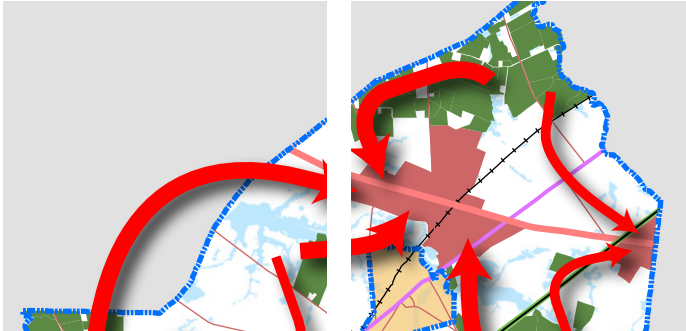
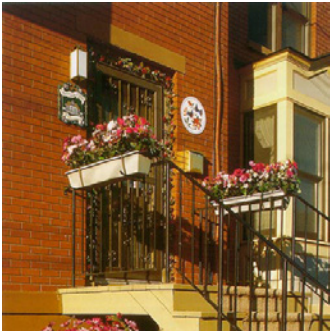


REAL ESTATE MARKET ANALYSIS



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

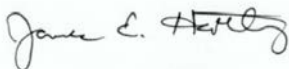
We have prepared the attached updated real estate market analysis to support the 2016 update to the Transfer of Development Rights Element of the Woolwich Township Comprehensive Plan. This market analysis is intended to establish and document updated land values in the Sending and Receiving Areas, to 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

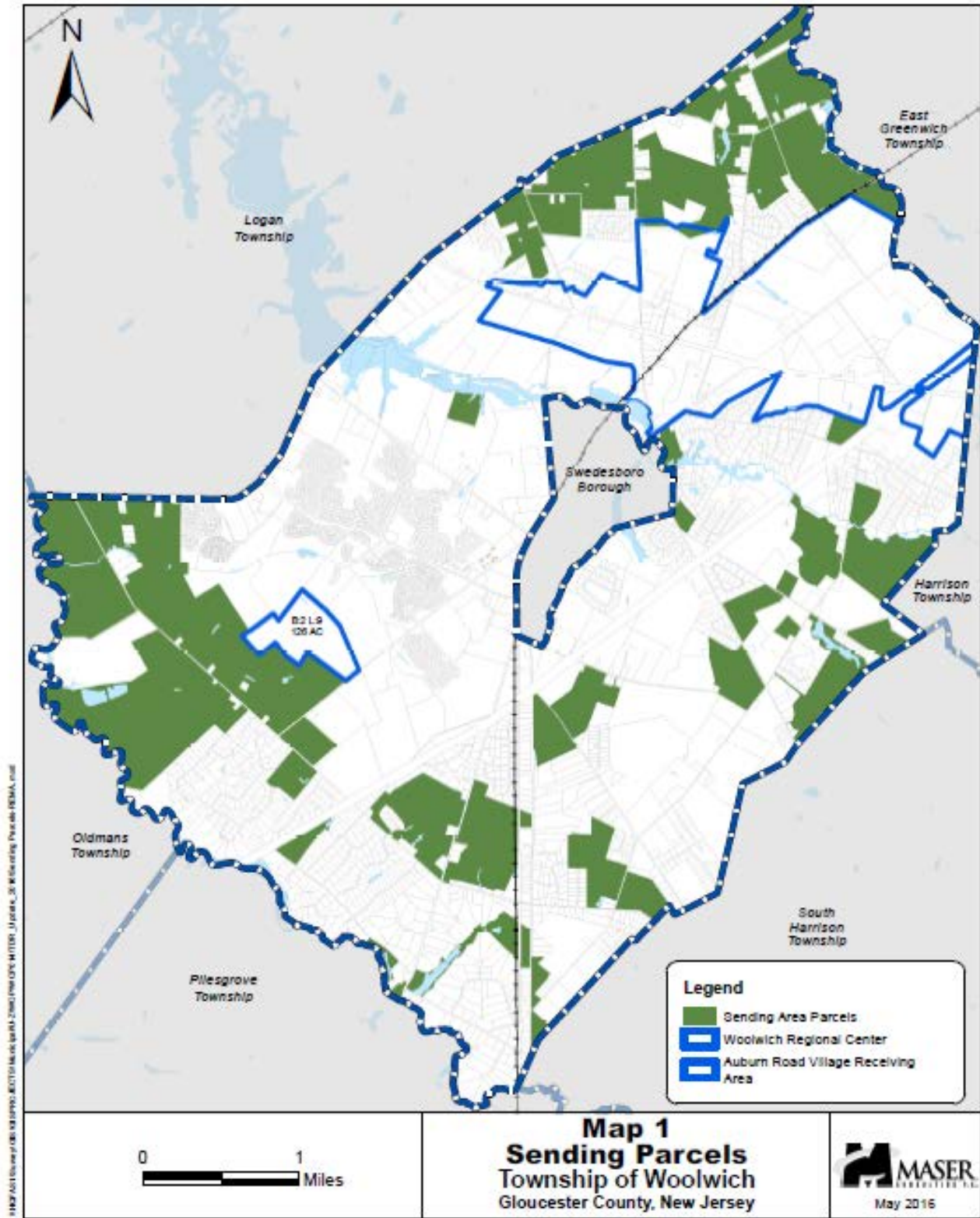
The proposed Sending Area includes 100 parcels (see **Map 1**). About one-third of these parcels are located east of the New Jersey Turnpike; one-third in the far northern portion of the Township abutting Logan & East Greenwich Townships; and one-third in the far western portion of the Township along 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 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	154 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
31.01	12 SWEDESBORO 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 0808:	10.18	R-1	4.25
40	9 EISNER M STEVEN	230 KINGS HIGHWAY	WOOLWICH TWP, NJ 0808:	9.88	R-1	2.50
40	10 FRICHERA FRANK	349 WOODSTOWN RD	WOOLWICH TWP, NJ 0808:	37.30	R-1	5.25
40	11 FRICHERA FRANK	349 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
40	14 SWEDESBORO 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.	HIGHSTOWN, 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 FINNOCHIARO 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 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	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 RUSSELL 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 0808:	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 0808:	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

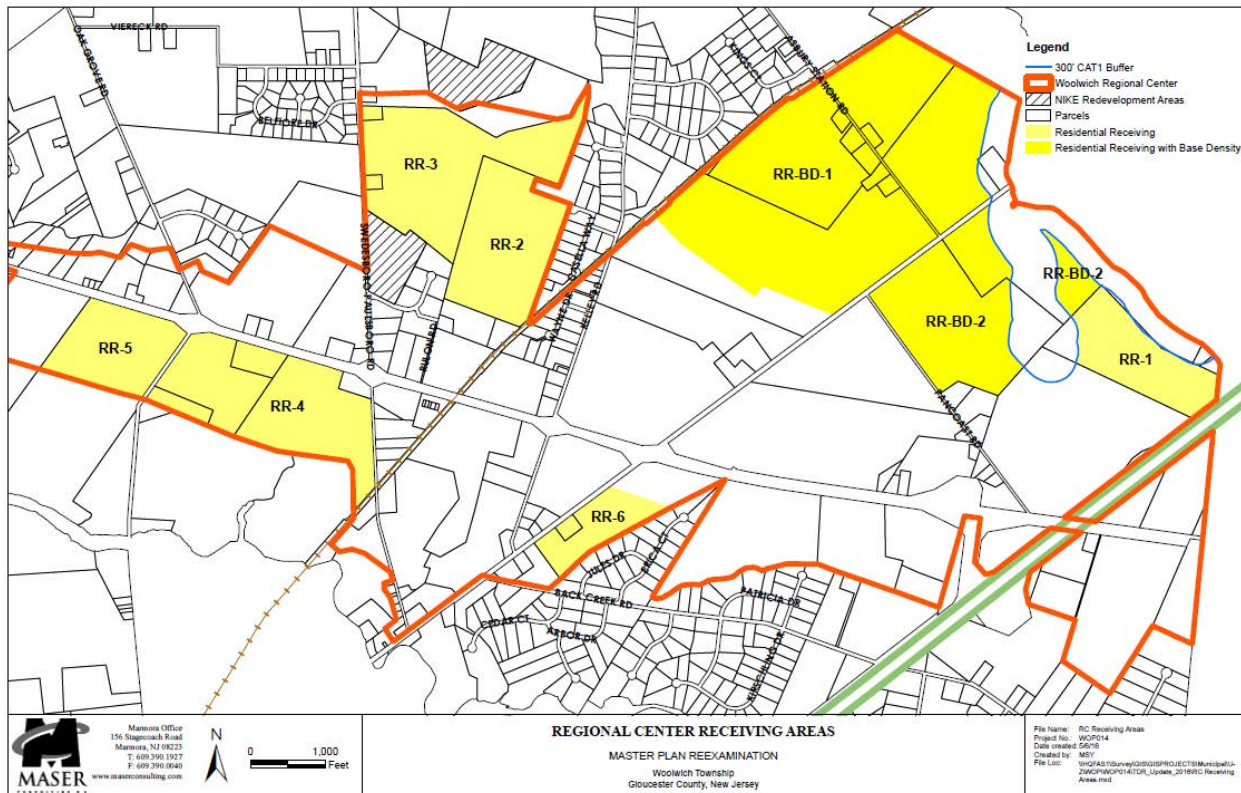
**Table 1
Sending Area Parcels--2016--Part 2**

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	SWEDESBORO, 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, LYNN 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	SCHIMDT, 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	SWEDSBORO, 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

<u>Site Plan</u>	<u>Block</u>	<u>Lot</u>	<u>Sq. Ft.</u>	<u>Status</u>
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		Sale Price	Developable		Living		Sale Date
				Use	Block Lot		Acres	Area	Price/Acre		
<i>Land Transactions</i>											
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
<i>Current Use Transactions</i>											
										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

Site Plan	Block	Lot	Sq. Ft.	Status
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			Sale Date	
			Use	Block	Lot	Sale Price	Acres	Price/Acre		
<i>Land Transactions</i>										
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: RealQuest; 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 Av g. Lot	573	\$38,000	\$21,774,000
Twins--5,000 SF Av g. 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 Av g. Lot	112		112		
Townhomes-2,500 SF Av erage Lot	150		150		
Subarea RR-2					
Single Family Units--7,500 SF Av g. Lot	215	35	180		
Subarea RR-3					
Single Family Units--7,500 SF Av g. Lot	305	50	255		
Subarea RR-4					
Twins--5,000 SF Av g. Lot	150	18	132		
Townhomes-2,500 SF Av erage Lot	300	34	266		
Subarea RR-5					
Twins--5,000 SF Av g. Lot	70	8	62		
Townhomes-2,500 SF Av erage Lot	140	15	125		
Subarea RR-6					
Twins--5,000 SF Av g. Lot	40	4	36		
Townhomes-2,500 SF Av erage Lot	80	9	71		
Total--Six Subareas					
Single Family Units--7,500 SF Av g. Lot	520	85		\$19,760,000	
Twins--5,000 SF Av g. Lot	372	30		\$8,928,000	
Townhomes-2,500 SF Av erage 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 Av g. 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 Av g. 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 Av g. 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 Av erage 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 Av erage 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 Av g. 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).