100 to \$9,200 per acre with an average of \$4,500 per acre.

The zoning and deed restrictions of these Sending Area parcels after transfer of development rights requires a 50 acre lot (or the equivalent acreage in TDR restriction); that is, one dwelling unit per 50 acres. For purposes of this analysis, we will assume that this future development is speculative and, therefore, will not add to the value of the land post-TDR beyond the underlying farmland valuation. As a result, post-TDR development will not figure into the pricing of development credits in the Sending Area.

Based on these assumptions, *the value of property post TDR is assumed to be \$4,500 per acre, in 2016 pricing.*

Receiving Area Land Values Under Current Zoning

Route 322 Receiving Area #1

Land value conditions in the Route 322 Receiving Area #1 are quite complex. The chief factors influencing land value include:

- **Zoning/development rights.** Clearly, parcels in the Settlement Agreement subareas have the greatest value due to substantial by-right development potential. As noted on Table 7 above, the only transactions occurring within this Receiving Area in the past six years have been in the Settlement Agreement subareas. The parcels with commercial development potential within the Settlement Area also have the strongest locational factors—Route 322 frontage and near access to the Turnpike. These transactions have priced in the range of \$65,000 to \$95,000 per acre, but may reflect long-ago contingent sales agreements. The parcels with residential development potential within the Settlement Area also have priced in the range of \$17,000 to \$23,000 per acre and appear to reflect current pricing. However, we should note that property sellers are avoiding the uncertainty of long approval and phased development periods and, therefore, are likely pricing at a discount.

For subareas RR-2 to RR-6 property under proposed zoning can by right support one dwelling unit per 1.5 acres with TDR. As described above, the current value of land for larger home development in Woolwich appears to be \$48,000 to \$60,000 per developable lot, or under this proposed zoning with positive site development conditions, approximately \$32,000 to \$40,000 per acre, if sold near likely time of development.

In the alternative—development without TDR—by right development in subareas RR-2 through RR-6 would be on 15 acre parcels. There is limited experience with this parcel type in Woolwich, but we assume for this analysis that this value will be less than the \$32,000 to \$40,000 per acre under TDR and greater than the residual farmland value of \$4,500 per acre. Therefore, we assume that land values for subareas RR-2 through RR-6 will be set by the TDR-participating development rights.

The parcel in RR-1, zoned for Hotel/Office at .25 FAR has unique zoning characteristics for which no sales history exists. We assume its value will be consistent with previous sales prices of FOC-zoned property (about \$30,000 per acre), but will be inflated by the allowed .25 FAR compared to base .15 FAR previously allowed in FOC zoned areas.

- **Site-specific access amenities.** Properties with direct access to Route 322, especially those situated at intersections with traffic lights, sell for a significant premium.

For purposes of the REMA analysis, we assume the following regarding current Route 322 Receiving Area #1 property values, all at 2016 pricing:

- For properties in Subareas MU-1, RR-BD-1, and RR-BD-2, by-right zoning (under the application of the Settlement Agreement) will determine land pricing; additional

development facilitated by development credits will carry no underlying land purchase requirements.

- For properties in Subareas RR-2 to RR-6, we assume land values of \$32,000 to \$40,000 per acre.
- For properties in RR-1, we assume average land values of \$3.50 to \$4.00 per buildable commercial square foot, or \$40,000 per acre.

Auburn Road Receiving Area #2

Auburn Road Receiving Area #2 includes one 125-acre parcel of land currently zoned R-3. Maximum buildout under this current zoning would allow for 195 units of single-family housing, or, under the TDR program, 130 units of single-family and 104 twins. As described above, the current value of land for larger home development in Woolwich appears to be \$48,000 to \$60,000 per developable lot. Recent experience with larger homes on half-acre lots (as would be the case in this Receiving Area under current zoning) is that their value is in the lower end of this \$48,000 to \$60,000 range. These prices are for unimproved sites with development approval.

Based on development of 195 single-family units under current zoning, the value of 125 acres of land in Receiving Area #2 is approximately \$75,000 to \$95,000 per acre.

Receiving Area Land Values After Transfer of Development Rights

Route 322 Receiving Area #1

Uses proposed for this Route 322 Receiving Area #1 under the proposed Transfer of Development Rights program include:

- 956 units of single-family detached housing on 40', 60', and 80' wide lots
- 742 units of twins
- 983 units in townhomes and
- 1,008 units in multi-family buildings (apartments or condominiums).

Transfer of Development Rights will be required for development of the 608 units of single-family detached housing; 508 twins; 791 townhomes, and 174 units in multi-family buildings. In addition, if developers of mixed use retail/residential buildings in Subarea MU-1 choose to produce more than 500 residential units, TDR will be required to support those additional units.

The value of homesites for development of these housing types is below that of one- and two-acre lot single family detached houses:

- Depending on the quality of home construction, homes built on 40', 60', and 80' wide lots appear to sustain average land prices to developers of approximately 70% of the value of a one- to two-acre lot, or \$34,000 to \$42,000 per unit;
- Similarly, twins built on 5,000 SF+ lots sustain land prices to developers of approximately 40% to 45% of the value of a one- to two-acre lot, or \$22,000 to \$26,000 per unit;
- Townhomes can sustain a land price to developers of approximately 30% to 35% of the value of a one- to two-acre lot, or \$16,000 to \$22,000 per unit; and
- Multi-family buildings can sustain a land price of approximately \$9,000 to \$15,000 per unit.

Adjusting for projected environmental constraints, we estimate land prices in this Receiving Area #1 after application of TDR zoning to be in the range of \$34,000 to \$42,000 per developable lot, at 2016 pricing, for the single family detached units on 7,500 SF average lots; \$22,000 to \$26,000 per developable lot for the twin units; \$16,000 to \$22,000 per developable lot for townhomes; and \$9,000 to \$15,000 per unit for other residential types. These prices are for unimproved sites with development approval.

Auburn Road Receiving Area #2

Uses proposed for this Auburn Road Receiving Area #2 under the proposed Transfer of Development Rights program include:

- 130 units of single-family detached housing constructed at an average lot size of 12,000 SF
- 162 units of twins, of which 58 are through TDR and 104 are "by right" converted from 65 single-family detached units that could be constructed under previous zoning. Twins are constructed at an average lot size of 5,000 SF
- 210 units in townhomes constructed at an average lot size of 2,500 SF

- 50,000 SF of retail or office in commercial buildings.

The increment of development for which development rights would need to be transferred is 58 units of twins and 210 townhomes.

The value of homesites for twins and townhomes is below that of single family detached houses:

- Twins built on 5,000 SF+ lots sustain land prices to developers of approximately 40% to 45% of the value of a one- to two-acre lot, or \$22,000 to \$26,000 per unit; and
- Townhomes can sustain a land price to developers of approximately 30% to 35% of the value of a one- to two-acre lot, or \$16,000 to \$22,000 per unit.

Land prices in this Auburn Road Receiving Area #2 after application of TDR zoning will be justified by the by-right development of 130 single family homes and 104 twins. The 268 additional units provided under TDR will justify the purchase of development credits based on land values in the range of \$22,000 to \$26,000 per twin and \$16,000 to \$22,000 per townhome, at 2016 pricing.

There is little experience in Woolwich with land sales for retail/commercial development outside the Route 322 corridor. The proposed 50,000 SF of retail/ commercial use in Receiving Area #2 will be “by-right” and no purchase of development rights will be required.

We should note that these land values assume infrastructure costs for roadways, utilities, and site preparation equivalent to similar infrastructure costs elsewhere in Woolwich for each proposed housing type.

Development Credit Requirements, Bonus, and Affordability To Facilitate Transfer of Development Rights

Route 322 Receiving Area #1

For the Route 322 Receiving Area #1, the increment of development for which development rights would need to be transferred is 573 units of single-family detached housing; 478 twins; 733 townhomes, and 174 units in multi-family buildings. On **Table 12**, we show the underlying development economics for the various housing types. As noted above, single-family homes on 7,500 SF average lots can support land values of \$34,000 to \$42,000 per unit; we assume an average land value of \$38,000. Similarly, twins can support land values of \$22,000 to \$26,000 per unit; we assume an average land value of \$24,000. Townhomes can support land values of \$16,000 to \$22,000 per unit; we assume an average land value of \$19,000. Finally, we assume an average land value for multi-family buildings of \$12,000 per unit. These prices are for unimproved sites with development approval. Note that this analysis is after adjusting for the 173 housing units that can be developed in subareas RR-2 through RR-6 by right IF the property owners are participating in TDR.

Table 12
Development Program Land Values
Route 322 Receiving Area #1

Development Type	Development Program --Units	Land Value /Unit	Supportable Land Value
Single Family Units--7,500 SF Avg. Lot	573	\$38,000	\$21,774,000
Twins--5,000 SF Avg. Lot	478	\$24,000	\$11,472,000
Townhomes-2,500 SF Average Lot	733	\$19,000	\$13,927,000
Multi-Family Buildings Per Unit	174	\$12,000	\$2,088,000
Total	1,958		\$49,261,000

Source: Urban Partners

Based on these factors, the 573 units of single family detached housing can support \$21.8 million of land acquisition cost; the 478 twins can support \$11.5 million; the 733 townhomes support \$13.9 million; and the 174 multi-family units can support \$2.1 million of land acquisition.

The economics of development credit transfer vary significantly among the nine defined subareas of the Route 322 Receiving Area #1. For three of the four subareas included in the Settlement Agreement, TDR-supported development is incremental to the substantial by-right development program. “Land” cost for this incremental development is limited to the purchase of credits, since all underlying on-site land cost is supported by the development rights extending from the Settlement Agreement. We note that this also applies to the Auburn Road Receiving Area #2 where the underlying value of the 125-acre parcel is based on the by-right 195 single-family homes that can be constructed (or, in the alternative under TDR, 130 single family homes and 104 twins). The “land” cost for the 268 units incremental under TDR is limited to purchase of development credits.

For the remaining six subareas in the Route 322 Receiving Area #1 (subareas RR-1 through RR-6), however, the economics of TDR must support both land purchase and purchase of development rights from the Sending Area. Therefore, we begin this analysis in these six subareas. **Table 13** details for each of Subareas RR-1 through RR-6 the programmed number of residential units at the anticipated densities.

Table 13
Development Credit Requirements
Route 322 Receiving Area #1--Subareas RR-1 through RR-6

Subarea/Development Type	Units Developed Under Transfer of Development Rights Program	Receiving Area Units Developed By Right With TDR	Units Developed With TDR Credits	Development Program Land Value	Receiving Area Land Cost
Subarea RR-1					
Twins--5,000 SF Avg. Lot	112		112		
Townhomes-2,500 SF Average Lot	150		150		
Subarea RR-2					
Single Family Units--7,500 SF Avg. Lot	215	35	180		
Subarea RR-3					
Single Family Units--7,500 SF Avg. Lot	305	50	255		
Subarea RR-4					
Twins--5,000 SF Avg. Lot	150	18	132		
Townhomes-2,500 SF Average Lot	300	34	266		
Subarea RR-5					
Twins--5,000 SF Avg. Lot	70	8	62		
Townhomes-2,500 SF Average Lot	140	15	125		
Subarea RR-6					
Twins--5,000 SF Avg. Lot	40	4	36		
Townhomes-2,500 SF Average Lot	80	9	71		
Total--Six Subareas					
Single Family Units--7,500 SF Avg. Lot	520	85		\$19,760,000	
Twins--5,000 SF Avg. Lot	372	30		\$8,928,000	
Townhomes-2,500 SF Average Lot	670	58		\$12,730,000	
Total Units	1,562	173	1,389	\$41,418,000	
Receiving Area Property					
Zoning @ 1 du/1.5 acres with TDR	264.6 Acres				\$9,525,600
Hotel/Office Zoning	35.3 Acres				\$1,412,000
Total Property Value	299.9 Acres				\$10,937,600

Source: Urban Partners

The total programmed area is nearly 300 acres and the overall development program in these six subareas generates 1,562 units. As noted above, with TDR participation, the proposed zoning for subareas RR-2 through RR-6 provides for 173 dwelling units by right. The remaining 1,389 units will require utilization of development credits. Based on the supportable land values detailed above, these 1,562 units can support \$41.4 million of the \$49.3 in total land valuation shown on Table 12. The estimated underlying on-site land value, based on factors detailed above, is \$10.94 million.

Table 14
Development Credit Requirements
Route 322 Receiving Area #1--Subareas RR-1 through RR-6

Zoning/Development Type	Units Developed With TDR Credits	Development Program Land Value	Receiving Area Land Cost	Available For Development Credit Purchase	Units Requiring TDR Credit Transfer	Development Credit Bonus Ratio	Bonus Development Credits	Development Credits Needed From Sending Area	Sending Area Development Credit Cost	Funds Available For Credit Purchase As Percentage of Credit Cost
Subarea RR-1										
Twins--5,000 SF Avg. Lot	112	\$2,688,000	\$652,357	\$2,035,643	112	1.25	62	50	\$2,000,000	101.78%
Townhomes--2,500 SF Average Lot	150	\$2,850,000	\$759,643	\$2,090,357	150	1.95	99	51	\$2,040,000	102.47%
Subareas RR-2 to RR-6										
Single Family Units--7,500 SF Avg. Lot	520	\$19,760,000	\$4,590,000	\$15,170,000	435	0.30	100	335	\$13,400,000	113.21%
Twins--5,000 SF Avg. Lot	260	\$6,240,000	\$1,910,000	\$4,330,000	230	1.25	128	102	\$4,080,000	106.13%
Townhomes--2,500 SF Average Lot	520	\$9,880,000	\$3,025,600	\$6,854,400	462	1.95	305	157	\$6,280,000	109.15%
Total Units	1,562	\$41,418,000	\$10,937,600	\$30,480,400	1,389		694	695	\$27,800,000	109.64%

Source: Urban Partners

Table 14 compares the development program value and cost of this land to determine the funds available for development credit purchase. For this analysis, we have separated subarea RR-1 since it has no residential development by right under TDR, while the remaining subareas do have underlying residential development potential. In all cases, the supportable land values determined in Table 14 exceed the estimated cost of Receiving Area land, leaving at least some surplus value available for purchase of development credits in the Sending Area.

The proposed Development Credit Bonus Ratios are also detailed on Table 14. The proposed **bonus ratios are 0.30 for small-lot single-family detached housing; 1.25 for twins; 1.95 for townhomes; and 2.40 for multi-family building flats, etc.** These bonus ratios are applied to the total of development credits purchased from the Sending Area. For example, if a developer purchased 20 development credits from the Sending Area for the purpose of constructing single family detached homes in the Receiving Area #1, the proposed development would receive a bonus of 6 credits (20 purchased times 0.30) and 26 units could be constructed.

Similarly, if a developer purchased 20 development credits from the Sending Area for the purpose of constructing twin homes in the Receiving Area #1, the proposed development would receive a bonus of 25 credits (20 purchased times 1.25) and 45 units could be constructed. If the developer purchased the 20 development credits from the Sending Area for the purpose of constructing townhomes, the proposed development would receive a bonus of 39 credits (20 purchased times 1.95) and 59 units could be constructed.

Based on these bonus ratios and the proposed allocation of land to various housing densities in these six subareas of Receiving Area #1, 695 development credits would need to be purchased from the Sending Area to complete development of the overall development program. These purchased development credits would leverage 694 bonus credits, providing the overall development rights for construction of 1,389 residential units.

Further on Table 14, we have also considered the feasibility that this TDR program will encourage the purchase of these 695 development credits in the Sending Area. Based on the \$40,000 value of a development credit outlined above, *the cost of the necessary development credits for all housing types is less than the available funds identified in Table 14.*

Table 15 applies these economic parameters to the remaining three subareas in Route 322 Receiving Area #1 which have significant underlying development rights based on the Settlement Agreement. In addition to base development rights, the TDR program anticipates an additional 569 units being supported through participation in Transfer of Development Rights. Utilizing the bonus multiples described above, these 569 units could be constructed subject to the purchase of 260 development credits from the Sending Area and leveraging of 309 units through the bonus multiples. Further on Table 15, we have also considered the feasibility that this TDR program will encourage the purchase of these 253 development credits in the Sending Area. Based on the \$40,000 value of a development credit outlined above, *the cost of the necessary development credits for all housing types is less than the available funds identified in Table 15.*

Table 15
Development Credit Requirements
Route 322 Receiving Area #1--Settlement Agreement Subareas

Subarea/Development Type	Additional Units Supported Through Transfer of Development Rights	Development Program Land Value	Required Development Credits	Development Credit Bonus Ratio	Bonus Development Credits	Development Credits Needed From Sending Zone	Sending Zone Development Credit Cost	Funds Available For Credit Purchase As Percentage of Credit Cost
Subarea MU-1								
Multi-Family Beyond 500 Units	Assume None							
Subarea RR-BD-1								
Single Family Units--7,500 SF Av g. Lot	95	\$3,610,000	95	0.30	22	73	\$2,920,000	123.63%
Twins--5,000 SF Av g. Lot	60	\$1,440,000	60	1.25	33	27	\$1,080,000	133.33%
Townhomes--2,500 SF Average Lot	44	\$836,000	44	1.95	29	15	\$600,000	139.33%
Multi-Family Building Units	97	\$1,164,000	97	2.40	68	29	\$1,160,000	100.34%
Subarea RR-BD-2								
Single Family Units--7,500 SF Av g. Lot	43	\$1,634,000	43	0.30	10	33	\$1,320,000	123.79%
Twins--5,000 SF Av g. Lot	76	\$1,824,000	76	1.25	42	34	\$1,360,000	134.12%
Townhomes--2,500 SF Average Lot	77	\$1,463,000	77	1.95	51	26	\$1,040,000	140.67%
Multi-Family Building Units	77	\$924,000	77	2.40	54	23	\$920,000	100.43%
Total	569					260		

Source: Urban Partners

Auburn Road Receiving Area #2

For the Auburn Road Receiving Area #2, the increment of development for which development rights would need to be transferred is 58 units of twins and 210 townhomes. Development credits will need to be secured for all these units since these 268 units are in addition to a modified “by-right” development program for this parcel.

On **Table 16**, we have shown the application of these economic parameters to the Auburn Road Receiving Area. Utilizing the bonus multiples described above, these 258 units could be constructed subject to the purchase of 97 development credits from the Sending Area. Further on Table 16, we have also considered the feasibility that this TDR the underlying development economics for these two housing types on Auburn Road. Based on the \$40,000 value of a development credit outlined above, *the cost of the necessary development credits for both housing types is less than the available funds identified in Table 16.*

Table 16
Development Credit Requirements, Bonus & Affordability
Auburn Road Receiving Area #2

Development Type	Required Development Credits	Development Credit Bonus Ratio	Bonus Development Credits	Development Credits Needed From Sending Area	Sending Zone Development Credit Cost	Supportable Land Value	Funds Available For Credit Purchase As Percentage of Credit Cost
Twins--5,000 SF Avg. Lot	58	1.25	32	26	\$1,040,000	\$1,392,000	133.85%
Townhomes-2,500 SF Average Lot	210	1.95	139	71	\$2,840,000	\$3,990,000	140.49%
Total	268			97	\$3,880,000	\$5,382,000	

Source: Urban Partners

Viability of the Transfer of Development Rights Program

Impact of Infrastructure and COAH (Fair Housing) Costs on Potential Development Rights Transfer

The Capital Improvement Program and Utility Service Plan necessary to support the proposed development program in Route 322 Receiving Area #1 have not yet been finalized, though substantial progress has been made in defining the key investment requirements and approach to sewer service. Much of the initial cost of these improvements will be supported by the more than 1.5 million SF of retail/commercial development proposed for this area and by the 1,029 residential units provided by right to subareas RR-BD-1 and RR-BD-2 through the Settlement Agreement.

Given these circumstances, it seems reasonable to assume that the marginal cost of infrastructure for the residential units requiring TDR credits will be equivalent to similar infrastructure costs elsewhere in Woolwich for each proposed housing type.

As infrastructure plans are completed, this assumption will need to be verified.

Similarly, the Auburn Road Receiving Area #2 is directly adjacent to the Weatherby development and is already within the Sewer Service Area. Therefore, *for purposes of this real estate market analysis and the determination of viability of the Transfer of Development Rights program, we assume that infrastructure costs for roadways, utilities, and site preparation in this Receiving Area #2 will be equivalent to similar infrastructure costs elsewhere in Woolwich for both proposed housing types, and specifically those costs at the adjacent Weatherby development.*

Woolwich's COAH (Fair Housing) obligations are currently in flux due to on-going court review of the overall Fair Housing obligations of most municipalities in New Jersey. Whether the ultimate resolution of Woolwich's COAH obligation impacts the viability of the TDR program as detailed in this document is unknown at this time.

Effect of Other Impact Fees

The only existing impact fees in Woolwich Township involve escrows to guarantee maintenance of required landscaping. The current requirements are that "the applicant shall be required to escrow sufficient funds for the maintenance and/or replacement of the proposed vegetation, including compensatory plantings, during the two-year guarantee period. The escrow amount shall be equivalent to 110% of the amount of the cost estimate submitted with the approved landscape plan. In addition, an escrow shall be required for existing plants being disturbed by construction activities and/or transplanted plants that are being used to satisfy the minimum requirements contained in this chapter. This amount shall be equivalent to 110% of the cost of replacement with nursery-grown stock, based on the number of tree credits received for each existing tree or transplant."

These landscaping plan requirements will be applied equivalently in the Sending and Receiving Areas as well as elsewhere in the Township. Therefore, ***the relative applicability of existing impact fees will have no impact on the valuation of land in the Sending and Receiving Areas or on the viability of the Transfer of Development Rights program.***

Market Conditions Assumptions

The validity of the real estate market analysis incorporated in this report and the determination in this report of the viability of the Transfer of Development Rights program proposed for Woolwich Township are dependent on a number of assumptions concerning overall economic conditions and policies at the national, state, regional, county, and local level. Most critical among these assumptions are the following:

- that the overall growth of the national economy remain generally consistent with patterns of the past fifteen years;
- that international issues of security and energy availability do not create structural changes in the security of U.S. communities, in the use of automobiles, or long-term dramatic changes in the cost of energy compared to other items;
- that U.S. monetary policy maintain interest rates within the ranges of rates seen in the past fifteen years;
- that the Philadelphia region will continue to maintain the moderate pace of economic growth that has prevailed during the past fifteen years;
- that New Jersey and Gloucester County tax and public services policies will remain consistent relative to other regional counties; and
- that Woolwich Township will remain a location of choice for new housing development until full buildout is achieved.

Based on the maintenance of these policies and conditions, the underlying housing and retail development demand forecasted in this analysis should provide the market forces necessary to facilitate the proposed Transfer of Development Rights program and full buildout of the two designated Receiving Areas.

Specific economic relationships among different housing types and land uses (retail vs. housing, for instance) can change over the proposed thirty year buildout period forecasted here. These could occur due to the evolution of desired housing types, changes in retail technology which cause adjustments in the types of store space that are needed or effective, etc. These slowly-evolving consumer and production trends can and should be monitored. If necessary, ***economic relationships incorporated in the Transfer of Development Rights element (the specific “bonus” credit multipliers; the relative allocation of land within the Receiving Areas among different land uses, etc.) can and should be adjusted based on any such changes in consumer behavior or production technology.***

Viability of the Transfer of Development Rights Program

The above analysis has detailed the specific demand for Development Credits that will be generated from the two Receiving Areas: the Route 322 Receiving Area #1 is anticipated to generate overall demand for 954 development credits; the Auburn Road Receiving Area #2 should require purchase of 97 credits. This total potential demand for 1,051 development credits from the Sending Area exceeds by 4.2% the 1,009 development credits desired to be transferred from the Sending Area.

The demand for Development Credits from the Sending Area is based on a specific development program for each Receiving Area and the availability of “bonus” development credits to stimulate the Transfer of Development Rights program. Based on the market analysis detailed above and assuming the development patterns as forecast by the Delaware Valley Regional Planning Commission (DVRPC), there appears to be sufficient residential development demand to absorb the 3,689 residential units proposed for Receiving Area #1 and the 502 residential units proposed for Receiving Area #2 during the 2016 through 2040 period, with perhaps a modest portion (10%) of development extending for a few years beyond 2040.

This level of residential demand, coupled with the proposed “bonus” development credits will provide sufficient market to support needed sales of the desired 1,009 Development Credits in the Sending Area. This demand will assure that all sending area credits can find buyers from the Receiving Areas during the forecast period (through 2040) provided that Development Credit sellers in the Sending Area price those credits competitively.

Also as detailed above, the cost of the necessary development credits for all housing types in both Receiving Areas is less than the available funds identified in Tables 14, 15, and 16. In fact, as outlined on those tables, the available funds exceed the anticipated credit cost in the Sending Area by 2% to 41% for all housing types, depending on the circumstances of individual receiving subareas. This results in a financial incentive to developers to pursue the purchase of these development credits.

Based on this analysis, we conclude that the updated Transfer of Development Rights Program is based upon sufficient market demand and provides sufficient economic incentive to Development Credit buyers to support the needed sales of 1,009 Development Credits in the Sending Area during the forecast period (through 2040).