



CRANBERRY PLAN UPDATE 2016

APPENDIX



UPDATE2016

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CRANBERRY TOWNSHIP PROFILE:

2015 Market Analysis Update

MARKET ANALYSIS UPDATE 2015

Prepared by Delta Development Group, Inc.



• CRANBERRY TOWNSHIP • **BUSINESS HUB**

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INTRODUCTION

Located in Butler County, Pennsylvania, Cranberry Township continues to be one of the fastest growing municipalities in the state. From 2010-2014, the Cranberry surpassed McCandless Township as the municipality with the largest population in the Cranberry Corridor. In 2009, Cranberry included a market analysis (the 2007 Market Analysis) in its comprehensive plan update as a tool to guide decision-making in developing the Cranberry Plan, the township's 25-year comprehensive plan.

The 2007 Market Analysis was designed to answer the following questions:

1. Who lives in the Township and what are their demographic characteristics?
2. Who lives here and works there, and who lives there and works here?
3. Who are the Township's regional competitors and how does the Township compare to those areas?
4. What are the growth trends in the Township and its competitive areas?
5. What is the economic profile of the Township and its larger economic region?
6. What local and regional assets and strengths can be leveraged to create new business opportunities in the region?
7. What is the expected impact of the new or planned business operations in the Township?
8. What are the Township's greatest weaknesses/challenges to economic growth?
9. What level of business development can the Township support, and what types of businesses should be targeted?

As part the Township's economic development strategy, it was determined that the key indicators evaluated in the original market assessment would be update at five-year intervals to measure the effectiveness of the economic development strategy.

The following pages provide updates for indicators in five key areas:

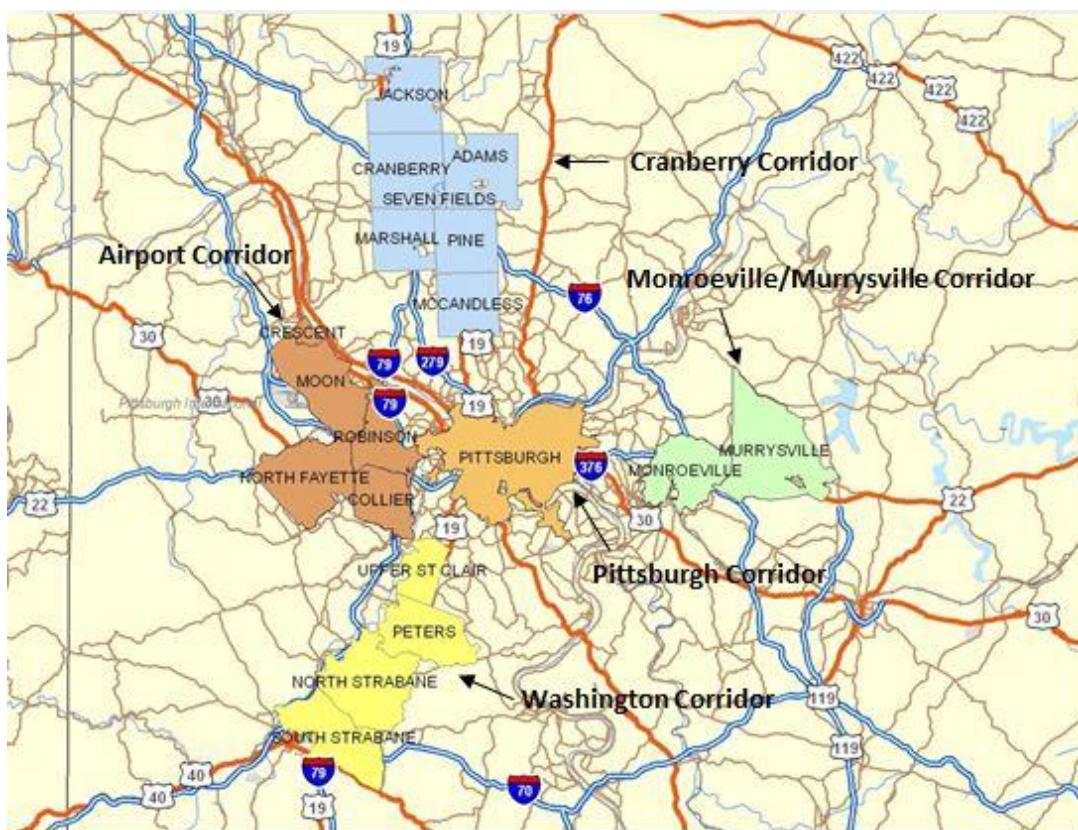
1. The Demographic Environment
2. The Workforce (Inflow/Outflow and Age)
3. The Economy (Jobs, Earnings, and Employment Trends)
4. The Retail Market
5. The Commercial Market

THE STUDY AREA

The 2007 Market Analysis was designed to look at market indicators and trends, as well as to present peer-to-peer comparisons with competitive areas and micro-to-macro comparisons to the Township's larger economic region. Based on growth patterns and anecdotal information, it was determined that areas in the region most competitive to the Township from both residential and business standpoints are: (1) the City of Pittsburgh; (2) the Monroeville/Murrysville Corridor; (3) the North Washington Corridor; and (4) the Airport Corridor. As with the previous market analysis, this update presents peer-to-peer comparisons of the Township with these areas to identify comparative strengths and weaknesses in its ability to attract new residents and businesses.

In addition to peer-to-peer comparisons, this market assessment update also compares Cranberry Township to a larger economic region that includes Butler and Allegheny Counties, and select adjacent municipalities in Beaver, Westmoreland, and Washington Counties.

FIGURE 1. CORRIDORS SELECTED FOR COMPARATIVE ASSESSMENT



THE DEMOGRAPHIC ENVIRONMENT

The residents of the Cranberry Township provide the consumer base for goods and services in the area, and analyzing its demographic trends provides indicators of the market for future housing and commercial development. Residents are the workforce that supports existing business and industry, and in today's economy, residents are also a knowledge resource that serves to attract new businesses to the area with higher salaries commensurate with local knowledge and skills.

The following tables present an overview of seven key demographic indicators, comparing Cranberry Township to its competitive areas. Tables 1 - 7 on the following pages present a comparative overview of seven key indicators of community well-being.

KEY DEMOGRAPHIC OBSERVATIONS

- From 2000-2010, the Cranberry Corridor outpaced its peer corridors, posting an 18.3% growth in population - the largest population gains in the region. From 2010-2014, the Cranberry Corridor still remained to be the fastest growing corridor, posting a 5.9% increase in population. However, the Airport corridor's population growth was only slightly less, growing at 4.5%.
- Adams, Pine and Marshall were the primary drivers of population growth in the Cranberry Corridor between 2010 and 2014, with increases 11%, 9%, 8.5%, respectively.
- From 2010-2014, Cranberry surpassed McCandless Township as the municipality with the largest population in the Cranberry Corridor. Nearly one third of the 98,000+ residents in the Cranberry Corridor live in Cranberry Township with a population of 30,170, compared to McCandless Township having a smaller population of 28,921.
- Between 2010 and 2014, the number of households in Cranberry Township increased at nearly the same rate as its population, 8.05% and 7.40%, respectively, with a corresponding slight decrease in household size.
- Population projections for the year 2019 indicate that the population in all five corridors will continue to grow, but at a more modest pace than the prior decade. Projections have Cranberry Township's resident population growing by 7.66%, placing it behind Adams, and Marshall, which are projected to grow at 10.58%, and 7.72% respectively.
- As part of its 2007 comprehensive plan update, Cranberry Township compared three potential growth scenarios and projected likely population change with each. The scenario most similar to the new zoning regulations that resulted from the plan estimated the Township's population in 2010 to be 32,238. The Township's 2010 population of 28,098 fell short of that estimate; however, the shortfall was likely influenced by the economic downturn that began in 2008 and the resulting decline in new housing development. As the economy and the housing market continues to recover and the goals of the comprehensive plan are more aggressively implemented, the Township's population will likely increase at a higher rate than is projected by ESRI (see Table 1).
- The median household income (MHI) in Cranberry Township of \$99,156 (2014 estimated) is more than 35% higher than the MHI in the Monroeville/ Murrysville Corridor (\$73,368), over 46% higher than the MHI in the Airport Corridor (\$67,653), and almost triple the MHI in Pittsburgh City (\$36,496). The MHI in the Washington Corridor (at \$92,604) is slightly less than the Cranberry Corridor. In 2010, only four municipalities in the study area have MHIs higher than Cranberry Township: Marshall (\$135,262), Pine (\$109,540), Upper St. Clair (\$100,805), and Peters, (\$89,065). In 2014, six municipalities in the study have MHIs higher than Cranberry Township: Adams (\$110,629), Marshall (\$139,604), Pine (\$131,590), Seven Fields (\$103,350), Peters (\$111,447), and Upper St. Clair (\$127,179).

- Approximately 78.50% of housing units in Cranberry Township are owner occupied, compared to 85.65% in the Washington Corridor. The Monroeville/Murrysville and Airport Corridors owner occupied housing units are estimated at 71.70% and 71.70%, respectively. The City of Pittsburgh is more transient oriented with only 39% of its housing unit's owner occupied. Densely populated urban areas typically attract a younger population; however, Cranberry Township's median age is only 4.4 years older than in the City of Pittsburgh (34). The median age in the other corridors range from 39.2 to 49.8. While the median age in Cranberry Township is comparatively younger than most of its peers, a closer look at its growth by age group over the past decade reveals a clear shift in age of the population. As provided in the 2012 market analysis update, in 2000, nearly 33% of the Township's population fell between the ages of 25 and 44, and around 19% were between the ages of 45 and 64. In 2010, these age ranges represented almost equal shares (29% and 28.6%

respectively) of the Township's population. By 2014, ESRI projected the age representation within these two age groups shifted; only 26.4% of the Township's population fell between the ages of 25 and 44, while over 35% fell between the ages of 45 and 64. The lower percentage of the population between the ages of 25-44 is likely a result of the shift in the type of housing developments within the Township (see Table 8). The Township's population over the age of 65+ continues to be comparatively low (4.5% of the total population).

- ESRI measures the diversity of a community using a "diversity index" that measures the probability that two people in the same community would be from the same race/ethnic group. Although its diversity index has increased since 2007 (9.7), Cranberry Township's diversity index of 11.7 still lags behind most of its peers. The Washington Corridor measures slightly below Cranberry Township with an index of 11.7. The City of Pittsburgh is the most diverse peer community with a diversity index of 53.6.

FIGURE 2 – CRANBERRY TOWNSHIP POPULATION BY AGE GROUP

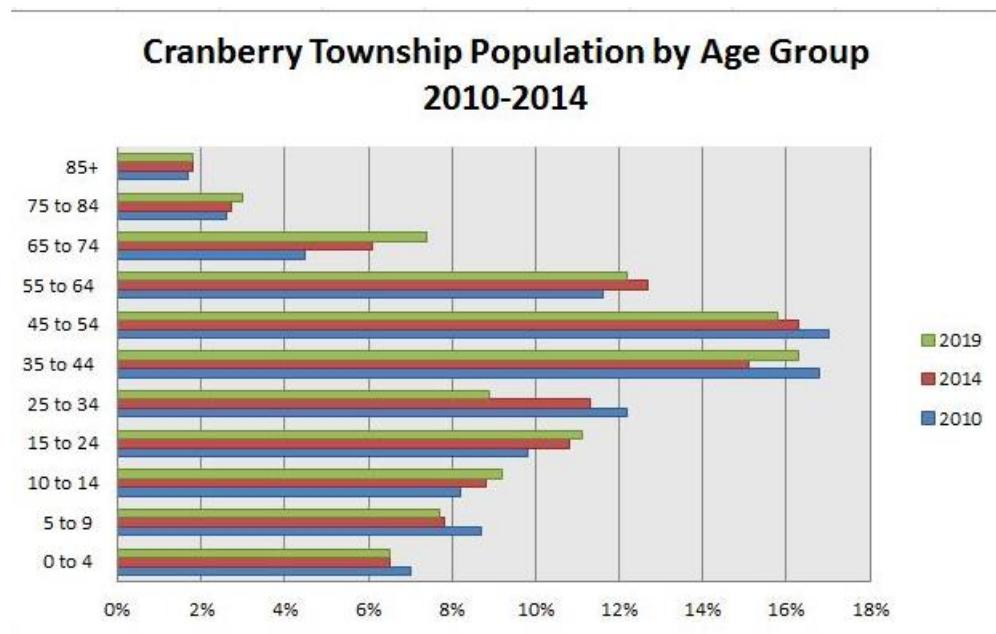


TABLE 1 – POPULATION

POPULATION SUMMARY	2000 (ACTUAL)	2010 (ACTUAL)	2014 (ESTIMATED)	2019 (PROJECTED)	NUMERIC CHANGE 2000 TO 2010	% CHANGE 2000 TO 2010	% CHANGE 2010 TO 2014	% CHANGE 2014- 2019
CRANBERRY CORRIDOR								
ADAMS	6,861	11,652	12,930	14,928	4,791	69.83%	11%	10.58%
CRANBERRY	23,676	28,098	30,170	32,481	4,422	18.68%	7.40%	7.66%
JACKSON	3,720	3,657	3,649	3,658	(63)	(1.69%)	(0.22%)	0.25%
MARSHALL	5,944	6,915	7,504	8,083	971	16.34%	8.5%	7.72%
McCANDLESS	29,025	28,457	28,921	29,528	(568)	(1.96%)	1.6%	2.10%
PINE	7,652	11,497	12,531	13,460	3,845	50.25%	9.0%	7.41%
SEVEN FIELDS	1,997	2,887	3,034	3,187	890	44.57%	5.09%	5.04%
TOTAL CRANBERRY CORRIDOR	78,875	93,163	98,739	105,325	14,288	18.11%	5.98%	6.67%
PITTSBURGH CORRIDOR								
PITTSBURGH	334,349	305,704	305,412	306,298	(28,645)	(8.57%)	(-.1%)	0.29%
MONROEVILLE/MURRYSVILLE CORRIDOR								
MONROEVILLE	29,459	28,386	28,285	28,508	(1,073)	(3.64%)	(.20%)	.79%
MURRYSVILLE	18,833	20,079	20,162	20,178	1,246	6.62%	0.40%	0.08%
TOTAL MONROEVILLE/MURRYSVILLE CORRIDOR	48,292	48,465	48,447	48,686	173	0.36%	(-.03%)	.4%
AIRPORT CORRIDOR								
COLLIER	5,166	7,080	7,817	8,526	1,914	37.05%	10.4%	9.07%
CRESCENT	2,332	2,640	2,539	2,474	308	13.21%	(3.83%)	(2.56%)
MOON	22,274	24,185	25,524	25,524	1,911	8.58%	-1%	0%
NORTH FAYETTE	12,250	13,934	14,377	14,778	1,684	13.75%	3.20%	2.79%
ROBINSON	12,422	13,354	13,692	14,000	932	7.50%	2.52%	2.25%
TOTAL AIRPORT CORRIDOR	54,444	61,193	63,949	65,302	6,749	12.40%	4.5%	2.1%
WASHINGTON CORRIDOR								
NORTH STRABANE	9,988	13,408	14,076	14,543	3,420	34.24%	5.00%	3.32%
PETERS	17,566	21,213	21,975	22,524	3,647	20.76%	4.06%	2.50%
SOUTH STRABANE	8,025	9,346	9,510	9,675	1,321	16.46%	1.80%	1.74%
UPPER ST. CLAIRE	20,010	19,229	19,335	19,451	(781)	(3.90%)	.6%	.6%
TOTAL WASHINGTON CORRIDOR	55,589	63,196	64,896	66,193	7,607	13.68%	2.7%	2.00%

SOURCE: U.S. Census Bureau, ESRI's Business Analyst, and Consultant Calculations

TABLE 2 – HOUSEHOLDS

	2000 (ACTUAL)	2010 (ACTUAL)	2014 (ESTIMATED)	2019 (PROJECTED)	NUMERIC CHANGE (2000 TO 2010)	% CHANGE 2000 TO 2010	% CHANGE 2014 TO 2019
CRANBERRY CORRIDOR							
ADAMS	2,352	4,389	4,973	5,763	2,037	86.61%	15.89%
CRANBERRY	8,367	10,248	11,174	12,074	1,881	22.48%	8.05%
JACKSON	1,386	1,423	1,477	1,486	37	2.67%	.61%
MARSHALL	1,929	2,415	2,660	2,897	486	25.19%	8.91%
McCANDLESS	11,153	11,659	12,462	12,838	506	4.54%	3.02%
PINE	2,401	3,933	4,321	4,641	1,532	63.81%	7.41%
SEVEN FIELDS	760	1,186	1,264	1,333	426	56.05%	5.46%
TOTAL CRANBERRY CORRIDOR	28,348	35,253	36,804	38,113	6,905	24.36%	7.05%
PITTSBURGH CORRIDOR							
PITTSBURGH	143,695	136,217	149,711	150,885	-7,478	(5.20%)	.78%
MONROEVILLE	12,432	12,612	12,974	13,137	180	1.45%	1.26%
MURRYSVILLE	7,087	7,917	8,130	8,169	830	11.71%	.48%
TOTAL MONROEVILLE/ MURRYSVILLE CORRIDOR	19,519	20,529	20,707	20,811	1,010	5.17%	.50%
AIRPORT CORRIDOR							
COLLIER	2,168	3,095	3,474	3,806	927	42.76%	9.56%
CRESCENT	891	1,067	1,118	1,099	176	19.75%	(1.70%)
MOON	8,441	9,646	10,861	10,907	1,205	14.28%	.4%
NORTH FAYETTE	5,003	5,810	6,041	6,262	807	16.13%	3.66%
ROBINSON	4,905	5,652	5,634	5,809	747	15.23%	3.11%
TOTAL AIRPORT CORRIDOR	21,408	25,270	26,268	27,049	3,862	18.04%	2.9%
WASHINGTON CORRIDOR							
NORTH STRABANE	3,947	5,432	6,517	6,764	1,485	37.62%	3.79%
PETERS	6,026	7,292	9,118	9,385	1,266	21.01%	2.93%
SOUTH STRABANE	3,335	4,256	3,496	3,583	921	27.62%	2.49%
UPPER ST. CLAIRE	6,944	6,976	6,760	6,801	32	0.46%	.61%
TOTAL WASHINGTON CORRIDOR	20,252	23,956	24,760	25,346	3,704	18.29%	2.37%

SOURCE: U.S. Census Bureau, ESRI's Business Analyst, and Consultant Calculations

TABLE 3 – HOUSEHOLD SIZE

	2000 (ACTUAL)	2010 (ACTUAL)	2014 (ESTIMATED)	2019 (PROJECTED)	NUMERIC CHANGE 2000 TO 2010	% CHANGE 2000 TO 2010	% CHANGE 2010 TO 2014	% CHANGE 2014- 2019
CRANBERRY CORRIDOR								
ADAMS	2.84	2.64	2.60	2.59	(0.20)	(7.04%)	(1.52%)	(0.38%)
CRANBERRY	2.81	2.72	2.70	2.69	(0.09)	(3.20%)	(0.74%)	(0.37%)
JACKSON	2.60	2.50	2.47	2.46	(0.10)	(3.85%)	(1.20%)	(0.40%)
MARSHALL	3.07	2.86	2.82	2.79	(0.21)	(6.84%)	(1.40%)	(1.06%)
McCANDLESS	2.49	2.36	2.32	2.30	(0.13)	(5.22%)	(1.69%)	(0.86%)
PINE	3.14	2.92	2.90	2.90	(0.22)	(7.01%)	(0.68%)	0.00%
SEVEN FIELDS	2.58	2.43	2.40	2.39	(0.15)	(5.81%)	(1.23%)	(0.42%)
CRANBERRY CORRIDOR AVERAGE	2.79	2.63	2.60	2.59	(.16)	(5.57%)	(1.21%)	(.50%)
PITTSBURGH CORRIDOR								
PITTSBURGH	2.17	2.07	2.04	2.03	(0.10)	(4.61%)	(1.45%)	(0.49%)
PITTSBURGH CORRIDOR AVERAGE	2.17	2.07	2.04	2.03	(0.10)	(4.61%)	(1.45%)	(0.49%)
MONROEVILLE/MURRYSVILLE CORRIDOR								
MONROEVILLE	2.29	2.21	2.18	2.17	(0.08)	(3.49%)	(1.36%)	(0.46%)
MURRYSVILLE	2.63	2.51	2.48	2.47	(0.12)	(4.56%)	(1.20%)	(0.40%)
MONROEVILLE/ MURRYSVILLE CORRIDOR AVERAGE	2.46	2.36	2.33	2.32	(0.10)	(4.03%)	(1.28%)	(0.43%)
AIRPORT CORRIDOR								
COLLIER	2.37	2.28	2.25	2.24	(0.09)	(3.80%)	(1.32%)	(0.44%)
ROBINSON	2.44	2.31	2.27	2.25	(0.13)	(5.33%)	(1.73%)	(0.88%)
MOON	2.44	2.37	2.35	2.34	(0.07)	(2.87%)	(0.84%)	(0.43%)
NORTH FAYETTE	2.43	2.40	2.38	2.36	(0.03)	(1.23%)	(0.83%)	(0.84%)
CRESCENT	2.61	2.47	2.43	2.41	(0.14)	(5.36%)	(1.62%)	(0.82%)
AIRPORT CORRIDOR AVERAGE	2.46	2.37	2.34	2.32	(0.09)	(3.74%)	(1.27%)	(0.68%)
WASHINGTON CORRIDOR								
SOUTH STRABANE	2.34	2.17	2.16	2.15	(0.17)	(7.26%)	(0.46%)	(0.46%)
NORTH STRABANE	2.45	2.43	2.41	2.40	(0.02)	(0.82%)	(0.82%)	(0.41%)
UPPER ST. CLAIRE	2.82	2.75	2.72	2.70	(0.07)	(2.48%)	(1.09%)	(0.74%)
PETERS	2.87	2.88	2.86	2.86	0.01	0.35%	(0.69%)	0.00%
WASHINGTON CORRIDOR AVERAGE	2.62	2.56	2.54	2.53	(0.06)	(2.55%)	(0.77%)	(0.40%)

SOURCE: U.S. Census Bureau, ESRI's Business Analyst, and Consultant Calculations

TABLE 4 – MEDIAN HOUSEHOLD INCOME

	2000 (ACTUAL)	2010 (ESTIMATED)	2014 (ESTIMATED)	2019 (PROJECTED)	% CHANGE 2000 TO 2010	% CHANGE 2010 TO 2014	% CHANGE 2014 TO 2019
CRANBERRY CORRIDOR							
ADAMS	\$64,382	\$78,098	\$110,629	\$133,733	21.30%	41.65%	20.88%
CRANBERRY	\$66,994	\$84,007	\$99,156	\$110,943	25.39%	18.03%	11.89%
JACKSON	\$47,155	\$55,486	\$69,467	\$79,254	17.67%	25.20%	14.09%
MARSHALL	\$102,270	\$121,198	\$139,604	\$165,395	18.51%	15.19%	18.47%
McCANDLESS	\$62,183	\$71,867	\$81,206	\$94,974	15.57%	12.99%	16.95%
PINE	\$86,692	\$109,540	\$131,590	\$161,959	26.36%	20.13%	23.08%
SEVEN FIELDS	\$66,818	\$79,825	\$103,350	\$104,842	19.47%	29.47%	1.44%
TOTAL CRANBERRY CORRIDOR AVERAGE	\$70,928	\$85,717	\$105,000	\$121,586	20.85%	22.50%	15.80%
PITTSBURGH CORRIDOR							
PITTSBURGH	\$28,666	\$38,446	\$36,496	\$43,111	34.12%	-5.07%	18.13%
MONROEVILLE/MURRYSVILLE CORRIDOR							
MONROEVILLE	\$44,509	\$55,902	\$59,097	\$69,204	25.60%	5.72%	17.10%
MURRYSVILLE	\$63,091	\$75,936	\$87,639	\$103,787	20.36%	15.41%	18.43%
TOTAL MONROEVILLE/MURRYSVILLE CORRIDOR AVERAGE	\$53,800	\$65,919	\$73,368	\$86,496	22.53%	11.30%	17.89%
AIRPORT CORRIDOR							
COLLIER	\$41,056	\$57,301	\$61,122	\$78,875	39.57%	6.67%	29.05%
CRESCENT	\$49,465	\$65,255	\$57,057	\$75,795	31.92%	-12.56%	32.84%
MOON	\$57,208	\$68,592	\$77,372	\$87,953	19.90%	12.80%	13.68%
NORTH FAYETTE	\$51,534	\$63,547	\$70,076	\$81,897	23.31%	10.27%	16.87%
ROBINSON	\$55,061	\$73,531	\$72,640	\$86,880	33.54%	-1.21%	19.60%
TOTAL AIRPORT CORRIDOR AVERAGE	\$50,865	\$65,645	\$67,653	\$82,280	29.06%	3.06%	21.62%
WASHINGTON CORRIDOR							
NORTH STRABANE	\$50,635	\$65,533	\$73,345	\$84,850	29.42%	11.92%	15.69%
PETERS	\$77,100	\$89,065	\$111,447	\$134,319	15.52%	25.13%	20.52%
SOUTH STRABANE	\$42,604	\$57,769	\$58,445	\$73,442	35.60%	1.17%	25.66%
UPPER ST. CLAIRE	\$85,280	\$100,805	\$127,179	\$155,471	18.20%	26.16%	22.25%
TOTAL WASHINGTON CORRIDOR AVERAGE	\$63,905	\$78,293	\$92,604	\$112,021	22.52%	18.28%	20.97%

SOURCE: U.S. Census Bureau, ESRI's Business Analyst, and Consultant Calculations

TABLE 5 – OWNER OCCUPIED HOUSING UNITS

	2000 (ACTUAL)	2010 (ACTUAL)	2014 (ESTIMATED)	2019 (PROJECTED)	% CHANGE 2000 TO 2010	% CHANGE 2010 TO 2014	% CHANGE 2014-2019
CRANBERRY CORRIDOR							
ADAMS	80.70%	80.70%	76.30%	76.40%	0.00%	(5.45%)	0.13%
CRANBERRY	80.70%	79.50%	78.50%	78.10%	(1.49%)	(1.26%)	(0.51%)
JACKSON	78.90%	80.30%	78.90%	78.10%	1.77%	(1.74%)	(1.01%)
MARSHALL	90.30%	87.60%	89.60%	90.20%	(2.99%)	2.28%	0.67%
McCANDLESS	74.60%	72.40%	70.80%	70.90%	(2.95%)	(2.21%)	0.14%
PINE	92.00%	78.10%	80.30%	81.10%	(15.11%)	2.82%	1.00%
SEVEN FIELDS	77.30%	70.00%	67.80%	67.20%	(9.44%)	(3.14%)	(0.88%)
TOTAL CRANBERRY CORRIDOR MEDIAN	80.70%	79.50%	78.50%	78.10%	(1.49%)	(1.26%)	(0.51%)
PITTSBURGH CORRIDOR							
PITTSBURGH	45.90%	41.50%	39.00%	38.50%	(9.59%)	(6.02%)	(1.28%)
MONROEVILLE/MURRYSVILLE CORRIDOR							
MONROEVILLE	65.40%	63.00%	61.20%	61.10%	(3.67%)	(2.86%)	(0.16%)
MURRYSVILLE	85.30%	84.30%	82.20%	82.10%	(1.17%)	(2.49%)	(0.12%)
TOTAL MONROEVILLE/MURRYSVILLE CORRIDOR MEDIAN	75.35%	73.65%	71.70%	71.60%	(2.26%)	(2.65%)	(0.14%)
AIRPORT CORRIDOR							
COLLIER	85.40%	75.20%	78.10%	78.80%	(11.94%)	3.86%	0.90%
CRESCENT	81.80%	78.90%	75.40%	73.90%	(3.55%)	(4.44%)	(1.99%)
MOON	68.00%	66.20%	66.20%	66.70%	(2.65%)	0.00%	0.76%
NORTH FAYETTE	71.30%	71.80%	71.70%	72.30%	0.70%	(0.14%)	0.84%
ROBINSON	73.80%	68.00%	67.60%	67.80%	(7.86%)	(0.59%)	0.30%
TOTAL AIRPORT CORRIDOR MEDIAN	73.80%	71.80%	71.70%	72.30%	(2.71%)	(0.14%)	0.84%
WASHINGTON CORRIDOR							
NORTH STRABANE	85.80%	84.20%	84.90%	85.00%	(1.86%)	0.83%	0.12%
PETERS	91.30%	90.90%	90.70%	90.90%	(0.44%)	(0.22%)	0.22%
SOUTH STRABANE	73.50%	64.70%	62.60%	62.90%	(11.97%)	(3.25%)	0.48%
UPPER ST. CLAIRE	91.00%	88.10%	86.40%	86.20%	(3.19%)	(1.93%)	(0.23%)
TOTAL WASHINGTON CORRIDOR MEDIAN	88.40%	86.15%	85.65%	85.60%	(2.55%)	(0.58%)	(0.06%)

SOURCE: U.S. Census Bureau, ESRI's Business Analyst, and Consultant Calculations

TABLE 6 – MEDIAN AGE

	2000 (ACTUAL)	2010 (ACTUAL)	2014 (ESTIMATED)	2019 (PROJECTED)	% CHANGE 2000 TO 2010	% CHANGE 2010 TO 2014	% CHANGE 2014 TO 2019
CRANBERRY CORRIDOR							
ADAMS	36.2	40.1	41.0	41.4	10.8%	2.2%	1.0%
CRANBERRY	34.7	37.7	38.4	39.2	8.6%	1.9%	2.1%
JACKSON	40.8	47.4	49.1	50.6	16.2%	3.6%	3.1%
MARSHALL	37.4	41.3	42.2	42.6	10.4%	2.2%	0.9%
McCANDLESS	40.3	44.0	45.0	45.7	9.2%	2.3%	1.6%
PINE	37.1	38.3	39.3	39.6	3.2%	2.6%	0.8%
SEVEN FIELDS	33.3	36.0	36.6	38.1	8.1%	1.7%	4.1%
CRANBERRY CORRIDOR MEDIAN	37.1	40.1	41.0	41.4	8.1%	2.2%	1.0%
PITTSBURGH CORRIDOR							
PITTSBURGH	35.5	33.5	34.0	35.1	(5.6%)	1.5%	3.2%
MONROEVILLE/MURRYSVILLE CORRIDOR							
MONROEVILLE	42.6	45.9	46.7	47.8	7.7%	1.7%	2.4%
MURRYSVILLE	42.6	47.2	48.5	49.4	10.8%	2.8%	1.9%
MONROEVILLE/ MURRYSVILLE CORRIDOR MEDIAN	42.6	46.6	47.6	48.6	9.3%	2.3%	2.1%
AIRPORT CORRIDOR							
COLLIER	46.0	46.9	48.2	49.5	2.0%	2.8%	2.7%
CRESCENT	38.6	43.0	44.5	47.0	11.4%	3.5%	5.6%
MOON	37.7	38.8	39.8	40.7	2.9%	2.6%	2.3%
NORTH FAYETTE	35.6	37.9	39.2	39.7	6.5%	3.4%	1.3%
ROBINSON	39.9	42.3	43.1	43.9	6.0%	1.9%	1.9%
AIRPORT CORRIDOR MEDIAN	38.6	42.3	43.1	43.9	9.6%	1.9%	1.9%
WASHINGTON CORRIDOR							
NORTH STRABANE	40.3	42.8	43.8	44.6	6.2%	2.3%	1.8%
PETERS	40.6	42.8	44.1	44.6	5.4%	3.0%	1.1%
SOUTH STRABANE	44.7	48.6	49.8	50.9	8.7%	2.5%	2.2%
UPPER ST. CLAIRE	42.0	44.1	45.2	45.5	5.0%	2.5%	0.7%
WASHINGTON CORRIDOR MEDIAN	41.3	43.5	44.7	45.1	5.2%	2.8%	0.9%

SOURCE: U.S. Census Bureau, ESRI's Business Analyst, and Consultant Calculations

TABLE 7 – DIVERSITY INDEX

	2000 (ACTUAL)	2010 (ACTUAL)	2014 (ESTIMATED)	2019 (PROJECTED)	% CHANGE 2000 TO 2010	% CHANGE 2010 TO 2014	% CHANGE 2014-2019
CRANBERRY CORRIDOR							
ADAMS	5.7	11.4	12.8	15.0	100.0%	12.3%	17.2%
CRANBERRY	7.7	13.5	15.2	17.7	75.3%	12.6%	16.4%
JACKSON	4.5	6.1	7.3	9.0	35.6%	19.7%	23.3%
MARSHALL	9.2	21.3	24.4	28.7	131.5%	14.6%	17.6%
McCANDLESS	11.7	17.2	19.5	22.9	47.0%	13.4%	17.4%
PINE	7.0	16.5	18.8	22.2	135.7%	13.9%	18.1%
SEVEN FIELDS	10.0	16.3	18.2	21.2	63.0%	11.7%	16.5%
AVERAGE CRANBERRY CORRIDOR	8.0	14.6	16.6	19.5	83.3%	13.6%	17.6%
PITTSBURGH CORRIDOR							
PITTSBURGH	48.2	51.7	53.5	55.9	7.3%	3.5%	4.5%
MONROEVILLE/MURRYSVILLE CORRIDOR							
MONROEVILLE	27.0	37.0	39.5	43.0	37.0%	6.8%	8.9%
MURRYSVILLE	10.0	13.8	15.7	18.2	38.0%	13.8%	15.9%
AVERAGE MONROEVILLE/MURRYSVILLE CORRIDOR	18.5	25.4	27.6	30.6	37.3%	8.7%	10.9%
AIRPORT CORRIDOR							
COLLIER	4.5	12.7	14.8	17.6	182.2%	16.5%	18.9%
CRESCENT	6.9	12.5	14.5	16.9	81.2%	16.0%	16.6%
MOON	14.7	22.3	24.8	28.2	51.7%	11.2%	13.7%
NORTH FAYETTE	13.0	16.0	17.8	20.4	23.1%	11.3%	14.6%
ROBINSON	10.5	18.6	21.2	24.5	77.1%	14.0%	15.6%
AVERAGE AIRPORT CORRIDOR	9.9	16.4	18.6	21.5	65.9%	13.4%	15.6%
WASHINGTON CORRIDOR							
NORTH STRABANE	8.1	9.9	11.4	13.6	22.2%	15.2%	19.3%
PETERS	5.7	10.1	12.3	15.5	77.2%	21.8%	26.0%
SOUTH STRABANE	6.1	9.8	11.1	13.2	60.7%	13.3%	18.9%
UPPER ST. CLAIRE	11.8	17.0	19.6	23.3	44.1%	15.3%	18.9%
AVERAGE WASHINGTON CORRIDOR	7.9	11.7	13.6	16.4	48.1%	16.2%	20.6%

SOURCE: ESRI's Business Analyst

NEW HOUSING DEVELOPMENT TRENDS

The development of new housing continues to fuel the Township's population growth. As shown in Table 8, 2,206 new homes were built in the Township between 2005 and 2014; over 1,000 of these homes were built between 2012 and 2014.

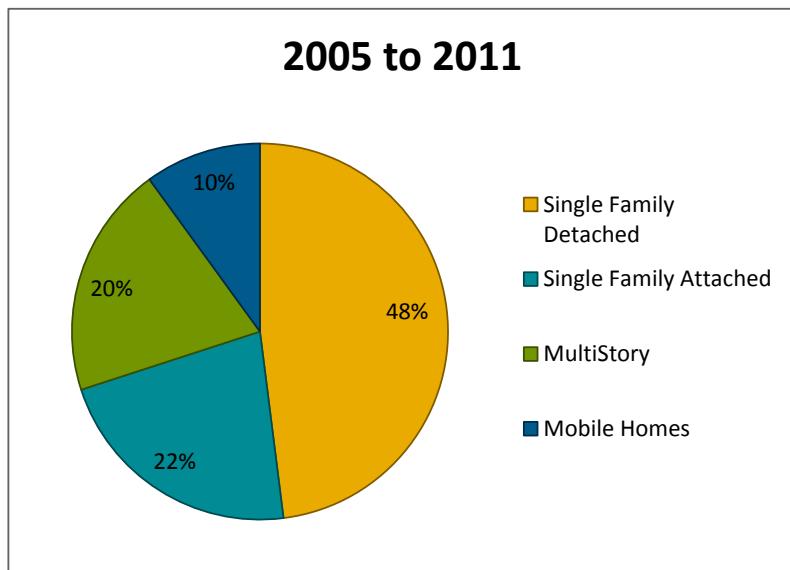
Prior to 2012 single-family detached homes made up the majority of the homes built in the Township. During the period of 2012 to 2014 there was a large shift in the types of housing units constructed in the Township; 57% were multi-story/multiple family units while 25% were single family detached units. (Figures 3 and 4)

TABLE 8 – NEW HOUSING DEVELOPMENT IN CRANBERRY TOWNSHIP (NUMBER OF UNITS)

YEAR	SINGLE FAMILY DETACHED	SINGLE FAMILY ATTACHED	MULTI-STORY/ MULTIPLE FAMILY	MOBILE HOME	TOTAL
2005	135	66	112	27	340
2006	71	16	0	11	98
2007	94	3	0	11	108
2008	71	38	24	11	144
2009	156	21	3	10	190
2010	135	66	112	27	340
2011	71	16	0	11	98
2012	84	39	172	43	338
2013	104	16	358	24	502
2014	71	39	60	26	196
TOTAL:	823	356	822	205	2,206

SOURCE: Cranberry Township

FIGURE 3 – MIX OF NEW HOUSING TYPES (2005 TO 2011)

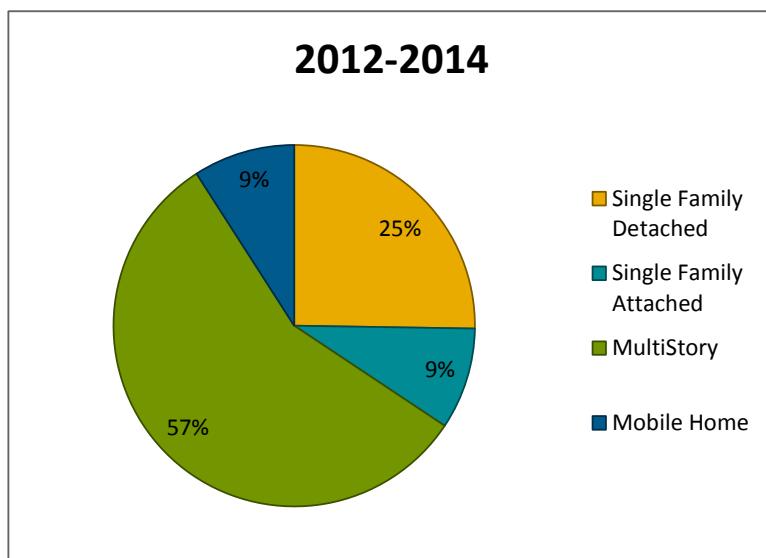


SOURCE: Cranberry Township

Prior to 2012, single family homes made up the majority of home built in the Township.

During 2012-2014, 57% of new housing units were multi-story/multi-family units

FIGURE 4 – MIX OF NEW HOUSING TYPES (2012 TO 2014)



SOURCE: Cranberry Township and Consultant Calculations

THE WORKFORCE

WORKER INFLOW/OUTFLOW

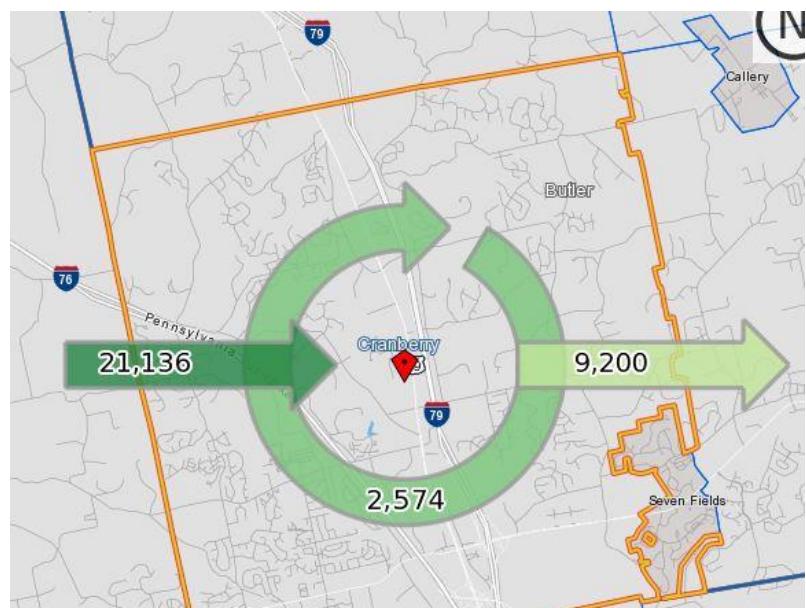
Cranberry Township continues to serve as a net importer of workers. As illustrated in Figure 5, the Township's resident workforce was comprised of 11,774 people in 2012; however, only 2,574 of those individuals work in the Township. The remaining 9,200 workers commute outside the Township for employment. Similarly, of the 23,710 jobs in Cranberry Township, 21,136 are filled by workers who commute from outside the Township to work. In 2010, 18,519 workers commuted into the Township to work. While the number of workers commuting into the Township to work increased by over 2,617 workers between 2010 and 2012, the number of workers who both live in and work in the Township increased by 579. In 2010, the number of residents who commuted outside of the township for work was 9,160; this number increased to 9,200 in 2012.

Over half of the 9,200 residents who commute outside the Township to work 11.7% are employed in Goods Producing sectors, 20.7% are employed in Trade, Transportation and Utilities, and the remaining 67.6% are employed in all other service industry sectors. For the 21,136 workers who commute into the Township to work, 12.1% are employed in the Goods Producing Sectors, 25.1% are employed in the Trade, Transportation and Utilities Industry Sectors, and the remaining 62.8% are employed in all other service industry sectors.

By far, the greatest number of workers in Cranberry Township, live in Allegheny, Butler, and Beaver Counties (see Table 10). The U.S. Census Bureau's rule of thumb for defining an economic region is to examine workforce commute patterns. If more than 25% of workers travel across municipal boundaries to find employment, the region is considered economically integrated. Using this definition, Cranberry Township's economic region is largely comprised of Allegheny (which accounts for 32.5% of its workforce) and Butler County (which accounts for nearly 26.2% of its workforce).

As shown in Table 11, the number of younger workers (under the age of 29) who are employed in Cranberry Township decreased slightly between 2010 and 2012. This includes those who live/work in Cranberry Township and workers commuting into the Township.

Figure 5 – Cranberry Township – Inflow/Outflow (2012)



SOURCE: Local Employment Dynamics, U.S. Census Bureau

TABLE 9 – CRANBERRY TOWNSHIP – INFLOW/OUTFLOW OF WORKERS BY INDUSTRY (2012)

	LIVE IN/WORK IN CRANBERRY		LIVE IN/COMMUTE OUT		WORK IN/COMMUTE IN	
	2010	2012	2010	2012	2010	2012
GOODS PRODUCING INDUSTRY	13.2%	9.4%	11.8%	11.7%	17.4%	12.1%
TRADE, TRANSPORTATION, UTILITIES INDUSTRY	22.2%	18.1%	21.1%	20.7%	30.3%	25.1%
ALL OTHER SERVICES INDUSTRY CLASS	64.6%	72.6%	67.1%	67.7%	52.3%	62.8%
TOTAL NUMBER OF JOBS	1,995	2,574	9,223	9,200	18,519	21,136
NUMBER INCREASE/DECREASE	579		(23)		2,617	
<i>SOURCE: Local Employment Dynamics, U.S. Census Bureau, and Consultant Calculations</i>						

TABLE 10 – CRANBERRY TOWNSHIP – INFLOW/OUTFLOW OF WORKERS BY COUNTY (2012)

COUNTY WHERE CRANBERRY RESIDENTS WORK	COUNT	SHARE	COUNTY WHERE CRANBERRY WORKERS LIVE	COUNT	SHARE
Allegheny County, PA	5,974	50.7%	Allegheny County, PA	7,701	32.5%
Butler County, PA	4,058	34.5%	Butler County, PA	6,205	26.2%
Beaver County, PA	684	5.8%	Beaver County, PA	3,365	14.2%
Westmoreland County, PA	301	2.6%	Westmoreland County, PA	1,383	5.8%
Lawrence County, PA	204	1.7%	Lawrence County, PA	840	3.5%
Washington County, PA	154	1.3%	Washington County, PA	636	2.7%
Mercer County, PA	136	1.2%	Armstrong County, PA	277	1.2%
Armstrong County, PA	63	0.5%	Mercer County, PA	242	1.0%
Venango County, PA	63	0.5%	Erie County, PA	233	1.0%
Clarion County, PA	42	0.4%	Fayette County, PA	195	0.8%
All Other Locations	95	0.8%	All Other Locations	2,633	11.1%
	11,774			23,710	

SOURCE: Local Employment Dynamics, U.S. Census Bureau, and Consultant Calculations

TABLE 11 – CRANBERRY TOWNSHIP – INFLOW/OUTFLOW OF WORKERS BY AGE (2012)

	LIVE IN/WORK IN CRANBERRY		LIVE IN/COMMUTE OUT		WORK IN/COMMUTE IN	
	2010	2012	2010	2012	2010	2012
WORKERS AGED 29 AND UNDER	31.9%	30.1%	19.5%	18.8%	26.8%	26.3%
WORKERS AGED 30 TO 54	50.0%	50.9%	61.2%	60.6%	54.9%	53.8%
WORKERS AGED 55 OR OLDER	18.1%	19.0%	19.3%	20.6%	18.2%	19.9%

SOURCE: Local Employment Dynamics, U.S. Census Bureau, and Consultant Calculations

THE ECONOMY

INDUSTRY MIX AND JOB GROWTH

Cranberry Township diverse industry mix continues to be represented by both heavy industry and service sectors. Over 4,900 jobs were added to the industry mix from 2010 to 2014, with 46% of these jobs being created in the Retail Trade and Accommodation and Food Services Sectors.

The Professional, Scientific and Technical Services sector remains strong, adding 859 jobs to Cranberry Township's local economy.

The following are additional highlights of changes within the Township's industry sectors during this same time period:

- **Retail Trade** added 1,237 jobs from 2010 to 2014; it represents the second largest share of jobs within the Township (15%)
- **Professional, Scientific, and Technical Services.** Continues to provide the largest share of jobs within the Township (24%).
- **Construction Sector, Manufacturing Sector and Wholesale Trade Sector** lost over 559 jobs. As the Township showed no significant loss in major employers, the loss of these 559 jobs could be a result of -
 - Continued efficiencies in the manufacturing sector due to technological advances
 - Reclassification of businesses into another category (e.g. professional, scientific and technical)
 - Decrease in construction activity (see Figures 10 and 11, pages 18-19)
- **Mining, Quarrying, and Oil and Gas Extraction Sectors** added 122 jobs; although small this sector could continue to expand within the next few years, based on the Marcellus Shale drilling activities, and the proposed Cracker Facility in Beaver County.
- Other large gain in employment included the **Health Care and Social Assistance Sector** (461 jobs), **Management of Companies and Enterprises Sector** (533 jobs) and Accommodation and **Food Services Sector** (1,030 jobs)

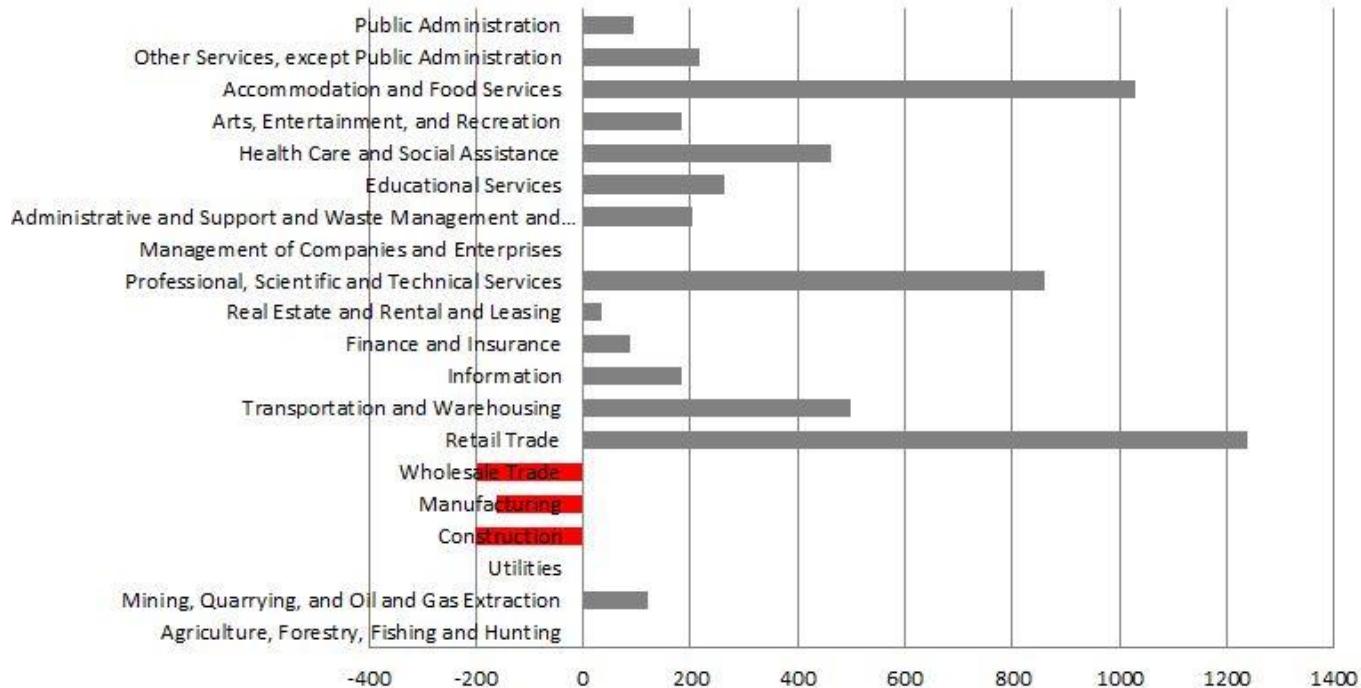
TABLE 12 – INDUSTRY MIX IN CRANBERRY TOWNSHIP

2-DIGIT NAICS INDUSTRY SECTORS	2005 EMPLOYMENT	% OF TOTAL	2010 EMPLOYMENT	% OF TOTAL	2014 EMPLOYMENT	% OF TOTAL
Agriculture, Forestry, Fishing and Hunting	2	0.0%	1	0.0%	0	0%
Mining, Quarrying, and Oil and Gas Extraction	2	0.0%	-	0.0%	122	1%
Utilities	-	0.0%	-	0.0%	0	0%
Construction	676	4.4%	622	3.4%	421	2%
Manufacturing	1,694	11.0%	2,140	11.6%	1,979	8%
Wholesale Trade	1,207	7.9%	1,862	10.1%	1,665	7%
Retail Trade	2,554	16.6%	2,269	12.3%	3,506	15%
Transportation and Warehousing	1,263	8.2%	102	0.6%	601	3%
Information	99	0.6%	652	3.5%	834	4%
Finance and Insurance	388	2.5%	404	2.2%	490	2%
Real Estate and Rental and Leasing	445	2.9%	547	3.0%	581	2%
Professional, Scientific, and Technical Services	1,631	10.6%	4,634	25.2%	5,493	24%
Management of Companies and Enterprises	-	0%	-	0%	-	0%
Administration & Support, Waste Management and Remediation	224	1.5%	137	0.7%	342	1%
Educational Services	178	1.2%	195	1.1%	457	2%
Health Care and Social Assistance	2,281	14.8%	2,063	11.2%	2,524	11%
Arts, Entertainment, and Recreation	78	0.5%	58	0.3%	242	1%
Accommodation and Food Services	1,294	8.4%	1,927	10.5%	2,957	13%
Other Services (excluding Public Administration)	1,190	7.7%	648	3.5%	864	4%
Public Administration	165	1.1%	158	0.9%	251	1%
TOTAL:	15,371		18,419		23,329	

SOURCE: Cranberry Township's Business Data, Delta's Calculations

FIGURE 6 – CRANBERRY TOWNSHIP JOB GROWTH AND LOSS BY INDUSTRY SECTOR – 2010-2014

Job Growth and Loss by Industry Sector 2010 to 2014



JOB EARNINGS

While earnings by industry were not available for geographies smaller than Counties, the U.S. Census Bureau's Local Employment Dynamics tracks wage ranges for smaller geographies based on workforce commuting patterns. Table 13 below shows earnings for workers (1) who live and work in Cranberry Township; (2) who live in Cranberry Township but commute out to work; and (3) live outside Cranberry Township but commute to the Township to work. Township residents commuting outside the Township for employment continue to see the greatest increase in earnings.

TABLE 13 – CRANBERRY TOWNSHIP – WORKFORCE EARNINGS BY RESIDENCY/COMMUTE STATUS (2012)

	LIVE IN/WORK IN CRANBERRY		LIVE IN/COMMUTE OUT		WORK IN/COMMUTE IN	
	2010	2012	2010	2012	2010	2012
WORKERS EARNING \$1,250 PER MONTH OR LESS	37.5%	32.6%	22.3%	20.8%	25.1%	23.2%
WORKERS EARNING \$1,251 TO \$3,333 PER MONTH	26.0%	24.2%	27.0%	24.4%	33.1%	29.1%
WORKERS EARNING MORE THAN \$3,333 PER MONTH	36.5%	43.2%	50.7%	54.8%	41.8%	47.7%

SOURCE: Local Employment Dynamics, U.S. Census Bureau, and Consultant Calculations

LOCATION QUOTIENT

Location quotient is an analysis tool used by economic development practitioners to identify industry sectors that exhibit specialization in the local economy. As its name implies, location quotient is calculated as a ratio that compares an industry's share of employment at the local level to the same industry's share of employment at the regional or state level. According to economic theory, industries that employ a larger share of the local workforce than their regional or statewide counterparts are industries with a strong export-orientation. Industries with a strong export-orientation are considered "basic" to the local economy because they are key drivers of employment. In addition, because "basic" sectors have excess production to serve export markets, these sectors inject new money into the local economy.

To identify Cranberry Township's "basic" sectors, location quotients were calculated by comparing industry sector employment in Cranberry Township to industry sector employment within the state of Pennsylvania. The results indicate that the following industry sectors have a strong "basic" orientation when compared to the state – an indicator that the sectors benefit from locational advantages in Cranberry Township. The Township's leading "basic" sectors, ranked in order of importance, are listed in Table 14 on the next page.

TABLE 14 – CRANBERRY TOWNSHIP’S LEADING INDUSTRIES – 2010 (RANKED BY LOCATION QUOTIENT)

RANK	NAICS SECTOR	EMPLOYMENT	LOCATION QUOTIENT
1	Professional, Scientific, and Technical Services	5,493	4.0
2	Mining	122	2.0
3	Information	834	1.7
4	Wholesale Trade	1,665	1.5
5	Accommodation and Food Service	2,957	1.5

SOURCE: ESRI’s Business Analyst Data & Township Business Data

In 2010, the relocation of Westinghouse’s global headquarters in Cranberry played a large role in growing the Township’s economy. From 2010 to 2014, the Professional, Scientific and Technical Services Sector continued to show growth. If we drill below the 2-digit NAICS level and calculate location quotients at the 4-digit sub-sector level; we can see which subsectors continue to provide the foundation for this industry’s competitive advantage.

The table below notes the one sub-sector that continues to serve as the key driver for this sector’s continued

growth – Scientific Research and Development Services. As compared to proportionate employment at the state level, Scientific Research and Development Services (LQ=9.9) continues to provide a competitive advantage in the Township. Another strong subsector, is the Specialized Design Services (2.2) All other subsectors continue to play a supporting role, but are clearly locally oriented and do not serve an export market. Cranberry Township has an opportunity to diversify this sector through business retention and attraction strategies that target the balance of the industry’s supply chain.

TABLE 15 – PROFILE OF CRANBERRY TOWNSHIP’S PROFESSIONAL SERVICES SECTOR

		EMPLOYMENT	LOCATION QUOTIENT
		CRANBERRY TWP	CRANBERRY TWP VS. PA
PROFESSIONAL, SCIENTIFIC, & TECHNICAL SERVICES		5,493	4.0
SUB-SECTORS			
5411	Legal Services	48	0.1
5412	Accounting, Tax Preparation, Bookkeeping, Payroll Services	47	0.1
5413	Architectural, Engineering, and Related Services	178	0.2
5414	Specialized Design Services	171	2.2
5415	Computer Systems Design and Related Services	197	0.2
5416	Management, Scientific, and Technical Consulting Services	405	0.5
5417	Scientific Research and Development Services	4,347	9.9
5418	Advertising, Public Relations, and Related Services	14	0.1
5419	Other Professional, Scientific, and Technical Services	86	0.2

SOURCE: Cranberry Township & QWI Online, US Census Bureau

TABLE 16 – LOCATION QUOTIENTS BY INDUSTRY SECTOR (2014)

Jobs by Industry Type (2-Digit NAICS)	Employment	LQ
PROFESSIONAL, SCIENTIFIC, AND TECHNICAL SERVICES	5,493	4.0
MINING	122	2.0
INFORMATION	834	1.7
WHOLESALE TRADE	1,665	1.5
ACCOMMODATION AND FOOD SERVICES	2,957	1.5
REAL ESTATE AND RENTAL AND LEASING	581	1.1
RETAIL TRADE	3,506	1.1
MANUFACTURING	1,979	0.9
TRANSPORTATION AND WAREHOUSING	601	0.8
HEALTH CARE AND SOCIAL ASSISTANCE	2,524	0.7
OTHER SERVICES (EXCLUDING PUBLIC ADMINISTRATION)	864	0.6
ARTS, ENTERTAINMENT, AND RECREATION	242	0.6
ADMINISTRATION & SUPPORT, WASTE MANAGEMENT AND REMEDIATION	342	0.6
FINANCE AND INSURANCE	490	0.5
CONSTRUCTION	421	0.4
EDUCATIONAL SERVICES	457	0.2
PUBLIC ADMINISTRATION	251	0.2
AGRICULTURE, FORESTRY, FISHING AND HUNTING	—	0.0
UTILITIES	—	0.0
MANAGEMENT OF COMPANIES AND ENTERPRISES	—	0.0

SOURCE: Cranberry Township, ESRI's Business Analyst Data, and Consultant Calculations

SHIFT SHARE ANALYSIS

The location quotient technique is useful in establishing which local industries are key drivers of the local economy, while shift-share analysis begins to uncover the factors that influence an industry's growth trend. Shift-share analysis compares employment trends in the Township to employment changes in the state to attribute employment growth and/or decline in a given industry sector to three (3) components of growth: state share, industry mix share, and local share. The analysis quantifies the "share" of employment change that can be attributed to each component.

- 1. STATE SHARE** – State share represents the number of jobs that would have been created (or lost) in the Township had the local economy mirrored statewide trends.
- 2. INDUSTRY MIX SHARE** – Industry mix share represents the number of jobs that would have been created (or lost) in the Township had the local economy changed at the rate of the regional economy and had individual industry employment mirrored regional trends.
- 3. LOCAL SHARE** – Local share represents the number of jobs the Township may have gained because local industry sectors outpaced their regional counterparts in terms of job creation. Local share also estimates the number of jobs the Township may have lost because local industry sectors could not keep pace with regional job growth. In shift-share analysis, industries are considered to have local competitive advantage if their rate of job growth outpaces regional employment growth in the same industry sector. Industries that have a strong local competitive advantage - and are deemed "key drivers" of economic growth based on their location quotient – should be central to a community's economic development strategy.

The results of the shift-share analysis for Cranberry Township are featured below. A positive number under "local competitive advantage" indicates that local industry growth outpaced industry growth at the regional level – a sign of competitive advantage. A negative number indicates that local conditions may not support continued job growth because the local industry did not keep pace with regional industry growth.

TABLE 17 – CRANBERRY TOWNSHIP SHIFT SHARE ANALYSIS

INDUSTRY	ACTUAL EMPLOYMENT CHANGE 2010- 2014-	EXPECTED CHANGE (IF CHANGE HAD MIRRORED THE STATEWIDE ECONOMY)	LOCAL SHARE (ATTRIBUTED TO LOCAL COMPETITIVE ADVANTAGE/ (DISADVANTAGE)
AGRICULTURE, FORESTRY, FISHING AND HUNTING	(1)	0	(1)
MINING	122	0	0
CONSTRUCTION	(201)	114	(401)
MANUFACTURING	(161)	392	(58)
WHOLESALE TRADE	(197)	341	(297)
RETAIL TRADE	1,237	415	651
TRANSPORTATION AND WAREHOUSING	499	19	484
INFORMATION	182	119	148
FINANCE AND INSURANCE	86	74	43
REAL ESTATE AND RENTAL AND LEASING	34	100	(89)
PROFESSIONAL, SCIENTIFIC, AND TECHNICAL SERVICES	859	848	174
ADMINISTRATION & SUPPORT, WASTE MANAGEMENT AND REMEDIATION	205	25	187
EDUCATIONAL SERVICES	262	36	204
HEALTH CARE AND SOCIAL ASSISTANCE	461	378	(63)
ARTS, ENTERTAINMENT, AND RECREATION	184	11	167
ACCOMMODATION AND FOOD SERVICES	1,030	353	547
OTHER SERVICES (EXCLUDING PUBLIC ADMINISTRATION)	216	119	116
PUBLIC ADMINISTRATION	93	29	66
TOTAL:	4,910	3,372	1,877

SOURCE: Cranberry Township Business Data, ESRI's Business Analyst Data, and Consultant Calculations

The results of the shift-share analysis show that of the 4,910 new jobs created in Cranberry Township between 2010 and 2014, an estimated 68% (or 3,372) can be attributed to growth in the statewide economy, with the remaining growth attributed to attractiveness factors specific to Cranberry Township.

Over this 4-year period, the statewide economy posted 18% percent employment growth. In contrast, the Township posted a 26.7% growth in employment over the same period - far outpacing the statewide trend. Sectors that recorded growth largely due to local attractiveness factors include the Accommodation and Food Services Sector (53%), Administration and Support (91%), Arts & Entertainment (91%), and the Retail Trade (53%). Employment in the mining sector grew in Cranberry Township presumably due to the increasing presence of energy companies in Cranberry Township and the region.

THE RETAIL MARKET

To assess the retail market potential in Cranberry Township, we utilized five study areas:

- Cranberry Township – was used as the base geography for measuring local retail sales.
- 5-Mile, 10-Mile, and 15-Mile Radii – represents the capture range identified by the International Council of Shopping Centers for regional retail centers.
- Cranberry Draw Area – the most likely draw area for Cranberry Township as spatially calculated using a gravity model that measures the likelihood that residents in surrounding areas will drive to Cranberry to shop based on the distance they have to travel and the concentration of retail options in the Township as compared to retail options in surrounding areas.

In 2014, there were approximately 206 retail establishments in Cranberry Township with annual sales estimated to be over \$848 million. In addition, there were 70 restaurants in the Township with annual sales estimated at over \$58 million. Table 19 provides a snapshot of the distribution of those sales. Table 20 provides a snapshot of the spending power of residents in the Cranberry Draw Area, as well as the 5-10-15 minute drive time areas. Table 21 provides a detailed overview of the estimated surplus and leakage of retail spending for each of the above study areas comparing retail sales to spending in each area.

FIGURE 7 – THE RETAIL STUDY AREAS

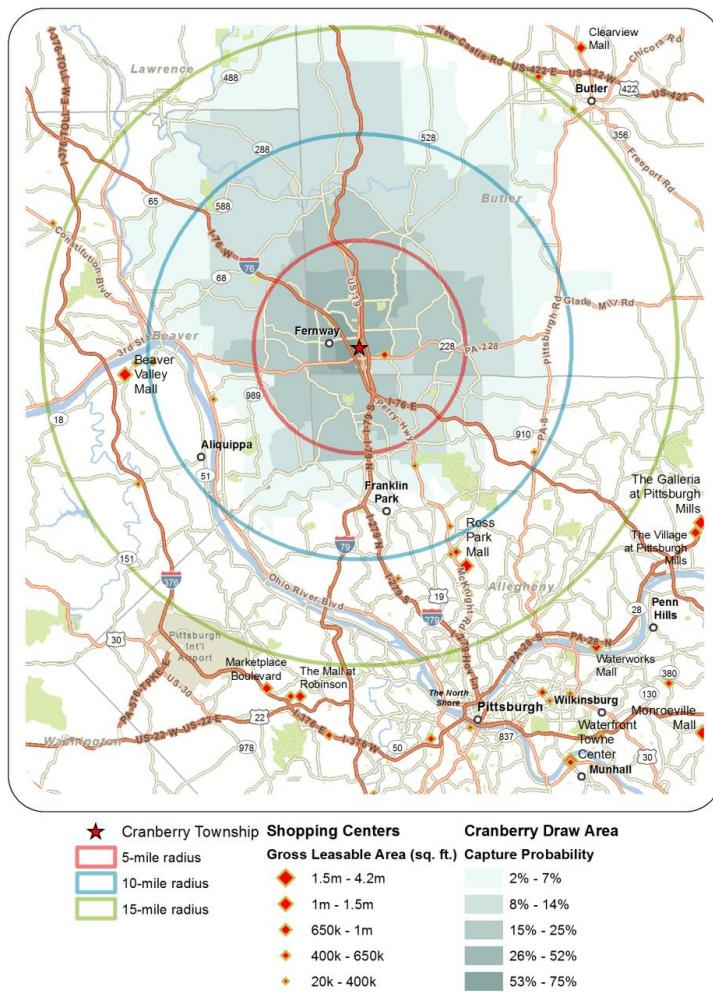


TABLE 18 – CRANBERRY TOWNSHIP RETAIL MIX (2013)

RETAIL SECTOR	NUMBER OF ESTABLISHMENTS	ESTIMATED ANNUAL SALES
BUILDING MATERIAL AND SUPPLIES DEALERS	11	\$42,485,622
AUTOMOBILE DEALERS	5	\$26,619,999
GROCERY STORES	16	\$47,372,735*
ELECTRONICS AND APPLIANCE STORES	14	\$78,533,412
DEPARTMENT STORES	6	\$220,556,158
CLOTHING STORES	20	\$24,587,361
SPORTING GOODS, HOBBY, AND MUSICAL INSTRUMENT STORES	14	\$33,023,406
GASOLINE STATIONS	4	\$18,022,725
HEALTH AND PERSONAL CARE STORES	21	\$42,546,533
OTHER MISCELLANEOUS STORE RETAILERS	27	\$59,923,617
AUTOMOTIVE PARTS, ACCESSORIES, AND TIRE STORES	5	\$27,584,353
HOME FURNISHINGS STORES	9	\$11,716,932
LAWN AND GARDEN EQUIPMENT AND SUPPLIES STORES	2	\$270,000
OFFICE SUPPLIES, STATIONERY, AND GIFT STORES	10	\$35,113,299
FURNITURE STORES	5	\$5,216,171
SPECIALTY FOOD STORES	9	\$13,910,495
BOOK, PERIODICAL, AND MUSIC STORES	4	\$9,556,987
JEWELRY, LUGGAGE, AND LEATHER GOODS STORES	3	\$475,000
SHOE STORES	4	\$2,492,033
VENDING MACHINE OPERATORS	2	\$1,255,000
OTHER GENERAL MERCHANDISE STORES	2	\$144,554,885
OTHER MOTOR VEHICLE DEALERS	1	\$140,000
FLORISTS	2	\$209,000
BEER, WINE, AND LIQUOR STORES	1	\$1,500,000
DIRECT SELLING ESTABLISHMENTS	8	\$1,904,836
ELECTRONIC SHOPPING AND MAIL-ORDER HOUSES	1	\$5,217,710
USED MERCHANDISE STORES	2	\$110,000
TOTAL:	206	\$848,180,559
* INCLUDES CONVENIENCE STORES		

SOURCE: ESRI's Business Analyst

TABLE 19 – CONSUMER SPENDING BY RESIDENTS IN CRANBERRY TOWNSHIP'S 5-10-15 MILE RADIUS

	RETAIL GOODS AND SERVICES EXPENDITURE							
	CRANBERRY DRAW AREA		5 MILE RADIUS		10 MILE RADIUS		15 MILE RADIUS	
	SPI	TOTAL SPENDING	SPI	TOTAL SPENDING	SPI	TOTAL SPENDING	SPI	TOTAL SPENDING
APPAREL & SERVICES	146	\$125,738,776	164	\$92,393,872	132	\$241,915,951	113	\$545,309,692
COMPUTER	149	\$11,975,000	168	\$8,827,421	132	\$27,597,970	115	\$51,517,732
ENTERTAINMENT & RECREATION	152	\$187,148,885	170	\$136,505,462	138	\$360,364,553	118	\$810,526,415
FOOD AT HOME	143	\$278,665,888	158	\$200,516,667	132	\$545,916,611	115	\$1,247,397,830
FOOD AWAY FROM HOME	148	\$180,466,152	166	\$132,146,559	134	\$346,625,597	115	\$781,944,033
ALCOHOLIC BEVERAGES	147	\$30,464,034	166	\$22,342,495	133	\$58,320,395	114	\$131,922,914
NONALCOHOLIC BEVERAGE AT HOME	141	\$26,154,415	154	\$18,703,597	131	\$51,661,092	115	\$118,700,171
FINANCIAL	145	\$380,039,370	166	\$281,410,291	130	\$726,721,598	110	\$1,626,734,702
HEALTH	150	\$39,968,150	165	\$28,226,404	140	\$79,113,995	121	\$181,621,924
HOME	162	\$985,638,536	180	\$724,417,366	146	\$1,869,458,067	123	\$4,149,277,774
HOUSEHOLD FURNISHINGS AND EQUIPMENT	154	\$61,576,719.00	171	\$45,099,101	139	\$118,315,070	118	\$265,854,600
HOUSEHOLD OPERATIONS	149	\$94,894,342.00	168	\$69,396,431	134	\$182,027,754	115	\$408,461,900
INSURANCE	148	\$301,475,375	164	\$237,700,979	137	\$649,241,337	118	\$1,479,523,561
TRANSPORTATION	147	\$472,201,090	162	\$340,425,738	135	\$924,102,312	117	\$2,103,514,213
TRAVEL	163	\$85,916,883	187	\$16,021,438	143	\$160,793,806	120	\$354,640,972

SOURCE: ESRI Business Analyst, ESRI Forecasts for 2015 and 2020; Consumer Spending data derived from the 2011 and 2012 Consumer Expenditure Surveys, Bureau of Labor Statistics

SPENDING CATEGORY	ESTIMATED ANNUAL SALES
RETAIL GOODS	\$848,180,559
FOOD AWAY FROM HOME	\$58,876,339
TOTAL:	\$907,056,898

TABLE 20 – CRANBERRY TOWNSHIP RETAIL POTENTIAL

	ESTIMATED SQUARE FEET SUPPORTED BY LEAKAGE					
	TOTAL SPENDING	CURRENT MARKET CAPTURE RATE	SURPLUS/(LEAKAGE)	@ 100% LEAKAGE CAPTURE	@ 75% LEAKAGE CAPTURE	@ 50% LEAKAGE CAPTURE
RETAIL GOODS						
CRANBERRY DRAW AREA	\$1,519,098,454	56%	(\$669,917,895)	1,735,539	1,301,654	867,769
5-MILE RADIUS	\$1,112,569,114	76%	(\$263,388,555)	682,353	511,764	341,176
10-MILE RADIUS	\$2,899,446,600	29%	(\$2,050,266,041)	5,311,570	3,983,677	2,655,785
15-MILE RADIUS	\$6,545,159,241	13%	(\$5,695,978,682)	14,756,421	11,067,315	7,378,210
FOOD & DRINK						
CRANBERRY DRAW AREA	\$169,959,134	35%	(\$111,082,795)	287,779	215,834	143,889
5-MILE RADIUS	\$127,755,075	46%	(\$68,878,736)	178,442	133,831	89,221
10-MILE RADIUS	\$321,361,444	18%	(\$262,485,105)	680,013	510,009	340,006
15-MILE RADIUS	\$716,164,956	8%	(\$657,288,617)	1,702,820	1,277,115	851,410

SOURCE: ESRI Business Analyst and Consultant Calculations

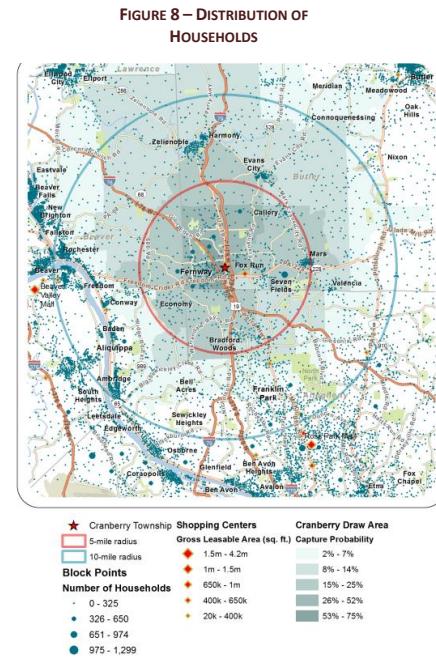
The spending power of consumers in the Cranberry Draw Area over 46% higher than the national average, and they spend over \$1.5 billion for retail goods each year.

Cranberry Township retail establishments currently capture around 56% of consumer spending within the Cranberry Draw Area, and about 29% of consumer spending within a 10-mile radius of the Township. Assuming that the Cranberry Draw Area is the primary market area for the Township, the Township could potentially support an additional 867,769 square feet of retail space if it captured 50% of the current estimated leakage. Given the same assumptions, the Township could potentially support an additional 143,889 feet of restaurant space.

While there is an estimated leakage of \$2 billion in consumer spending within a 10-mile radius of Cranberry Township, a significant portion of the leakage is likely attributed to consumers in the southern portion of the radius, as illustrated in Figure 8. The proximity of these consumers to retail amenities in the northern portion of the Pittsburgh metropolitan area means stiff competition for retail establishments in Cranberry Township.

The sales estimates in Table 19 reflect all sales by local establishments; however, the surplus/leakage estimates assume include household spending only and are not reflective of the spending of the 21,136 workers who commute to Cranberry Township to work each day. To put this in perspective, if half of those workers spend \$30 per week in Cranberry Township, that spending could support as much as 53,641 square feet of additional space.

It should be noted that the estimates of retail potential are based solely on statistical calculations and do not take into consideration other variable factors such as the age and curb appeal of competitive retail centers, the curb appeal of new development, changes in the economy and spending, and marketing, etc.



THE COMMERCIAL MARKET

The commercial real estate market includes offices, retail centers, hotels, and other properties used for business purposes. As stated in the previous 2012 Market Analysis Update, the 2008 downtown impacted the commercial real estate market forcing many businesses to downsize and close their doors. New construction was sluggish due to the lending restrictions imposed by federal regulators.

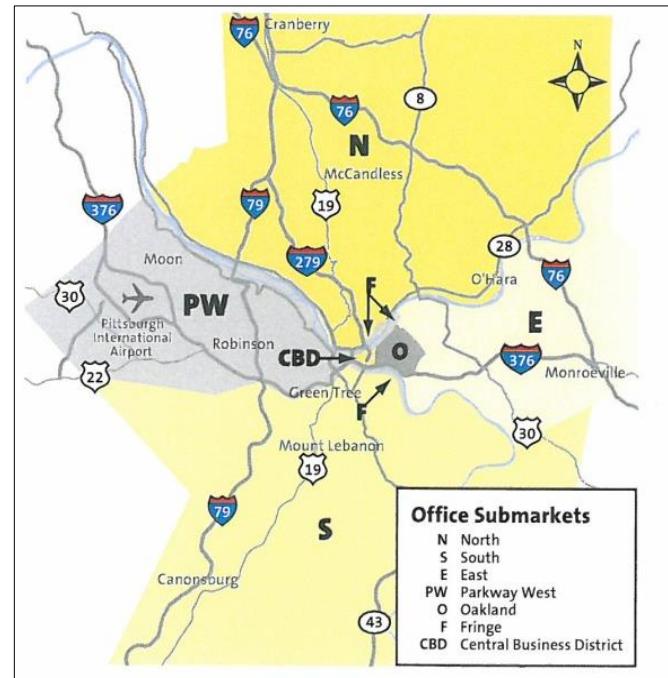
As of 2012, the commercial real estate market had begun to stabilize due to the limited supply, and growth in the economy. One indicator of the health of the commercial real estate market is the real estate index published by The Society of Industrial and Office Realtors (SIOR). The index is based on a survey of SIOR members, which are asked to characterize the strength or weakness of property markets across ten (10) major categories, including recent leasing activity, trends in asking rents, trends in vacancy rates, concession packages, site acquisition activity, and development activity. An SIOR index value of 100 represents a well-balanced market for industrial and office property. An index value significantly lower than 100 indicates weak market conditions.

During the 1st Quarter of 2015, the SIOR Commercial Real Estate Index (CREI) was essentially flat achieving a .5 point gain over the previous quarter. The index however, has been above 100 for the previous four consecutive quarters, indicating that market conditions are improving. The office and industrial markets echoed the recess in the nation's economic momentum during the 1st Quarter of 2015. Office markets declined 4.2 points due to employers' emphasis on increasing space-utilization efficiencies resulting in an increased availability of space. On the other hand, the industrial index gained 3.7 points to a value of 123.7. The increase demand for industrial space is a result of the international trade and on-line shopping which is diverting space from retail centers to warehouses. The industrial index has hovered over the 100-point value for the past 18 months indicating the strong demand for industrial space.

By the 2nd Quarter of 2015, the index rose 1.8 point moving from 116.8 to 118.6; the highest CREI value since the 2nd Quarter of 2007. The office index rose to a value of 106.7.

The commercial real estate advisory firm Newmark Grubb Knight Frank reports that the Pittsburgh Region was one of the 10 cities with the highest percentage of new jobs in occupations that pay a living-wage. This information was obtained from a study completed by CareerBuilder.com. Within the Pittsburgh Region, office vacancies increased from 15.4% in the 1st Quarter of 2015 to 16% in the 2nd Quarter of 2015. The North submarket was slightly lower at 11.5%. In the 2nd Quarter of 2015, Cranberry Township reported a 3.7 % unemployment rate, compared to 5.5% in Pennsylvania, and 5.3% nationwide. The prominence of three (3) primary sectors – health care, education, and energy – continue to stabilize metropolitan Pittsburgh's labor market and fuel demand for Class A office space.

FIGURE 9 – OFFICE SUBMARKETS



SOURCE: Grubb & Ellis

In 2011, asking rents for Class A office space in the North Suburbs, a suburban submarket of Pittsburgh that includes Cranberry Township were \$22.60 per square foot. By the end of the 2nd Quarter of 2015, asking rents have increased to \$25.42. During this same time period, the asking rents for Class B commercial office space, increased from \$18.34 per square foot to \$19.92 per square foot. In comparison, asking rents for Class A office space within Pittsburgh's CBD increased from \$25.90 (2011) to \$28.46 (2015) keeping the CBD asking rents at some of the highest in the Pittsburgh market. Asking rents in the North Suburbs continue to be competitively priced for the region.

TABLE 21 - TRENDS FOR PITTSBURGH OFFICE MARKET – 2ND QUARTER 2015

TRENDS FOR PITTSBURGH OFFICE MARKET 2 ND QUARTER 2015					
SUBMARKETS	TOTAL INVENTORY SF	VACANT %	NET ABSORPTION YTD	ASKING RENT (PRICE/SF)	
				CLASS A	CLASS B
CBD	20,593,489	14.1%	-87,383	\$28.46	\$21.49
Fringe	6,359,416	19.2%	-39,944	\$24.83	\$21.62
CBD/FRINGE TOTAL:	26,952,905	15.3%	-205,868	\$28.11	\$21.55
East	3,398,818	32.6%	-11,292	\$22.53	\$17.78
North	7,119,626	11.5%	-85,453	\$25.42	\$19.92
Oakland/East End	2,153,689	4.7%	24,933	\$28.12	\$19.45
Parkway West	8,149,281	20.9%	-150,421	\$22.53	\$18.92
South	5,162,772	12.2%	200,879	\$23.23	\$18.80
SUBURBAN TOTAL:	\$25,984,186	16.8%	-57,431	\$23.29	\$18.71
PITTSBURGH	\$52,937,091	16.0%	-263,299	\$24.67	\$20.37

SOURCE: Pittsburgh 2Q15 Office Market – Newmark Grubb Knight Frank Research

While lease rates speak indirectly to the balance between supply & demand, net absorption provides a more informative snapshot of health within any real estate market. Fundamentally, net absorption measures the change in occupied square footage over a period of time. Net absorption can be either positive or negative, depending upon the pace of leasing activity and new construction. Positive net absorption occurs when space has been taken off the market (i.e. through new leases and lease renewals) at a faster pace than square footage has been added to the market through new construction or lease terminations. In this scenario, demand exceeds supply, which pushes vacancy rates down and asking rents up. In contrast, negative net absorption occurs when more square footage has been added to the market than is absorbed through leasing activity. In this scenario, supply exceeds demand, which pushes vacancy rates up and places downward pressure on asking rents.

The Newmark Grubb Knight Frank Office Trends Report referenced for this market assessment update calculates net absorption based on physical occupancies and vacancies – i.e. when a tenant moves in or out of a given space. Given the lag time that can exist between leasing transactions and physical occupancy/vacancy, net absorption for the 2nd quarter (as reflected in the above table) may speak more to market demand in the previous two quarters. The table shows year to date (YTD) net absorption for the Pittsburgh CBD and suburbs. During the 2nd Quarter of 2015, the CBD's net absorption was a negative 87,383 square feet, which indicates a period of sluggish leasing

activity. During this same quarter, the suburban market as a whole was also sluggish, with the exception of the South submarket. Included in this South submarket is Southpointe which experienced the largest new lease commitment with Rice Energy taking all of Zenith Ridge III. The 150,000 square foot buildings will provide Rice Energy with the opportunity to consolidate its current Southpointe locations, and enable the energy company to continue to grow.

The North Suburbs, which includes Cranberry Township, had a negative YTD net absorption of 85,453 with a vacancy rate of 11.5%. This 11.5% vacancy rate is still lower than the region with a 16% vacancy rate. According to the trends report, Class B space in the suburban marketplace was responsible for an increase in vacancy rates. The addition of new office space gave tenants the opportunity to move into new space. The asking rents for Class A office space continues to increase. At the end of 2011, the asking rents for Class A office space in the North submarket were \$ 22.60; as of the 2nd Quarter of 2015 the asking rents have increased to \$25.42. According to a property query conducted on LoopNet, asking rents for the newer Class A buildings exceed the regional average; these include the following:

- Cranberry Woods – \$25 per square foot
- Rowan Corporate – \$22 to \$25 per square foot
- Cloverleaf Commons – \$26 per square foot

The following bar charts show the 5-year trend for building permit activity and construction value in Cranberry Township. More than \$156 million in construction activity took place in 2012 – representing the strongest construction year of this 5-year period. More than half of this value was represented by commercial development, a trend that is consistent with development activity in other years.

FIGURE 10 – 5-YEAR TRENDS IN CONSTRUCTION VALUE IN CRANBERRY TOWNSHIP

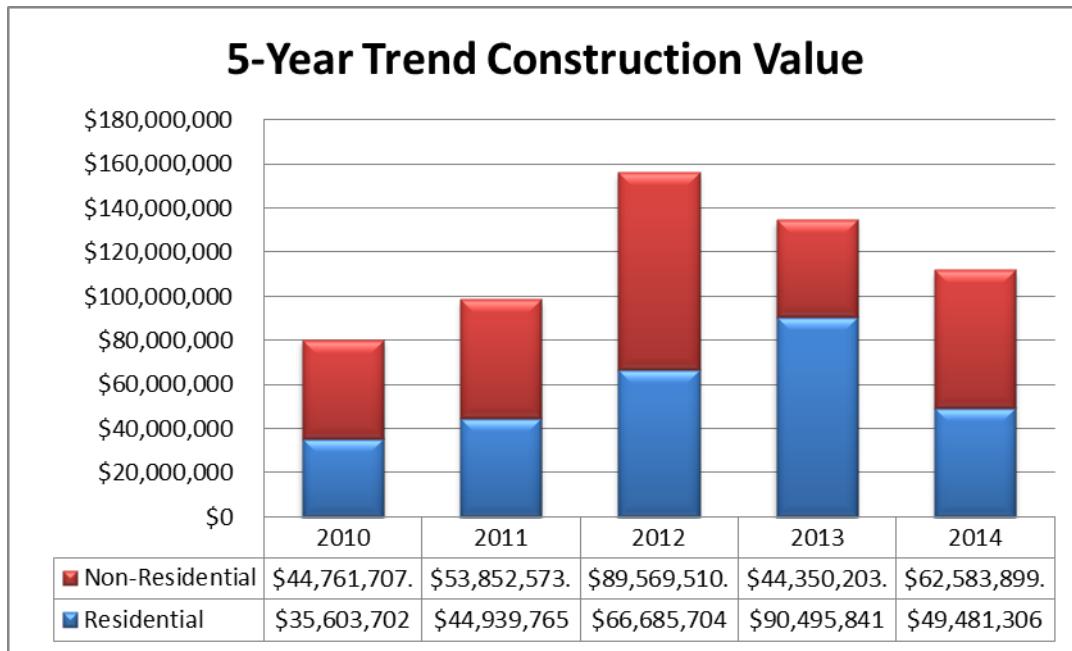
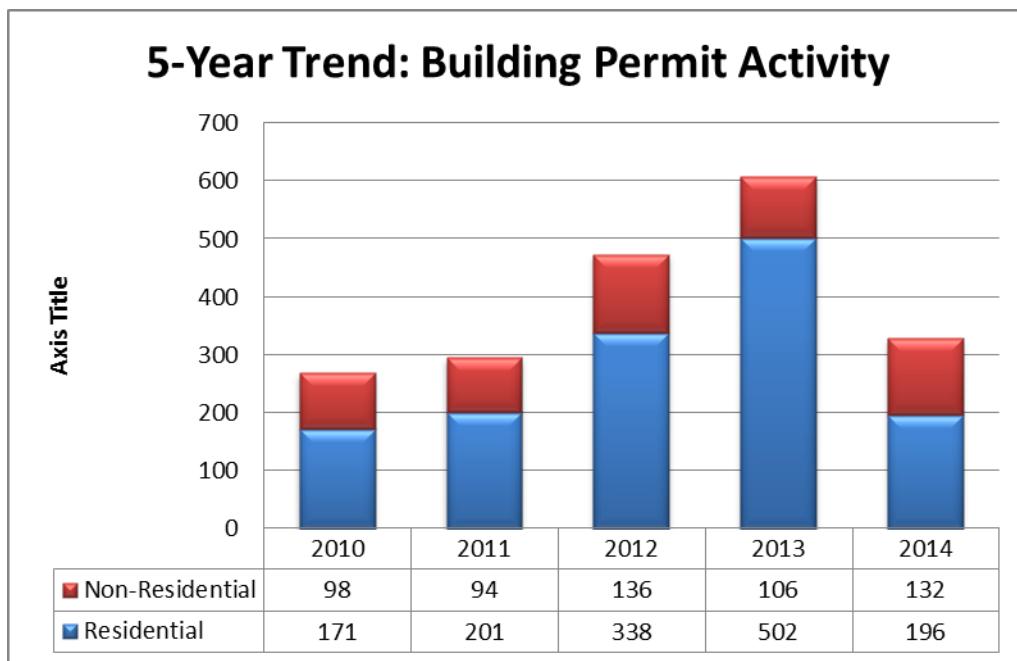


FIGURE 11 – 5-YEAR TREND IN BUILDING PERMIT ACTIVITY IN CRANBERRY TOWNSHIP



Since 2011, over 1,597,440 square feet of new non-residential space was constructed within the Township; with almost 40% of this new space dedicated towards commercial office. The hotel industry also expanded its footprint in the Township. From 2011 to 2014, over 258,000 square feet of new hotel space was added, with additional development approved by the Township in 2015. Retail followed closely behind the hotel industry, adding 252,000 square feet. Cranberry's location, with its proximity to major transportation corridors, will continue to serve as the key driver in attracting new commercial and residential development.

TABLE 22 – NON-RESIDENTIAL ABSORPTION TRENDS IN CRANBERRY TOWNSHIP

TYPE OF SPACE	2007	2008	2009	2010	2011	2012	2013	2014	2015	TOTALS
HOTEL					45,201	162,683		50,990		258,874
INDUSTRIAL			11,200			13,940				25,140
OFFICE	67,354	137,224	470,803	613,601	145,408	122,087	74,636	122,733	140,503	1,894,349
RETAIL	14,391	20,512	21,811	5,904	73,997	142,559	17,112	12,113	7,068	315,467
RESTAURANT	1,452	14,998	6,261	9,658	8,565	2,700	6,597	3,797	1,158	55,186
RECREATION		4,026	3,802	2,400	31,572	4,310	416		108,082	154,608
WAREHOUSE/STORAGE	7,200									7,200
INSTITUTION		74,578	14,000	12,881	2,228	60,873	58,907	177,205		400,672
TOTAL:	90,397	251,338	527,877	644,444	306,971	509,152	157,668	366,838	256,811	3,111,496

SOURCE: Cranberry Township Building Permits

In 2015, the following land development plans received approval by the Township. These projects, when complete, will add over 92,000 square feet of industrial/warehouse space; 63,000 square feet of mixed use development; 581 new hotel rooms; 29,000 square feet of institutional space, and over 5,000 square feet of new entertainment/recreation space.

Industrial/Warehouse Development

- Burns Industrial – 60,572 square foot heavy equipment sales and service facility. Location: 210 Thorn Hill Road
- A and H Equipment – 2 phase development, will add 27,425 square feet with proposed use of heavy equipment sales, rental and service
- AIST Addition – 4,950 square foot addition to existing office/warehouse building. Location: 186 Thorn Hill Road

Retail/Restaurant Development

- Lot1A Knockout – retail, office and drive-thru facility

Mixed Use Development

- Village of Cranberry Woods, (Phase 2) – 63,363 square foot Community Character Development and Large Land Development. Proposed uses include drive-thru restaurant, restaurant, office, large retail, 361 room hotel, and 300 residential units. Location: Longtree Way and Cranberry Woods

Hotel Development

- Cranberry Springs, (Phase 1-C-1) – 59,047 square foot, 96 room hotel. Location: 2020 Coolsprings Drive
- Woodspring Suites – 45,052 square foot, 124 room hotel. Location: 102 Wisconsin Avenue

Institution

- St. Killian Parish – 29,255 square foot religious establishment with 5,217 square foot maintenance building. Location: 7088 Franklin Road

Recreation/Entertainment

- Fun Fore All – 1.6 acre addition onto existing facility
- Club Leaf and Bean – 4,096 square foot nightclub

REGIONAL ECONOMIC OPPORTUNITIES

While Cranberry Township's economy has experienced strong growth over the past decade, two significant regional developments offer potential opportunity for even more growth in Cranberry Township. The following section provides an overview of potential opportunities associated with the growth of the Marcellus Shale industry in Pennsylvania, and the region; the development of an ethane cracker in Beaver County.

GROWTH OF THE MARCELLUS SHALE INDUSTRY IN THE REGION

HISTORY OF MARCELLUS SHALE DRILLING

The natural gas industry in Pennsylvania first began around 2005 when the energy industry converged on the Marcellus Shale formation. Since 2005, there have been 12,964 unconventional wells drilled within the Marcellus, Utica and Upper Devonian Shale area. Activity within western Pennsylvania has intensified since 2012-13.

According to the Marcellus Center for Outreach and Research (MCOR), “natural gas is known as being dry or wet, with dry gas being more thermally mature and consisting primarily of methane, whereas wet gas is less thermally mature and may contain ‘natural gas liquids’ including ethane, butane, propane, and pentane. These natural gas liquids need to be separated from the methane to ensure the natural gas sent to consumers has a consistent BTU content. Wet gas is currently considered to be more valuable in the marketplace as the natural gas liquids have inherent value as a commodity.” As natural gas prices dropped in 2012, natural gas companies shifted drilling activity from areas with dry gas to areas with wet gas to maximize value from the natural gas liquids. In the Marcellus Shale, the natural gas varies from wet in the western portion of the state and to dry in the northeast as shown on the map to the right.

Figure 14 depicts the activity within the Marcellus Shale gas industry from the 2nd Quarter of 2010 to the 2nd Quarter of 2014. Production has steadily increased from 2010 to 2014. Pennsylvania consumption was highest during the first six months of 2014.

FIGURE 12 – UNCONVENTIONAL WELLS DRILLED

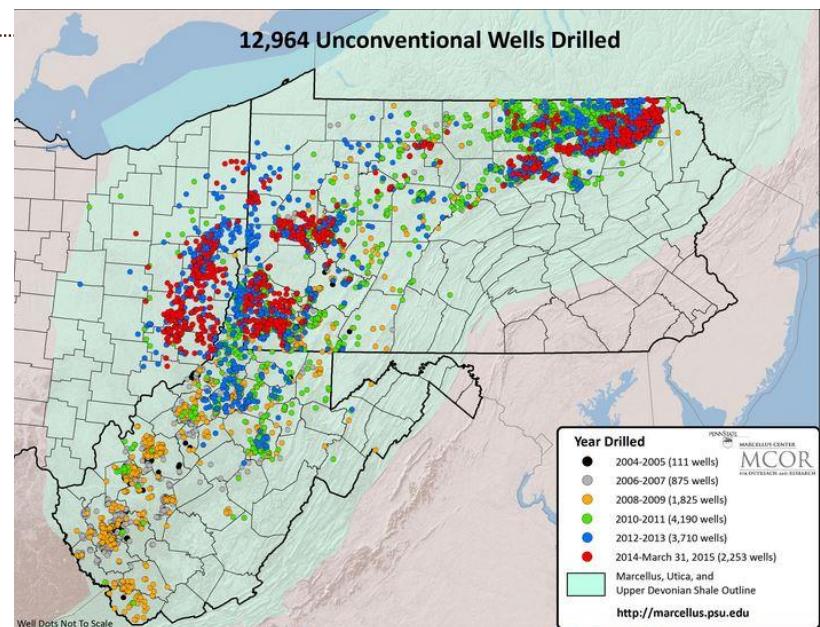


FIGURE 13 – DEPTH OF MARCELLUS

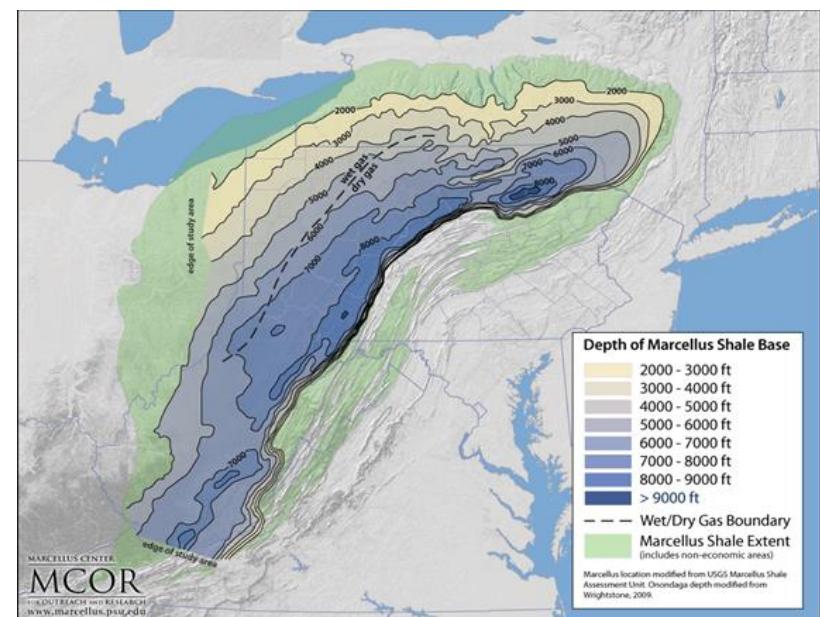
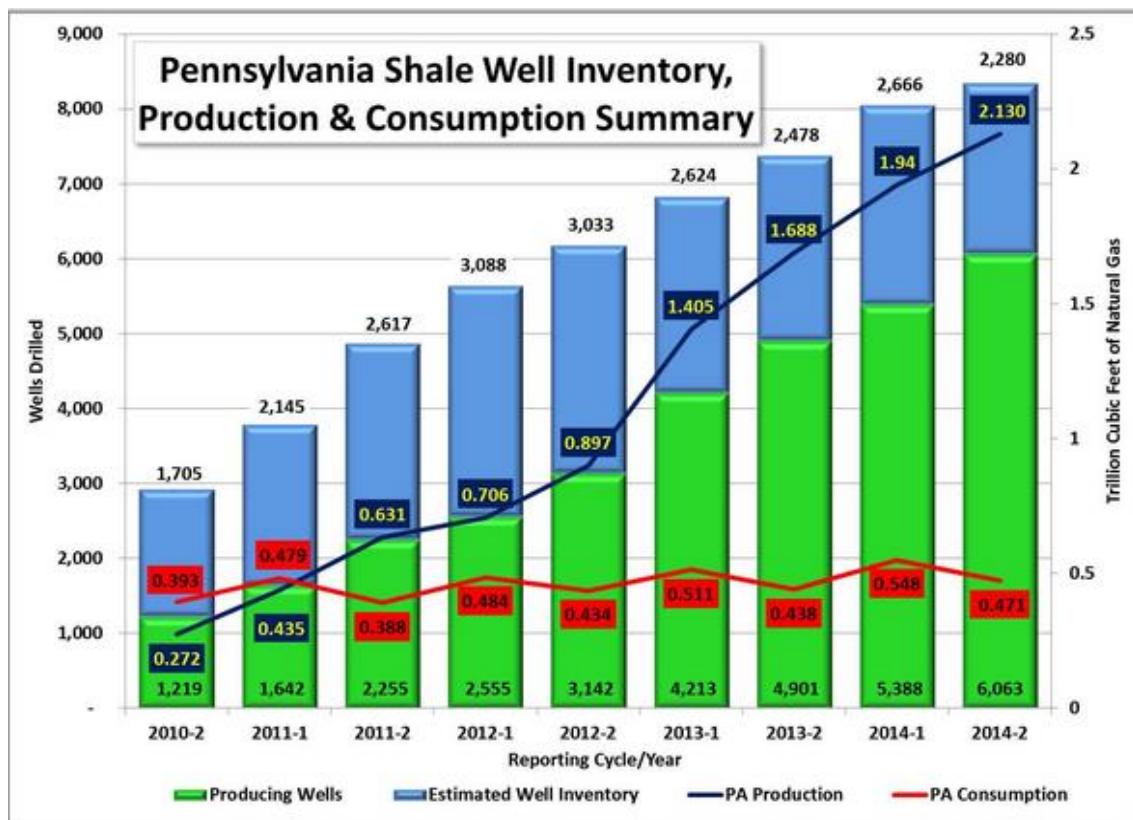


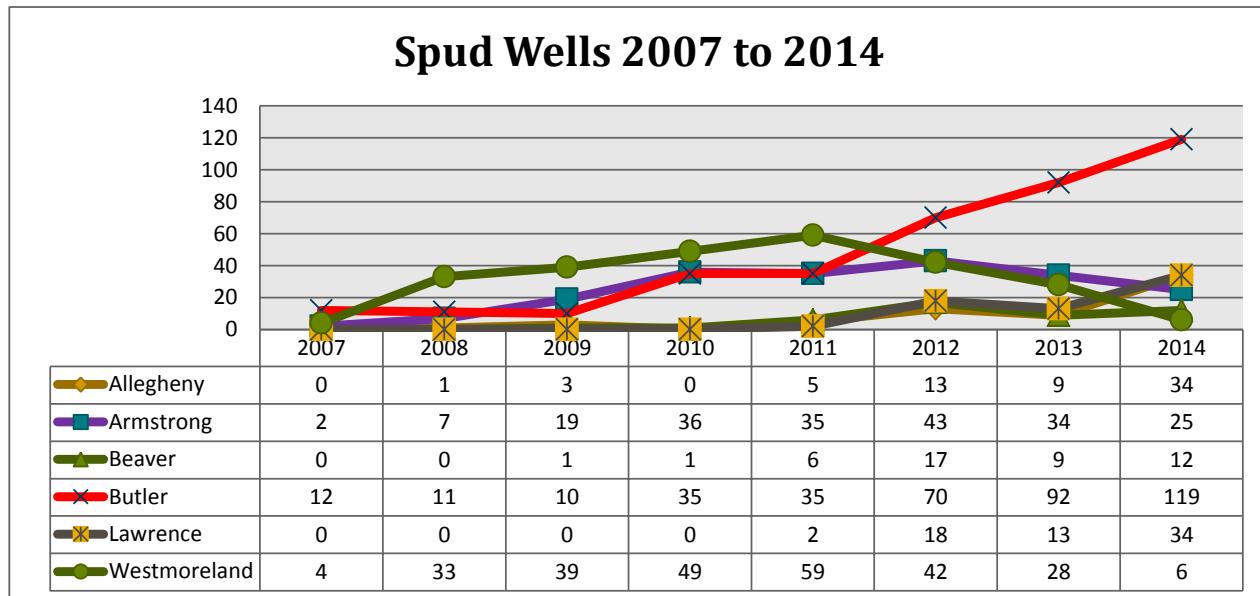
FIGURE 14 – MARCELLUS SHALE, PRODUCTION, & CONSUMPTION SUMMARY



DRILLING IN THE NORTHERN PITTSBURGH REGION

Figure 15 highlights the Spud Wells in the six county region surrounding Butler County (northern Pittsburgh Region) from 2007 to 2014. Drilling activity in Butler County has been steadily increasing from 2007. A total of 384 wells have been drilled in Butler County from 2007 to 2014.

FIGURE 15 – MARCELLUS SHALE, SPUD WELLS 2007 TO 2014



NATURAL GAS WORKERS IN BUTLER COUNTY

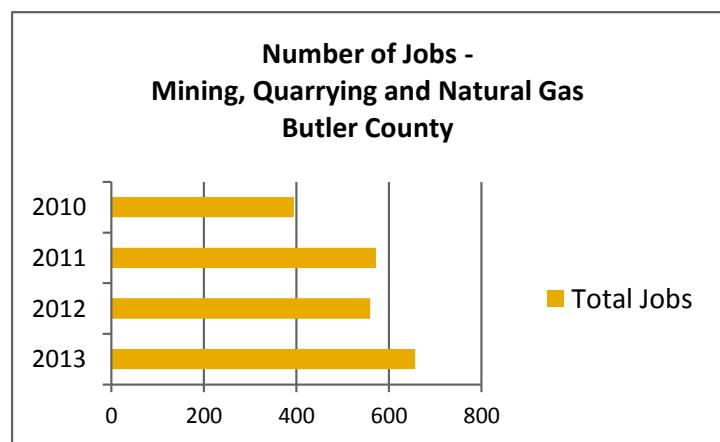
According to Local Employment Dynamics, the number of jobs in Mining, Quarrying and Natural Gas Sector increased from 395 jobs in 2010 to over 650 jobs in 2013. This correlates with the increase in drilling activity noted in Figure 16. This statistic portrays only part of the story. Since employment data is tracked by the physical location of the employer, the data doesn't necessarily indicate where

a company's employees are working. For instance, a drilling company could be located in a neighboring county, or even out of state, and its employees would be counted in the employment statistics for that county and/or state. However, the company's drilling crew could actually be deployed in Butler County.

While there is no single statistical data source to capture the number of workers physically working in the County, the number can be estimated using workforce statistics for the industry. According to a workforce model developed by the Marcellus Shale Education and Training Center (MSETC Model) in Williamsport, Pennsylvania, between 9.46 and 12.9 workers

(average 11.18 workers) are required to prepare and drill a natural gas well, depending upon whether a single well is being drilled, or if multiple wells are being drilled at a single pad site. This estimate includes workers for drilling and for pipeline construction. These workers move with drilling rigs, and unless their employer is physically located in the County, they are not counted in the County's employment. In addition to the workers who move with the drilling rigs, each well drilled will require 0.39 permanent workers for production and processing throughout the production period. Using the MSETC Model estimates, at an average efficiency of 11.18 workers per well, 1,330 workers would have been required to drill the 119 wells in 2014.

FIGURE 16



PROPOSED CRACKER FACILITY – BEAVER COUNTY

Shell Oil Co., a division of the Dutch petrochemical giant (Royal Dutch Shell), recently purchased the former site the former Horsehead zinc smelter in Potter Township. The facility has been vacant since 2011. Shell has also purchased an additional 12 parcels in the area, investing over \$50 million in land acquisition.

The proposed use for the site is an ethane cracker which would turn Marcellus Shale natural gas liquids into polyethylene pellets for use in the plastic industry. Currently, the liquid must be transported to plants located near the Gulf of Mexico for processing. Shell intends to feed the plant with ethane by pipeline, and then transport the product out on rail lines.

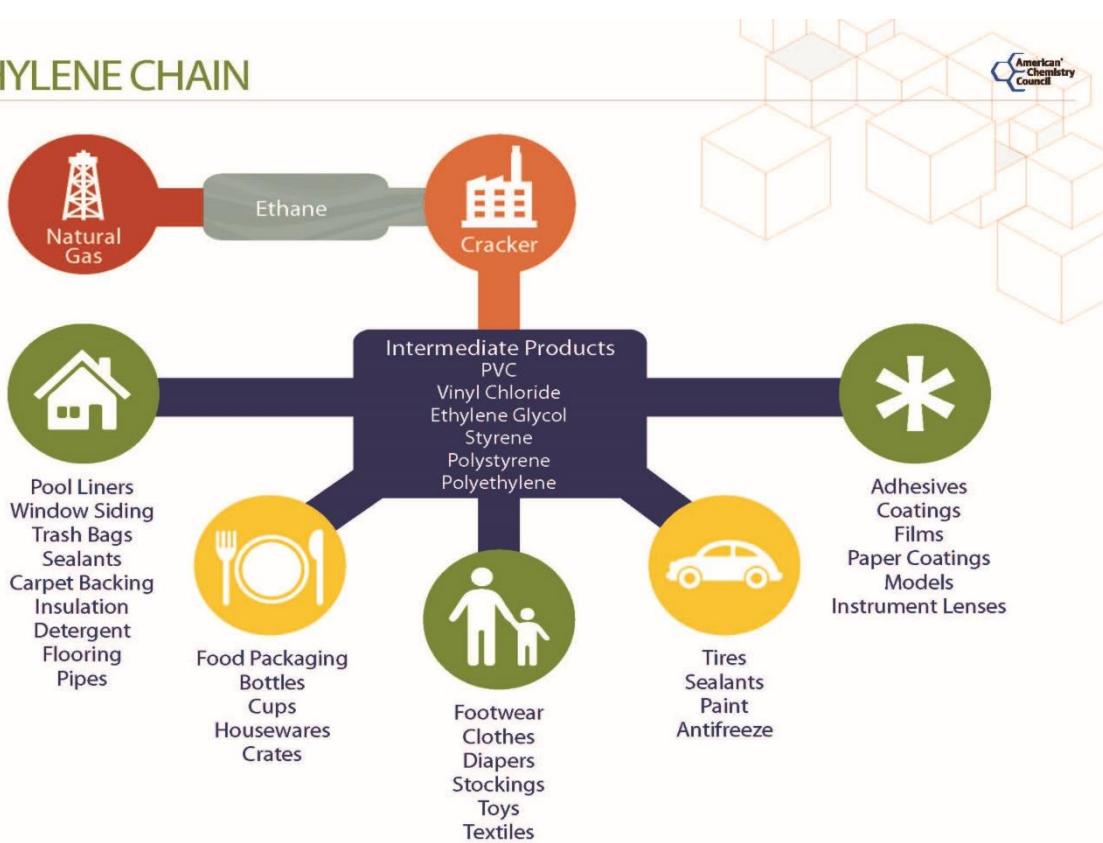
Although the site has been acquired, and work on the site is progressing, Shell has not yet made a final decision about building the ethane cracker. Shell is waiting to make the decision to move forward after it has secured the air quality permit from the Pennsylvania Department of Environmental Protection.

As reported by Shell, the plant would create thousands of construction jobs, in addition to 400 to 500 operational positions. Construction would typically take five years from the initial site preparation to full operation. The greatest opportunity for business retention, expansion and attraction will lie within this supply of the polyethylene pellets and their use within the plastic industry. Cranberry's proximity to the feedstock, consumer markets, and access to major transportation corridors provides an excellent marketing tool for business recruitment.



FIGURE 17 – ETHYLENE CHAIN

ETHYLENE CHAIN



FUTURE POTENTIAL FOR BUSINESS GROWTH AND ATTRACTION

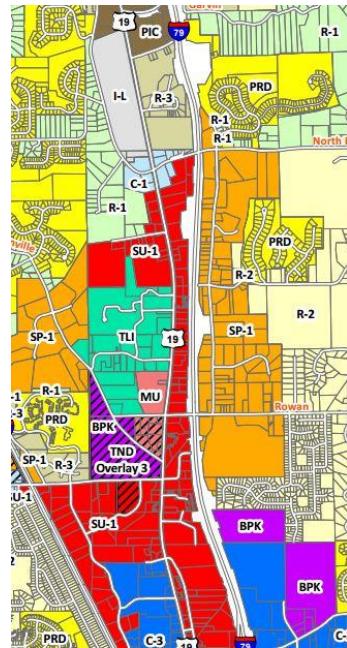
FIGURE 18 – CRANBERRY TOWNSHIP ZONING MAP

The proposed Ethane Cracker in Beaver County will provide opportunities for growth and new business attraction if and when the large industrial users within the I-L district should close. Target industries should include the following:

- Plastic and resin manufacturing
- Adhesive manufacturing
- Plastic pipe and parts
- Laminated plastic
- Plastics wholesaling
- Logistics

BUSINESS RETENTION AND RECRUITMENT RECOMMENDATIONS

In order to retain, and expand current industry, the Township should periodically survey all industry to determine their needs for growth, and to identify any warning signs that the industry may be downsizing or closing. Meeting periodically with CEO's and operation managers for these industries should become a routine practice for the Township.



As the Marcellus Shale industry continues to grow, the Township should work to develop the following:

1. Inventory of all available industrial sites.
2. Continue to market key assets including access to major transportation corridors, proximity to customers, skilled workforce, and key employers
3. Develop and improve critical infrastructure including roads, water and sewer
4. Work with the Butler Community College to ensure the workforce is prepared for the new industry that may result from the construction of the Cracker.



TRANSPORTATION

ImpactFeeProgram2015

Capital Improvements Plan

March 2015 Update

Acknowledgments

Transportation Impact Fee Committee members:

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John T. Morgan
William Thompson
Sharon Beck
David Donley
Gary Sipple
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Matthew Sperenza*

Cranberry Township Board of Supervisors:

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Mike Manipole, Vice-Chairman
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CRANBERRY TOWNSHIP
TRANSPORTATION IMPACT FEE PROGRAM
CAPITAL IMPROVEMENTS PLAN

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I. Introduction

On December 19, 1990, Pennsylvania Act 209 was effectively signed into law. Under this Act, municipalities are able to assess impact fees to new development within their communities. Impact fees are clearly defined in Act 209 as “a fee imposed by a municipality against new development to generate revenue for funding the cost of transportation capital improvements necessitated by and attributable to new development.” In order to institute the Act, a four component Transportation Impact Fee Program must be developed and implemented by the municipality. The Transportation Impact Fee Program consists of a *Land Use Assumptions Report*, a *Roadway Sufficiency Analysis*, a *Capital Improvement Plan* and an *Adopting Ordinance*. This process is directed by a Transportation Impact Fee Advisory Committee, which is established by the Board of Supervisors. The Cranberry Township Board of Supervisors made public its intention to update the impact fee program and established the Impact Fee Advisory Committee by Resolution No. 2014-82 on December 11, 2014. The following *Capital Improvements Plan* (CIP) update has been prepared on behalf of Cranberry Township, Butler County, Pennsylvania and has been completed in accordance with Pennsylvania Act 209 of 1990 and subsequent updates.

The results of the *Roadway Sufficiency Analysis* served as the basis for the *Capital Improvements Plan* for Cranberry Township. As part of the *Roadway Sufficiency Analysis*, the existing transportation system was analyzed to identify existing deficiencies and to determine the preferred level of service. A travel demand model was used to project future traffic volumes, which were used to determine roadway and intersection deficiencies caused by projected growth within the Township. Mitigation improvements were developed for each deficient intersection and roadway segment. This *Capital Improvements Plan* thoroughly investigates the eligibility and feasibility of each improvement identified in the *Roadway Sufficiency Analysis*. This study also determines the appropriate impact fee per PM peak hour site development trip for Cranberry Township’s Transportation Service Areas (hereafter referred to as Transportation Districts).

II. Purpose

The primary objective of the *Capital Improvements Plan* is to select projects from the list of eligible transportation improvement projects developed during the *Roadway Sufficiency Analysis* that efficiently and safely accommodate anticipated future traffic within the Township. Major tasks were performed in cooperation with the Impact Fee Advisory Committee and Township Staff using generally accepted engineering and planning practices. These tasks included:

- Development of cost estimates for all identified improvements (in accordance with Act 209);

- Distinguish improvements as to whether they are needed to correct existing deficiencies, future base deficiencies and/or new site development traffic;
- Selection of candidate transportation improvement projects that will be included as impact fee projects on the Capital Improvements Plan; and
- Provide a time schedule for when the improvements are to be implemented as part of the CIP.

The following summarizes the process and results of the *Capital Improvements Plan* for Cranberry Township.



III. Cost Estimate

Cost estimates were calculated for each improvement proposed in the *Roadway Sufficiency Analysis*. The estimates were completed using the most current (2014) construction costs. In order for the cost estimates to reflect actual costs in any given year, an inflation rate per year was applied. The inflation rate of 3% was used and was based on Turner Building Cost Index over the past 12 years. Therefore, if a project is anticipated to be constructed in 2016, it would reflect a cost 3% higher than the cost if the project was constructed in 2015.

Cost estimates for each proposed project were determined by developing conceptual designs of the improvements. Aerial mapping was used to conceptually design each transportation improvement. Estimated quantities for pavement, earthwork, drainage systems, pavement markings, structures, required right-of-way and various other pay items were determined from the conceptual designs. Utility relocations were estimated based upon visible utilities such as gas valves and utility poles. Lastly, the cost estimates for each pay item were determined by referencing the PennDOT Electronic Contract Management Software (ECMS) website master list of construction items. The conceptual drawings for each applicable improvement project can be viewed in Appendix A and B.

IV. Project Summary Sheets

A detailed summary sheet has been provided for each improvement. The sheets are arranged in ascending order based on the intersection or roadway segment nomenclature defined in the *Roadway Sufficiency Analysis*. Each summary sheet identifies the project location, type of deficiency, and proposed improvement. A suggested project schedule and project-funding scheme has also been provided for each project.

The travel demand model used throughout the *Roadway Sufficiency Analysis* determined anticipated 2030 Base traffic volumes as a result of background growth. The travel demand model also determined anticipated 2030 Development traffic volumes which were based on the projected land use assumptions found in the adopted *Land Use Assumptions Report*. The following five (5) possible funding source classifications were assumed for implementing the identified transportation improvements:

- State and/or Federal;
- Local and/or Other; and
- Cranberry Township Impact Fee.

Each project sheet summarizes the estimated cost of each project according to six quantities. The anticipated costs are documented as follows:

- Construction;
- Utility Relocation;
- Right-of-Way Acquisition;
- Engineering;
- Inspection; and
- Admin and Planning*.

*Admin and Planning cost estimates include legal and planning costs for impact fee eligible projects. Also includes consulting costs to secure State and Federal funding related to the non-impact fee share of the projects.

Appendix A includes the project summary sheets and applicable improvement drawings for the projects that were selected for inclusion in the Township's *Capital Improvements Plan*. Appendix B contains (for informational purposes only) other candidate projects from the *Roadway Sufficiency Analysis* that were not selected to be included in the *Capital Improvements Plan*.

V. Selected Projects of the Capital Improvement Plan

The *Roadway Sufficiency Analysis*, which was completed prior to the *Capital Improvements Plan*, is a comprehensive planning study projecting traffic conditions over a 20-year horizon based on the Township's adopted *Land Use Assumptions Report*, as well as many other variables. The transportation recommendations developed in the *Roadway Sufficiency Analysis* were suggested as mitigations for projected deficiencies anticipated within the next 20-year period to provide a preferred operational Level of Service "D" for all intersections and roadway segments (as determined by Cranberry Township). Township Staff and the Impact Fee Advisory

Committee reviewed improvement projects during various work sessions to arrive at the list of 53 transportation projects that are incorporated into the *Capital Improvements Plan*. Furthermore, as part of this process, projects were prioritized to arrive at the anticipated



construction year for each, as well as adjustments made to the amount of participation by type of funding source. Suggested transportation projects not selected for the *Capital Improvements Plan* are listed in Appendix B as “candidate projects” and include cost summary sheets with conceptual improvement sketches provided where applicable. Although these projects are not included in this *Capital Improvements Plan*, these projects may be incorporated into future updates in

accordance with Act 209 of 1990 and subsequent updates.

A detailed summary of transportation improvement projects included as part of the *Capital Improvements Plan* for Cranberry Township are shown in the table on the following pages. The improvements are sorted by district with the intersection or roadway segment location, project description, anticipated year of construction and total project cost with desired funding sources for each project.

The following list notes the information about the 53 selected transportation improvement projects:

- Twenty-one (21) transportation projects involved improvements at various study intersections as a result of 2030 deficiencies.
- Thirty (30) transportation projects involved improvements along various study segments as a result of 2030 deficiencies.
- Two (2) transportation projects mitigate deficiencies as a result of existing traffic volumes.

TABLE 3 - Impact Fee Program - Candidate Capital Improvements List (Sorted By District/Project Number)

Eastern District	Project Number	Map Number	Intersection or Roadway Segment	Improvement Project Description	Construction Year	Total Project Cost (dollars)	State/ Federal Funding* (dollars)	Other Funding** (dollars)	Western District Impact Fee (dollars)	Eastern District Impact Fee (dollars)	District
10	I-10	3111	The intersection of Franklin Road (SR 3021) and North Boundary Road (T-311).	Signalize the intersection and add a northbound left-turn lane on Franklin Road.	2018	1,110,258	555,129	0	0	555,129	East
19	I-19A		Intersection of Marshall Road (T-305) and North Boundary Road (T-311).	Construct a roundabout.	2018	1,152,440	299,634	276,586	0	576,220	East
20	I-20		The intersection of Marshall Road (T-305) and Rowan Road (SR 3018).	Signalize the intersection and add an eastbound left-turn lane, a southbound right-turn lane and a westbound right-turn lane.	2018	1,386,357	693,178	0	0	693,178	East
42	I-42B		The intersection of Peters Road (T-307), Canterbury Trail (T-726) and Rowan Road (SR 3018).	Construct a roundabout.	2018	1,501,058	750,529	0	0	750,529	East
S-D1	S-D1		New connection from Wisconsin Avenue to American Way	Construct 2 Lane Commercial Collector Roadway	2018	690,374	0	151,882	0	538,492	East
S-D4	S-D4		Duluth Road from Route 228 north to Brandt Drive.	Revise existing Duluth Road to one way for portions in conjunction with construction of parallel 2 Lane Commercial Collector Roadway.	2018	1,484,096	0	326,501	0	1,157,595	East
S-H1	S-H1		Route 228 to local road network north of Route 228 east of I-79.	network north of Route 228 east of I-79 and EB lane on 228 from flyover	2018	6,120,951	0	306,048	0	5,814,903	East
S-H5	S-H5		Local road network north of Route 228. North-South connection from flyover to roundabout.	Construct 3 Lane Commercial Collector Roadway	2018	299,352	0	14,968	0	284,384	East
12	I-12		The intersection of Franklin Road (SR 3021), Hope Road (T-309) and Rowan Road (SR 3018).	Relight Rowan Road opposite of Hope Road. Signalize the intersection and add an eastbound left...	2020	1,185,315	0	592,658	0	592,658	East
22	I-22		The intersection of US Route 19 (SR 0019), North Boundary Road (T-311) and Glen Eden Road (SR 3024).	Add a westbound left-turn lane to create dual lefts on North Boundary Road.	2020	490,623	0	107,937	0	382,686	East
9	I-09A		The intersection of Franklin Road (SR 3021), Garvin Road (T-313) and Gallery Road (SR 3014).	Relight Gallery Road with Garvin Road to form a four-way "plus" intersection and construct a roundabout.	2025	1,526,604	0	763,302	0	763,302	East
13	I-13		The intersection of Franklin Road (SR 3021) and Peters Road (T-307).	Add a westbound left turn lane on Peters Road.	2025	532,556	0	266,278	0	266,278	East
40	I-40		The intersection of Franklin Road (SR 3021) and PA Route 228.	Add EB!, WB!, SB! Dual Lefts, NBT.	2025	4,274,267	2,564,560	0	0	1,709,707	East
S-20	S-20		North Boundary Road from Marshall Road to Franklin Road	Add left turn lanes at key intersections to maintain thru traffic flow.	2025	2,279,735	0	1,823,788	0	455,947	East
S-25	S-25		Rowan Road (SR 3018) from Marshall Road to Peters Rd/Canterbury Trail.	Widen to five-lane Residential Collector.	2025	7,429,523	4,457,714	2,228,857	0	742,952	East
S-27	S-27		Goehring Road (T-316) from Franklin Road.	Widen and Realign to two-lane Residential Collector Standards.	2025	8,072,084	3,793,880	3,470,996	0	807,208	East
S-40	S-40A		S.R. 228 from Route 19 to Franklin Road	Widen to 6 Lane Arterial	2025	15,514,180	0	13,962,762	0	1,551,418	East
S-43	S-43A		Franklin Road (SR 3021) from Route 228 to Old Mars Crider Road.	Widen to four-lane Residential Collector.	2025	4,561,963	2,737,178	0	0	638,675	East
S-43	S-43B		Franklin Road (SR 3021) from Old Mars Crider Road to Peters road.	Widen to four-lane Residential Collector.	2025	13,180,778	10,544,622	1,318,078	0	1,318,078	East
S-D2	S-D2		New connection from American Way to North Side of Existing Home Depot Parcel.	Construct 2 Lane Commercial Collector Roadway	2025	1,519,220	0	334,228	0	1,184,992	East
S-D3	S-D3	228	New connection from South Side of Existing Home Depot to Near	Construct 2 Lane Commercial Collector Roadway	2025	2,661,087	0	585,439	0	2,075,648	East
S-H6	S-H6		Local road network south of Route 228. Connection from MSA thruway to Cranberry Woods Drive	Construct 2 Lane Commercial Collector Roadway	2025	1,193,335	59,667	537,001	0	596,667	East
					Totals	78,166,155	26,456,090	27,067,309	0	23,456,646	
											West
											East

* - This is desired funding Cranberry Township is Anticipating to be provided by the State or Federal Government. This project is not necessarily on any State or Federal Transportation Improvement Plan.

Total for Impact Fee Program By District***	11,830,911	18,831,308
Adjusted Total of New Trip Ends	7,569	12,069
Actual Fee Per Trip	1,563	1,560

** - Other funding sources to be provided by Municipal revenue, developer contributions and other non state, federal or municipal sources.

*** - See Adjustment Table for Adjustments made to Impact Fee Program dollar and trip totals based on current balances and approved trips.

Cranberry Township

Transportation Impact Fee Update 2015 (DRAFT)

TABLE 3 - Impact Fee Program - Candidate Capital Improvements List (Sorted By District/Project Number)

Map Number	Project Number	Intersection or Roadway Segment	Improvement Project Description	Construction Year	Total Project Cost (dollars)	State/ Federal Funding* (dollars)	Other Funding** (dollars)	Western District Impact Fee (dollars)	Eastern District Impact Fee (dollars)	District
Shared Eastern/ Western District (Route 19)										
23	I-23A	The intersection of US Route 19 (SR 0019) and Progress Avenue (T-651).	<i>Signalize the Intersection (Existing Deficiency):</i> Construct an eastbound left-turn lane on Progress Avenue.	2018	328,638	0	328,638	0	0	East/West
23	I-23B	The intersection of US Route 19 (SR 0019) and Progress Avenue (T-651).	<i>Signalize the Intersection (Existing Deficiency):</i> Construct an eastbound left-turn lane on Progress Avenue.	2018	353,471	0	176,735	159,062	17,674	East/West
S-44	S-44B	Route 19 (SR 0019) from Marshall Township to Route 228.	Adaptive Control System.	2018	125,664	0	69,115	28,274	28,274	East/West
S-45	S-45C	Route 19 (SR 0019) from Route 228 to Ogle View/Rowan Roads.	Adaptive Control System.	2018	109,273	0	54,636	27,318	27,318	East/West
36	I-36	The intersection of US Route 19 and Short Street/ Wal-Mart Driveway	Add an eastbound left turn lane, westbound right, southbound left and appropriate receiving lanes.	2020	3,168,314	2,851,482	0	221,782	95,049	East/West
37	I-37	The intersection of US Route 19 and St. Francis Way/ Mall Driveway	Add an Eastbound Left Turn Lane and receiving lane on Mall Drive. Add NB Left to form Dual Lefts on 19 and add a WB right turn lane on St. Francis Way.	2020	4,337,735	1,604,962	2,515,886	214,718	2,169	East/West
24	I-24A	The intersection of US Route 19, Ogle View Road (T-322) and Rowan Road (SR 0018).	Add EBL, EBT, EBR, WBL, WBT, SBR. Add NB and SB left to form dual lefts.	2025	6,431,380	0	5,016,476	707,452	707,452	East/West
S-44	S-44A	Route 19 (SR 0019) from Marshall Township to Route 228.	Widen to six-lane Minor Arterial.	2025	12,909,116	11,618,205	0	645,456	645,456	East/West
S-45	S-45A	Route 19 (SR 0019) from Route 228 to Ogle View/Rowan Roads.	Widen to six-lane Minor Arterial.	2025	21,534,882	19,381,394	0	1,076,744	1,076,744	East/West
				Totals	146,019,046	72,516,422	38,003,541	14,920,849	50,077,104	
* This is desired funding Cranberry Township is Anticipating to be provided by the State or Federal Government. This project is not necessarily on any State or Federal Transportation Improvement Plan.										
** - Other funding sources to be provided by Municipal revenue, developer contributions and other non state, federal or municipal sources.										
*** - See Adjustment Table for Adjustments made to Impact Fee Program dollar and trip totals based on current balances and approved trips.										
Total for Impact Fee Program By District***										
Adjusted Total of New Trip Ends										
Actual Fee Per Trip										
West										
East										
11,830,911										
7,569										
12,069										
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* This is desired funding Cranberry Township is Anticipating to be provided by the State or Federal Government. This project is not necessarily on any State or Federal Transportation Improvement Plan.
 ** - Other funding sources to be provided by Municipal revenue, developer contributions and other non state, federal or municipal sources.
 *** - See Adjustment Table for Adjustments made to Impact Fee Program dollar and trip totals based on current balances and approved trips.

March 2015

TABLE 3 - Impact Fee Program - Candidate Capital Improvements List (Sorted By District/Project Number)

Map Number	Project Number	Intersection or Roadway Segment	Improvement Project Description	Construction Year	Total Project Cost (dollars)	State/Federal Funding* (dollars)	Other Funding** (dollars)	Western District Impact Fee (dollars)	Eastern District Impact Fee (dollars)	District
Western District										
6	I-06	The intersection of Unionville Road (T-328) and Ogle View Road (T-322).	Construct a roundabout.	2018	901,177	0	450,588	450,588	0	West
28	I-28	The intersection of Haines School Road (T-302), LaPorte Drive (T-652) and Freedom Road (SR 3020).	<i>Add northbound left-turn lane on LaPorte Drive (Existing Deficiency).</i>	2018	372,774	0	372,774	0	0	West
34	I-34	The intersection of Rolling Road and Freedom Road.	Install traffic signal.	2018	272,587	0	136,294	136,294	0	West
35	I-35	The intersection of US Route 19, DuVal Road (T-326) and Brandt Drive (Private).	Add an exclusive eastbound auxiliary turn lane on Brandt Drive.	2018	378,695	0	117,395	261,299	0	West
S-10	S-10	Ogle View Road (T-322) from Unionville Road to Route 19.	Widen to three-lane Commercial Collector Standards.	2018	1,201,797	0	600,898	600,898	0	West
S-30	S-30B	Freedom Road (SR 3020) from New Sewickly Township to Haine School Road.	Adaptive Control System.	2018	71,574	0	35,787	35,787	0	West
S-31	S-31B	Freedom Road (SR 3020) from Haine School Road to Commonwealth Drive.	Adaptive Control System.	2018	114,190	0	57,095	57,095	0	West
S-37	S-37B	Rochester Road (SR 3022) from Graham School Road to western St. Ferdinand Church Drive/way.	Widen to four-lane Urban Collector with left-turn lanes (See Township Boulevard Design Standards).	2018	4,063,187	2,031,594	1,625,275	406,319	0	West
S-37	S-37C	Rochester Road (SR 3022) from western St. Ferdinand Church Drive/way to Route 19.	Widen to four-lane Urban Collector with left-turn lanes (See Township Boulevard Design Standards).	2018	4,475,077	3,580,062	447,508	447,508	0	West
S-37	S-37D	Rochester Road (SR 3022) from Haines School Road to Route 19.	Adaptive Control System.	2018	125,664	0	62,832	62,832	0	West
S-E1	S-E1	New connection Thomson Park Drive to Brandt Drive including widening of existing Brandt Drive.	Construct 2 Lane Commercial Collector Roadway	2018	1,623,229	0	811,614	811,614	0	West
S-E2	S-E2	Intersection improvements including signal and turning lanes associated with Brandt Drive at Thomson Park Drive.	Construct Signal and Intersection Improvements at Thomson Park Drive to accommodate new connector Road	2018	493,915	0	246,958	246,958	0	West
S-F1	S-F1	New north-south connection from existing Unionville Road south to Rochester Road.	Construct 3 Lane Commercial Collector Roadway	2018	2,666,078	0	1,333,039	1,333,039	0	West
S-F2	S-F2	New connection from proposed Unionville North-South Road east to Route 19.	Construct 3 Lane Commercial Collector Roadway	2018	833,850	0	375,233	458,618	0	West
2	I-02	The intersection of Unionville Road (T-328) and Glen Eden Road (SR 3024).	Signalize the intersection and add a northbound left-turn lane on Unionville Road.	2020	613,577	306,788	0	306,788	0	West
3	I-03A	The intersection of Unionville Road (T-328) and Graham School Road (T-304).	Construct a roundabout.	2020	1,711,813	0	855,907	855,907	0	West
5	I-05A	The intersection of Unionville Road (T-328) and Progress Avenue (T-651).	Construct a roundabout.	2020	1,592,445	47,773	748,449	796,223	0	West
30	I-30	The intersection of Graham School Road (T-304) and Rochester Road (SR 3022).	Signalize the intersection and add a southbound right-turn lane and extend eastbound left-turn lane.	2020	722,365	361,183	0	361,183	0	West
46	I-46	Heights Drive and Route 19.	Signalize new intersection. Add a southbound right-turn lane to Route 19.	2020	734,427	0	367,213	367,213	0	West
S-30	S-30A	Freedom Road (SR 3020) from New Sewickly Township to Haine School Road.	Widen to four-lane Minor Arterial from Powell to Haines School Road.	2025	14,815,381	5,777,999	7,555,844	1,481,538	0	West
S-31	S-31A	Freedom Road (SR 3020) from Haine School Road to Commonwealth Drive.	Widen to four-lane Minor Arterial with left-turn lanes.	2025	15,561,440	4,201,589	9,803,707	1,556,144	0	West
S-37	S-37A	Rochester Road (SR 3022) from Haines School Road to Graham School Road.	Widen to four-lane Urban Collector with left-turn lanes (See Township Boulevard Design Standards).	2025	8,156,030	7,748,228	0	407,801	0	West
			Totals	61,501,271	24,055,216	26,004,410	11,441,645	0	West	
									East	
									11,830,911	18,831,308
									Adjusted Total of New Trip Ends	7,569
									Actual Fee Per Trip	\$1,563

** This is desired funding Cranberry Township is Anticipating to be provided by the State or Federal Government. This project is not necessarily on any State or Federal Transportation Improvement Plan.*

*** - Other funding sources to be provided by Municipal revenue, developer contributions and other non-state, federal or municipal sources.*

**** - See Adjustment Table for Adjustments made to Impact Fee Program dollar and trip totals based on current balances and approved trips.*

March 2015

VI. Transportation Impact Fee Calculations

The transportation impact fee was calculated by dividing the total cost attributable to impact fees for all identified *Capital Improvements Plan* projects by the number of new development trips generated between 2010 and 2030 in the applicable transportation districts. The total number of development trips determined during the *Roadway Sufficiency Analysis* was based on the approved *Land Use Assumptions Report*. In addition, adjustments in the calculation of the fee for the updated TCIP were necessary for trips from developments that have been approved but are not yet built. Those trips are locked into the impact fee rate that was in effect at the time of approval. Furthermore, the calculation of the fee must recognize the fees that have been collected but have not been appropriated for construction, which are currently in the impact fee accounts of the Township. A list of the trip adjustments is included in Appendix C. The following list represents each Transportation District along with the respective anticipated number of new trip ends over the 20-year horizon and the Impact Fee that was calculated per PM peak hour development trip:

- Eastern District: Anticipate 12,069 new PM peak hour trips at \$1,560 per trip.
- Western District: Anticipate 7,569 new PM peak hour trips at \$1,563 per trip.

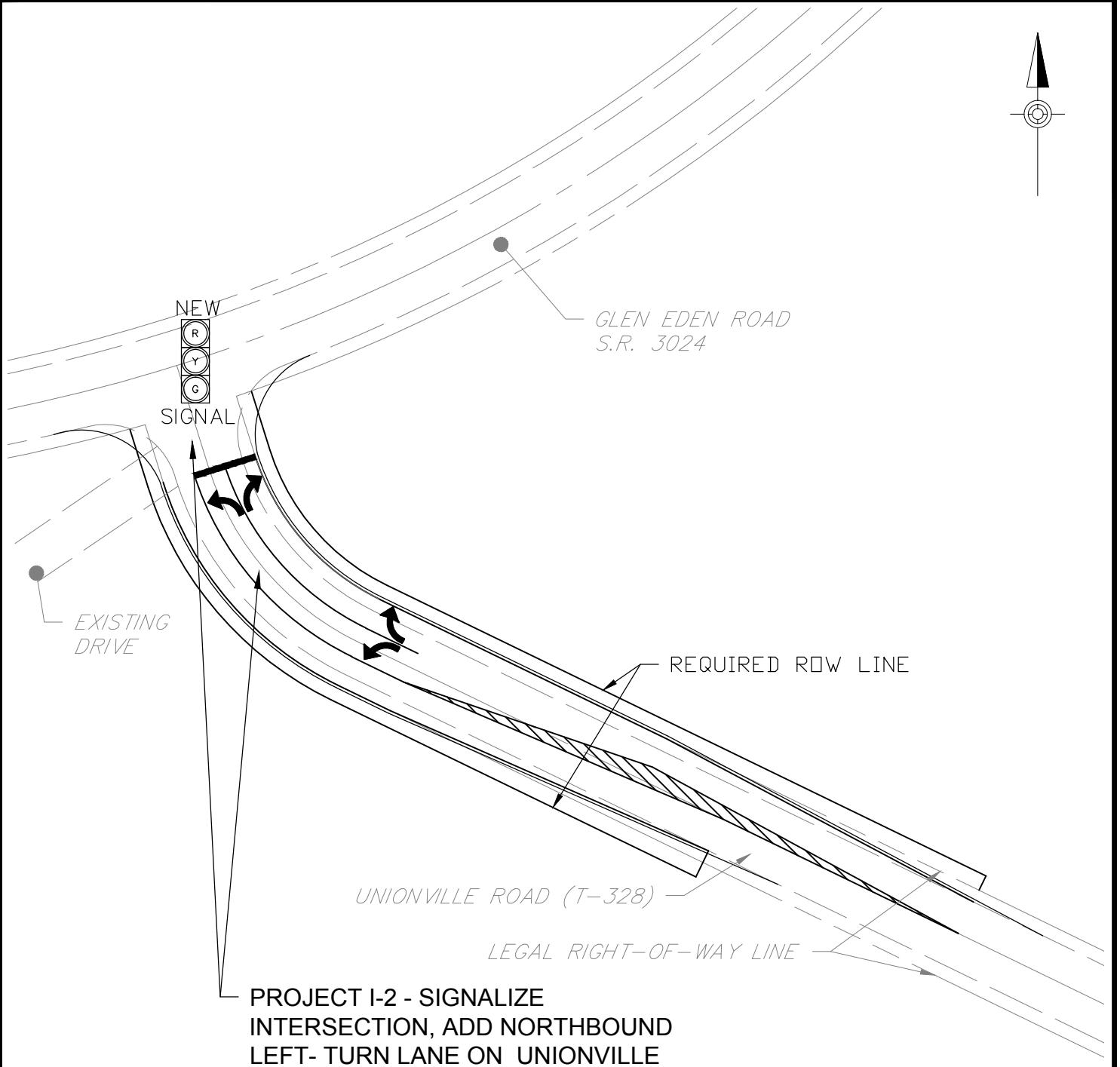
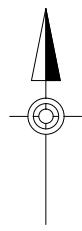


CRANBERRY
• TOWNSHIP •

APPENDIX A

SELECTED PROJECT COST SUMMARIES AND DRAWINGS

HRG
Herbert, Rowland & Grubic, Inc.
Engineering & Related Services



**PROJECT I-2 - SIGNALIZE
INTERSECTION, ADD NORTHBOUND
LEFT- TURN LANE ON UNIONVILLE
ROAD**

50 25 0' 50

SCALE IN FEET

CRANBERRY TOWNSHIP IMPACT FEE UPDATE

CAPITAL IMPROVEMENTS DRAWING #2
UNIONVILLE AND GLEN EDEN ROADS
PROJECT I-2

SHEET: 1 OF: 1 DATE: 06/15/2011

HRG
Herbert Rowland & Gothic Inc
Engineering & Related Services


CRANBERRY
TOWNSHIP
built for you
3525 Rochester Road, Suite 400
Cranberry Township, PA 16066-6499
(724)776-4806 FAX (724)776-5488

DESIGN DSM
DRAWN DSM
SCALE 1"=50'
PROJECT R0012610447

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

INTERSECTION NUMBER: 2

PROJECT NUMBER: I-02

LOCATION:

The intersection of Unionville Road (T-328) and Glen Eden Road (SR 3024).

TRANSPORTATION DISTRICT: West

DEFICIENCY:

The current one-way stop-controlled intersection is projected to become deficient with the forecast year 2030 traffic volumes.

PROPOSED IMPROVEMENTS:

Signalize the intersection and add a northbound left-turn lane on Unionville Road.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	358,766
Utility Relocation	5,000
Right-of Way	52,500
Engineering	71,753
Inspection	35,877
Admin & Planning	5,381
TOTAL	\$529,277

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 23%*

*New Development Traffic /
Anticipated Traffic Growth = 77%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2020
Projected Construction Cost	\$482,566
Projected Soft Cost	\$131,011
Projected Total Cost	\$613,577

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$141,305
New Development Trips	\$472,271

PROJECT SCHEDULE:

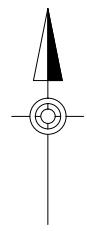
		Year
State/Federal	50%	\$306,788
Other	0%	\$0
Impact Fees	50%	\$306,788

Transportation District Cost:

West District	\$306,788
East District	\$0
Southeast District	\$0

REMARKS:

See Improvement Drawing number 3 for a plan sketch of the proposed improvement.



PROJECT I-3A CONSTRUCT
ROUNDABOUT

UNIONVILLE ROAD (T-328)

LEGAL RIGHT-OF-WAY LINE

GRAHAM SCHOOL
ROAD (T-304)

100 50 0' 100

SCALE IN FEET

CRANBERRY TOWNSHIP IMPACT FEE UPDATE

CAPITAL IMPROVEMENTS DRAWING #3A
UNIONVILLE AND GRAHAM SCHOOL ROADS
PROJECT I-3A

SHEET: 1 OF: 1 DATE: 06/15/2011

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DESIGN DSM
DRAWN DSM
SCALE 1"=100'
PROJECT R0012610447

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

INTERSECTION NUMBER: 3

PROJECT NUMBER: I-03A

LOCATION:

The intersection of Unionville Road (T-328) and Graham School Road (T-304).

TRANSPORTATION DISTRICT: West

DEFICIENCY:

The one-way stop controlled intersection is projected to be deficient with forecast year 2030 volumes.

PROPOSED IMPROVEMENTS:

Construct a roundabout.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	981,774
Utility Relocation	32,050
Right-of Way	75,000
Engineering	294,532
Inspection	78,542
Admin & Planning	14,727
TOTAL	\$1,476,625

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 20%*

*New Development Traffic /
Anticipated Traffic Growth = 80%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2020
Projected Construction Cost	\$1,262,246
Projected Soft Cost	\$449,567
Projected Total Cost	\$1,711,813

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$342,363
New Development Trips	\$1,369,450

PROJECT SCHEDULE:

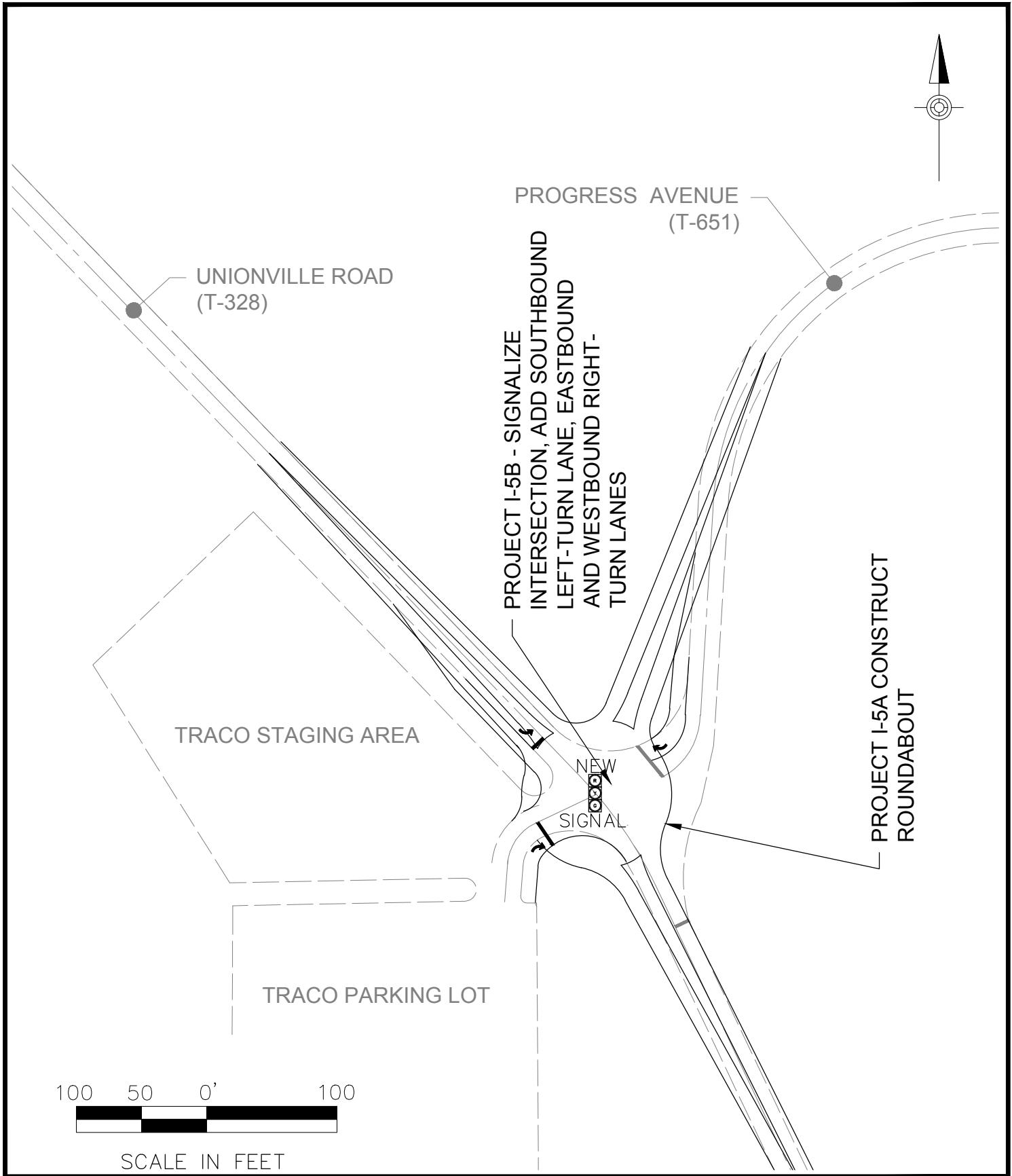
		Year
State/Federal	0%	\$0
Other	50%	\$855,907
Impact Fees	50%	\$855,907

Transportation District Cost:

West District	\$855,907
East District	\$0
Southeast District	\$0

REMARKS:

See Improvement Drawing number 3 for a plan sketch of the proposed improvement.



CRANBERRY TOWNSHIP IMPACT FEE UPDATE

CAPITAL IMPROVEMENTS DRAWING #5
UNIONVILLE AND PROGRESS AVENUE
PROJECTS I-5A & I-5B

SHEET: 1 OF: 1 DATE: 06/15/2011

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DESIGN DSM
DRAWN DSM
SCALE 1"=100'
PROJECT R0012610447

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

INTERSECTION NUMBER: 5

PROJECT NUMBER: I-05A

LOCATION:

The intersection of Unionville Road (T-328) and Progress Avenue (T-651).

TRANSPORTATION DISTRICT: West

DEFICIENCY:

The current intersection is projected to become deficient with 2030 forecast traffic volumes.

PROPOSED IMPROVEMENTS:

Construct a roundabout.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	963,326
Utility Relocation	30,050
Right-of Way	125,000
Engineering	144,499
Inspection	96,333
Admin & Planning	14,450
TOTAL	\$1,373,657

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 17%*

*New Development Traffic /
Anticipated Traffic Growth = 83%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2020
Projected Construction Cost	\$1,296,504
Projected Soft Cost	\$295,941
Projected Total Cost	\$1,592,445

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$270,716
New Development Trips	\$1,321,730

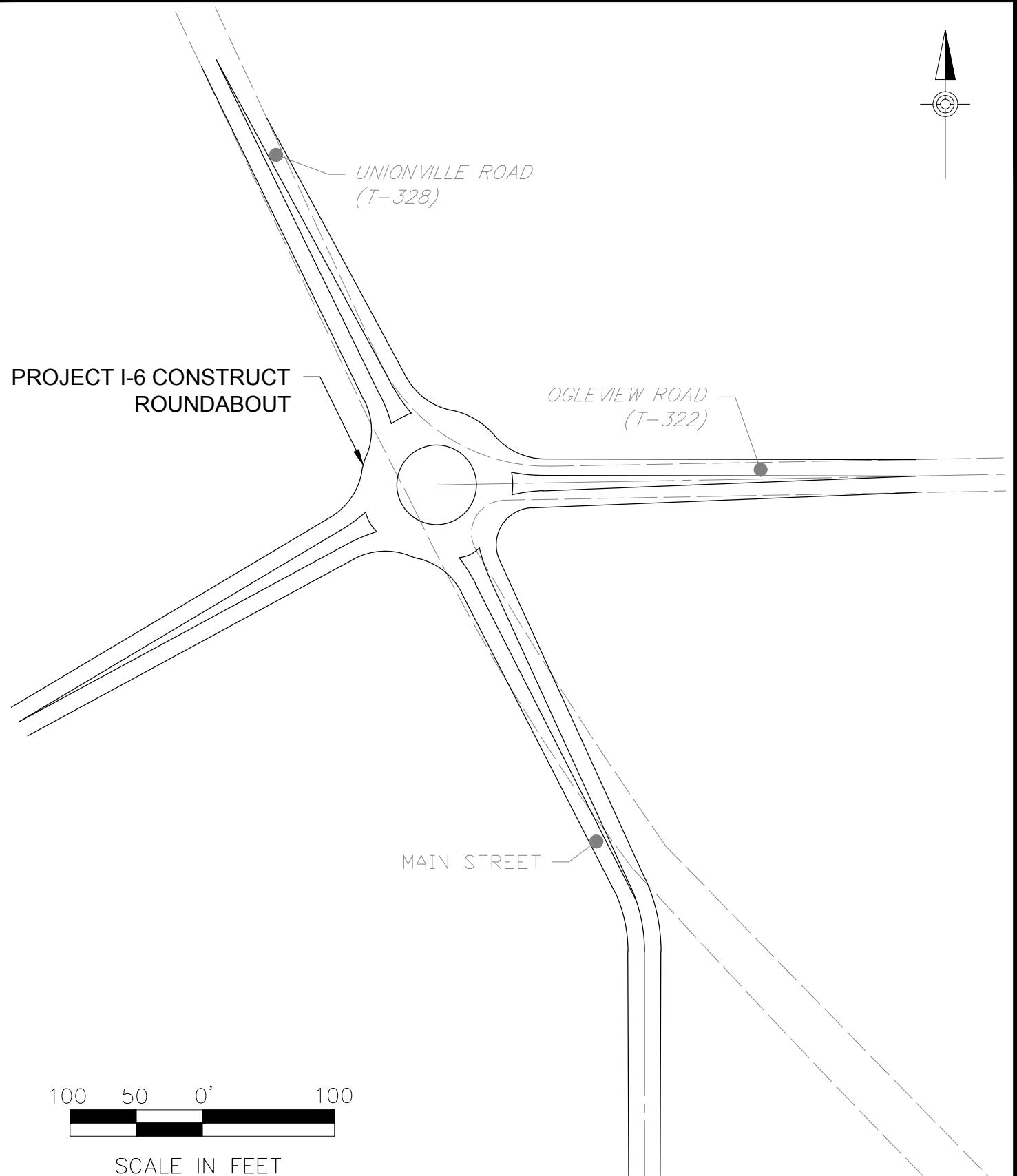
PROJECT SCHEDULE:

		Year
State/Federal	3%	2018
Other	47%	2018
Impact Fees	50%	2019
		2020
Secure Funding		
Acquire ROW		
Complete Engineering		
Begin Construction		

Transportation District Cost:

West District	\$796,223
East District	\$0
Southeast District	\$0

REMARKS:



CRANBERRY TOWNSHIP IMPACT FEE UPDATE

CAPITAL IMPROVEMENTS DRAWING #6
UNIONVILLE AND OGLEVIEW ROADS
PROJECTS I-6

SHEET: 1 OF: 1 DATE: 06/15/2011

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DSM
DRAWN
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SCALE
1"=100'
PROJECT
R0012610447

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

INTERSECTION NUMBER: 6

PROJECT NUMBER: I-06

LOCATION:

The intersection of Unionville Road (T-328) and Ogle View Road (T-322).

TRANSPORTATION DISTRICT: West

DEFICIENCY:

The current intersection control and geometry are projected to become deficient with 2030 forecast traffic volumes.

PROPOSED IMPROVEMENTS:

Construct a roundabout.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	530,952
Utility Relocation	28,050
Right-of Way	125,000
Engineering	79,643
Inspection	53,095
Admin & Planning	7,964
TOTAL	\$824,705

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 14%*

*New Development Traffic /
Anticipated Traffic Growth = 86%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2018
Projected Construction Cost	\$747,428
Projected Soft Cost	\$153,749
Projected Total Cost	\$901,177

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$126,165
New Development Trips	\$775,012

PROJECT SCHEDULE:

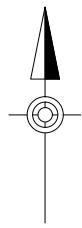
		Year
State/Federal	0%	\$0
Other	50%	\$450,588
Impact Fees	50%	\$450,588
Secure Funding		2016
Acquire ROW		2016
Complete Engineering		2017
Begin Construction		2018

Transportation District Cost:

West District	\$450,588
East District	\$0
Southeast District	\$0

REMARKS:

See Improvement Drawing number 6 for a plan sketch of the proposed improvement.



FRANKLIN ROAD
S.R. 3021

LEGAL ROW LINE

CALLERY ROAD
S.R. 3014

LEGAL ROW LINE

GARVIN ROAD
(T-313)

PROJECT I-9A CONSTRUCT
ROUNDABOUT

LEGAL RIGHT-OF-WAY LINE

150 75 0' 150

SCALE IN FEET

CRANBERRY TOWNSHIP IMPACT FEE UPDATE

CAPITAL IMPROVEMENTS DRAWING #9A
FRANKLIN AND CALLERY/GARVIN ROADS
PROJECT I-9A

SHEET: 1 OF: 1 DATE: 06/15/2011

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SCALE
1"=150'
PROJECT
R0012610447

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

INTERSECTION NUMBER: 9

PROJECT NUMBER: I-09A

LOCATION:

The intersection of Franklin Road (SR 3021), Garvin Road (T-313) and Callery Road (SR 3014).

TRANSPORTATION DISTRICT: East

DEFICIENCY:

The two offset intersections will not operate as safely or efficiently as a single realigned intersection as traffic volumes increase.

PROPOSED IMPROVEMENTS:

Realign Callery Road with Garvin Road to form a four-way "plus" intersection and construct a roundabout.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	720,063
Utility Relocation	28,050
Right-of Way	125,000
Engineering	180,016
Inspection	72,006
Admin & Planning	10,801
TOTAL	\$1,135,936

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 29%*

*New Development Traffic /
Anticipated Traffic Growth = 71%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2025
Projected Construction Cost	\$1,173,391
Projected Soft Cost	\$353,212
Projected Total Cost	\$1,526,604

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$442,715
New Development Trips	\$1,083,889

PROJECT SCHEDULE:

State/Federal	0%	\$0
Other	50%	\$763,302
Impact Fees	50%	\$763,302

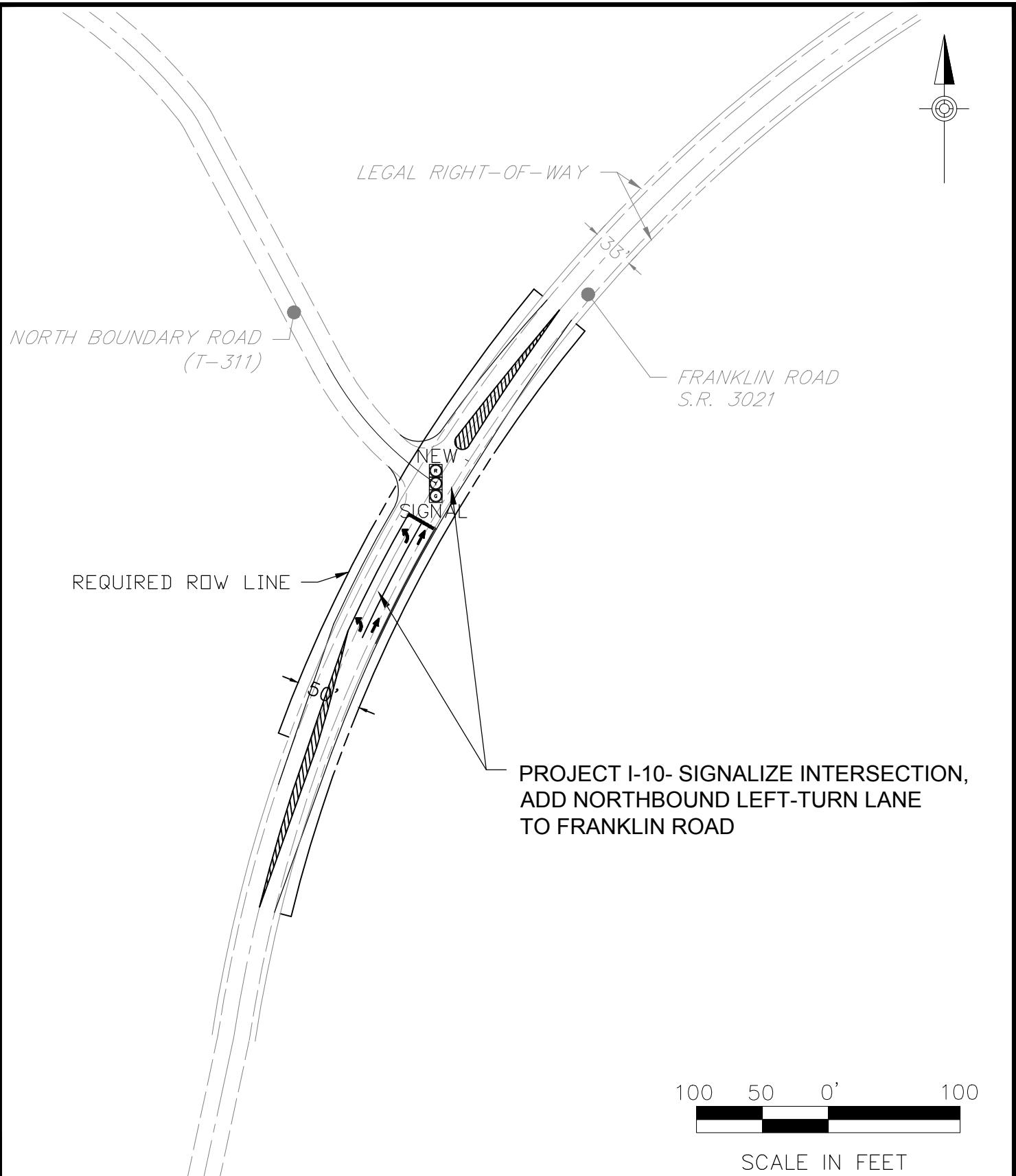
Secure Funding	2023
Acquire ROW	2023
Complete Engineering	2024
Begin Construction	2025

Transportation District Cost:

West District	\$0
East District	\$763,302
Southeast District	\$0

REMARKS:

See Improvement Drawing number 13 for a plan sketch of the proposed improvement.



CRANBERRY TOWNSHIP IMPACT FEE UPDATE		
CAPITAL IMPROVEMENTS DRAWING #10 FRANKLIN ROAD AND NORTH BOUNDARY ROAD PROJECT I-10		
SHEET: 1	OF: 1	DATE: 06/15/2011

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PROJECT
R0012610447

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

INTERSECTION NUMBER: 10

PROJECT NUMBER: I-10

LOCATION:

The intersection of Franklin Road (SR 3021) and North Boundary Road (T-311).

TRANSPORTATION DISTRICT: East

DEFICIENCY:

The current intersection is projected to become deficient with 2030 forecast traffic volumes.

PROPOSED IMPROVEMENTS:

Signalize the intersection and add a northbound left-turn lane on Franklin Road.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	637,578
Utility Relocation	31,000
Right-of Way	127,500
Engineering	159,395
Inspection	51,006
Admin & Planning	9,564
TOTAL	\$1,016,043

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 38%*

*New Development Traffic /
Anticipated Traffic Growth = 62%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2018
Projected Construction Cost	\$869,896
Projected Soft Cost	\$240,361
Projected Total Cost	\$1,110,258

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$421,898
New Development Trips	\$688,360

PROJECT SCHEDULE:

			Year
State/Federal	50%	\$555,129	2016
Other	0%	\$0	2016
Impact Fees	50%	\$555,129	2017

Secure Funding	2016
Acquire ROW	2016
Complete Engineering	2017
Begin Construction	2018

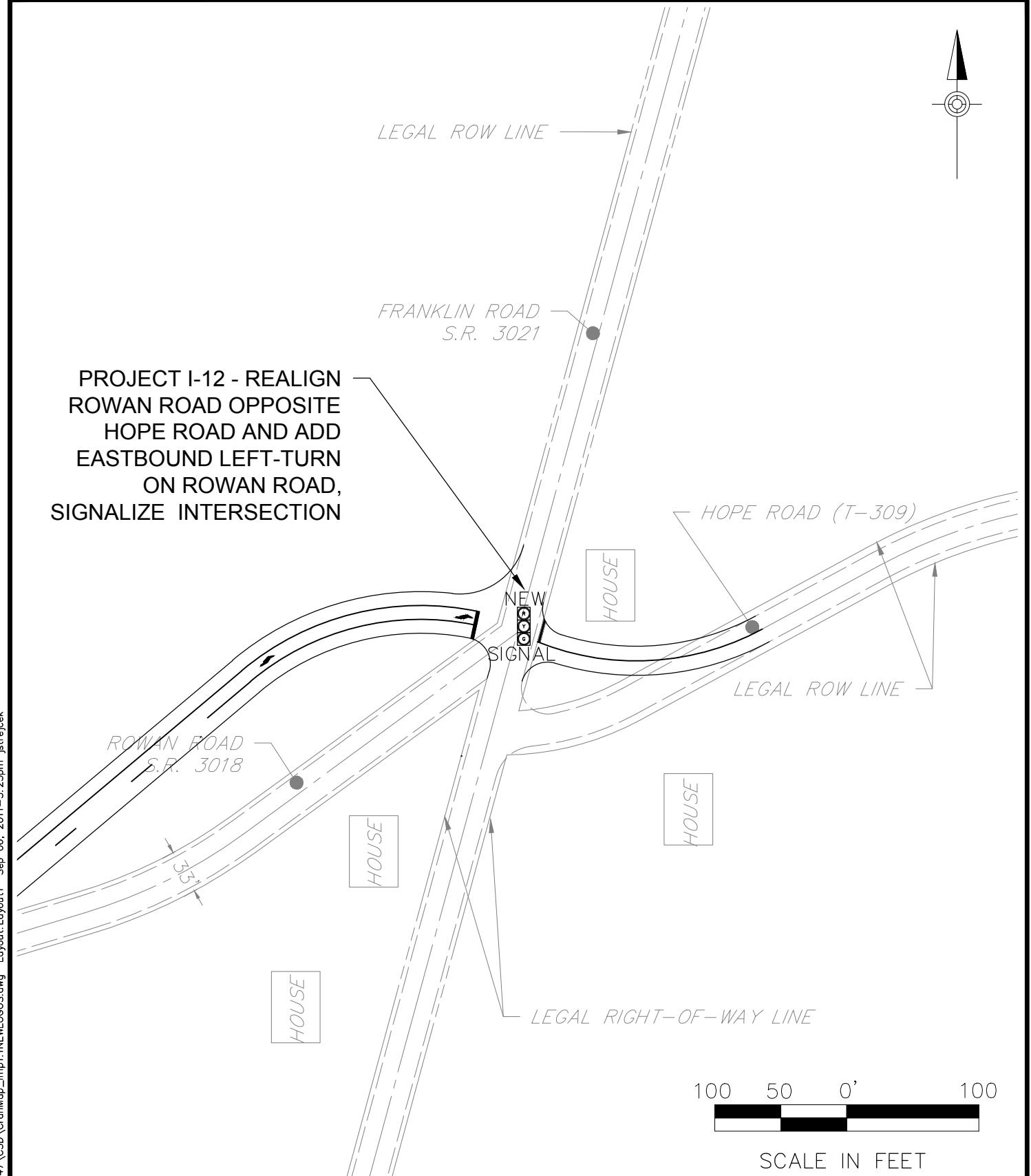
Transportation District Cost:

West District	\$0
East District	\$555,129
Southeast District	\$0

REMARKS:

See Improvement Drawing number 10 for a plan sketch of the proposed improvement.

**PROJECT I-12 - REALIGN
ROWAN ROAD OPPOSITE
HOPE ROAD AND ADD
EASTBOUND LEFT-TURN
ON ROWAN ROAD,
SIGNALIZE INTERSECTION**



CRANBERRY TOWNSHIP IMPACT FEE UPDATE

CAPITAL IMPROVEMENTS DRAWING #12
FRANKLIN ROAD AND HOPE/ROWAN ROADS
PROJECT I-12

SHEET: 1 OF: 1 DATE: 06/15/2011

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DESIGN DSM
DRAWN DSM
SCALE 1"=100'
PROJECT R0012610447

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

INTERSECTION NUMBER: 12

PROJECT NUMBER: I-12

LOCATION:

The intersection of Franklin Road (SR 3021), Hope Road (T-309) and Rowan Road (SR 3018).

TRANSPORTATION DISTRICT: East

DEFICIENCY:

The two offset intersections will not operate as safely as a single realigned intersection as traffic volumes increase.

PROPOSED IMPROVEMENTS:

Realign Rowan Road opposite of Hope Road. Signalize the intersection and add an eastbound left.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	685,533
Utility Relocation	10,000
Right-of Way	63,000
Engineering	171,383
Inspection	82,264
Admin & Planning	10,283
TOTAL	\$1,022,463

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 37%*

*New Development Traffic /
Anticipated Traffic Growth = 63%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2020
Projected Construction Cost	\$879,348
Projected Soft Cost	\$305,968
Projected Total Cost	\$1,185,315

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$438,567
New Development Trips	\$746,749

PROJECT SCHEDULE:

State/Federal	0%	\$0
Other	50%	\$592,658
Impact Fees	50%	\$592,658

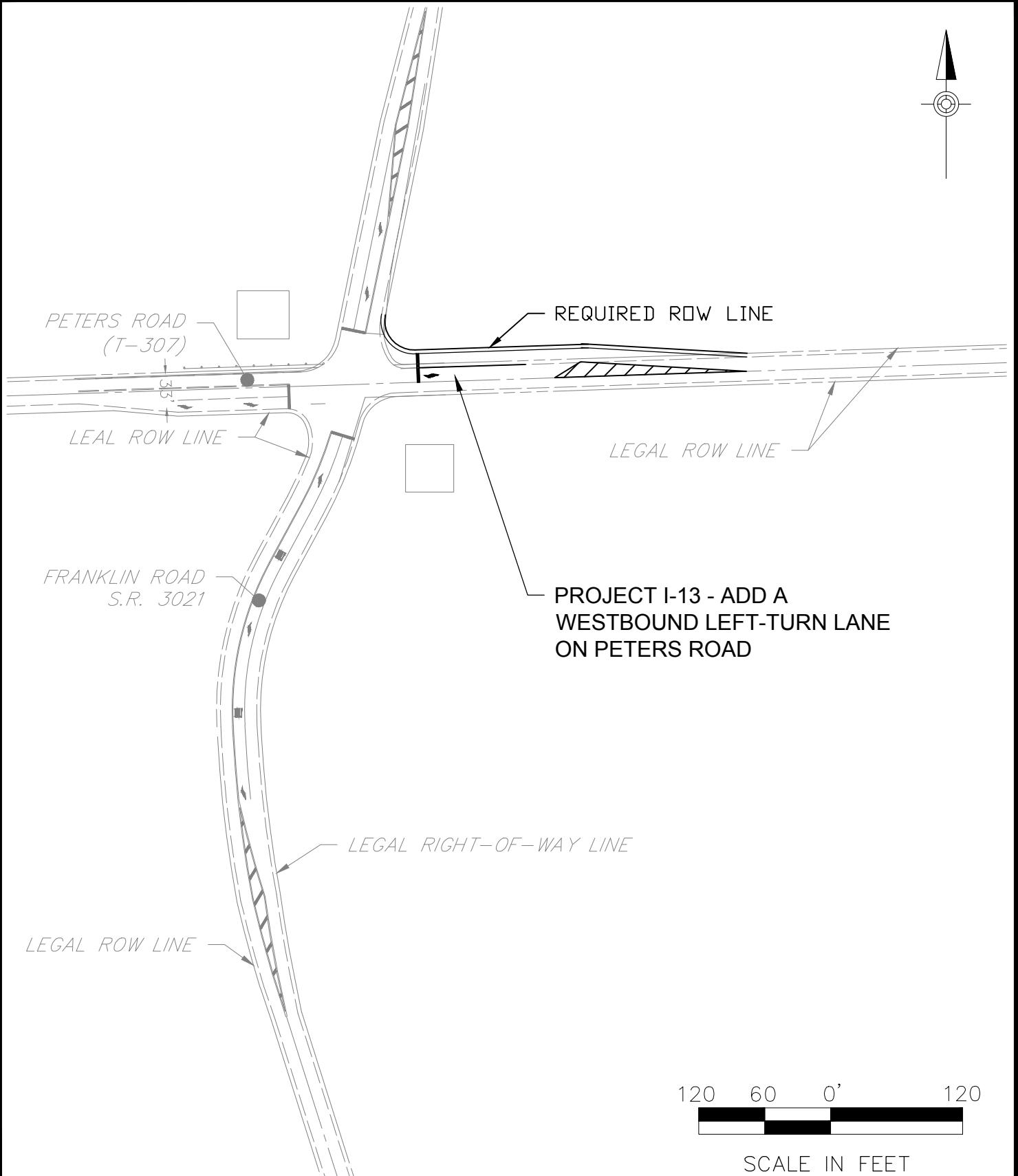
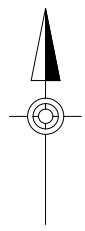
Secure Funding	2018
Acquire ROW	2018
Complete Engineering	2019
Begin Construction	2020

Transportation District Cost:

West District	\$0
East District	\$592,658
Southeast District	\$0

REMARKS:

See Improvement Drawing number 12 for a plan sketch of the proposed improvement.



CRANBERRY TOWNSHIP IMPACT FEE UPDATE

CAPITAL IMPROVEMENTS DRAWING #13
FRANKLIN ROAD AND PETERS ROAD
PROJECT I-13

SHEET: 1 OF: 1 DATE: 06/15/2011

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PROJECT
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**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

INTERSECTION NUMBER: 13

PROJECT NUMBER: I-13

LOCATION:

The intersection of Franklin Road (SR 3021) and Peters Road (T-307).

TRANSPORTATION DISTRICT: East

DEFICIENCY:

The intersection is projected to become deficient with 2030 forecast traffic volumes.

PROPOSED IMPROVEMENTS:

Add a westbound left turn lane on Peters Road.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	236,328
Utility Relocation	40,500
Right-of Way	45,000
Engineering	47,266
Inspection	23,633
Admin & Planning	3,545
TOTAL	\$396,272

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 24%*

*New Development Traffic /
Anticipated Traffic Growth = 76%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2025
Projected Construction Cost	\$432,510
Projected Soft Cost	\$100,046
Projected Total Cost	\$532,556

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$127,542
New Development Trips	\$405,014

PROJECT SCHEDULE:

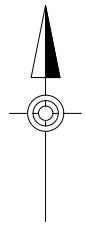
		Year
State/Federal	0%	\$0
Other	50%	\$266,278
Impact Fees	50%	\$266,278
Secure Funding		2023
Acquire ROW		2023
Complete Engineering		2024
Begin Construction		2025

Transportation District Cost:

West District	\$0
East District	\$266,278
Southeast District	\$0

REMARKS:

See Improvement Drawing number 13 for a plan sketch of the proposed improvement.



LEGAL RIGHT-OF-WAY LINE

NORTH BOUNDARY ROAD
(T-311)

MARSHALL ROAD (T-305)

PROJECT I-19A CONSTRUCT
ROUNDABOUT

100 50 0' 100

SCALE IN FEET

CRANBERRY TOWNSHIP IMPACT FEE UPDATE

CAPITAL IMPROVEMENTS DRAWING #19A
MARSHALL ROAD AND NORTH BOUNDARY ROAD
PROJECT I-19A

SHEET: 1 OF: 1 DATE: 06/15/2011

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PROJECT R0012610447

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

INTERSECTION NUMBER: 19

PROJECT NUMBER: I-19A

LOCATION:

Intersection of Marshall Road (T-305) and North Boundary Road (T-311).

TRANSPORTATION DISTRICT: East

DEFICIENCY:

The current intersection traffic control is projected to become deficient with 2030 forecast traffic volumes.

PROPOSED IMPROVEMENTS:

Construct a roundabout.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	689,022
Utility Relocation	25,350
Right-of Way	75,000
Engineering	172,256
Inspection	82,683
Admin & Planning	10,335
TOTAL	\$1,054,646

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 26%*

*New Development Traffic /
Anticipated Traffic Growth = 74%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2018
Projected Construction Cost	\$862,568
Projected Soft Cost	\$289,871
Projected Total Cost	\$1,152,440

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$299,634
New Development Trips	\$852,805

PROJECT SCHEDULE:

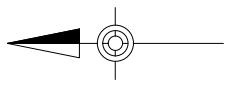
		Year
State/Federal	26%	Secure Funding
Other	24%	Acquire ROW
Impact Fees	50%	Complete Engineering
		Begin Construction
		2016
		2016
		2017
		2018

Transportation District Cost:

West District	\$0
East District	\$576,220
Southeast District	\$0

REMARKS:

See Improvement Drawing number 19 for a plan sketch of the proposed improvement.



ROWAN ROAD S.R. 3018

PROJECT I-20 ADD WESTBOUND
RIGHT-TURN LANE ON ROWAN
ROAD

LEGAL RIGHT-OF-WAY LINE

MARSHALL ROAD (T-305)

PROJECT I-20 - ADD SOUTHBOUND
RIGHT-TURN LANE ON MARSHALL
ROAD

REQUIRED ROW LINE

PROJECT I-20 SIGNALIZE
INTERSECTION AND ADD
EASTBOUND LEFT-TURN
LANE ON ROWAN ROAD



100 50 0' 100

SCALE IN FEET

CRANBERRY TOWNSHIP IMPACT FEE UPDATE

CAPITAL IMPROVEMENTS DRAWING #20
MARSHALL ROAD AND ROWAN ROAD
PROJECT I-20

SHEET: 1 OF: 1 DATE: 06/15/2011

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DESIGN DSM	•	PROJECT R0012610447
DRAWN DSM		
SCALE 1"=100'		

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

INTERSECTION NUMBER: 20

PROJECT NUMBER: I-20

LOCATION:

The intersection of Marshall Road (T-305) and Rowan Road (SR 3018).

TRANSPORTATION DISTRICT: East

DEFICIENCY:

The current intersection is projected to become deficient with 2030 forecast traffic volumes.

PROPOSED IMPROVEMENTS:

Signalize the intersection and add an eastbound left-turn lane, a southbound right-turn lane and a westbound right-turn lane.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	866,152
Utility Relocation	25,000
Right-of Way	200,000
Engineering	95,277
Inspection	69,292
Admin & Planning	12,992
TOTAL	\$1,268,713

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 26%*

*New Development Traffic /
Anticipated Traffic Growth = 74%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2018
Projected Construction Cost	\$1,192,331
Projected Soft Cost	\$194,026
Projected Total Cost	\$1,386,357

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$360,453
New Development Trips	\$1,025,904

PROJECT SCHEDULE:

State/Federal	50%	\$693,178
Other	0%	\$0
Impact Fees	50%	\$693,178

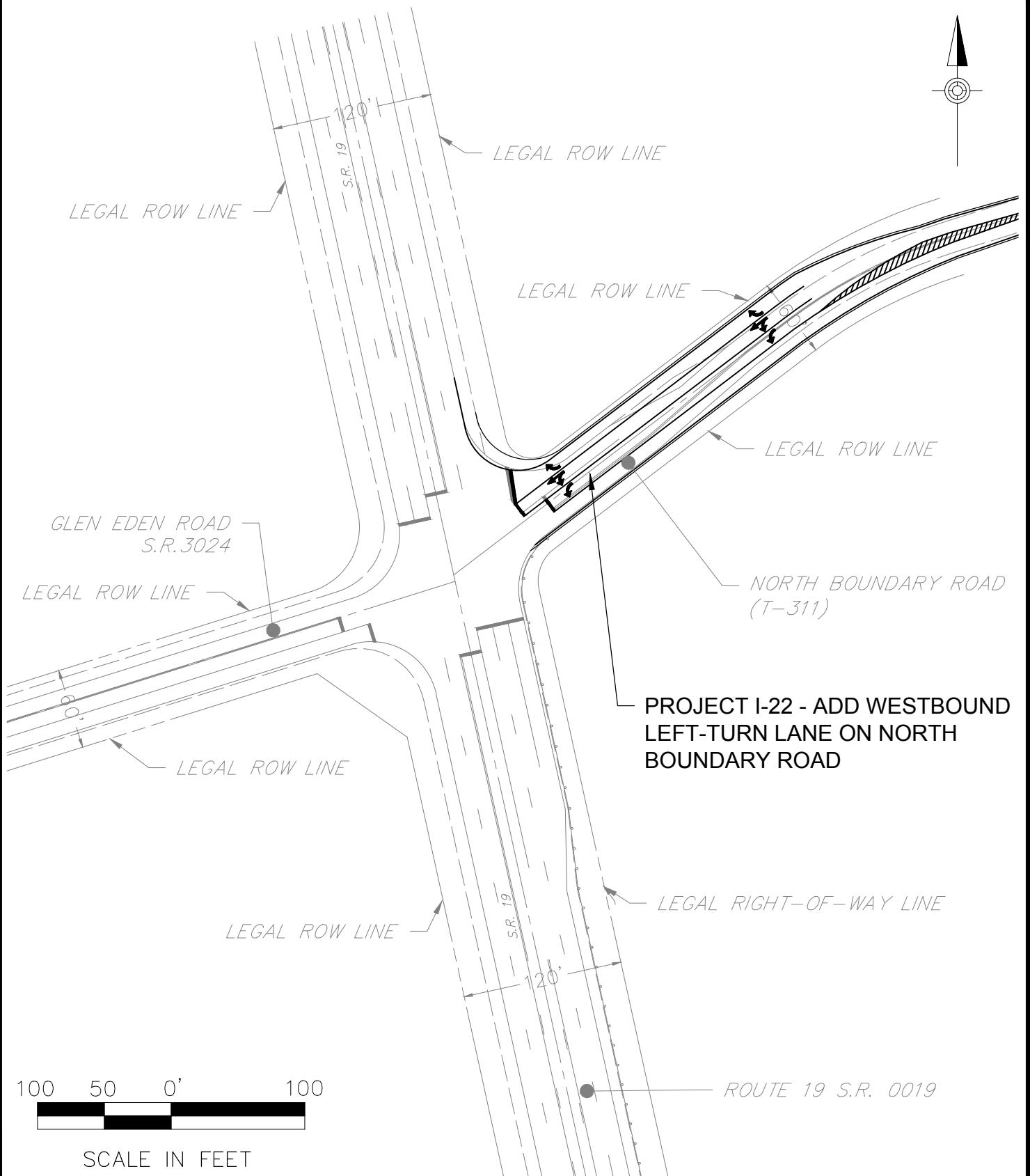
Secure Funding	2016
Acquire ROW	2016
Complete Engineering	2017
Begin Construction	2018

Transportation District Cost:

West District	\$0
East District	\$693,178
Southeast District	\$0

REMARKS:

See Improvement Drawing number 20 for a plan sketch of the proposed improvement.



CRANBERRY TOWNSHIP IMPACT FEE UPDATE

CAPITAL IMPROVEMENTS DRAWING #22
ROUTE 19 AND NORTH BOUNDARY/GLEN EDEN ROADS
PROJECT I-22

SHEET: 1 OF: 1 DATE: 06/15/2011

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DESIGN DSM	PROJECT R0012610447
DRAWN DSM	
SCALE 1"=100'	
PROJECT R0012610447	

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

INTERSECTION NUMBER: 22

PROJECT NUMBER: I-22

LOCATION:

The intersection of US Route 19 (SR 0019), North Boundary Road (T-311) and Glen Eden Road (SR 3024).

TRANSPORTATION DISTRICT: East

DEFICIENCY:

The current intersection is projected to become deficient with 2030 forecast traffic volumes.

PROPOSED IMPROVEMENTS:

Add a westbound left-turn lane to create dual lefts on North Boundary Road.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	324,091
Utility Relocation	10,000
Right-of Way	0
Engineering	58,336
Inspection	25,927
Admin & Planning	4,861
TOTAL	\$423,216

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

<i>New Pass Thru Traffic /</i>
<i>Anticipated Traffic Growth = 21%</i>
<i>New Development Traffic /</i>
<i>Anticipated Traffic Growth = 79%</i>

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2020
Projected Construction Cost	\$387,303
Projected Soft Cost	\$103,320
Projected Total Cost	\$490,623

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$103,031
New Development Trips	\$387,592

PROJECT SCHEDULE:

PROPOSED FUNDING:

State/Federal	0%	\$0
Other	22%	\$107,937
Impact Fees	78%	\$382,686

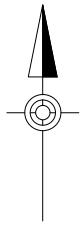
	Year
Secure Funding	2018
Acquire ROW	2018
Complete Engineering	2019
Begin Construction	2020

Transportation District Cost:

West District	\$0
East District	\$382,686
Southeast District	\$0

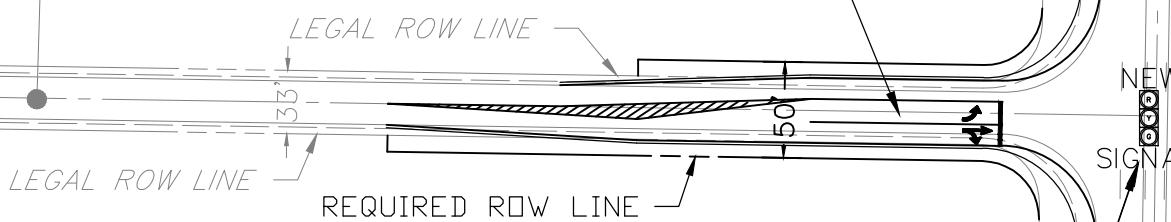
REMARKS:

See Improvement Drawing number 22 for a plan sketch of the proposed improvement.



PROGRESS AVENUE
(T-651)

PROJECT I-23B - ADD
EASTBOUND LEFT-TURN
LANE ON PROGRESS
AVENUE



PROJECT I-23A - SIGNALIZE INTERSECTION
(EXISTING DEFICIENCY)

100 50 0' 100

SCALE IN FEET

CRANBERRY TOWNSHIP IMPACT FEE UPDATE

CAPITAL IMPROVEMENTS DRAWING #23
ROUTE 19 AND PROGRESS AVENUE
PROJECTS I-23A AND I-23B

SHEET: 1 OF: 1 DATE: 06/15/2011

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1"=100'
PROJECT
R0012610447

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

INTERSECTION NUMBER: 23

PROJECT NUMBER: I-23A

LOCATION:

The intersection of US Route 19 (SR 0019) and Progress Avenue (T-651).

TRANSPORTATION DISTRICT: East/West

DEFICIENCY:

The intersection currently warrants a traffic signal.

PROPOSED IMPROVEMENTS:

Signalize the Intersection (Existing Deficiency).

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	250,000
Utility Relocation	4,500
Right-of Way	0
Engineering	30,000
Inspection	12,500
Admin & Planning	3,750
TOTAL	\$300,750

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 23%*

*New Development Traffic /
Anticipated Traffic Growth = 77%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2018
Projected Construction Cost	\$278,099
Projected Soft Cost	\$50,539
Projected Total Cost	\$328,638

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$75,587
New Development Trips	\$253,051

PROJECT SCHEDULE:

			Year
State/Federal	0%	\$0	2016
Other	100%	\$328,638	2016
Impact Fees	0%	\$0	2017

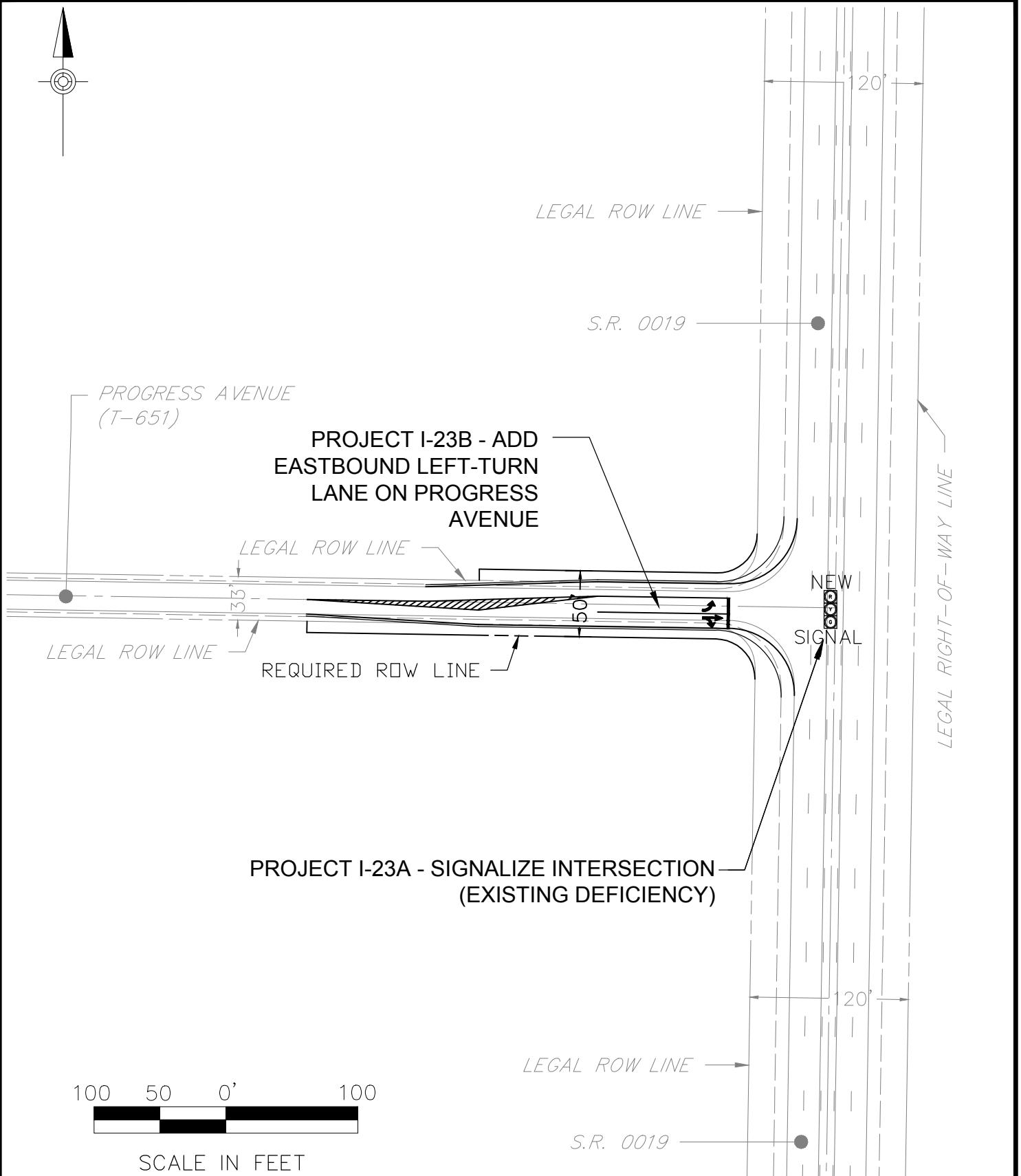
Secure Funding	2016
Acquire ROW	2016
Complete Engineering	2017
Begin Construction	2018

Transportation District Cost:

West District	\$0
East District	\$0
Southeast District	\$0

REMARKS:

See Improvement Drawing number 23 for a plan sketch of the proposed improvement.



CRANBERRY TOWNSHIP IMPACT FEE UPDATE

CAPITAL IMPROVEMENTS DRAWING #23
ROUTE 19 AND PROGRESS AVENUE
PROJECTS I-23A AND I-23B

SHEET: 1 OF: 1 DATE: 06/15/2011

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DESIGN DSM
DRAWN DSM
SCALE 1"=100'
PROJECT R0012610447

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

INTERSECTION NUMBER: 23

PROJECT NUMBER: I-23B

LOCATION:

The intersection of US Route 19 (SR 0019) and Progress Avenue (T-651).

TRANSPORTATION DISTRICT: East/West

DEFICIENCY:

Side Street Capacity becomes deficient.

PROPOSED IMPROVEMENTS:

Construct an eastbound left-turn lane on Progress Avenue.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	141,748
Utility Relocation	17,000
Right-of Way	130,000
Engineering	25,515
Inspection	7,087
Admin & Planning	2,126
TOTAL	\$323,476

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 23%*

*New Development Traffic /
Anticipated Traffic Growth = 77%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2018
Projected Construction Cost	\$315,522
Projected Soft Cost	\$37,948
Projected Total Cost	\$353,471

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$81,298
New Development Trips	\$272,172

PROJECT SCHEDULE:

			Year
State/Federal	0%	\$0	2016
Other	50%	\$176,735	2016
Impact Fees	50%	\$176,735	2017

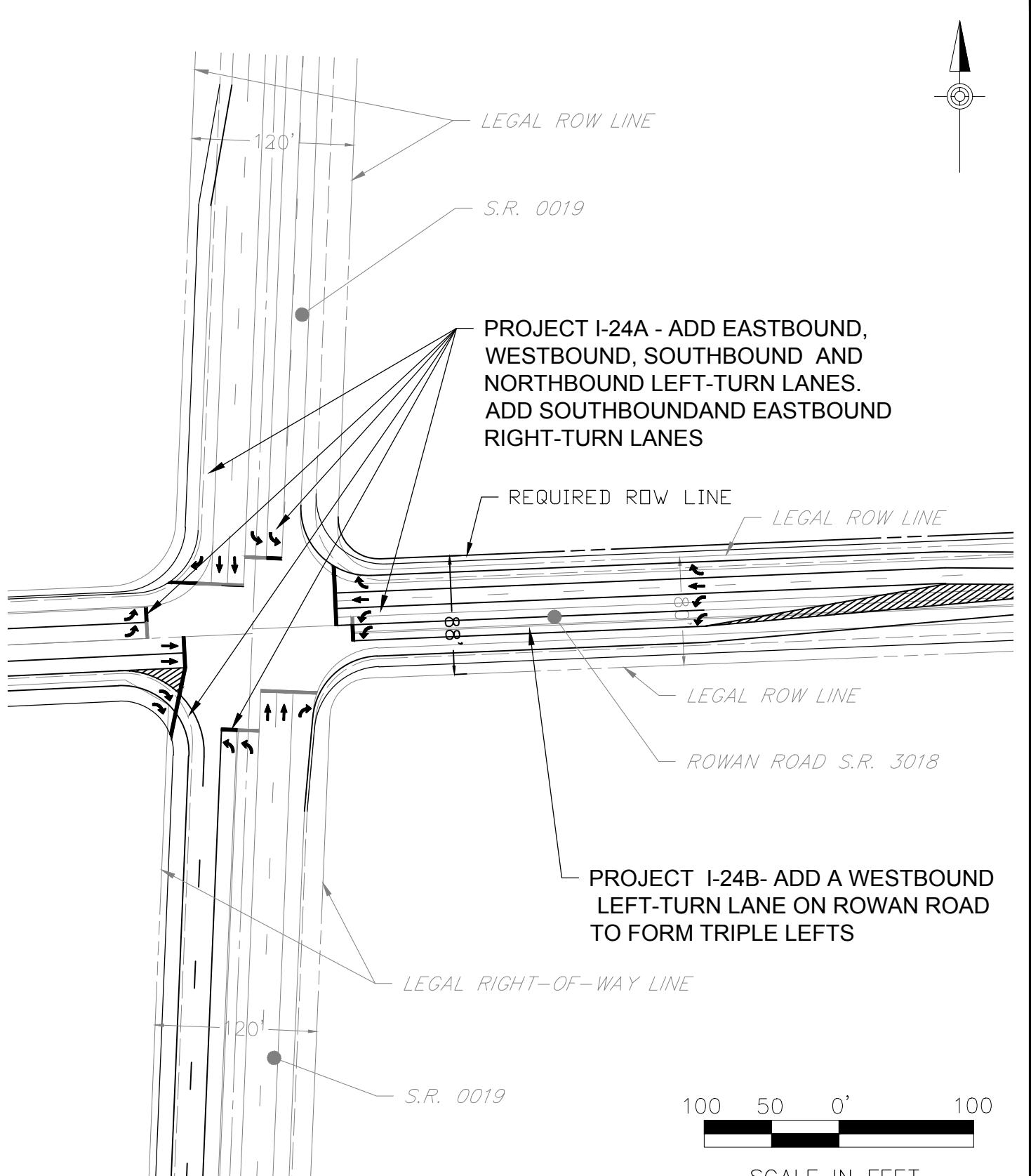
Secure Funding	2016
Acquire ROW	2016
Complete Engineering	2017
Begin Construction	2018

Transportation District Cost:

West District	\$159,062
East District	\$17,674
Southeast District	\$0

REMARKS:

See Improvement Drawing number 23 for a plan sketch of the proposed improvement.



CRANBERRY TOWNSHIP IMPACT FEE UPDATE

CAPITAL IMPROVEMENTS DRAWING #24
ROUTE 19 AND OGLE VIEW/ROWAN ROADS
PROJECTS I-24A AND I-24B

SHEET: 1 OF: 1 DATE: 06/15/2011

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SCALE 1"=100'
PROJECT R0012610447

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

INTERSECTION NUMBER: 24

PROJECT NUMBER: I-24A

LOCATION:

The intersection of US Route 19, Ogle View Road (T-322) and Rowan Road (SR 3018).

TRANSPORTATION DISTRICT: East/West

DEFICIENCY:

The current intersection is projected to become deficient with 2030 forecast traffic volumes.

PROPOSED IMPROVEMENTS:

Add EBL, EBT, EBR, WBL, WBT, SBR. Add NB and SB left to form dual lefts.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	2,382,700
Utility Relocation	202,300
Right-of Way	1,450,000
Engineering	428,886
Inspection	285,924
Admin & Planning	35,741
TOTAL	\$4,785,551

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

<i>New Pass Thru Traffic /</i>
<i>Anticipated Traffic Growth = 30%</i>
<i>New Development Traffic /</i>
<i>Anticipated Traffic Growth = 70%</i>

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2025
Projected Construction Cost	\$5,422,703
Projected Soft Cost	\$1,008,677
Projected Total Cost	\$6,431,380

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$1,929,414
New Development Trips	\$4,501,966

PROJECT SCHEDULE:

			Year
State/Federal	0%	\$0	2023
Other	78%	\$5,016,476	2023
Impact Fees	22%	\$1,414,904	2024

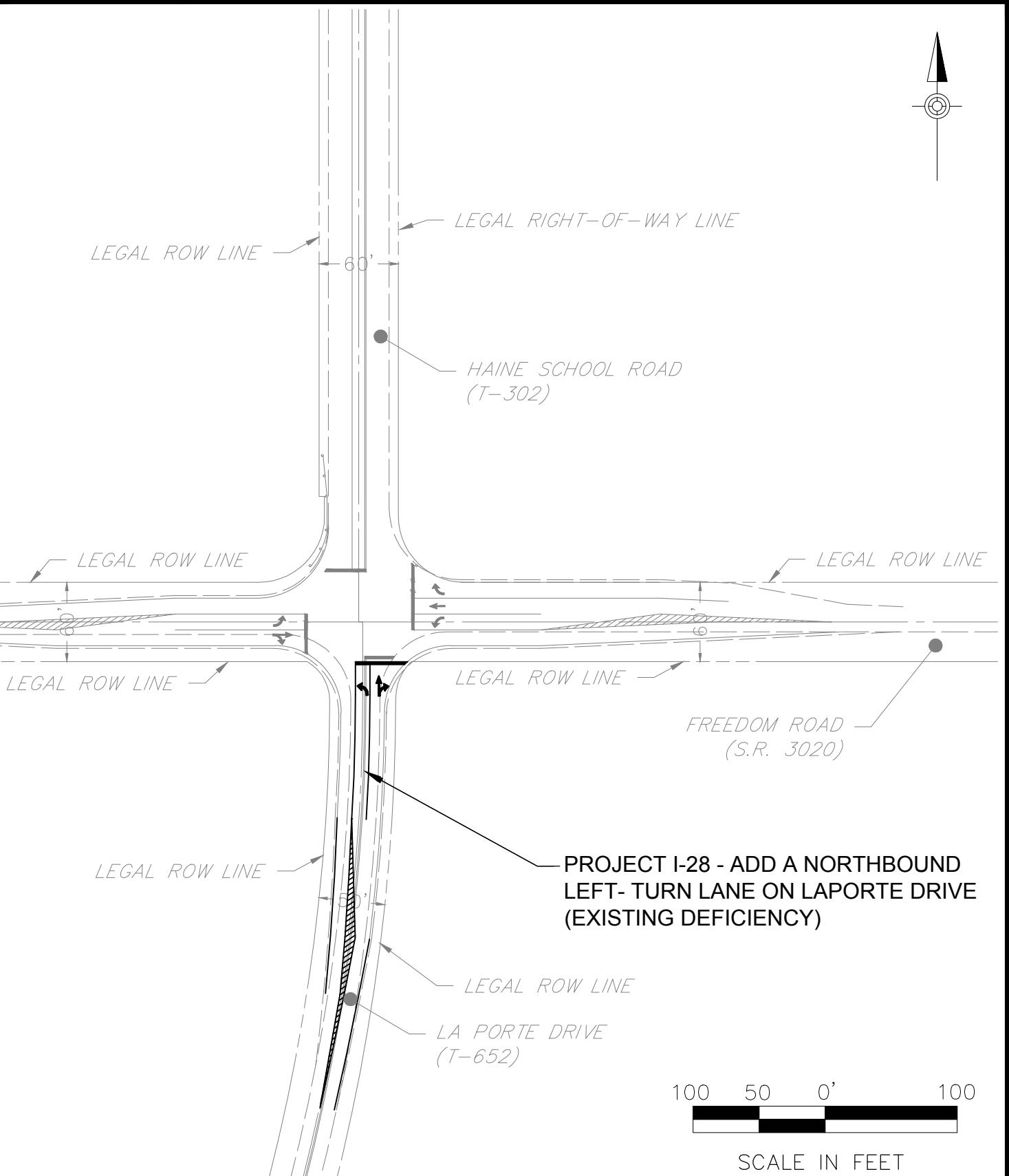
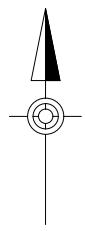
Secure Funding	2023
Acquire ROW	2023
Complete Engineering	2024
Begin Construction	2025

Transportation District Cost:

West District	\$707,452
East District	\$707,452
Southeast District	\$0

REMARKS:

See Improvement Drawing number 24 for a plan sketch of the proposed improvement.



CRANBERRY TOWNSHIP IMPACT FEE UPDATE

CAPITAL IMPROVEMENTS DRAWING #28
HAINES SCHOOL/LAPORTE DRIVE AND FREEDOM ROAD
PROJECT I-28

SHEET: 1 OF: 1 DATE: 06/15/2011

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PROJECT
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**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

INTERSECTION NUMBER: 28

PROJECT NUMBER: I-28

LOCATION:

The intersection of Haine School Road (T-302), LaPorte Drive (T-652) and Freedom Road (SR 3020).

TRANSPORTATION DISTRICT: West

DEFICIENCY:

The current intersection is projected to become deficient with 2030 forecast traffic volumes.

PROPOSED IMPROVEMENTS:

Add northbound left-turn lane on LaPorte Drive (Existing Deficiency).

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	221,800
Utility Relocation	5,000
Right-of Way	60,000
Engineering	33,270
Inspection	17,744
Admin & Planning	3,327
TOTAL	\$341,141

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 31%*

*New Development Traffic /
Anticipated Traffic Growth = 69%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2018
Projected Construction Cost	\$313,394
Projected Soft Cost	\$59,380
Projected Total Cost	\$372,774

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$114,782
New Development Trips	\$257,992

PROJECT SCHEDULE:

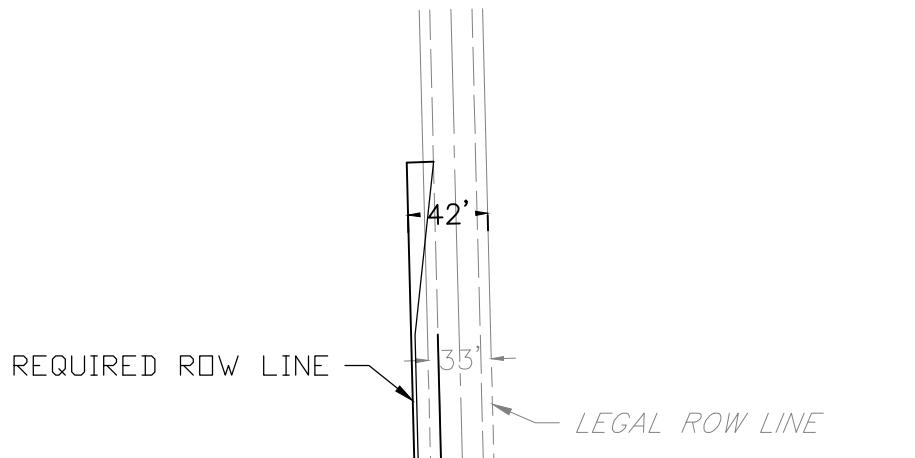
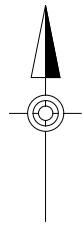
		Year
State/Federal	0%	\$0
Other	100%	\$372,774
Impact Fees	0%	\$0
Secure Funding		2016
Acquire ROW		2016
Complete Engineering		2017
Begin Construction		2018

Transportation District Cost:

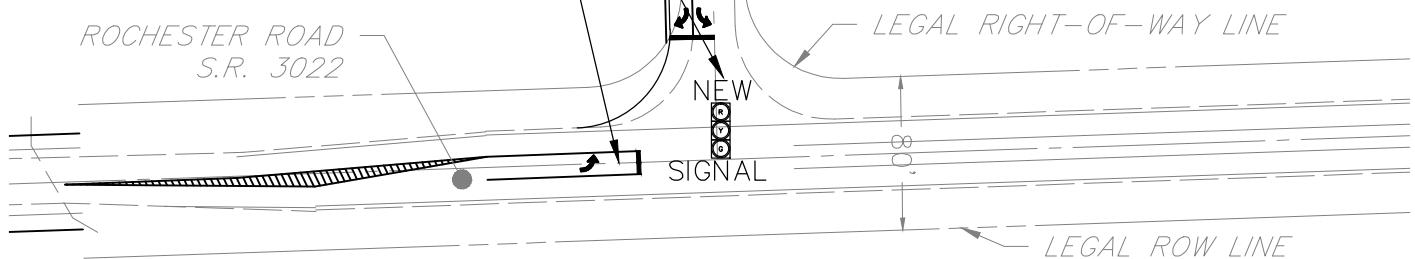
West District	\$0
East District	\$0
Southeast District	\$0

REMARKS:

See Improvement Drawing number 28 for a plan sketch of the proposed improvement.



**PROJECT I-30 - SIGNALIZE
INTERSECTION, ADD
SOUTHBOUND RIGHT-TURN
LANE ON GRAHAM SCHOOL
ROAD AND EASTBOUND
LEFT-TURN LANE ON
ROCHESTER ROAD.**



100 50 0' 100

SCALE IN FEET

CRANBERRY TOWNSHIP IMPACT FEE UPDATE

CAPITAL IMPROVEMENTS DRAWING #30
GRAHAM SCHOOL ROAD AND ROCHESTER ROAD
PROJECT I-30

SHEET: 1 OF: 1 DATE: 06/15/2011

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**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

INTERSECTION NUMBER: 30

PROJECT NUMBER: I-30

LOCATION:

The intersection of Graham School Road (T-304) and Rochester Road (SR 3022).

TRANSPORTATION DISTRICT: West

DEFICIENCY:

The current intersection one-way stop control is projected to become deficient with 2030 forecast traffic volumes.

PROPOSED IMPROVEMENTS:

Signalize the intersection and add a southbound right-turn lane and extend eastbound left-turn lane.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	436,793
Utility Relocation	10,000
Right-of Way	30,000
Engineering	87,359
Inspection	52,415
Admin & Planning	6,552
TOTAL	\$623,119

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 19%*

*New Development Traffic /
Anticipated Traffic Growth = 81%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2020
Projected Construction Cost	\$552,734
Projected Soft Cost	\$169,632
Projected Total Cost	\$722,365

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$137,249
New Development Trips	\$585,116

PROJECT SCHEDULE:

		Year
State/Federal	50%	\$361,183
Other	0%	\$0
Impact Fees	50%	\$361,183

Transportation District Cost:

West District	\$361,183
East District	\$0
Southeast District	\$0

REMARKS:

See Improvement Drawing number 30 for a plan sketch of the proposed improvement.

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

INTERSECTION NUMBER: 34

PROJECT NUMBER: I-34

LOCATION:

The intersection of Rolling Road and Freedom Road.

TRANSPORTATION DISTRICT: West

DEFICIENCY:

The intersection is projected to become deficient with 2030 forecast traffic volumes.

PROPOSED IMPROVEMENTS:

Install traffic signal.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	196,350
Utility Relocation	5,000
Right-of Way	0
Engineering	35,343
Inspection	9,818
Admin & Planning	2,945
TOTAL	\$249,456

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 32%*

*New Development Traffic /
Anticipated Traffic Growth = 68%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2018
Projected Construction Cost	\$220,021
Projected Soft Cost	\$52,566
Projected Total Cost	\$272,587

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$87,682
New Development Trips	\$184,905

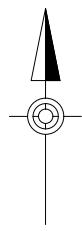
PROJECT SCHEDULE:

		Year
State/Federal	0%	\$0
Other	50%	\$136,294
Impact Fees	50%	\$136,294
Secure Funding		2016
Acquire ROW		2016
Complete Engineering		2017
Begin Construction		2018

Transportation District Cost:

West District	\$136,294
East District	\$0
Southeast District	\$0

REMARKS:



PROJECT I-35 ADD EASTBOUND
LEFT-TURN LANE ON BRANDT
DRIVE

REQUIRED ROW LINE

90

BRANDT DRIVE

100 50 0' 100

SCALE IN FEET

S.R. 0019

LEGAL ROW LINE

DUTILH ROAD
(T-326)

S.R. 0019

LEGAL ROW LINE

LEGAL RIGHT-OF-WAY LINE

120'

CRANBERRY TOWNSHIP IMPACT FEE UPDATE

CAPITAL IMPROVEMENTS DRAWING #35
ROUTE 19 AND DUTILH ROAD/BRANDT DRIVE
PROJECT I-35

SHEET: 1 OF: 1 DATE: 06/15/2011

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**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

INTERSECTION NUMBER: 35

PROJECT NUMBER: I-35

LOCATION:

The intersection of US Route 19, Dutihl Road (T-326) and Brandt Drive (Private).

TRANSPORTATION DISTRICT: West

DEFICIENCY:

The current intersection geometry is projected to become deficient with 2030 forecast traffic volumes.

PROPOSED IMPROVEMENTS:

Add an exclusive eastbound auxiliary turn lane on Brandt Drive.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	222,538
Utility Relocation	4,500
Right-of Way	65,000
Engineering	33,381
Inspection	17,803
Admin & Planning	3,338
TOTAL	\$346,559

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 31%*

*New Development Traffic /
Anticipated Traffic Growth = 69%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2018
Projected Construction Cost	\$319,117
Projected Soft Cost	\$59,577
Projected Total Cost	\$378,695

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$115,973
New Development Trips	\$262,722

PROJECT SCHEDULE:

		Year
State/Federal	0%	\$0
Other	31%	\$117,395
Impact Fees	69%	\$261,299

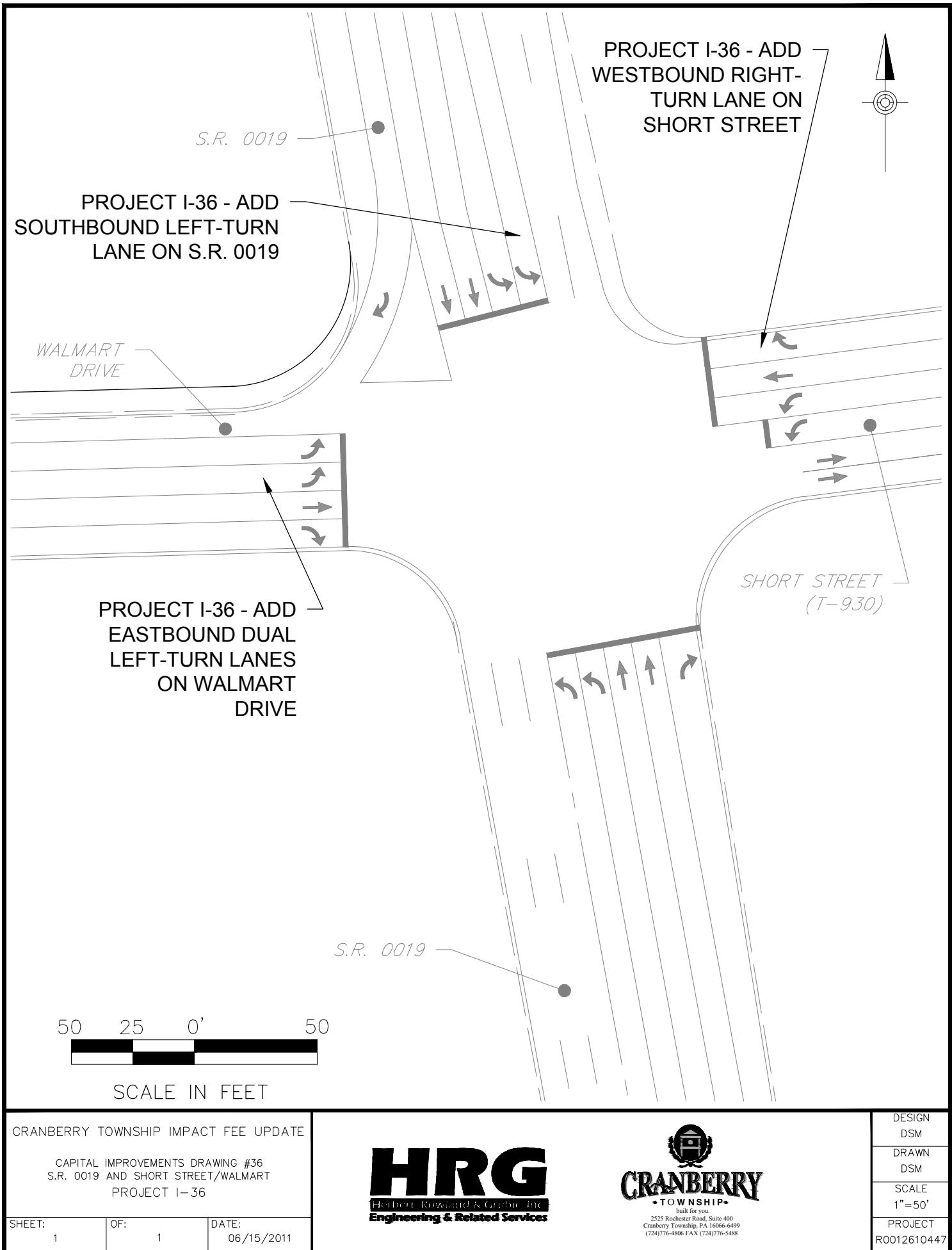
Secure Funding	2016
Acquire ROW	2016
Complete Engineering	2017
Begin Construction	2018

Transportation District Cost:

West District	\$261,299
East District	\$0
Southeast District	\$0

REMARKS:

See Improvement Drawing number 35 for a plan sketch of the proposed improvement.



**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

INTERSECTION NUMBER: 36

PROJECT NUMBER: I-36

LOCATION:

The intersection of US Route 19 and Short Street/ Wal-Mart Driveway

TRANSPORTATION DISTRICT: East/West

DEFICIENCY:

The current intersection geometry is projected to become deficient with 2030 forecast traffic volumes.

PROPOSED IMPROVEMENTS:

Add an eastbound left turn lane, westbound right, southbound left and appropriate receiving lanes.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	1,871,172
Utility Relocation	50,000
Right-of Way	185,000
Engineering	374,234
Inspection	224,541
Admin & Planning	28,068
TOTAL	\$2,733,015

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 41%*

*New Development Traffic /
Anticipated Traffic Growth = 59%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2020
Projected Construction Cost	\$2,441,631
Projected Soft Cost	\$726,683
Projected Total Cost	\$3,168,314

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$1,286,248
New Development Trips	\$1,882,065

PROJECT SCHEDULE:

State/Federal	90%	\$2,851,482
Other	0%	\$0
Impact Fees	10%	\$316,831

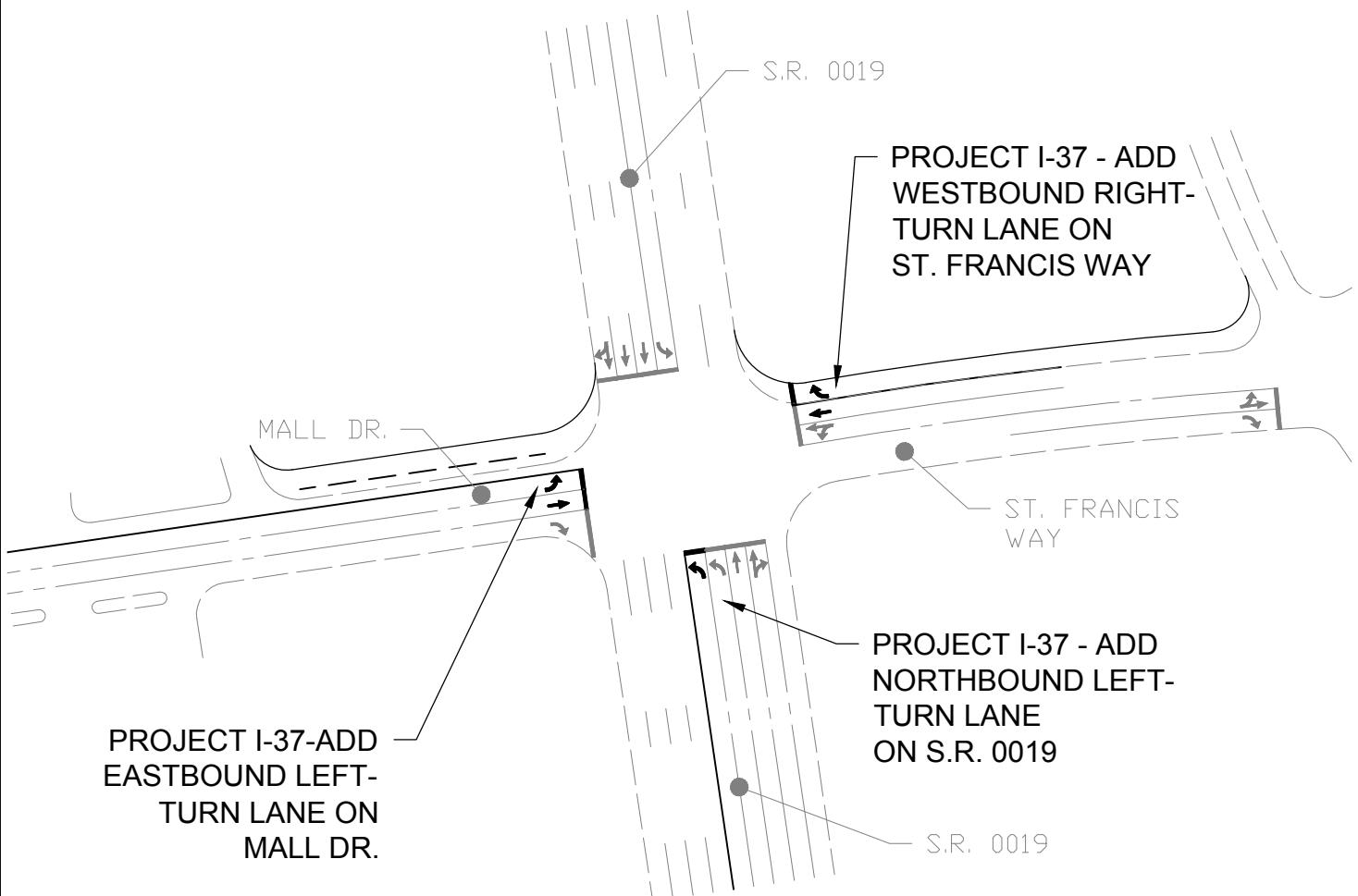
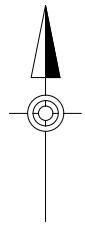
Secure Funding	2018
Acquire ROW	2018
Complete Engineering	2019
Begin Construction	2020

Transportation District Cost:

West District	\$221,782
East District	\$95,049
Southeast District	\$0

REMARKS:

See Improvement Drawing number 36 for a plan sketch of the proposed improvement.



100 50 0' 100

SCALE IN FEET

CRANBERRY TOWNSHIP IMPACT FEE UPDATE

CAPITAL IMPROVEMENTS DRAWING #37
S.R. 0019 AND ST. FRANCIS WAY
PROJECT I-37

SHEET: 1 OF: 1 DATE: 06/15/2011

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PROJECT R0012610447

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

INTERSECTION NUMBER: 37

PROJECT NUMBER: I-37

LOCATION:

The intersection of US Route 19 and St. Francis Way/ Mall Driveway

TRANSPORTATION DISTRICT: East/West

DEFICIENCY:

The current intersection geometry is projected to become deficient with 2030 forecast traffic volumes.

PROPOSED IMPROVEMENTS:

Add an Eastbound Left Turn Lane and receiving lane on Mall Drive, Add NB Left to form Dual Lefts on 19 and add a WB right turn lane on St. Francis Way.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	1,903,946
Utility Relocation	0
Right-of Way	1,200,000
Engineering	380,789
Inspection	228,474
Admin & Planning	28,559
TOTAL	\$3,741,768

PROPORTIONAL SPLIT OF FUTURE PEAK HOUR TRAFFIC VOLUMES:

*New Pass Thru Traffic /
Anticipated Traffic Growth = 37%*

*New Development Traffic /
Anticipated Traffic Growth = 63%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2020
Projected Construction Cost	\$3,598,324
Projected Soft Cost	\$739,410
Projected Total Cost	\$4,337,735

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$1,597,495
New Development Trips	\$2,740,240

PROJECT SCHEDULE:

		Year
State/Federal	37%	Secure Funding
Other	58%	Acquire ROW
Impact Fees	5%	Complete Engineering
		Begin Construction
		2018
		2018
		2019
		2020

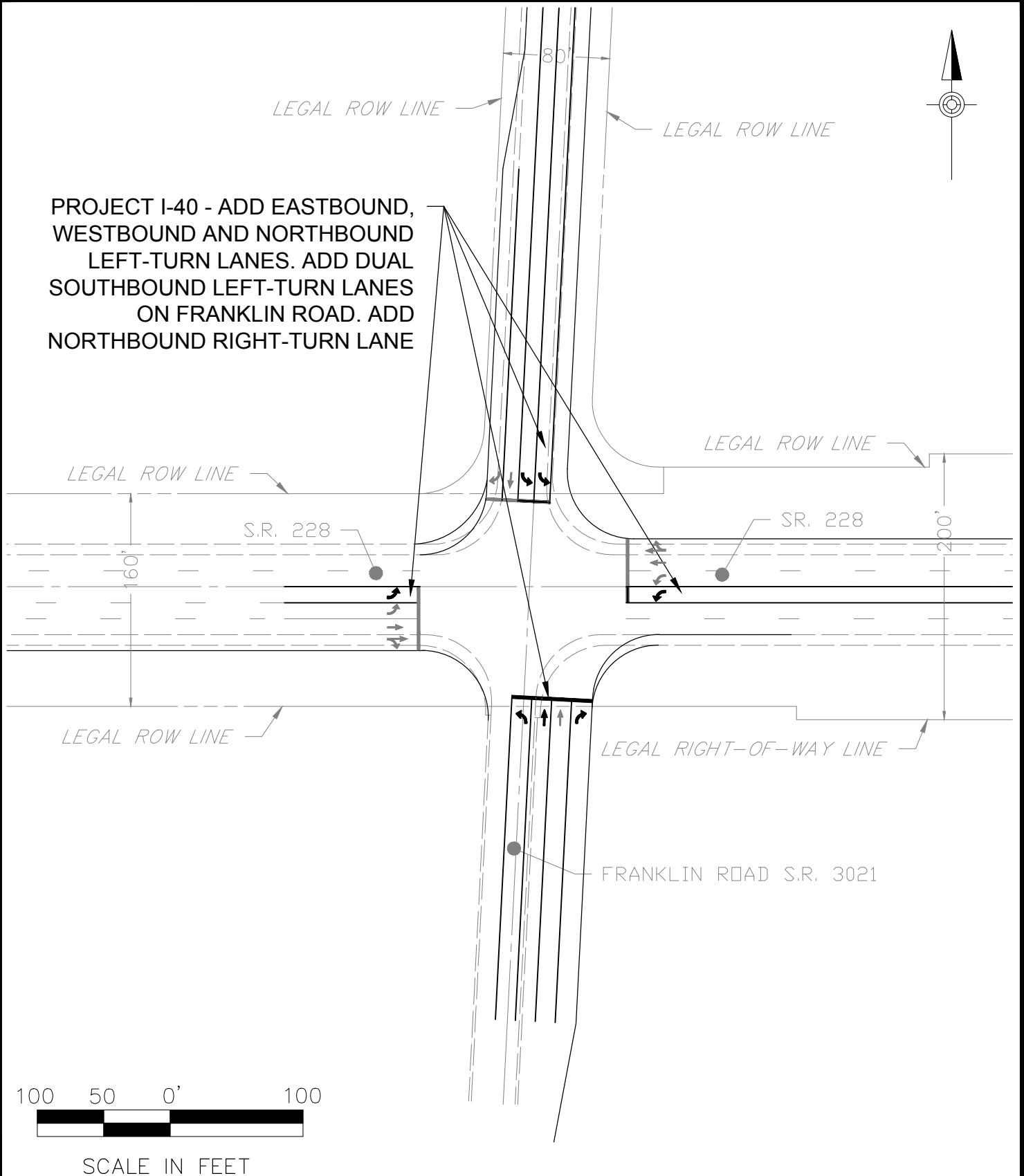
Transportation District Cost:

West District	\$214,718
East District	\$2,169
Southeast District	\$0

REMARKS:

See Improvement Drawing number 37 for a plan sketch of the proposed improvement.

PROJECT I-40 - ADD EASTBOUND,
WESTBOUND AND NORTHBOUND
LEFT-TURN LANES. ADD DUAL
SOUTHBOUND LEFT-TURN LANES
ON FRANKLIN ROAD. ADD
NORTHBOUND RIGHT-TURN LANE



CRANBERRY TOWNSHIP IMPACT FEE UPDATE

CAPITAL IMPROVEMENTS DRAWING #40
FRANKLIN ROAD AND S.R. 228
PROJECT I-40

SHEET: 1 OF: 1 DATE: 06/15/2011

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2525 Rochester Road, Suite 400
Cranberry Township, PA 16066-6409
(724)776-4806 FAX (724)776-5488

DESIGN DSM
DRAWN DSM
SCALE 1"=100'
PROJECT R0012610447

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

INTERSECTION NUMBER: 40

PROJECT NUMBER: I-40

LOCATION:

The intersection of Franklin Road (SR 3021) and PA Route 228.

TRANSPORTATION DISTRICT: East

DEFICIENCY:

The current intersection geometry is projected to become deficient with 2030 forecast traffic volumes.

PROPOSED IMPROVEMENTS:

Add EBL, WBL, SB Dual Lefts, NBT.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	2,039,510
Utility Relocation	98,500
Right-of Way	400,000
Engineering	367,112
Inspection	244,741
Admin & Planning	30,593
TOTAL	\$3,180,456

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 55%*

*New Development Traffic /
Anticipated Traffic Growth = 45%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2025
Projected Construction Cost	\$3,410,874
Projected Soft Cost	\$863,393
Projected Total Cost	\$4,274,267

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$2,336,510
New Development Trips	\$1,937,757

PROJECT SCHEDULE:

	Year
Secure Funding	2023
Acquire ROW	2023
Complete Engineering	2024
Begin Construction	2025

PROPOSED FUNDING:

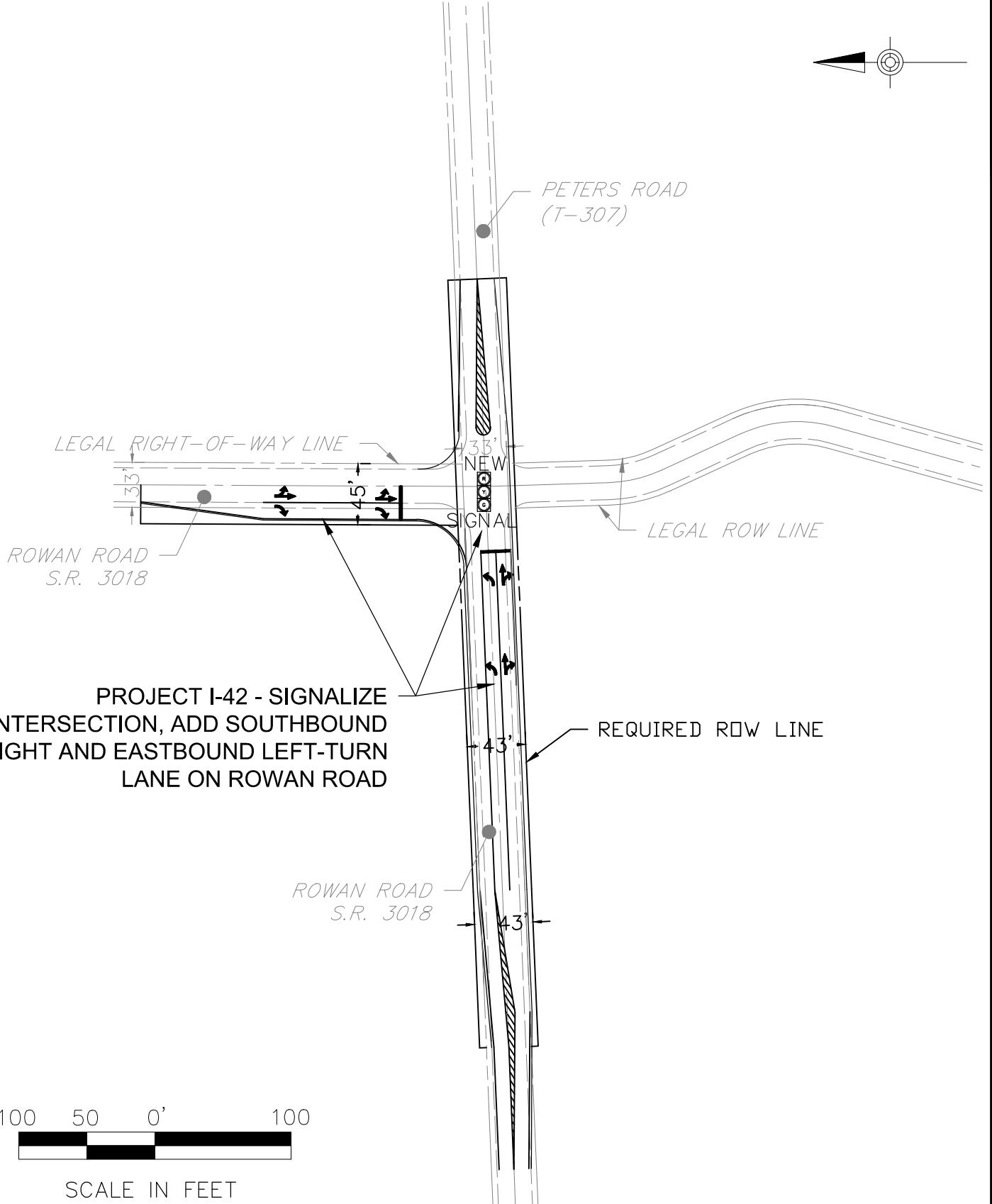
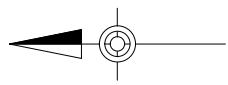
State/Federal	60%	\$2,564,560
Other	0%	\$0
Impact Fees	40%	\$1,709,707

Transportation District Cost:

West District	\$0
East District	\$1,709,707
Southeast District	\$0

REMARKS:

See Improvement Drawing number 40 for a plan sketch of the proposed improvement.



CRANBERRY TOWNSHIP IMPACT FEE UPDATE

CAPITAL IMPROVEMENTS DRAWING #42
PETERS ROAD/CANTERBURY TRAIL AND ROWAN ROAD
PROJECT I-42

SHEET: 1 OF: 1 DATE: 06/15/2011

HRG
Herbert, Rowland & Grottel, Inc.
Engineering & Related Services


CRANBERRY
TOWNSHIP
built for you
2525 Rochester Road, Suite 400
Cranberry Township, PA 16066-6499
(724)776-4896 FAX (724)776-5488

DESIGN DSM	SCALE 1"=100'
DRAWN DSM	
PROJECT R0012610447	

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

INTERSECTION NUMBER: 42

PROJECT NUMBER: I-42B

LOCATION:

The intersection of Peters Road (T-307), Canterbury Trail (T-726) and Rowan Road (SR 3018).

TRANSPORTATION DISTRICT: East

DEFICIENCY:

The current intersection is projected to become deficient with 2030 forecast traffic volumes.

PROPOSED IMPROVEMENTS:

Construct a roundabout.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	907,979
Utility Relocation	32,050
Right-of Way	75,000
Engineering	272,394
Inspection	72,638
Admin & Planning	13,620
TOTAL	\$1,373,680

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 19%*

*New Development Traffic /
Anticipated Traffic Growth = 81%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2018
Projected Construction Cost	\$1,109,149
Projected Soft Cost	\$391,908
Projected Total Cost	\$1,501,058

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$281,047
New Development Trips	\$1,220,011

PROJECT SCHEDULE:

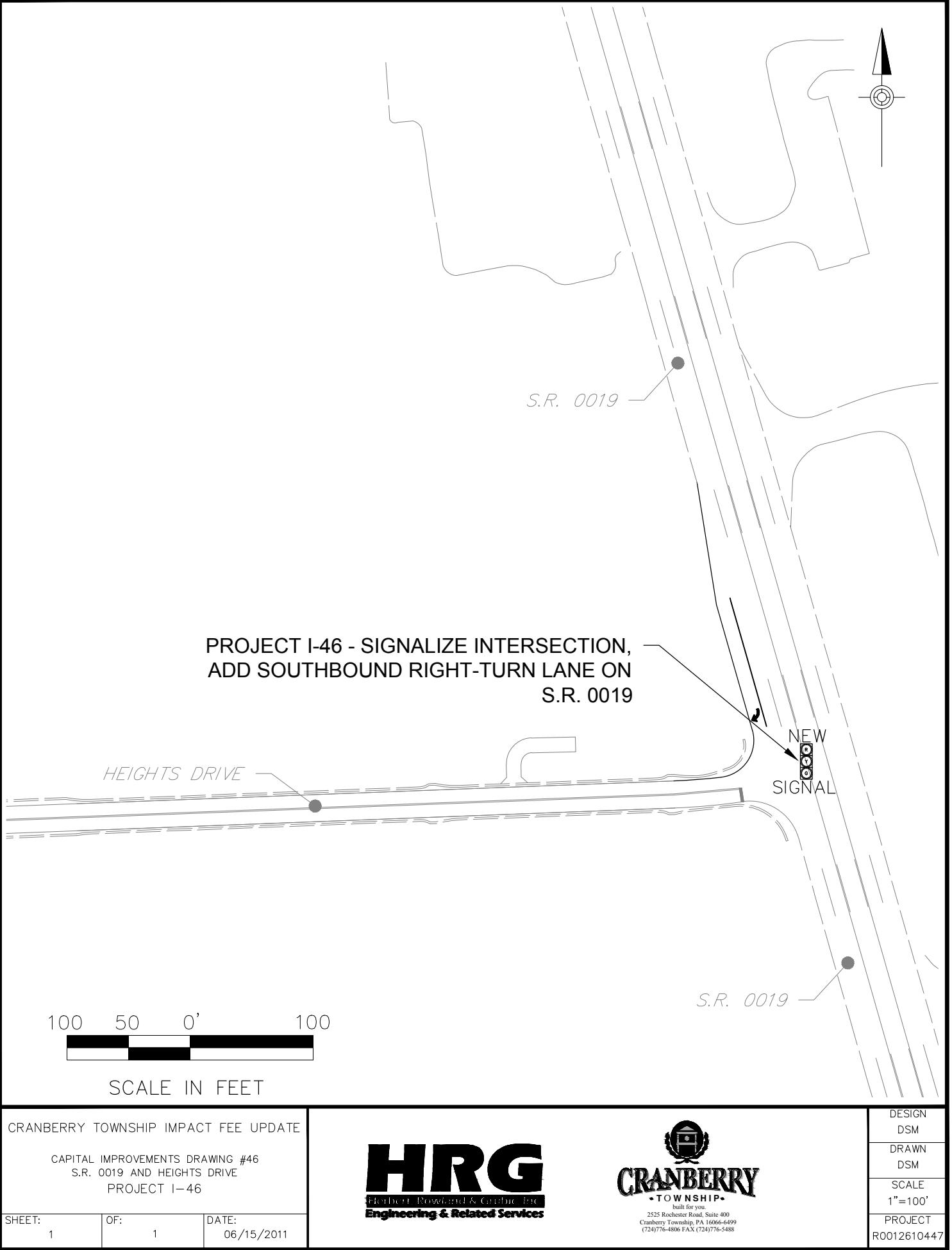
		Year
State/Federal	50%	\$750,529
Other	0%	\$0
Impact Fees	50%	\$750,529

Transportation District Cost:

West District	\$0
East District	\$750,529
Southeast District	\$0

REMARKS:

See Improvement Drawing number 42 for a plan sketch of the proposed improvement.



**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

INTERSECTION NUMBER: 46

PROJECT NUMBER: I-46

LOCATION:

Heights Drive and Route 19.

TRANSPORTATION DISTRICT: West

DEFICIENCY:

The proposed unsignalized intersection is anticipated to be deficient with 2030 traffic volumes.

PROPOSED IMPROVEMENTS:

Signalize new intersection. Add a southbound right-turn lane to Route 19.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	477,093
Utility Relocation	5,000
Right-of Way	25,000
Engineering	95,419
Inspection	23,855
Admin & Planning	7,156
TOTAL	\$633,523

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 23%*

*New Development Traffic /
Anticipated Traffic Growth = 77%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2020
Projected Construction Cost	\$587,860
Projected Soft Cost	\$146,567
Projected Total Cost	\$734,427

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$168,918
New Development Trips	\$565,508

PROJECT SCHEDULE:

PROPOSED FUNDING:

State/Federal	0%	\$0
Other	50%	\$367,213
Impact Fees	50%	\$367,213

	Year
Secure Funding	2018
Acquire ROW	2018
Complete Engineering	2019
Begin Construction	2020

Transportation District Cost:

West District	\$367,213
East District	\$0
Southeast District	\$0

REMARKS:

See Improvement Drawing number 46 for a plan sketch of the proposed improvement.

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-10

PROJECT NUMBER: S-10

LOCATION:

Ogle View Road (T-322) from Unionville Road to Route 19.

TRANSPORTATION DISTRICT: West

DEFICIENCY:

Shoulders need to be widened. Drainage structures should be added.

PROPOSED IMPROVEMENTS:

Widen to three-lane Commercial Collector Standards.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	748,837
Utility Relocation	0
Right-of Way	175,000
Engineering	89,860
Inspection	74,884
Admin & Planning	11,233
TOTAL	\$1,099,814

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 11%*

*New Development Traffic /
Anticipated Traffic Growth = 89%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2018
Projected Construction Cost	\$1,009,502
Projected Soft Cost	\$192,295
Projected Total Cost	\$1,201,797

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$132,198
New Development Trips	\$1,069,599

PROJECT SCHEDULE:

			Year
State/Federal	0%	\$0	2016
Other	50%	\$600,898	2016
Impact Fees	50%	\$600,898	2017

Secure Funding	2016
Acquire ROW	2016
Complete Engineering	2017
Begin Construction	2018

Transportation District Cost:

West District	\$600,898
East District	\$0
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-20

PROJECT NUMBER: S-20

LOCATION:

North Boundary Road from Marshall Road to Franklin Road

TRANSPORTATION DISTRICT: East

DEFICIENCY:

The 2030 traffic projects are anticipated to be higher than the current roadway can accommodate.

PROPOSED IMPROVEMENTS:

Add left turn lanes at key intersections to maintain thru traffic flow.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	1,262,401
Utility Relocation	24,400
Right-of Way	75,000
Engineering	189,360
Inspection	126,240
Admin & Planning	18,936
TOTAL	\$1,696,337

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 21%*

*New Development Traffic /
Anticipated Traffic Growth = 79%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2025
Projected Construction Cost	\$1,830,147
Projected Soft Cost	\$449,589
Projected Total Cost	\$2,279,735

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$478,744
New Development Trips	\$1,800,991

PROJECT SCHEDULE:

State/Federal	0%	\$0
Other	80%	\$1,823,788
Impact Fees	20%	\$455,947

Secure Funding	2021
Acquire ROW	2022
Complete Engineering	2024
Begin Construction	2025

Transportation District Cost:

West District	\$0
East District	\$455,947
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-25

PROJECT NUMBER: S-25

LOCATION:

Rowan Road (SR 3018) from Marshall Road to Peters Rd/Canterbury Trail.

TRANSPORTATION DISTRICT: East

DEFICIENCY:

An additional thru-lane in each direction is projected to be needed along this roadway segment.

PROPOSED IMPROVEMENTS:

Widen to five-lane Residential Collector.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	3,456,705
Utility Relocation	47,500
Right-of Way	1,350,000
Engineering	345,671
Inspection	276,536
Admin & Planning	51,851
TOTAL	\$5,528,263

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 60%*

*New Development Traffic /
Anticipated Traffic Growth = 40%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2025
Projected Construction Cost	\$6,523,646
Projected Soft Cost	\$905,877
Projected Total Cost	\$7,429,523

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$4,457,714
New Development Trips	\$2,971,809

PROJECT SCHEDULE:

State/Federal	60%	\$4,457,714
Other	30%	\$2,228,857
Impact Fees	10%	\$742,952

Secure Funding	2023
Acquire ROW	2023
Complete Engineering	2024
Begin Construction	2025

Transportation District Cost:

West District	\$0
East District	\$742,952
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-27

PROJECT NUMBER: S-27

LOCATION:

Goehring Road (T-316) from Marshall Road to Franklin Road.

TRANSPORTATION DISTRICT: East

DEFICIENCY:

Roadway does not conform to the Township's Residential Collector Standards.

PROPOSED IMPROVEMENTS:

Widen and Realign to two-lane Residential Collector Standards.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	4,098,209
Utility Relocation	75,100
Right-of Way	870,000
Engineering	491,785
Inspection	409,821
Admin & Planning	61,473
TOTAL	\$6,006,389

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 47%*

*New Development Traffic /
Anticipated Traffic Growth = 53%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2025
Projected Construction Cost	\$6,777,786
Projected Soft Cost	\$1,294,298
Projected Total Cost	\$8,072,084

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$3,793,880
New Development Trips	\$4,278,205

PROJECT SCHEDULE:

State/Federal	47%	\$3,793,880
Other	43%	\$3,470,996
Impact Fees	10%	\$807,208

Secure Funding	2022
Acquire ROW	2023
Complete Engineering	2024
Begin Construction	2025

Transportation District Cost:

West District	\$0
East District	\$807,208
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-30

PROJECT NUMBER: S-30A

LOCATION:

Freedom Road (SR 3020) from New Sewickly Township to Haine School Road.

TRANSPORTATION DISTRICT: West

DEFICIENCY:

An additional travel lane should be added in each direction along Freedom Road east of Powell Road.

PROPOSED IMPROVEMENTS:

Widen to four-lane Minor Arterial from Powell to Haines School Road.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	6,180,595
Utility Relocation	141,000
Right-of Way	3,250,000
Engineering	741,671
Inspection	618,060
Admin & Planning	92,709
TOTAL	\$11,024,035

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 39%*

*New Development Traffic /
Anticipated Traffic Growth = 61%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2025
Projected Construction Cost	\$12,863,424
Projected Soft Cost	\$1,951,958
Projected Total Cost	\$14,815,381

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$5,753,607
New Development Trips	\$9,061,774

PROJECT SCHEDULE:

		Year
State/Federal	39%	Secure Funding
Other	51%	Acquire ROW
Impact Fees	10%	Complete Engineering
		Begin Construction

Transportation District Cost:

West District	\$1,481,538
East District	\$0
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-30

PROJECT NUMBER: S-30B

LOCATION:

Freedom Road (SR 3020) from New Sewickly Township to Haine School Road.

TRANSPORTATION DISTRICT: West

DEFICIENCY:

Signal timing needs to adapt to traffic demands.

PROPOSED IMPROVEMENTS:

Adaptive Control System.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	65,500
Utility Relocation	0
Right-of Way	0
Engineering	0
Inspection	0
Admin & Planning	0
TOTAL	\$65,500

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 39%*

*New Development Traffic /
Anticipated Traffic Growth = 61%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2018
Projected Construction Cost	\$71,574
Projected Soft Cost	\$0
Projected Total Cost	\$71,574

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$27,796
New Development Trips	\$43,778

PROPOSED FUNDING:

State/Federal	0%	\$0
Other	50%	\$35,787
Impact Fees	50%	\$35,787

PROJECT SCHEDULE:

	Year
Secure Funding	2015
Acquire ROW	2016
Complete Engineering	2017
Begin Construction	2018

Transportation District Cost:

West District	\$35,787
East District	\$0
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-31

PROJECT NUMBER: S-31A

LOCATION:

Freedom Road (SR 3020) from Haine School Road to Commonwealth Drive.

TRANSPORTATION DISTRICT: West

DEFICIENCY:

At additional travel lane should be added in each direction along Freedom Road.

PROPOSED IMPROVEMENTS:

Widen to four-lane Minor Arterial with left-turn lanes.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	7,771,800
Utility Relocation	81,000
Right-of Way	1,900,000
Engineering	932,616
Inspection	777,180
Admin & Planning	116,577
TOTAL	\$11,579,173

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 27%*

*New Development Traffic /
Anticipated Traffic Growth = 73%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2025
Projected Construction Cost	\$13,106,948
Projected Soft Cost	\$2,454,493
Projected Total Cost	\$15,561,440

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$4,263,068
New Development Trips	\$11,298,372

PROJECT SCHEDULE:

		Year
State/Federal	27%	Secure Funding
Other	63%	Acquire ROW
Impact Fees	10%	Complete Engineering
		Begin Construction
		2022
		2023
		2024
		2025

Transportation District Cost:

West District	\$1,556,144
East District	\$0
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-31

PROJECT NUMBER: S-31B

LOCATION:

Freedom Road (SR 3020) from Haine School Road to Commonwealth Drive.

TRANSPORTATION DISTRICT: West

DEFICIENCY:

Signal timing needs to adapt to traffic demands.

PROPOSED IMPROVEMENTS:

Adaptive Control System.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	104,500
Utility Relocation	0
Right-of Way	0
Engineering	0
Inspection	0
Admin & Planning	0
TOTAL	\$104,500

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 27%*

*New Development Traffic /
Anticipated Traffic Growth = 73%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2018
Projected Construction Cost	\$114,190
Projected Soft Cost	\$0
Projected Total Cost	\$114,190

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$31,282
New Development Trips	\$82,908

PROJECT SCHEDULE:

		Year
State/Federal	0%	\$0
Other	50%	\$57,095
Impact Fees	50%	\$57,095
Secure Funding		2015
Acquire ROW		2016
Complete Engineering		2017
Begin Construction		2018

Transportation District Cost:

West District	\$57,095
East District	\$0
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-37

PROJECT NUMBER: S-37A

LOCATION:

Rochester Road (SR 3022) from Haines School Road to Graham School Road.

TRANSPORTATION DISTRICT: West

DEFICIENCY:

Additional thru lanes are anticipated to be needed by the year 2030.

PROPOSED IMPROVEMENTS:

Widen to four-lane Urban Collector with left-turn lanes (See Township Boulevard Design Standards).

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	3,887,856
Utility Relocation	17,350
Right-of Way	1,250,000
Engineering	466,543
Inspection	388,786
Admin & Planning	58,318
TOTAL	\$6,068,852

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 17%*

*New Development Traffic /
Anticipated Traffic Growth = 83%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2025
Projected Construction Cost	\$6,928,166
Projected Soft Cost	\$1,227,864
Projected Total Cost	\$8,156,030

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$1,373,038
New Development Trips	\$6,782,991

PROJECT SCHEDULE:

		Year
State/Federal	95%	\$7,748,228
Other	0%	\$0
Impact Fees	5%	\$407,801
Secure Funding		2022
Acquire ROW		2023
Complete Engineering		2024
Begin Construction		2025

Transportation District Cost:

West District	\$407,801
East District	\$0
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-37

PROJECT NUMBER: S-37B

LOCATION:

Rochester Road (SR 3022) from Graham School Road to western St. Ferdinand Church Driveway.

TRANSPORTATION DISTRICT: West

DEFICIENCY:

Additional thru lanes are anticipated to be needed by the year 2030.

PROPOSED IMPROVEMENTS:

Widen to four-lane Urban Collector with left-turn lanes (See Township Boulevard Design Standards).

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	2,557,929
Utility Relocation	9,350
Right-of Way	550,000
Engineering	306,951
Inspection	255,793
Admin & Planning	38,369
TOTAL	\$3,718,392

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 17%*

*New Development Traffic /
Anticipated Traffic Growth = 83%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2018
Projected Construction Cost	\$3,406,335
Projected Soft Cost	\$656,853
Projected Total Cost	\$4,063,187

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$684,023
New Development Trips	\$3,379,164

PROJECT SCHEDULE:

		Year
State/Federal	50%	\$2,031,594
Other	40%	\$1,625,275
Impact Fees	10%	\$406,319
Secure Funding		2015
Acquire ROW		2016
Complete Engineering		2017
Begin Construction		2018

Transportation District Cost:

West District	\$406,319
East District	\$0
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-37

PROJECT NUMBER: S-37C

LOCATION:

Rochester Road (SR 3022) from western St. Ferdinand Church Driveway to Route 19.

TRANSPORTATION DISTRICT: West

DEFICIENCY:

Additional thru lanes are anticipated to be needed by the year 2030.

PROPOSED IMPROVEMENTS:

Widen to four-lane Urban Collector with left-turn lanes (See Township Boulevard Design Standards).

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	2,741,967
Utility Relocation	9,000
Right-of Way	700,000
Engineering	329,036
Inspection	274,197
Admin & Planning	41,130
TOTAL	\$4,095,330

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 17%*

*New Development Traffic /
Anticipated Traffic Growth = 83%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2018
Projected Construction Cost	\$3,770,965
Projected Soft Cost	\$704,112
Projected Total Cost	\$4,475,077

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$753,363
New Development Trips	\$3,721,714

PROJECT SCHEDULE:

		Year
State/Federal	80%	\$3,580,062
Other	10%	\$447,508
Impact Fees	10%	\$447,508
Secure Funding		2015
Acquire ROW		2016
Complete Engineering		2017
Begin Construction		2018

Transportation District Cost:

West District	\$447,508
East District	\$0
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-37

PROJECT NUMBER: S-37D

LOCATION:

Rochester Road (SR 3022) from Haines School Road to Route 19.

TRANSPORTATION DISTRICT: West

DEFICIENCY:

Signal timing needs to adapt to traffic demands.

PROPOSED IMPROVEMENTS:

Adaptive Control System

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	115,000
Utility Relocation	0
Right-of Way	0
Engineering	0
Inspection	0
Admin & Planning	0
TOTAL	\$115,000

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 17%*

*New Development Traffic /
Anticipated Traffic Growth = 83%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2018
Projected Construction Cost	\$125,664
Projected Soft Cost	\$0
Projected Total Cost	\$125,664

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$21,155
New Development Trips	\$104,509

PROPOSED FUNDING:

State/Federal	0%	\$0
Other	50%	\$62,832
Impact Fees	50%	\$62,832

PROJECT SCHEDULE:

	Year
Secure Funding	2015
Acquire ROW	2016
Complete Engineering	2017
Begin Construction	2018

Transportation District Cost:

West District	\$62,832
East District	\$0
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-40

PROJECT NUMBER: S-40A

LOCATION:

S.R. 228 from Route 19 to Franklin Road

TRANSPORTATION DISTRICT: East

DEFICIENCY:

The 2030 traffic projects are anticipated to be higher than the current roadway can accommodate.

PROPOSED IMPROVEMENTS:

Widen to 6 Lane Arterial

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	9,055,562
Utility Relocation	116,500
Right-of Way	425,000
Engineering	905,556
Inspection	905,556
Admin & Planning	135,833
TOTAL	\$11,544,007

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 33%*

*New Development Traffic /
Anticipated Traffic Growth = 67%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2025
Projected Construction Cost	\$12,897,648
Projected Soft Cost	\$2,616,532
Projected Total Cost	\$15,514,180

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$5,135,270
New Development Trips	\$10,378,910

PROJECT SCHEDULE:

		Year
Secure Funding		2023
Acquire ROW		2024
Complete Engineering		2024
Begin Construction		2025

Transportation District Cost:

West District	\$0
East District	\$1,551,418
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-43

PROJECT NUMBER: S-43A

LOCATION:

Franklin Road (SR 3021) from Route 228 to Old Mars Crider Road.

TRANSPORTATION DISTRICT: East

DEFICIENCY:

Additional thru-lanes are anticipated to be needed by the year 2030 along this segment of Franklin Road to maintain an acceptable Level of Service.

PROPOSED IMPROVEMENTS:

Widen to four-lane Residential Collector.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	1,946,339
Utility Relocation	90,800
Right-of Way	900,000
Engineering	233,561
Inspection	194,634
Admin & Planning	29,195
TOTAL	\$3,394,529

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 45%*

*New Development Traffic /
Anticipated Traffic Growth = 55%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2025
Projected Construction Cost	\$3,947,269
Projected Soft Cost	\$614,693
Projected Total Cost	\$4,561,963

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$2,032,737
New Development Trips	\$2,529,226

PROJECT SCHEDULE:

		Year
Secure Funding		2021
Acquire ROW		2022
Complete Engineering		2023
Begin Construction		2025

Transportation District Cost:

West District	\$0
East District	\$638,675
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-43

PROJECT NUMBER: S-43B

LOCATION:

Franklin Road (SR 3021) from Old Mars Crider Road to Peters road.

TRANSPORTATION DISTRICT: East

DEFICIENCY:

Additional thru-lanes are anticipated to be needed by the year 2030 along this segment of Franklin Road to maintain an acceptable Level of Service.

PROPOSED IMPROVEMENTS:

Widen to four-lane Residential Collector.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	5,793,147
Utility Relocation	253,200
Right-of Way	2,400,000
Engineering	695,178
Inspection	579,315
Admin & Planning	86,897
TOTAL	\$9,807,736

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 45%*

*New Development Traffic /
Anticipated Traffic Growth = 55%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2025
Projected Construction Cost	\$11,351,184
Projected Soft Cost	\$1,829,594
Projected Total Cost	\$13,180,778

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$5,873,141
New Development Trips	\$7,307,637

PROJECT SCHEDULE:

		Year
Secure Funding		2021
Acquire ROW		2022
Complete Engineering		2023
Begin Construction		2025

Transportation District Cost:

West District	\$0
East District	\$1,318,078
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-44

PROJECT NUMBER: S-44A

LOCATION:

Route 19 (SR 0019) from Marshall Township to Route 228.

TRANSPORTATION DISTRICT: East/West

DEFICIENCY:

Thru lanes will need to be added to the roadway to maintain an acceptable Level of Service in the study year 2030.

PROPOSED IMPROVEMENTS:

Widen to six-lane Minor Arterial.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	6,705,745
Utility Relocation	324,000
Right-of Way	1,000,000
Engineering	804,689
Inspection	670,574
Admin & Planning	100,586
TOTAL	\$9,605,595

PROPORTIONAL SPLIT OF FUTURE PEAK HOUR TRAFFIC VOLUMES:

*New Pass Thru Traffic /
Anticipated Traffic Growth = 55%*

*New Development Traffic /
Anticipated Traffic Growth = 45%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2025
Projected Construction Cost	\$10,791,306
Projected Soft Cost	\$2,117,811
Projected Total Cost	\$12,909,116

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$7,159,171
New Development Trips	\$5,749,946

PROJECT SCHEDULE:

		Year
Secure Funding		2020
Acquire ROW		2022
Complete Engineering		2023
Begin Construction		2025

Transportation District Cost:

West District	\$645,456
East District	\$645,456
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-44

PROJECT NUMBER: S-44B

LOCATION:

Route 19 (SR 0019) from Marshall Township to Route 228.

TRANSPORTATION DISTRICT: East/West

DEFICIENCY:

Signal timing needs to adapt to traffic demands.

PROPOSED IMPROVEMENTS:

Adaptive Control System.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	115,000
Utility Relocation	0
Right-of Way	0
Engineering	0
Inspection	0
Admin & Planning	0
TOTAL	\$115,000

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 55%*

*New Development Traffic /
Anticipated Traffic Growth = 45%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2018
Projected Construction Cost	\$125,664
Projected Soft Cost	\$0
Projected Total Cost	\$125,664

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$69,691
New Development Trips	\$55,973

PROPOSED FUNDING:

State/Federal	0%	\$0
Other	55%	\$69,115
Impact Fees	45%	\$56,549

PROJECT SCHEDULE:

	Year
Secure Funding	2015
Acquire ROW	2016
Complete Engineering	2017
Begin Construction	2018

Transportation District Cost:

West District	\$28,274
East District	\$28,274
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-45

PROJECT NUMBER: S-45A

LOCATION:

Route 19 (SR 0019) from Route 228 to Ogle View/Rowan Roads.

TRANSPORTATION DISTRICT: East/West

DEFICIENCY:

Thru lanes will need to be added to the roadway to maintain an acceptable Level Of Service in the study year 2030.

PROPOSED IMPROVEMENTS:

Widen to six-lane Minor Arterial.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	11,255,040
Utility Relocation	474,000
Right-of Way	1,650,000
Engineering	1,350,605
Inspection	1,125,504
Admin & Planning	168,826
TOTAL	\$16,023,975

PROPORTIONAL SPLIT OF FUTURE PEAK HOUR TRAFFIC VOLUMES:

*New Pass Thru Traffic /
Anticipated Traffic Growth = 48%*

*New Development Traffic /
Anticipated Traffic Growth = 52%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2025
Projected Construction Cost	\$17,980,311
Projected Soft Cost	\$3,554,571
Projected Total Cost	\$21,534,882

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$10,390,644
New Development Trips	\$11,144,238

PROJECT SCHEDULE:

		Year
State/Federal	90%	2020
Other	0%	2021
Impact Fees	10%	2023
		2025
Secure Funding		
Acquire ROW		
Complete Engineering		
Begin Construction		

Transportation District Cost:

West District	\$1,076,744
East District	\$1,076,744
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-45

PROJECT NUMBER: S-45C

LOCATION:

Route 19 (SR 0019) from Route 228 to Ogle View/Rowan Roads.

TRANSPORTATION DISTRICT: East/West

DEFICIENCY:

Signal timing needs to adapt to traffic demands.

PROPOSED IMPROVEMENTS:

Adaptive Control System.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	100,000
Utility Relocation	0
Right-of Way	0
Engineering	0
Inspection	0
Admin & Planning	0
TOTAL	\$100,000

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 48%*

*New Development Traffic /
Anticipated Traffic Growth = 52%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2018
Projected Construction Cost	\$109,273
Projected Soft Cost	\$0
Projected Total Cost	\$109,273

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$52,724
New Development Trips	\$56,548

PROPOSED FUNDING:

State/Federal	0%	\$0
Other	50%	\$54,636
Impact Fees	50%	\$54,636

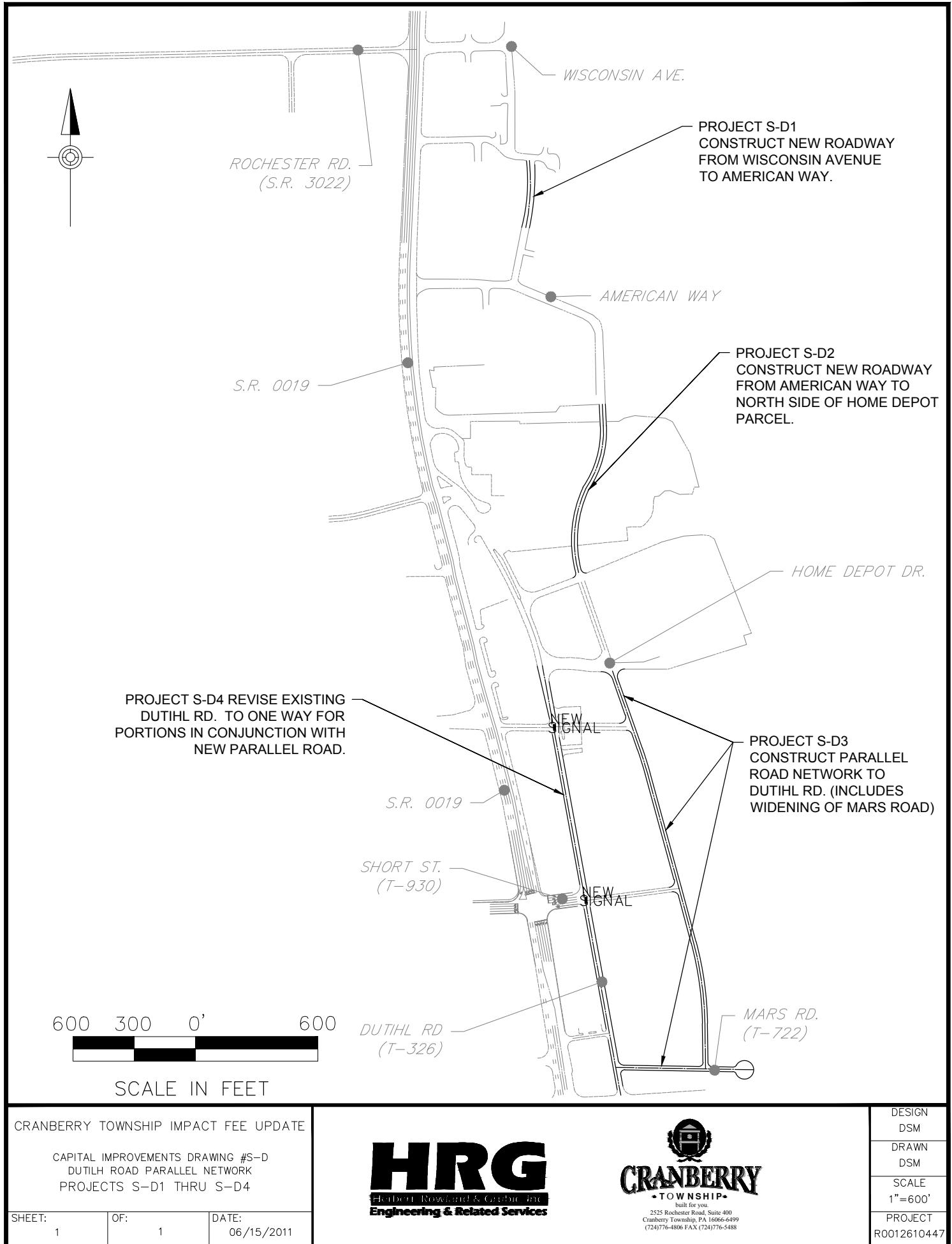
PROJECT SCHEDULE:

	Year
Secure Funding	2015
Acquire ROW	2016
Complete Engineering	2017
Begin Construction	2018

Transportation District Cost:

West District	\$27,318
East District	\$27,318
Southeast District	\$0

REMARKS:



**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-D1

PROJECT NUMBER: S-D1

LOCATION:

New connection from Wisconsin Avenue to American Way

TRANSPORTATION DISTRICT: East

DEFICIENCY:

A roadway network parallel to Route 19 should be constructed to allow for the efficient flow of traffic between adjacent developments without having to access Route 19.

PROPOSED IMPROVEMENTS:

Construct 2 Lane Commercial Collector Roadway

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	367,728
Utility Relocation	5,000
Right-of Way	180,000
Engineering	44,127
Inspection	29,418
Admin & Planning	5,516
TOTAL	\$631,790

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 0%*

*New Development Traffic /
Anticipated Traffic Growth = 100%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2018
Projected Construction Cost	\$603,981
Projected Soft Cost	\$86,393
Projected Total Cost	\$690,374

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$0
New Development Trips	\$690,374

PROJECT SCHEDULE:

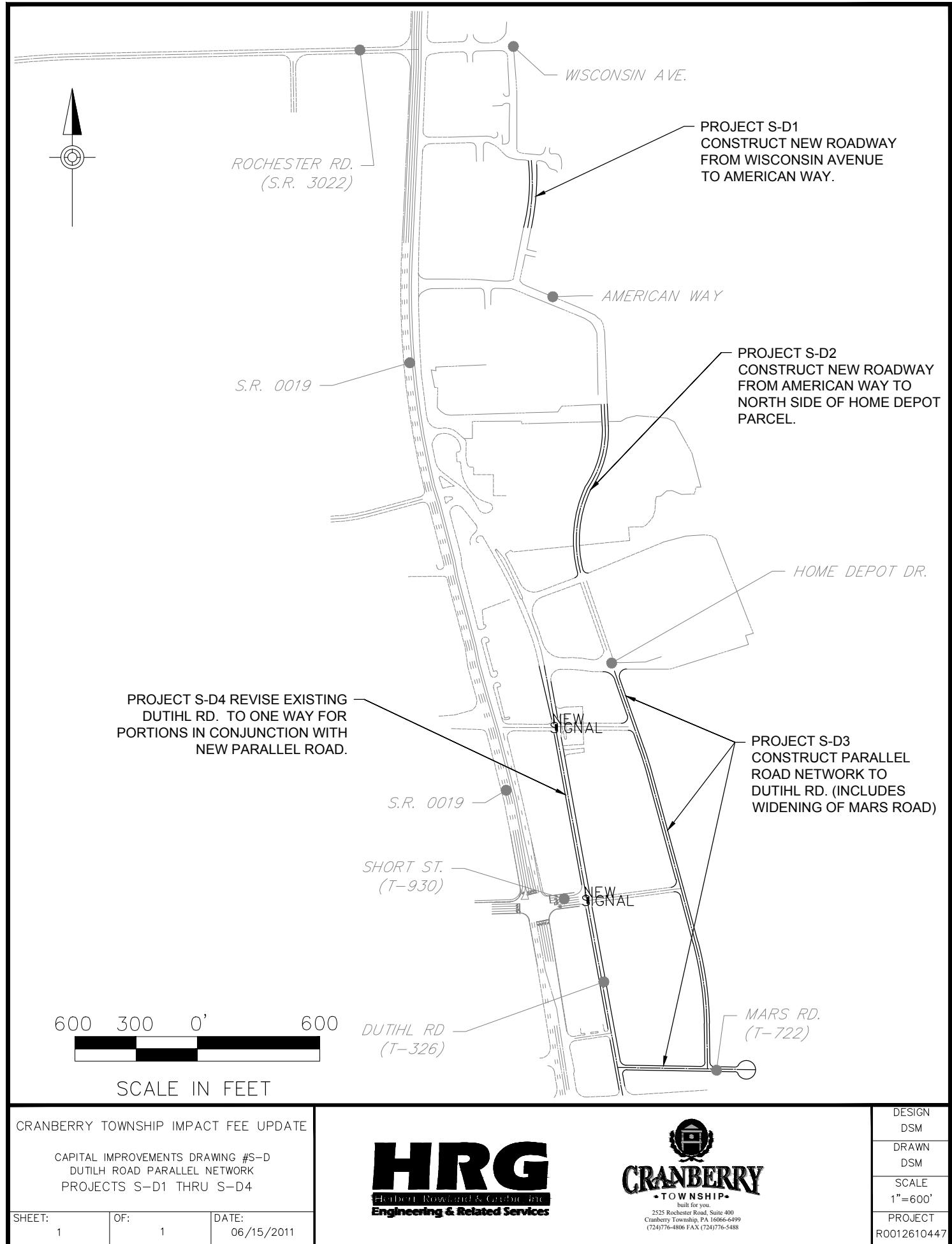
		Year
State/Federal	0%	\$0
Other	22%	\$151,882
Impact Fees	78%	\$538,492
Secure Funding		2015
Acquire ROW		2016
Complete Engineering		2017
Begin Construction		2018

Transportation District Cost:

West District	\$0
East District	\$538,492
Southeast District	\$0

REMARKS:

See Improvement Drawing number S-D for a plan sketch of the proposed improvement.



**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-D2

PROJECT NUMBER: S-D2

LOCATION:

New connection from American Way to North Side of Existing Home Depot Parcel.

TRANSPORTATION DISTRICT: East

DEFICIENCY:

A roadway network parallel to Route 19 should be constructed to allow for the efficient flow of traffic between adjacent developments without having to access Route 19.

PROPOSED IMPROVEMENTS:

Construct 2 Lane Commercial Collector Roadway

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	715,851
Utility Relocation	5,000
Right-of Way	270,000
Engineering	71,585
Inspection	57,268
Admin & Planning	10,738
TOTAL	\$1,130,442

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 0%*

*New Development Traffic /
Anticipated Traffic Growth = 100%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2025
Projected Construction Cost	\$1,331,621
Projected Soft Cost	\$187,599
Projected Total Cost	\$1,519,220

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$0
New Development Trips	\$1,519,220

PROJECT SCHEDULE:

State/Federal	0%	\$0
Other	22%	\$334,228
Impact Fees	78%	\$1,184,992

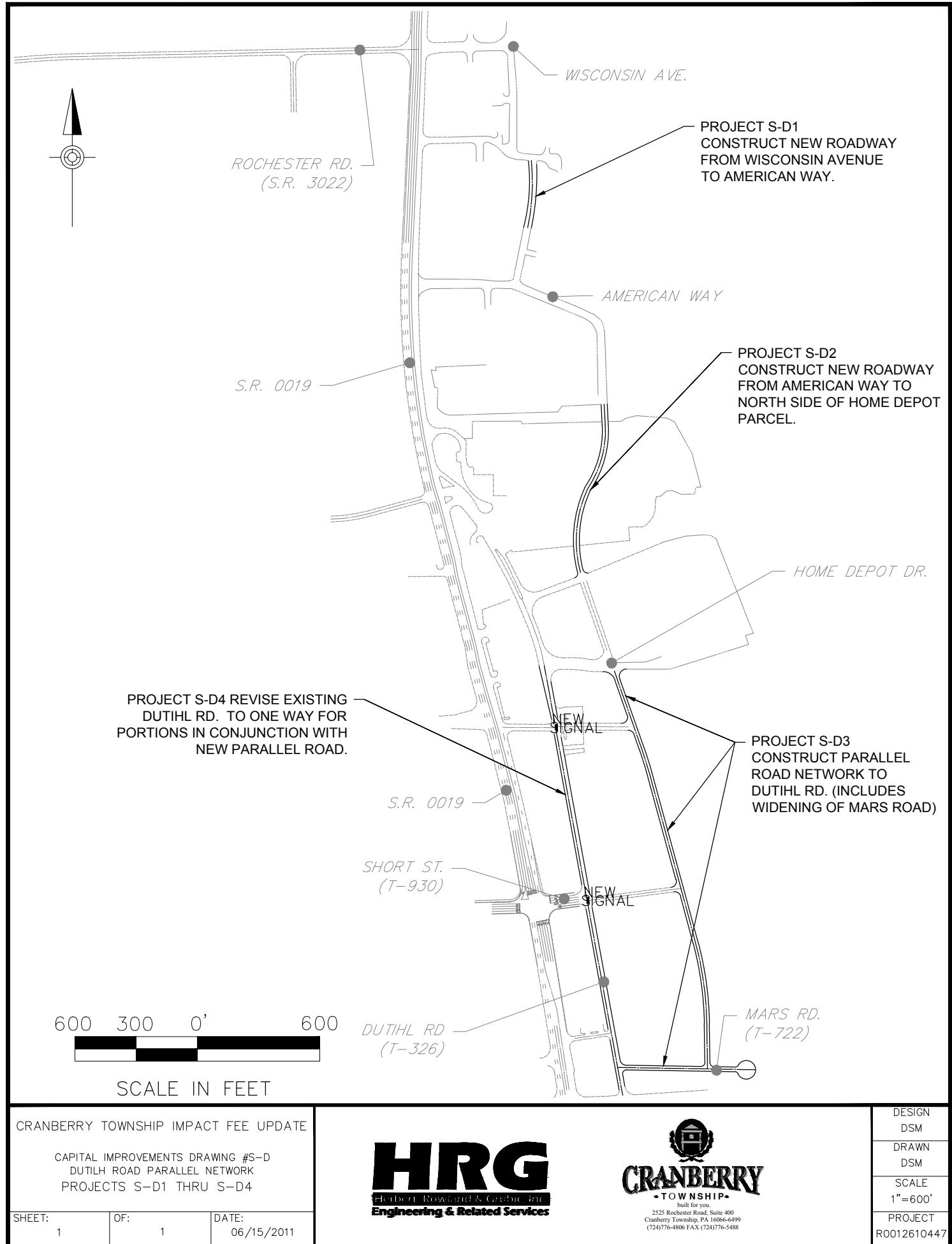
		Year
Secure Funding		2022
Acquire ROW		2023
Complete Engineering		2024
Begin Construction		2025

Transportation District Cost:

West District	\$0
East District	\$1,184,992
Southeast District	\$0

REMARKS:

See Improvement Drawing number S-D for a plan sketch of the proposed improvement.



**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-D3

PROJECT NUMBER: S-D3

LOCATION:

New connection from South Side of Existing Home Depot Parcel to Near 228.

TRANSPORTATION DISTRICT: East

DEFICIENCY:

A roadway network parallel to Route 19 should be constructed to allow for the efficient flow of traffic between adjacent developments without having to access Route 19.

PROPOSED IMPROVEMENTS:

Construct 2 Lane Commercial Collector Roadway

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	1,133,974
Utility Relocation	25,000
Right-of Way	600,000
Engineering	113,397
Inspection	90,718
Admin & Planning	17,010
TOTAL	\$1,980,099

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 0%*

*New Development Traffic /
Anticipated Traffic Growth = 100%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2025
Projected Construction Cost	\$2,363,914
Projected Soft Cost	\$297,173
Projected Total Cost	\$2,661,087

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$0
New Development Trips	\$2,661,087

PROJECT SCHEDULE:

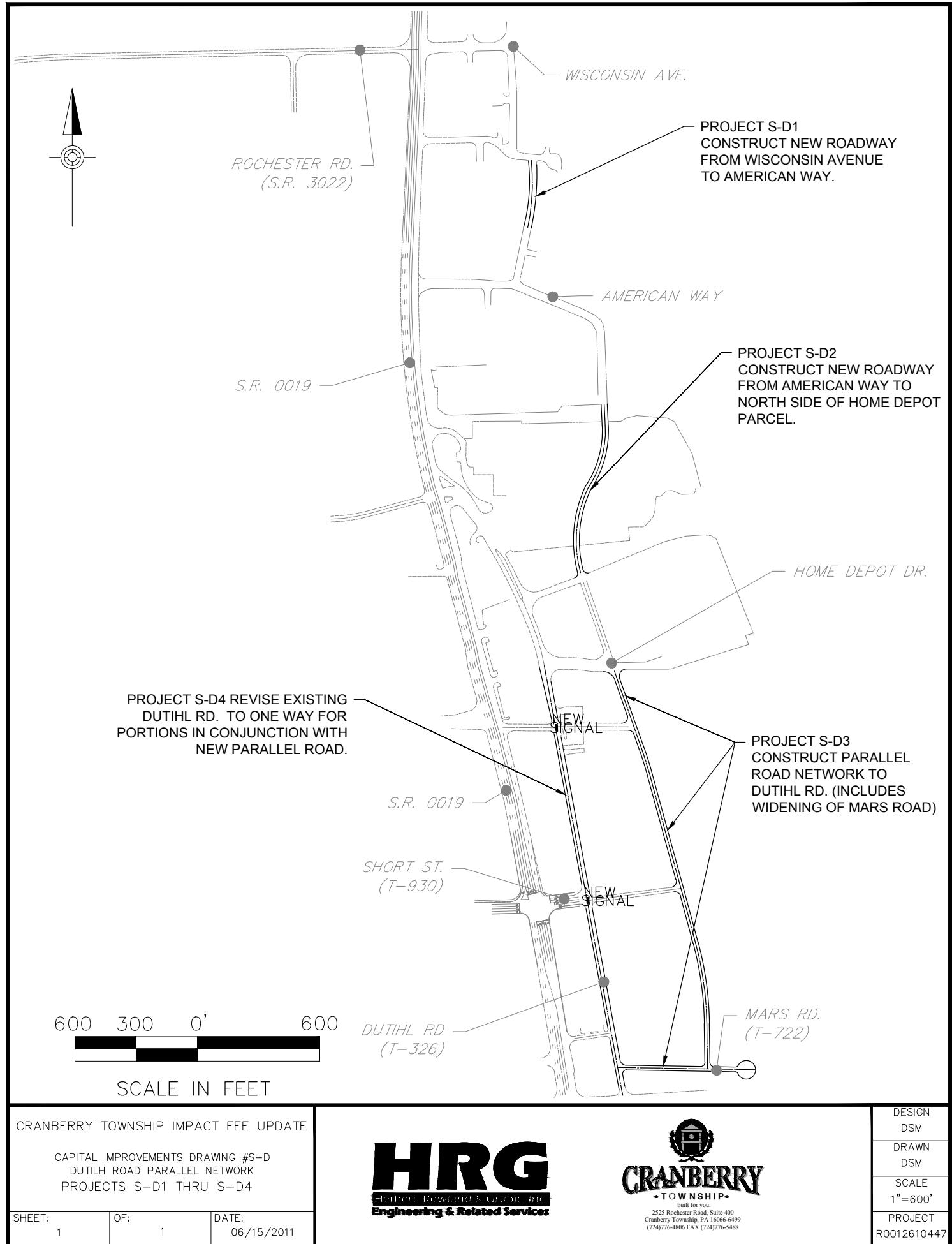
		Year
State/Federal	0%	\$0
Other	22%	\$585,439
Impact Fees	78%	\$2,075,648
Secure Funding		2022
Acquire ROW		2023
Complete Engineering		2024
Begin Construction		2025

Transportation District Cost:

West District	\$0
East District	\$2,075,648
Southeast District	\$0

REMARKS:

See Improvement Drawing number S-D for a plan sketch of the proposed improvement.



**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-D4

PROJECT NUMBER: S-D4

LOCATION:

Dutihl Road from Route 228 north to Brandt Drive.

TRANSPORTATION DISTRICT: East

DEFICIENCY:

Insufficient north-south roadway capacity within the Township.

PROPOSED IMPROVEMENTS:

Revise existing Dutihl Road to one way for portions in conjunction with construction of parallel 2 Lane Commercial Collector Roadway

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	1,035,279
Utility Relocation	10,000
Right-of Way	111,000
Engineering	103,528
Inspection	82,822
Admin & Planning	15,529
TOTAL	\$1,358,158

PROPORTIONAL SPLIT OF FUTURE PEAK HOUR TRAFFIC VOLUMES:

*New Pass Thru Traffic /
Anticipated Traffic Growth = 20%*

*New Development Traffic /
Anticipated Traffic Growth = 80%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2018
Projected Construction Cost	\$1,263,497
Projected Soft Cost	\$220,599
Projected Total Cost	\$1,484,096

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$296,819
New Development Trips	\$1,187,277

PROPOSED FUNDING:

State/Federal	0%	\$0
Other	22%	\$326,501
Impact Fees	78%	\$1,157,595

PROJECT SCHEDULE:

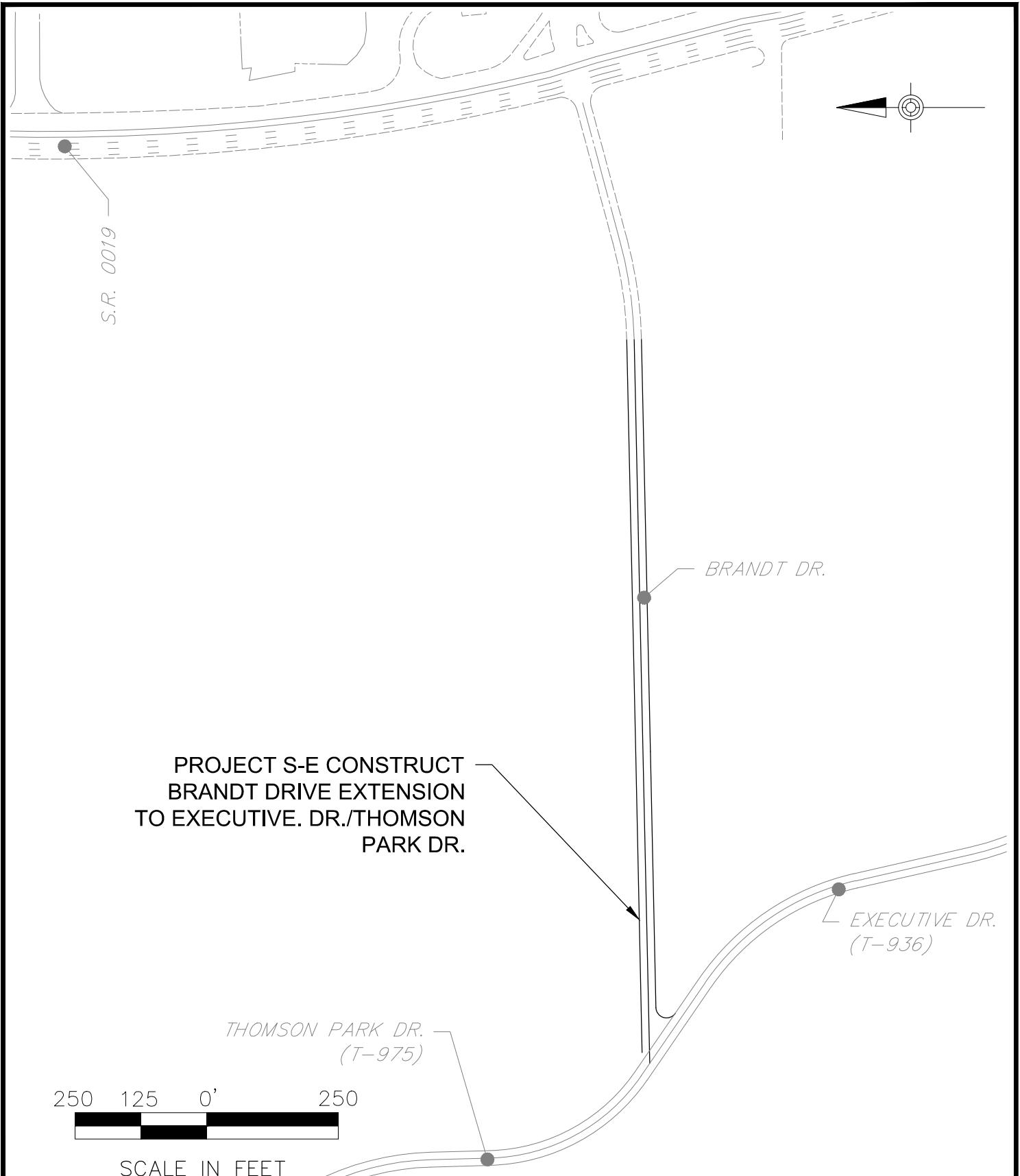
	Year
Secure Funding	2015
Acquire ROW	2016
Complete Engineering	2017
Begin Construction	2018

Transportation District Cost:

West District	\$0
East District	\$1,157,595
Southeast District	\$0

REMARKS:

See Improvement Drawing number S-D for a plan sketch of the proposed improvement.



CRANBERRY TOWNSHIP IMPACT FEE UPDATE		
CAPITAL IMPROVEMENTS DRAWING #S-E BRANDT DRIVE EXTENSION PROJECT S-E		
SHEET: 1	OF: 1	DATE: 06/15/2011



DESIGN
DSM
DRAWN
DSM
SCALE
1"=250'
PROJECT
R0012610447

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-E1

PROJECT NUMBER: S-E1

LOCATION:

New connection Thomson Park Drive to Brandt Drive including widening of existing Brandt Drive.

TRANSPORTATION DISTRICT: West

DEFICIENCY:

Insufficient east-west roadway capacity within the Township.

PROPOSED IMPROVEMENTS:

Construct 2 Lane Commercial Collector Roadway

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	799,586
Utility Relocation	10,000
Right-of Way	480,000
Engineering	119,938
Inspection	63,967
Admin & Planning	11,994
TOTAL	\$1,485,484

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 0%*

*New Development Traffic /
Anticipated Traffic Growth = 100%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2018
Projected Construction Cost	\$1,409,165
Projected Soft Cost	\$214,064
Projected Total Cost	\$1,623,229

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$0
New Development Trips	\$1,623,229

PROJECT SCHEDULE:

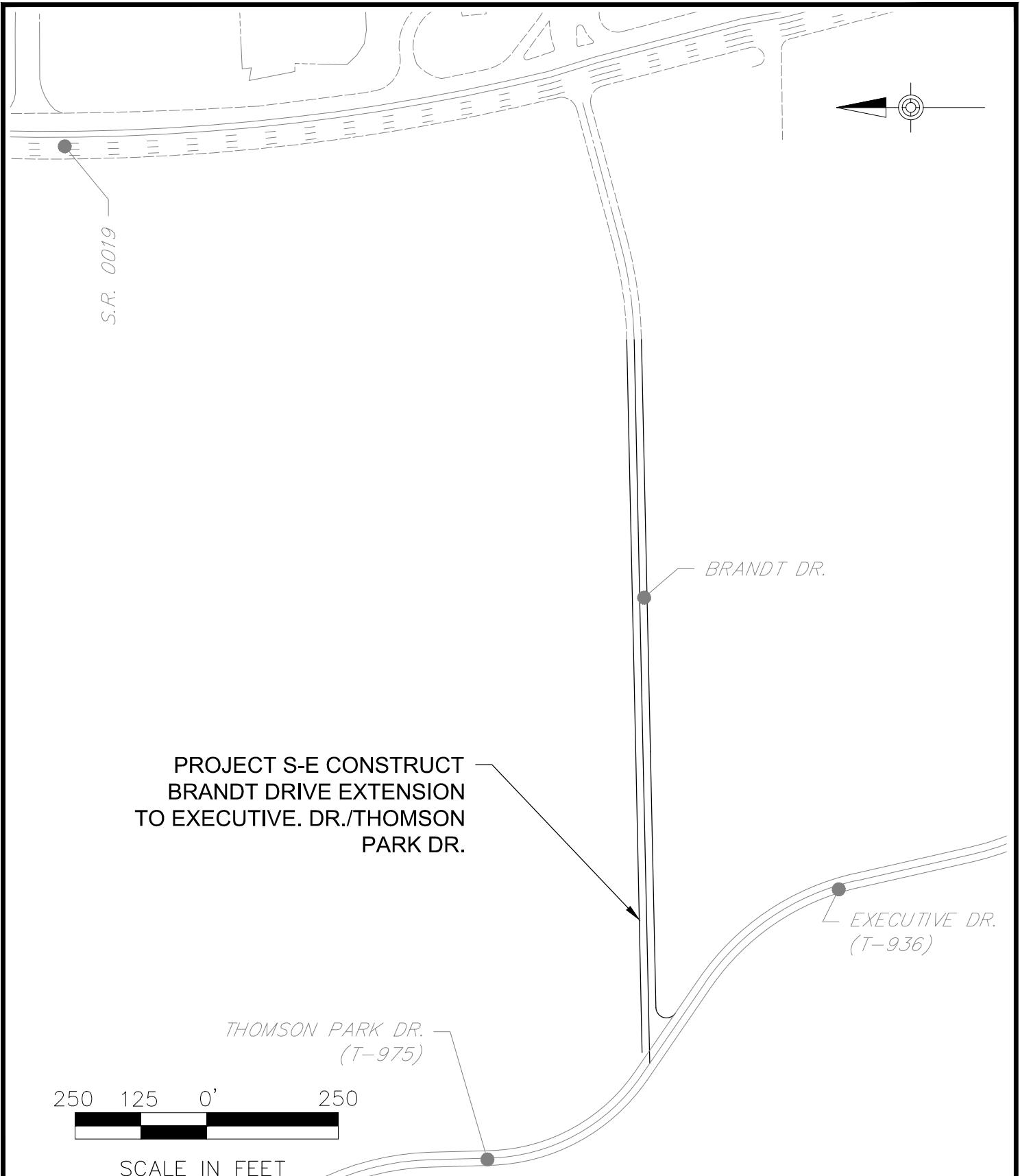
		Year
State/Federal	0%	\$0
Other	50%	\$811,614
Impact Fees	50%	\$811,614
Secure Funding		2015
Acquire ROW		2016
Complete Engineering		2017
Begin Construction		2018

Transportation District Cost:

West District	\$811,614
East District	\$0
Southeast District	\$0

REMARKS:

See Improvement Drawing number S-E for a plan sketch of the proposed improvement.



CRANBERRY TOWNSHIP IMPACT FEE UPDATE		
CAPITAL IMPROVEMENTS DRAWING #S-E BRANDT DRIVE EXTENSION PROJECT S-E		
SHEET: 1	OF: 1	DATE: 06/15/2011

HRG
Herbert Rowland & Gribble, Inc.
Engineering & Related Services


CRANBERRY
TOWNSHIP
built for you
3525 Rochester Road, Suite 400
Cranberry Township, PA 16066-6499
(724)776-4806 FAX (724)776-5488

DESIGN
DSM
DRAWN
DSM
SCALE
1"=250'
PROJECT
R0012610447

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-E2

PROJECT NUMBER: S-E2

LOCATION:

Intersection improvements including signal and turning lanes associated with Brandt Drive at Thomson Park Drive.

TRANSPORTATION DISTRICT: West

DEFICIENCY:

Insufficient east-west roadway capacity within the Township.

PROPOSED IMPROVEMENTS:

Construct Signal and Intersection improvements at Thomson Park Drive to accommodate new connector Road

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	367,903
Utility Relocation	5,000
Right-of Way	0
Engineering	44,148
Inspection	29,432
Admin & Planning	5,519
TOTAL	\$452,002

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 0%*

*New Development Traffic /
Anticipated Traffic Growth = 100%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2018
Projected Construction Cost	\$407,481
Projected Soft Cost	\$86,434
Projected Total Cost	\$493,915

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$0
New Development Trips	\$493,915

PROJECT SCHEDULE:

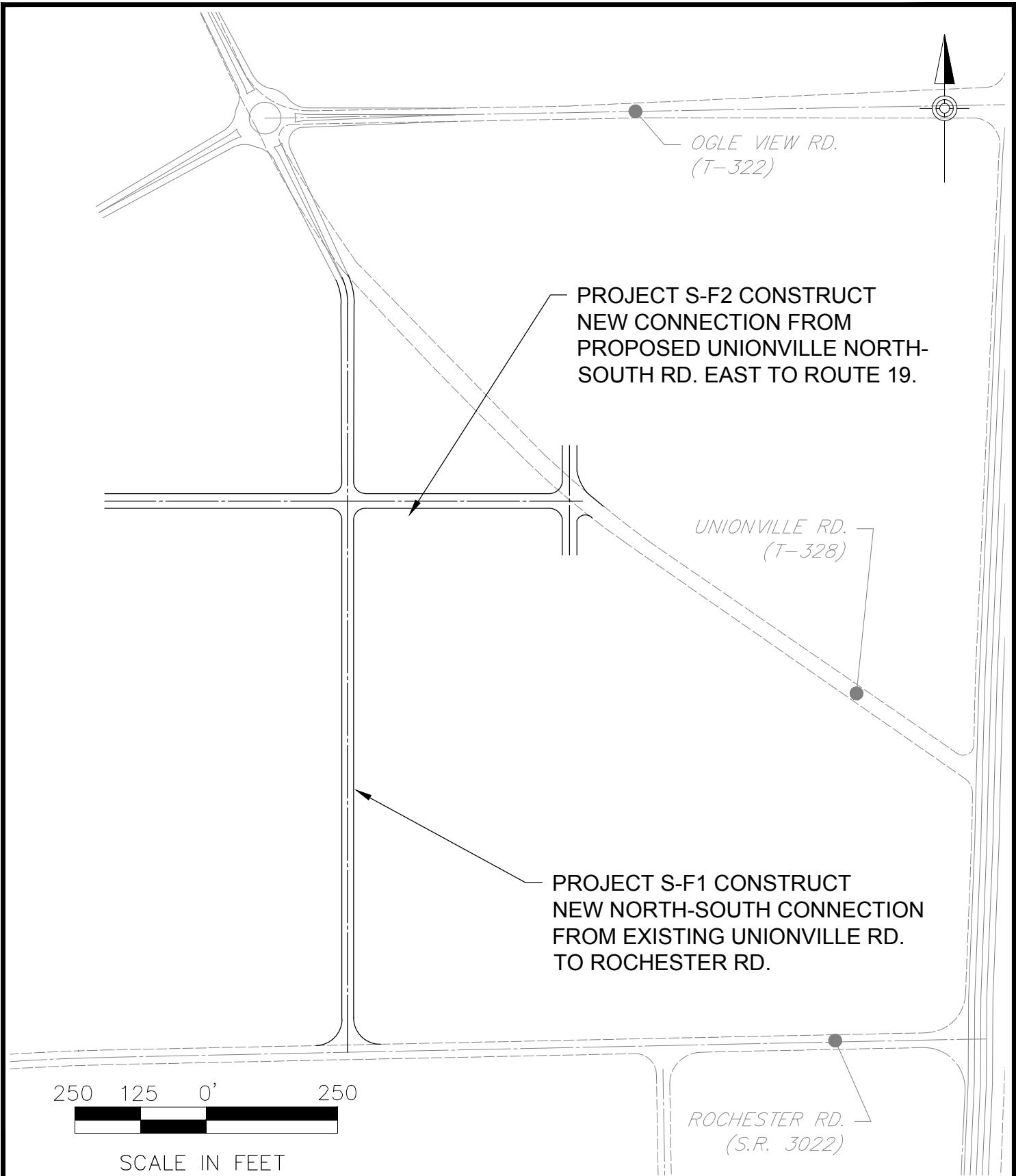
		Year
State/Federal	0%	\$0
Other	50%	\$246,958
Impact Fees	50%	\$246,958
Secure Funding		2015
Acquire ROW		2016
Complete Engineering		2017
Begin Construction		2018

Transportation District Cost:

West District	\$246,958
East District	\$0
Southeast District	\$0

REMARKS:

See Improvement Drawing number S-E for a plan sketch of the proposed improvement.



CRANBERRY TOWNSHIP IMPACT FEE UPDATE		
CAPITAL IMPROVEMENTS DRAWING #S-F OGLE VIEW AND ROCHESTER ROADS PROJECTS S-F1 & S-F2		
SHEET: 1	OF: 1	DATE: 06/15/2011



DESIGN DSM
DRAWN DSM
SCALE 1"=250'
PROJECT R0012610447

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-F1

PROJECT NUMBER: S-F1

LOCATION:

New north-south connection from existing Unionville Road south to Rochester Road.

TRANSPORTATION DISTRICT: West

DEFICIENCY:

Insufficient north-south roadway capacity within the Township.

PROPOSED IMPROVEMENTS:

Construct 3 Lane Commercial Collector Roadway

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	1,390,814
Utility Relocation	0
Right-of Way	750,000
Engineering	166,898
Inspection	111,265
Admin & Planning	20,862
TOTAL	\$2,439,839

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 10%*

*New Development Traffic /
Anticipated Traffic Growth = 90%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2018
Projected Construction Cost	\$2,339,325
Projected Soft Cost	\$326,753
Projected Total Cost	\$2,666,078

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$266,608
New Development Trips	\$2,399,470

PROJECT SCHEDULE:

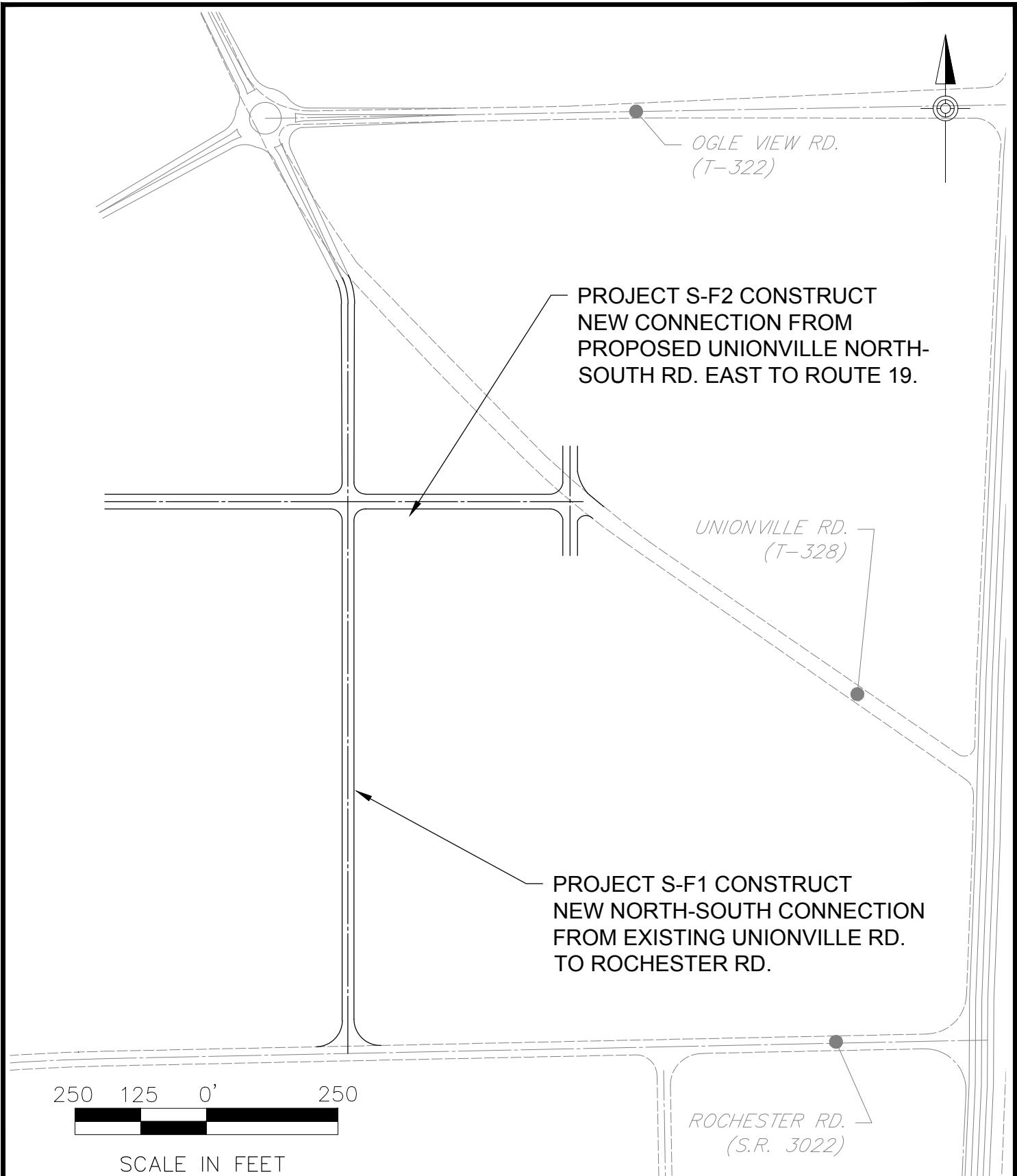
		Year
State/Federal	0%	\$0
Other	50%	\$1,333,039
Impact Fees	50%	\$1,333,039
Secure Funding		2015
Acquire ROW		2016
Complete Engineering		2017
Begin Construction		2018

Transportation District Cost:

West District	\$1,333,039
East District	\$0
Southeast District	\$0

REMARKS:

See Improvement Drawing number S-F for a plan sketch of the proposed improvement.



CRANBERRY TOWNSHIP IMPACT FEE UPDATE

CAPITAL IMPROVEMENTS DRAWING #S-F
OGLE VIEW AND ROCHESTER ROADS
PROJECTS S-F1 & S-F2

SHEET: 1 OF: 1 DATE: 06/15/2011

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PROJECT R0012610447

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-F2

PROJECT NUMBER: S-F2

LOCATION:

New connection from proposed Unionville North-South Road east to Route 19.

TRANSPORTATION DISTRICT: West

DEFICIENCY:

Lack of Roadway network capacity from I-79 to north of Route 228.

PROPOSED IMPROVEMENTS:

Construct 3 Lane Commercial Collector Roadway

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	437,733
Utility Relocation	0
Right-of Way	240,000
Engineering	43,773
Inspection	35,019
Admin & Planning	6,566
TOTAL	\$763,091

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 0%*

*New Development Traffic /
Anticipated Traffic Growth = 100%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2018
Projected Construction Cost	\$740,577
Projected Soft Cost	\$93,273
Projected Total Cost	\$833,850

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$0
New Development Trips	\$833,850

PROPOSED FUNDING:

State/Federal	0%	\$0
Other	45%	\$375,233
Impact Fees	55%	\$458,618

		Year
Secure Funding		2015
Acquire ROW		2016
Complete Engineering		2017
Begin Construction		2018

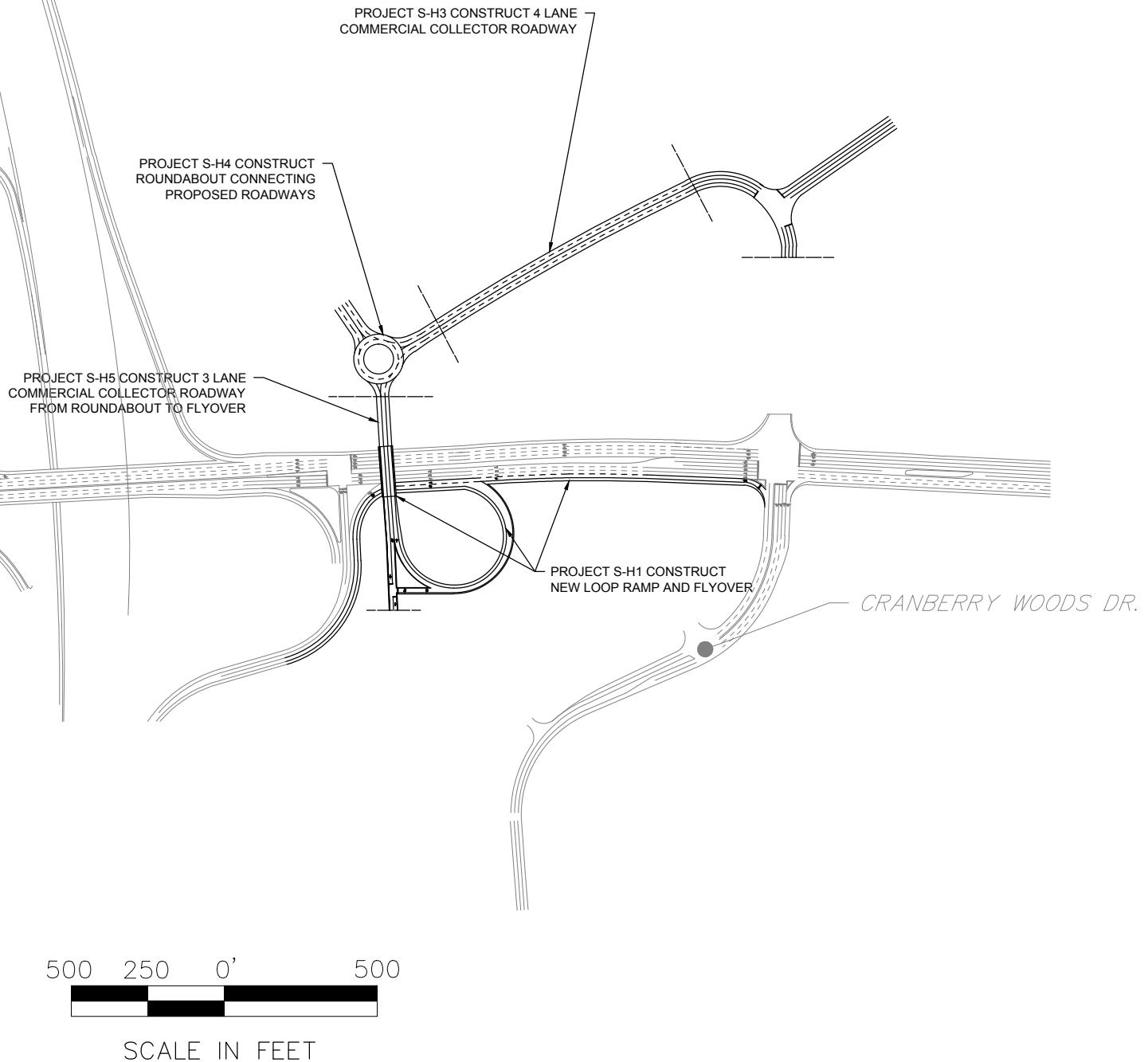
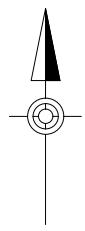
Transportation District Cost:

West District	\$458,618
East District	\$0
Southeast District	\$0

PROJECT SCHEDULE:

REMARKS:

See Improvement Drawing number S-F for a plan sketch of the proposed improvement.



CRANBERRY TOWNSHIP IMPACT FEE UPDATE

CAPITAL IMPROVEMENTS DRAWING #S-H
DUTILH ROAD PARALLEL NETWORK
PROJECTS S-H1 THRU S-H6

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**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-H1

PROJECT NUMBER: S-H1

LOCATION:

Route 228 to local road network north of Route 228 east of I-79.

TRANSPORTATION DISTRICT: East

DEFICIENCY:

Lack of Roadway network capacity from I-79 to north of Route 228.

PROPOSED IMPROVEMENTS:

Construct New loop ramp and flyover from Route 228 to local road network north of Route 228 east of I-79 and EB lane on 228 from flyover to Cranberry Woods Drive.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	5,023,800
Utility Relocation	0
Right-of Way	0
Engineering	502,380
Inspection	0
Admin & Planning	75,357
TOTAL	\$5,601,537

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 5%*

*New Development Traffic /
Anticipated Traffic Growth = 95%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2018
Projected Construction Cost	\$5,489,642
Projected Soft Cost	\$631,309
Projected Total Cost	\$6,120,951

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$306,010
New Development Trips	\$5,814,941

PROPOSED FUNDING:

State/Federal	0%	\$0
Other	5%	\$306,048
Impact Fees	95%	\$5,814,903

PROJECT SCHEDULE:

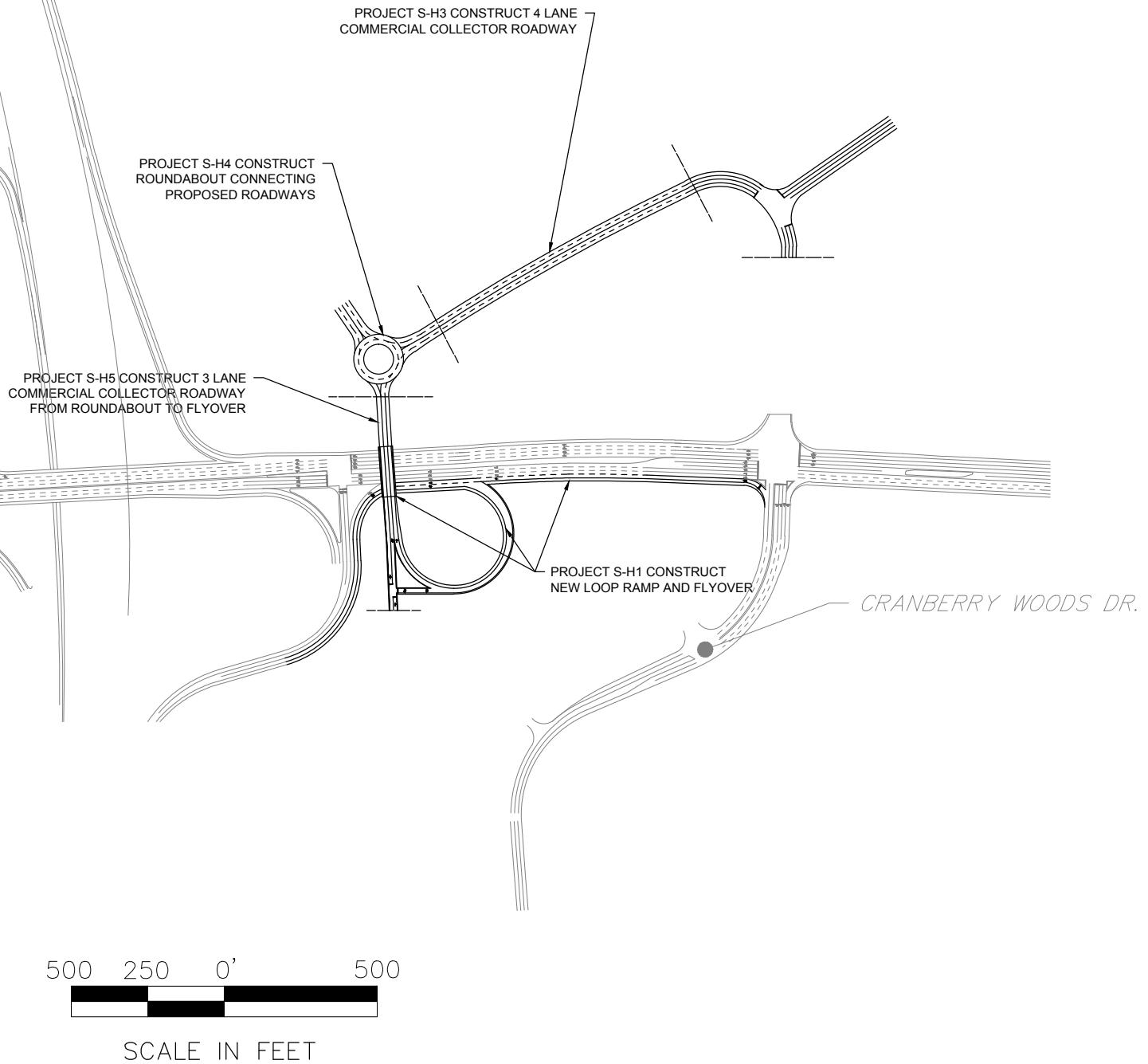
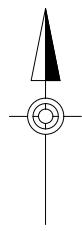
	Year
Secure Funding	2015
Acquire ROW	2016
Complete Engineering	2017
Begin Construction	2018

Transportation District Cost:

West District	\$0
East District	\$5,814,903
Southeast District	\$0

REMARKS:

See Improvement Drawing number S-H for a plan sketch of the proposed improvement.



CRANBERRY TOWNSHIP IMPACT FEE UPDATE

CAPITAL IMPROVEMENTS DRAWING #S-H
DUTILH ROAD PARALLEL NETWORK
PROJECTS S-H1 THRU S-H6

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**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-H5

PROJECT NUMBER: S-H5

LOCATION:

Local road network north of Route 228. North-South connection from flyover to roundabout.

TRANSPORTATION DISTRICT: East

DEFICIENCY:

Lack of Roadway network capacity from I-79 to north of Route 228.

PROPOSED IMPROVEMENTS:

Construct 3 Lane Commercial Collector Roadway

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	229,246
Utility Relocation	0
Right-of Way	0
Engineering	22,925
Inspection	18,340
Admin & Planning	3,439
TOTAL	\$273,949

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

<i>New Pass Thru Traffic /</i>
<i>Anticipated Traffic Growth = 5%</i>
<i>New Development Traffic /</i>
<i>Anticipated Traffic Growth = 95%</i>

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2018
Projected Construction Cost	\$250,504
Projected Soft Cost	\$48,848
Projected Total Cost	\$299,352

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$14,966
New Development Trips	\$284,386

PROPOSED FUNDING:

State/Federal	0%	\$0
Other	5%	\$14,968
Impact Fees	95%	\$284,384

PROJECT SCHEDULE:

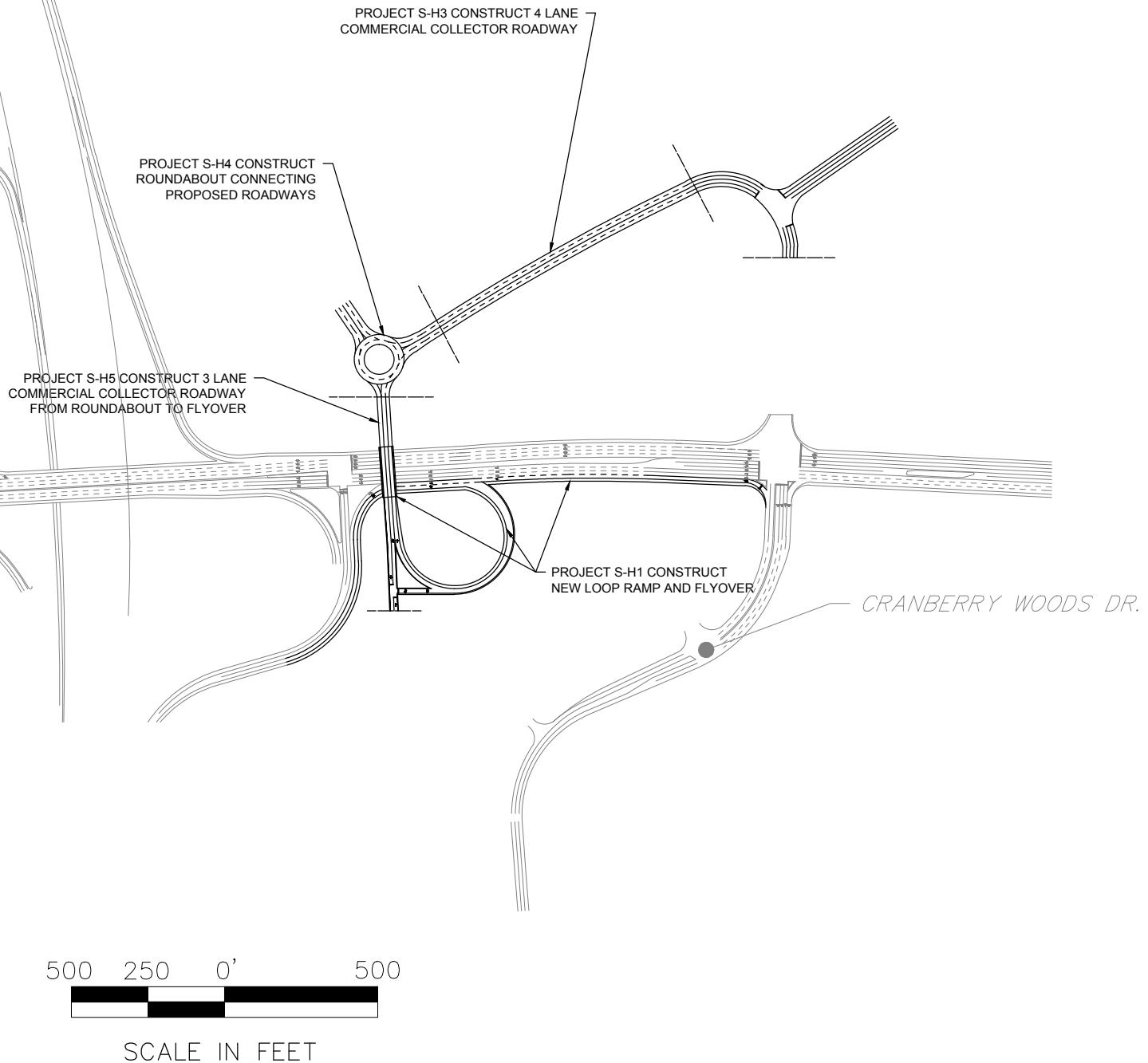
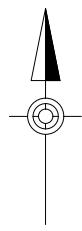
	Year
Secure Funding	2016
Acquire ROW	2016
Complete Engineering	2017
Begin Construction	2018

Transportation District Cost:

West District	\$0
East District	\$284,384
Southeast District	\$0

REMARKS:

See Improvement Drawing number S-H for a plan sketch of the proposed improvement.



CRANBERRY TOWNSHIP IMPACT FEE UPDATE

CAPITAL IMPROVEMENTS DRAWING #S-H
DUTILH ROAD PARALLEL NETWORK
PROJECTS S-H1 THRU S-H6

SHEET: 1 OF: 1 DATE: 06/15/2011

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**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-H6

PROJECT NUMBER: S-H6

LOCATION:

Local road network south of Route 228. Connection from MSA thruway to Cranberry Woods Drive

TRANSPORTATION DISTRICT: East

DEFICIENCY:

Lack of Roadway network capacity from I-79 to south of Route 228.

PROPOSED IMPROVEMENTS:

Construct 2 Lane Commercial Collector Roadway

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	743,057
Utility Relocation	0
Right-of Way	0
Engineering	74,306
Inspection	59,445
Admin & Planning	11,146
TOTAL	\$887,953

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 5%*

*New Development Traffic /
Anticipated Traffic Growth = 95%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2025
Projected Construction Cost	\$998,607
Projected Soft Cost	\$194,728
Projected Total Cost	\$1,193,335

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$59,659
New Development Trips	\$1,133,675

PROJECT SCHEDULE:

		Year
State/Federal	5%	2023
Other	45%	2023
Impact Fees	50%	2024
		2025
Secure Funding		
Acquire ROW		
Complete Engineering		
Begin Construction		

Transportation District Cost:

West District	\$0
East District	\$596,667
Southeast District	\$0

REMARKS:

See Improvement Drawing number S-H for a plan sketch of the proposed improvement.

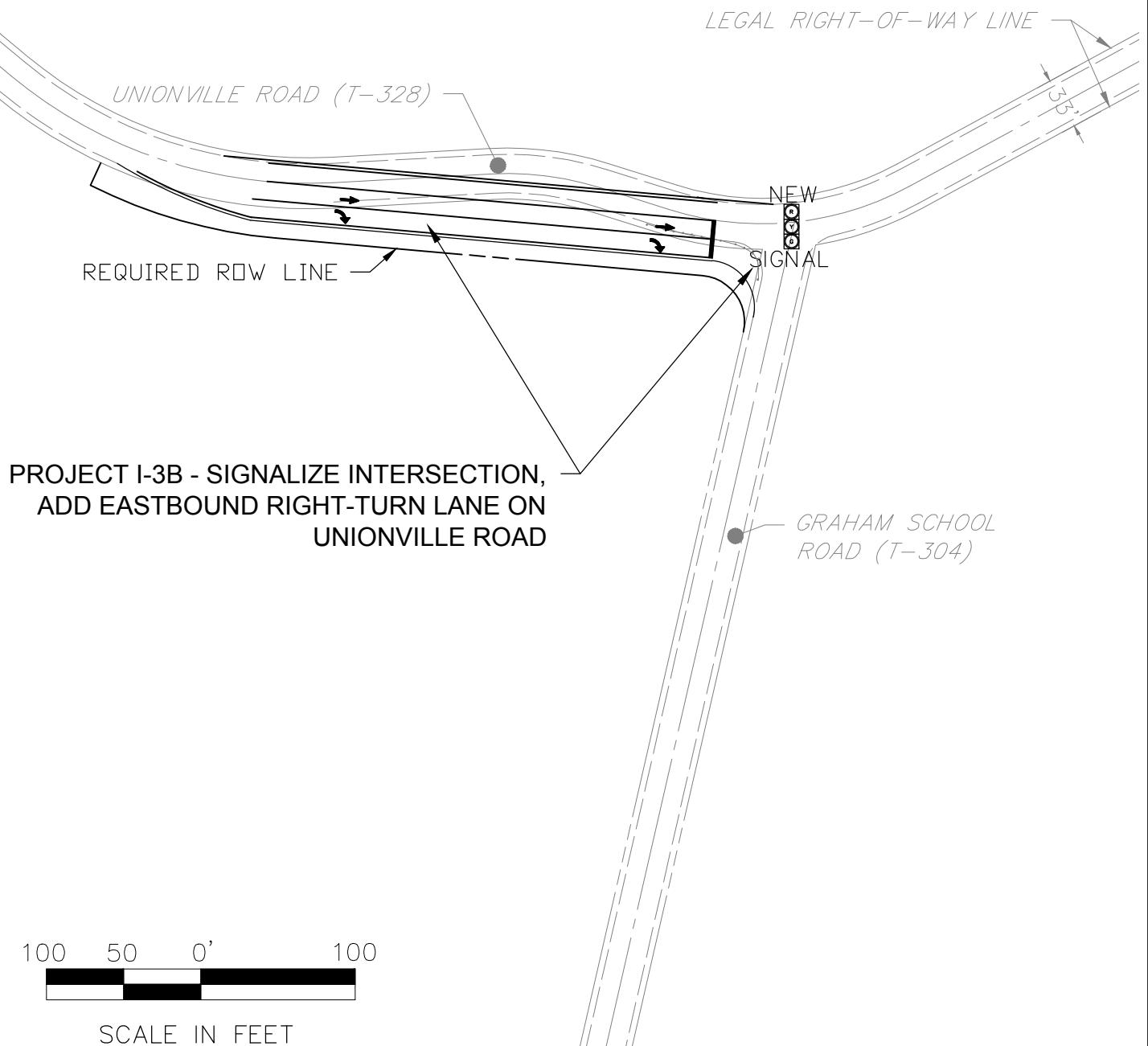
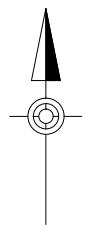


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APPENDIX B

UNSELECTED CANDIDATE PROJECT COST SUMMARIES AND DRAWINGS

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100 50 0' 100

SCALE IN FEET

CRANBERRY TOWNSHIP IMPACT FEE UPDATE

CAPITAL IMPROVEMENTS DRAWING #3B
UNIONVILLE AND GRAHAM SCHOOL ROADS
PROJECT I-3B

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**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

INTERSECTION NUMBER: 3

PROJECT NUMBER: I-03B

LOCATION:

The intersection of Unionville Road (T-328) and Graham School Road (T-304).

TRANSPORTATION DISTRICT: West

DEFICIENCY:

The one-way stop controlled intersection is projected to be deficient with forecast year 2030 volumes.

PROPOSED IMPROVEMENTS:

Signalize the intersection and add an eastbound right-turn lane on Unionville Road.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	357,639
Utility Relocation	5,000
Right-of Way	78,000
Engineering	71,528
Inspection	28,611
Admin & Planning	5,365
TOTAL	\$546,143

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 20%*

*New Development Traffic /
Anticipated Traffic Growth = 80%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2099
Projected Construction Cost	\$5,277,276
Projected Soft Cost	\$1,263,554
Projected Total Cost	\$6,540,830

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$1,308,166
New Development Trips	\$5,232,664

PROJECT SCHEDULE:

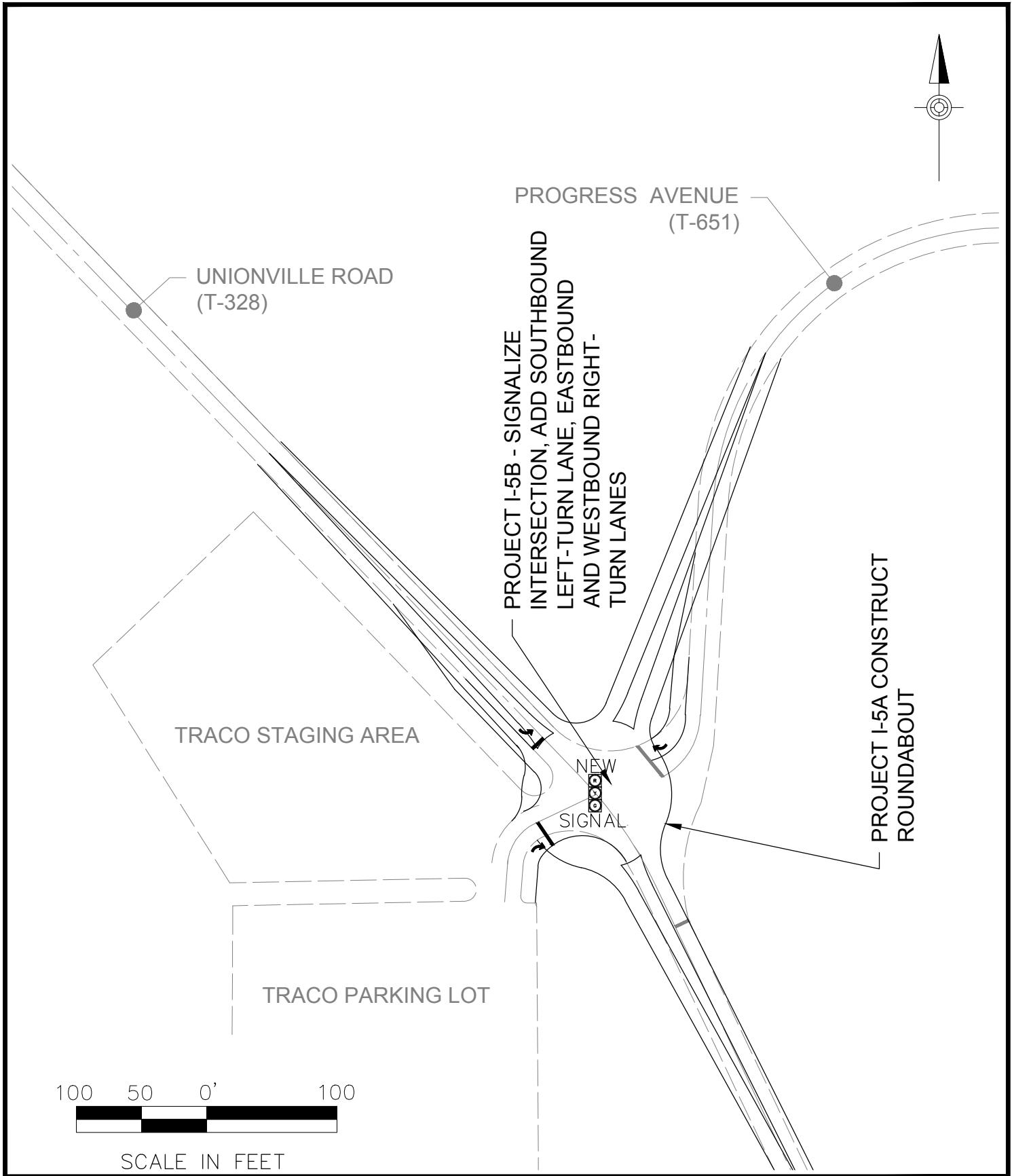
		Year
State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	0%	\$0
Secure Funding		2098
Acquire ROW		2097
Complete Engineering		2099
Begin Construction		2099

Transportation District Cost:

West District	\$0
East District	\$0
Southeast District	\$0

REMARKS:

See Improvement Drawing number 3 for a plan sketch of the proposed improvement.



CRANBERRY TOWNSHIP IMPACT FEE UPDATE		
CAPITAL IMPROVEMENTS DRAWING #5 UNIONVILLE AND PROGRESS AVENUE PROJECTS I-5A & I-5B		
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**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

INTERSECTION NUMBER: 5

PROJECT NUMBER: I-05B

LOCATION:

The intersection of Unionville Road (T-328) and Progress Avenue (T-651).

TRANSPORTATION DISTRICT: West

DEFICIENCY:

The current intersection is projected to become deficient with 2030 forecast traffic volumes.

PROPOSED IMPROVEMENTS:

Signalize the intersection and add a southbound left, and an eastbound and westbound right.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	880,110
Utility Relocation	13,500
Right-of Way	125,000
Engineering	132,017
Inspection	88,011
Admin & Planning	13,202
TOTAL	\$1,251,839

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 17%*

*New Development Traffic /
Anticipated Traffic Growth = 83%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2099
Projected Construction Cost	\$12,199,297
Projected Soft Cost	\$2,793,249
Projected Total Cost	\$14,992,547

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$2,548,733
New Development Trips	\$12,443,814

PROJECT SCHEDULE:

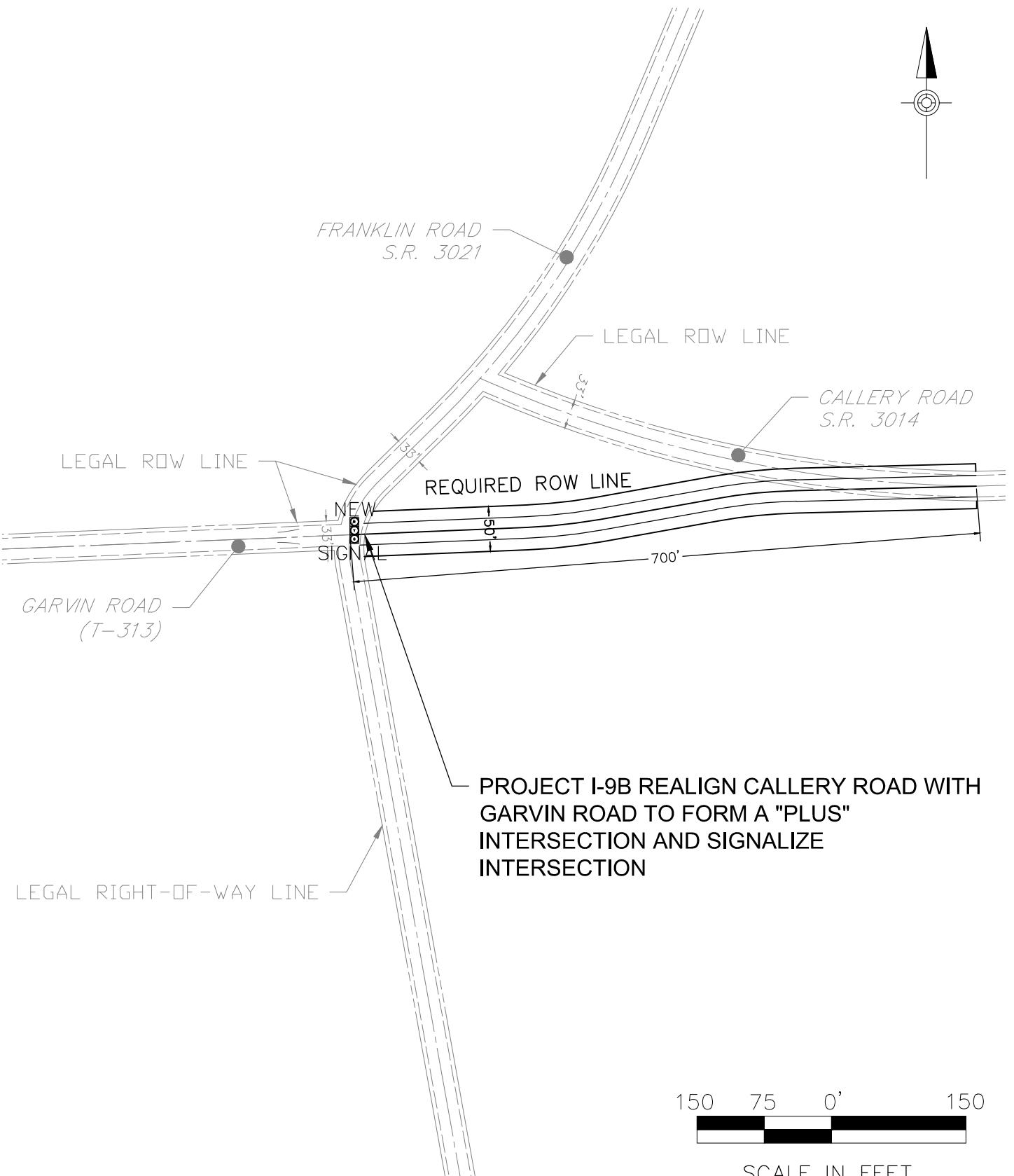
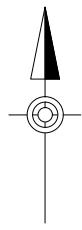
			Year
State/Federal	3%	\$449,776	2097
Other	47%	\$7,046,497	2097
Impact Fees	50%	\$7,496,273	2098

Secure Funding	2097
Acquire ROW	2097
Complete Engineering	2098
Begin Construction	2099

Transportation District Cost:

West District	\$7,496,273
East District	\$0
Southeast District	\$0

REMARKS:



PROJECT I-9B REALIGN CALLERY ROAD WITH
GARVIN ROAD TO FORM A "PLUS"
INTERSECTION AND SIGNALIZE
INTERSECTION

150 75 0' 150

SCALE IN FEET

CRANBERRY TOWNSHIP IMPACT FEE UPDATE

CAPITAL IMPROVEMENTS DRAWING #9B
FRANKLIN AND CALLERY/GARVIN ROADS
PROJECT I-9B

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**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
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PROJECT SUMMARY SHEET**

INTERSECTION NUMBER: 9

PROJECT NUMBER: I-09B

LOCATION:

The intersection of Franklin Road (SR 3021), Garvin Road (T-313) and Callery Road (SR 3014).

TRANSPORTATION DISTRICT: East

DEFICIENCY:

The current intersection is projected to become deficient with 2030 forecast traffic volumes.

PROPOSED IMPROVEMENTS:

Realign Callery Road with Garvin Road to form a four-way "plus" intersection and install a traffic signal.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	813,807
Utility Relocation	9,000
Right-of Way	192,000
Engineering	122,071
Inspection	65,105
Admin & Planning	12,207
TOTAL	\$1,214,189

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 33%*

*New Development Traffic /
Anticipated Traffic Growth = 67%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2099
Projected Construction Cost	\$12,153,747
Projected Soft Cost	\$2,387,889
Projected Total Cost	\$14,541,637

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$4,863,235
New Development Trips	\$9,678,402

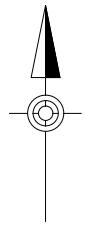
PROJECT SCHEDULE:

		Year
State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	0%	\$0
Secure Funding		2099
Acquire ROW		2099
Complete Engineering		2099
Begin Construction		2099

Transportation District Cost:

West District	\$0
East District	\$0
Southeast District	\$0

REMARKS:



PROJECT I-19B - SIGNALIZE
INTERSECTION, ADD WESTBOUND
LEFT-TURN LANE ON
NORTH BOUNDARY ROAD

LEGAL RIGHT-OF-WAY LINE

REQUIRED ROW LINE

NORTH BOUNDARY ROAD
(T-311)

MARSHALL ROAD (T-305)

100 50 0' 100

SCALE IN FEET

CRANBERRY TOWNSHIP IMPACT FEE UPDATE

CAPITAL IMPROVEMENTS DRAWING #19B
MARSHALL ROAD AND NORTH BOUNDARY ROAD
PROJECT I-19B

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**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

INTERSECTION NUMBER: 19

PROJECT NUMBER: I-19B

LOCATION:

Intersection of Marshall Road (T-305) and North Boundary Road (T-311).

TRANSPORTATION DISTRICT: East

DEFICIENCY:

The current intersection geometry is projected to become deficient with 2030 forecast traffic volumes.

PROPOSED IMPROVEMENTS:

Signalize the intersection and add a westbound left-turn lane on North Boundary Road.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	523,439
Utility Relocation	5,000
Right-of Way	60,000
Engineering	60,195
Inspection	41,875
Admin & Planning	7,852
TOTAL	\$698,361

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 26%*

*New Development Traffic /
Anticipated Traffic Growth = 74%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2099
Projected Construction Cost	\$7,047,385
Projected Soft Cost	\$1,316,473
Projected Total Cost	\$8,363,857

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$2,174,603
New Development Trips	\$6,189,254

PROJECT SCHEDULE:

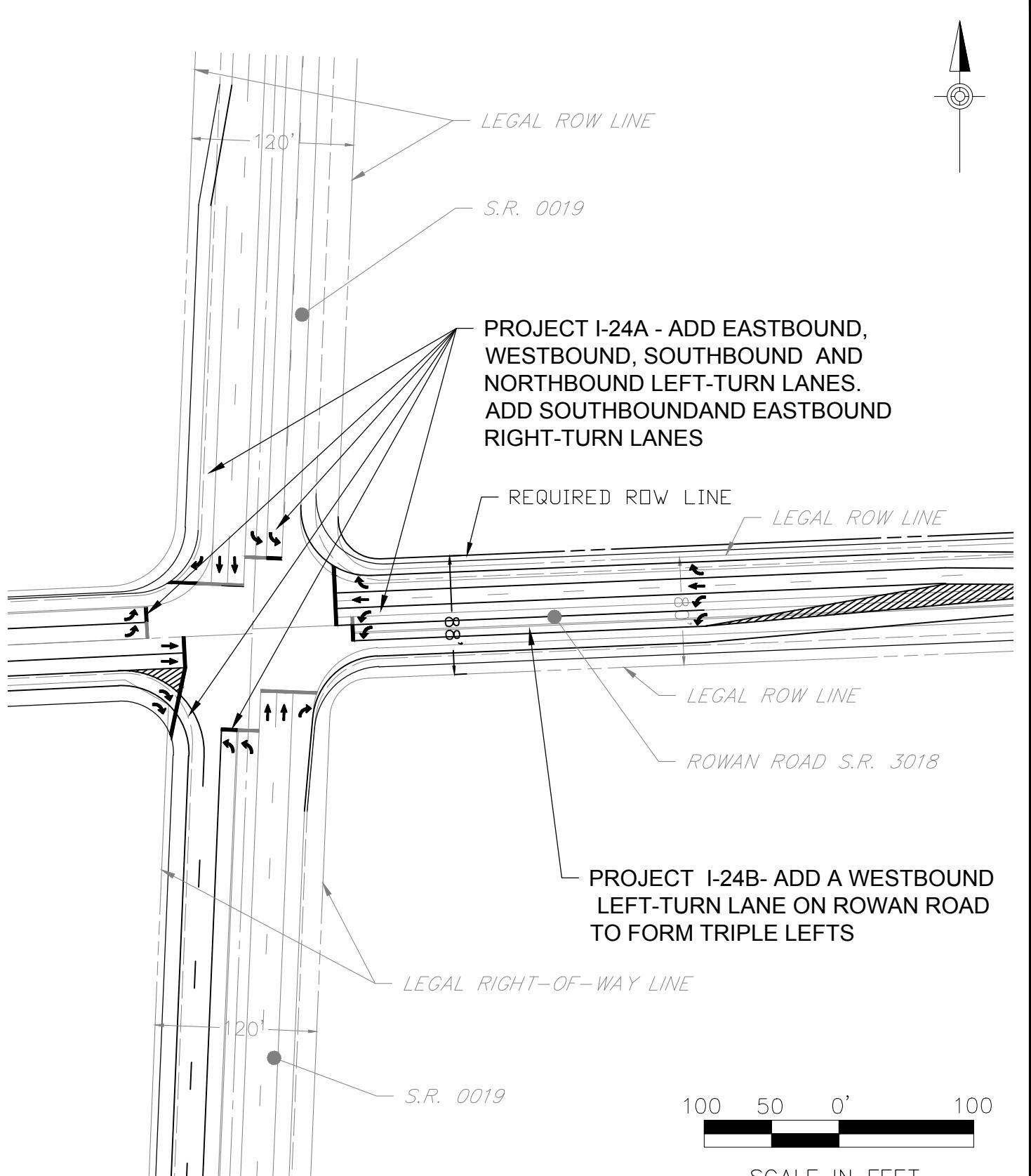
		Year
State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	0%	\$0
Secure Funding		2097
Acquire ROW		2097
Complete Engineering		2098
Begin Construction		2099

Transportation District Cost:

West District	\$0
East District	\$0
Southeast District	\$0

REMARKS:

See Improvement Drawing number 19 for a plan sketch of the proposed improvement.



CRANBERRY TOWNSHIP IMPACT FEE UPDATE

CAPITAL IMPROVEMENTS DRAWING #24
ROUTE 19 AND OGLE VIEW/ROWAN ROADS
PROJECTS I-24A AND I-24B

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**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

INTERSECTION NUMBER: 24

PROJECT NUMBER: I-24B

LOCATION:

The intersection of US Route 19, Ogle View Road (T-322) and Rowan Road (SR 3018).

TRANSPORTATION DISTRICT: East

DEFICIENCY:

The current intersection is projected to become deficient with 2030 forecast traffic volumes.

PROPOSED IMPROVEMENTS:

Add a westbound left turn lane to form triple lefts along Rowan Road.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	788,314
Utility Relocation	20,000
Right-of Way	700,000
Engineering	118,247
Inspection	94,598
Admin & Planning	11,825
TOTAL	\$1,732,983

PROPORTIONAL SPLIT OF FUTURE PEAK HOUR TRAFFIC VOLUMES:

*New Pass Thru Traffic /
Anticipated Traffic Growth = 30%*

*New Development Traffic /
Anticipated Traffic Growth = 70%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2099
Projected Construction Cost	\$18,064,191
Projected Soft Cost	\$2,690,734
Projected Total Cost	\$20,754,925

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$6,226,478
New Development Trips	\$14,528,448

PROJECT SCHEDULE:

		Year
State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	0%	\$0
Secure Funding		2097
Acquire ROW		2097
Complete Engineering		2098
Begin Construction		2099

Transportation District Cost:

West District	\$0
East District	\$0
Southeast District	\$0

REMARKS:

See Improvement Drawing number 24 for a plan sketch of the proposed improvement.

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

INTERSECTION NUMBER: 29

PROJECT NUMBER: I-29

LOCATION:

The intersection of Robinhood Drive (T-330) and Rochester Road (SR 3022).

TRANSPORTATION DISTRICT: West

DEFICIENCY:

The current intersection geometry is projected to become deficient with 2030 forecast traffic volumes.

PROPOSED IMPROVEMENTS:

Signalize the intersection.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	192,500
Utility Relocation	0
Right-of Way	0
Engineering	28,875
Inspection	15,400
Admin & Planning	2,888
TOTAL	\$239,663

PROPORTIONAL SPLIT OF FUTURE PEAK HOUR TRAFFIC VOLUMES:

*New Pass Thru Traffic /
Anticipated Traffic Growth = 16%*

*New Development Traffic /
Anticipated Traffic Growth = 84%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2099
Projected Construction Cost	\$2,305,460
Projected Soft Cost	\$564,838
Projected Total Cost	\$2,870,298

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$456,773
New Development Trips	\$2,413,524

PROJECT SCHEDULE:

		Year
State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	0%	\$0
Secure Funding		2097
Acquire ROW		2097
Complete Engineering		2098
Begin Construction		2099

Transportation District Cost:

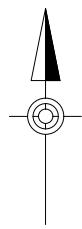
West District	\$0
East District	\$0
Southeast District	\$0

REMARKS:

PROJECT I-31B ADD NORTH BOUND LEFT-TURN LANE ON THOMSON PARK DRIVE AND ADD A SOUTHBOUND LEFT TURN LANE ON NORMAN DRIVE

LEGAL ROW LINE

NORMAN DRIVE (T-830)



ROCHESTER ROAD S.R. 3022

LEGAL RIGHT-OF-WAY LINE

PROJECT I-31A - ADD AN EASTBOUND RIGHT-TURN LANE ON ROCHESTER ROAD

THOMSON PARK DRIVE (T-975)

LEGAL ROW LINE

LEGAL ROW LINE

100 50 0' 100

SCALE IN FEET

CRANBERRY TOWNSHIP IMPACT FEE UPDATE

CAPITAL IMPROVEMENTS DRAWING #31
NORMAN/THOMSON PK DRIVES AND ROCHESTER RD
PROJECTS I-31A AND I-31B

SHEET: 1 OF: 1 DATE: 06/15/2011

HRG
Herbert Rowland & Gribble, Inc.
Engineering & Related Services


CRANBERRY
TOWNSHIP
built for you
3525 Rochester Road, Suite 400
Cranberry Township, PA 16066-6499
(724)776-4806 FAX (724)776-5488

DESIGN DSM
DRAWN DSM
SCALE 1"=100'
PROJECT R0012610447

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

INTERSECTION NUMBER: 31

PROJECT NUMBER: I-31B

LOCATION:

The intersection of Norman Drive (T-830), Thomson Park Drive (T-830) and Rochester Road (SR 3022).

TRANSPORTATION DISTRICT: West

DEFICIENCY:

The current intersection geometry is projected to become deficient with 2030 forecast traffic volumes.

PROPOSED IMPROVEMENTS:

Add a southbound left-turn lane on Norman Drive.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	150,997
Utility Relocation	5,000
Right-of Way	50,000
Engineering	17,365
Inspection	12,080
Admin & Planning	2,265
TOTAL	\$237,706

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 14%*

*New Development Traffic /
Anticipated Traffic Growth = 86%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2099
Projected Construction Cost	\$2,467,101
Projected Soft Cost	\$379,764
Projected Total Cost	\$2,846,864

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$409,189
New Development Trips	\$2,437,675

PROJECT SCHEDULE:

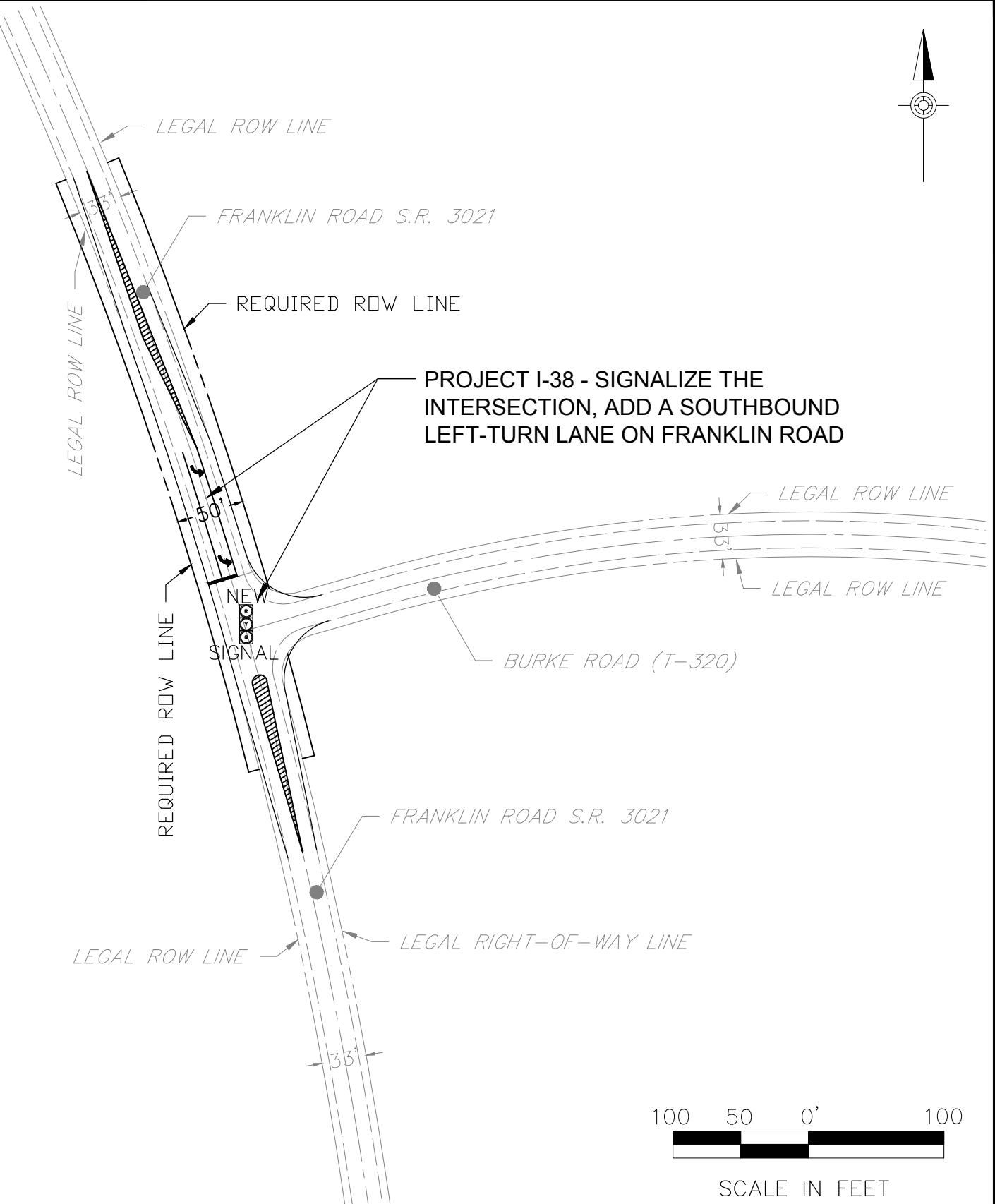
		Year
State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	0%	\$0
Secure Funding		2097
Acquire ROW		2097
Complete Engineering		2098
Begin Construction		2099

Transportation District Cost:

West District	\$0
East District	\$0
Southeast District	\$0

REMARKS:

See Improvement Drawing number 31 for a plan sketch of the proposed improvement.



CRANBERRY TOWNSHIP IMPACT FEE UPDATE

CAPITAL IMPROVEMENTS DRAWING #38
FRANKLIN ROAD AND BURKE ROAD
PROJECT I-38

SHEET: 1 OF: 1 DATE: 06/15/2011

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Cranberry Township, PA 16066-6499
(724)776-4806 FAX (724)776-5488

DESIGN DSM
DRAWN DSM
SCALE 1"=100'
PROJECT R0012610447

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

INTERSECTION NUMBER: 38

PROJECT NUMBER: I-38

LOCATION:

The intersection of Franklin Road (SR 3021) and Burke Road (T-320).

TRANSPORTATION DISTRICT: East

DEFICIENCY:

The intersection control and geometry is projected to become deficient with 2030 forecast traffic volumes.

PROPOSED IMPROVEMENTS:

Signalize the intersection. Add a southbound left-turn lane on Franklin Road.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	417,724
Utility Relocation	13,500
Right-of Way	100,000
Engineering	62,659
Inspection	33,418
Admin & Planning	6,266
TOTAL	\$633,566

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 29%*

*New Development Traffic /
Anticipated Traffic Growth = 71%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2099
Projected Construction Cost	\$6,362,156
Projected Soft Cost	\$1,225,694
Projected Total Cost	\$7,587,850

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$2,233,533
New Development Trips	\$5,354,317

PROJECT SCHEDULE:

PROPOSED FUNDING:

State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	0%	\$0

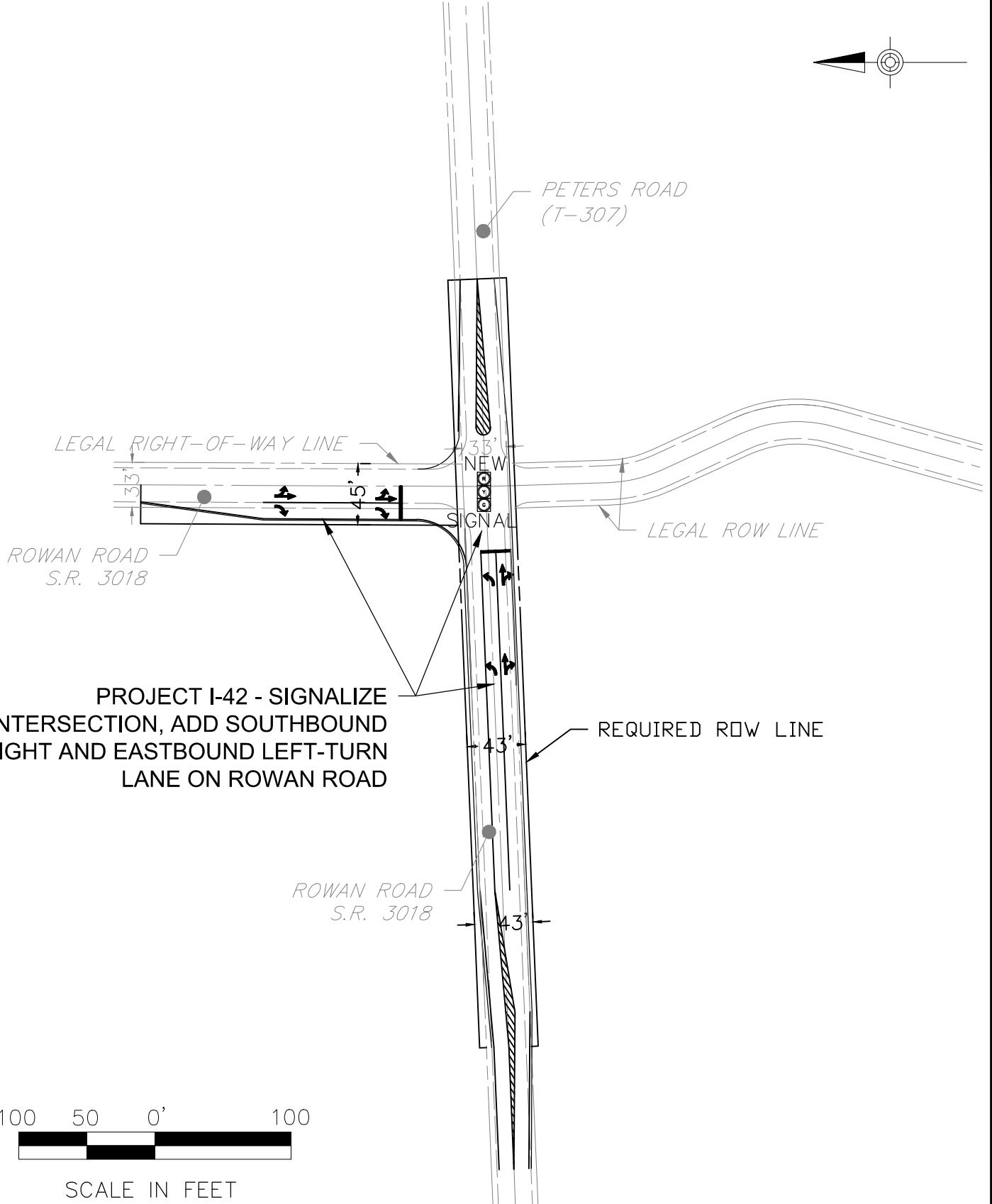
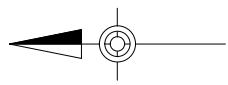
	Year
Secure Funding	2097
Acquire ROW	2097
Complete Engineering	2098
Begin Construction	2099

Transportation District Cost:

West District	\$0
East District	\$0
Southeast District	\$0

REMARKS:

See Improvement Drawing number 38 for a plan sketch of the proposed improvement.



CRANBERRY TOWNSHIP IMPACT FEE UPDATE

CAPITAL IMPROVEMENTS DRAWING #42
PETERS ROAD/CANTERBURY TRAIL AND ROWAN ROAD
PROJECT I-42

SHEET: 1 OF: 1 DATE: 06/15/2011

HRG
Herbert, Rowland & Grottel, Inc.
Engineering & Related Services


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TOWNSHIP
built for you
2525 Rochester Road, Suite 400
Cranberry Township, PA 16066-6499
(724)776-4896 FAX (724)776-5488

DESIGN DSM	SCALE 1"=100'
DRAWN DSM	
PROJECT R0012610447	

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

INTERSECTION NUMBER: 42

PROJECT NUMBER: I-42A

LOCATION:

The intersection of Peters Road (T-307), Canterbury Trail (T-726) and Rowan Road (SR 3018).

TRANSPORTATION DISTRICT: East

DEFICIENCY:

The current intersection is projected to become deficient with 2030 forecast traffic volumes.

PROPOSED IMPROVEMENTS:

Signalize the intersection and add an eastbound left-turn lane and a channelized southbound right-turn lane on Rowan Road.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	651,870
Utility Relocation	33,500
Right-of Way	110,000
Engineering	97,780
Inspection	52,150
Admin & Planning	9,778
TOTAL	\$955,078

PROPORTIONAL SPLIT OF FUTURE PEAK HOUR TRAFFIC VOLUMES:

*New Pass Thru Traffic /
Anticipated Traffic Growth = 19%*

*New Development Traffic /
Anticipated Traffic Growth = 81%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2099
Projected Construction Cost	\$9,525,681
Projected Soft Cost	\$1,912,731
Projected Total Cost	\$11,438,412

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$2,141,643
New Development Trips	\$9,296,769

PROJECT SCHEDULE:

		Year
State/Federal	50%	\$5,719,206
Other	0%	\$0
Impact Fees	50%	\$5,719,206
Secure Funding		2097
Acquire ROW		2097
Complete Engineering		2098
Begin Construction		2099

Transportation District Cost:

West District	\$0
East District	\$5,719,206
Southeast District	\$0

REMARKS:

See Improvement Drawing number 42 for a plan sketch of the proposed improvement.

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-3

PROJECT NUMBER: S-03

LOCATION:

Glen Eden Road (SR 3024) from Freshcorn Road to Route 19.

TRANSPORTATION DISTRICT: West

DEFICIENCY:

There are currently several areas of poor horizontal/vertical geometry.

PROPOSED IMPROVEMENTS:

Widen and realign to two-lane Residential Collector Standards.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	5,171,976
Utility Relocation	190,250
Right-of Way	600,000
Engineering	620,637
Inspection	517,198
Admin & Planning	77,580
TOTAL	\$7,177,640

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 21%*

*New Development Traffic /
Anticipated Traffic Growth = 79%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2099
Projected Construction Cost	\$71,406,099
Projected Soft Cost	\$14,556,308
Projected Total Cost	\$85,962,407

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$18,052,106
New Development Trips	\$67,910,302

PROJECT SCHEDULE:

		Year
State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	0%	\$0

Secure Funding	2095
Acquire ROW	2096
Complete Engineering	2098
Begin Construction	2099

Transportation District Cost:

West District	\$0
East District	\$0
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-6

PROJECT NUMBER: S-06

LOCATION:

Unionville Road from Route 19 to Ogle View Road

TRANSPORTATION DISTRICT: West

DEFICIENCY:

The 2030 traffic projects are anticipated to be higher than the current roadway can accommodate.

PROPOSED IMPROVEMENTS:

Add left turn lanes at key intersections to maintain thru traffic flow.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	741,669
Utility Relocation	24,400
Right-of Way	75,000
Engineering	111,250
Inspection	74,167
Admin & Planning	11,125
TOTAL	\$1,037,611

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 21%*

*New Development Traffic /
Anticipated Traffic Growth = 79%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2099
Projected Construction Cost	\$10,072,989
Projected Soft Cost	\$2,353,871
Projected Total Cost	\$12,426,860

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$2,609,641
New Development Trips	\$9,817,220

PROJECT SCHEDULE:

State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	0%	\$0

Secure Funding	2098
Acquire ROW	2098
Complete Engineering	2098
Begin Construction	2099

Transportation District Cost:

West District	\$0
East District	\$0
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-7

PROJECT NUMBER: S-07

LOCATION:

Unionville Road from Ogle View Road to Kensinger Drive.

TRANSPORTATION DISTRICT: West

DEFICIENCY:

The 2030 traffic projects are anticipated to be higher than the current roadway can accommodate.

PROPOSED IMPROVEMENTS:

Widen to three lane commercial collector standards.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	898,705
Utility Relocation	0
Right-of Way	90,000
Engineering	107,845
Inspection	89,871
Admin & Planning	13,481
TOTAL	\$1,199,901

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 24%*

*New Development Traffic /
Anticipated Traffic Growth = 76%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2099
Projected Construction Cost	\$11,841,143
Projected Soft Cost	\$2,529,368
Projected Total Cost	\$14,370,511

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$3,449,616
New Development Trips	\$10,920,895

PROJECT SCHEDULE:

		Year
State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	0%	\$0
Secure Funding		2097
Acquire ROW		2098
Complete Engineering		2098
Begin Construction		2099

Transportation District Cost:

West District	\$0
East District	\$0
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-8

PROJECT NUMBER: S-08

LOCATION:

Unionville Road (T-328) from Kensinger Drive to Glen Eden Road.

TRANSPORTATION DISTRICT: West

DEFICIENCY:

The northern section of the roadway does not conform to the Township's roadway design standards.

PROPOSED IMPROVEMENTS:

Widen and Realign to two-lane Residential Collector Standards west of Aberdeen Drive.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	1,732,706
Utility Relocation	53,100
Right-of Way	90,000
Engineering	173,271
Inspection	138,616
Admin & Planning	25,991
TOTAL	\$2,213,683

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 17%*

*New Development Traffic /
Anticipated Traffic Growth = 83%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2099
Projected Construction Cost	\$22,465,429
Projected Soft Cost	\$4,046,563
Projected Total Cost	\$26,511,992

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$4,507,039
New Development Trips	\$22,004,954

PROJECT SCHEDULE:

State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	0%	\$0

Secure Funding	2096
Acquire ROW	2097
Complete Engineering	2098
Begin Construction	2099

Transportation District Cost:

West District	\$0
East District	\$0
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-12

PROJECT NUMBER: S-12

LOCATION:

Old Route 19 (T-310) from Glen Eden Road to Route 19.

TRANSPORTATION DISTRICT: West

DEFICIENCY:

Roadway does not conform to the Township's Residential Collector Standards.

PROPOSED IMPROVEMENTS:

Widen to two-lane Residential Collector Standards.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	2,262,119
Utility Relocation	5,700
Right-of Way	300,000
Engineering	271,454
Inspection	226,212
Admin & Planning	33,932
TOTAL	\$3,099,417

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 14%*

*New Development Traffic /
Anticipated Traffic Growth = 86%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2099
Projected Construction Cost	\$30,753,269
Projected Soft Cost	\$6,366,638
Projected Total Cost	\$37,119,907

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$5,196,787
New Development Trips	\$31,923,120

PROJECT SCHEDULE:

		Year
State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	0%	\$0
Secure Funding		2097
Acquire ROW		2097
Complete Engineering		2098
Begin Construction		2099

Transportation District Cost:

West District	\$0
East District	\$0
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-13

PROJECT NUMBER: S-13

LOCATION:

Route 19 (SR 0019) from Ogle View Road to Glen Eden Road.

TRANSPORTATION DISTRICT: East/West

DEFICIENCY:

The 2030 traffic projects are anticipated to be higher than the current roadway can accommodate.

PROPOSED IMPROVEMENTS:

Widen to a six-lane Minor Arterial to North of Ogle View Road.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	11,148,720
Utility Relocation	239,750
Right-of Way	2,500,000
Engineering	1,337,846
Inspection	1,114,872
Admin & Planning	167,231
TOTAL	\$16,508,419

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 37%*

*New Development Traffic /
Anticipated Traffic Growth = 63%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2099
Projected Construction Cost	\$166,334,095
Projected Soft Cost	\$31,377,602
Projected Total Cost	\$197,711,697

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$73,105,886
New Development Trips	\$124,605,811

PROJECT SCHEDULE:

		Year
State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	0%	\$0
Secure Funding		2095
Acquire ROW		2096
Complete Engineering		2098
Begin Construction		2099

Transportation District Cost:

West District	\$0
East District	\$0
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-15

PROJECT NUMBER: S-15

LOCATION:

Franklin Road (SR 3021) from Peters Road to Garvin Road.

TRANSPORTATION DISTRICT: East

DEFICIENCY:

The roadway horizontal/vertical geometry and cross section is substandard for a two-lane urban collector.

PROPOSED IMPROVEMENTS:

Widen and Realign to two-lane Residential Collector Standards.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	7,831,985
Utility Relocation	383,850
Right-of Way	1,987,500
Engineering	939,838
Inspection	783,198
Admin & Planning	117,480
TOTAL	\$12,043,851

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 29%*

*New Development Traffic /
Anticipated Traffic Growth = 71%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2099
Projected Construction Cost	\$122,199,384
Projected Soft Cost	\$22,042,791
Projected Total Cost	\$144,242,175

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$42,424,169
New Development Trips	\$101,818,006

PROJECT SCHEDULE:

		Year
State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	0%	\$0
Secure Funding		2095
Acquire ROW		2096
Complete Engineering		2098
Begin Construction		2099

Transportation District Cost:

West District	\$0
East District	\$0
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-17

PROJECT NUMBER: S-17

LOCATION:

Marshall Road (T-305) from Rowan Road to North Boundary Road.

TRANSPORTATION DISTRICT: East

DEFICIENCY:

Shoulders need to be widened to conform to Township Standards.

PROPOSED IMPROVEMENTS:

Widen to three-lane Commercial Collector Standards.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	3,429,240
Utility Relocation	5,000
Right-of Way	870,000
Engineering	411,509
Inspection	342,924
Admin & Planning	51,439
TOTAL	\$5,110,111

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 26%*

*New Development Traffic /
Anticipated Traffic Growth = 74%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2099
Projected Construction Cost	\$51,549,365
Projected Soft Cost	\$9,651,450
Projected Total Cost	\$61,200,815

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$15,912,212
New Development Trips	\$45,288,603

PROJECT SCHEDULE:

		Year
State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	0%	\$0
Secure Funding		2097
Acquire ROW		2097
Complete Engineering		2098
Begin Construction		2099

Transportation District Cost:

West District	\$0
East District	\$0
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-19

PROJECT NUMBER: S-19

LOCATION:

North Boundary Road (T-311) from Route 19 to Marshall Road.

TRANSPORTATION DISTRICT: East

DEFICIENCY:

The year 2020 forecast traffic demands are anticipated to warrant an additional travel lane in each direction along this segment of North Boundary Road.

PROPOSED IMPROVEMENTS:

Widen to three-lane Residential Collector Standards.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	945,294
Utility Relocation	47,900
Right-of Way	225,000
Engineering	113,435
Inspection	94,529
Admin & Planning	14,179
TOTAL	\$1,440,338

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 21%*

*New Development Traffic /
Anticipated Traffic Growth = 79%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2099
Projected Construction Cost	\$14,589,599
Projected Soft Cost	\$2,660,490
Projected Total Cost	\$17,250,090

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$3,622,519
New Development Trips	\$13,627,571

PROJECT SCHEDULE:

		Year
State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	0%	\$0
Secure Funding		2095
Acquire ROW		2096
Complete Engineering		2098
Begin Construction		2099

Transportation District Cost:

West District	\$0
East District	\$0
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-22

PROJECT NUMBER: S-22

LOCATION:

Garvin Road (T-313) from New Connection to Franklin Road.

TRANSPORTATION DISTRICT: East

DEFICIENCY:

Roadway does not conform to the Township's Residential Collector Standards.

PROPOSED IMPROVEMENTS:

Widen to two-lane Residential Collector Standards

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	2,019,425
Utility Relocation	22,350
Right-of Way	435,000
Engineering	242,331
Inspection	201,943
Admin & Planning	30,291
TOTAL	\$2,951,340

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

<i>New Pass Thru Traffic /</i>	<i>Anticipated Traffic Growth = 18%</i>
<i>New Development Traffic /</i>	<i>Anticipated Traffic Growth = 82%</i>

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2099
Projected Construction Cost	\$29,662,891
Projected Soft Cost	\$5,683,587
Projected Total Cost	\$35,346,479

New Pass Thru Trips	\$6,362,366
New Development Trips	\$28,984,113

PROPOSED FUNDING:

State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	0%	\$0

PROJECT SCHEDULE:

	Year
Secure Funding	2097
Acquire ROW	2097
Complete Engineering	2098
Begin Construction	2099

Transportation District Cost:

West District	\$0
East District	\$0
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-23

PROJECT NUMBER: S-23

LOCATION:

Ehrman Road from Route 19 to Roadway end.

TRANSPORTATION DISTRICT: West

DEFICIENCY:

The 2030 traffic projects are anticipated to be higher than the current roadway can accommodate.

PROPOSED IMPROVEMENTS:

Add left turn lanes at key intersections to maintain thru traffic flow.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	1,240,446
Utility Relocation	51,100
Right-of Way	75,000
Engineering	148,854
Inspection	124,045
Admin & Planning	18,607
TOTAL	\$1,658,051

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 21%*

*New Development Traffic /
Anticipated Traffic Growth = 79%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2099
Projected Construction Cost	\$16,366,326
Projected Soft Cost	\$3,491,183
Projected Total Cost	\$19,857,509

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$4,170,077
New Development Trips	\$15,687,432

PROJECT SCHEDULE:

		Year
State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	0%	\$0
Secure Funding		2095
Acquire ROW		2096
Complete Engineering		2098
Begin Construction		2099

Transportation District Cost:

West District	\$0
East District	\$0
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-24

PROJECT NUMBER: S-24

LOCATION:

Rowan Road (SR 3018) from Route 19 to Marshall Road.

TRANSPORTATION DISTRICT: East

DEFICIENCY:

Traffic is projected to more than double by the year 2020. The current roadway will not accommodate this volume of traffic with only one travel lane in each direction, at an acceptable Level Of Service.

PROPOSED IMPROVEMENTS:

Widen to five-lane Commercial Collector Roadway Standards.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	7,779,199
Utility Relocation	20,100
Right-of Way	750,000
Engineering	1,166,880
Inspection	777,920
Admin & Planning	116,688
TOTAL	\$10,610,787

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

<i>New Pass Thru Traffic /</i>
<i>Anticipated Traffic Growth = 11%</i>
<i>New Development Traffic /</i>
<i>Anticipated Traffic Growth = 89%</i>

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2099
Projected Construction Cost	\$102,389,964
Projected Soft Cost	\$24,689,235
Projected Total Cost	\$127,079,200

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$14,102,786
New Development Trips	\$112,976,414

PROJECT SCHEDULE:

State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	0%	\$0

Secure Funding	2096
Acquire ROW	2097
Complete Engineering	2098
Begin Construction	2099

Transportation District Cost:

West District	\$0
East District	\$0
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-26

PROJECT NUMBER: S-26

LOCATION:

Peters Road from Rowan Road to Franklin Road

TRANSPORTATION DISTRICT: East

DEFICIENCY:

The 2030 traffic projects are anticipated to be higher than the current roadway can accommodate.

PROPOSED IMPROVEMENTS:

Add left turn lanes at key intersections to maintain thru traffic flow.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	1,240,446
Utility Relocation	47,100
Right-of Way	350,000
Engineering	148,854
Inspection	124,045
Admin & Planning	18,607
TOTAL	\$1,929,051

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 28%*

*New Development Traffic /
Anticipated Traffic Growth = 72%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2099
Projected Construction Cost	\$19,611,935
Projected Soft Cost	\$3,491,183
Projected Total Cost	\$23,103,118

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$6,467,131
New Development Trips	\$16,635,987

PROJECT SCHEDULE:

		Year
State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	0%	\$0

Secure Funding

2095

Acquire ROW

2096

Complete Engineering

2098

Begin Construction

2099

Transportation District Cost:

West District	\$0
East District	\$0
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-29

PROJECT NUMBER: S-29

LOCATION:

Powell Road from Freedom Road to Rochester Road

TRANSPORTATION DISTRICT: West

DEFICIENCY:

The 2030 traffic projects are anticipated to be higher than the current roadway can accommodate.

PROPOSED IMPROVEMENTS:

Add left turn lanes at key intersections to maintain thru traffic flow.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	2,424,957
Utility Relocation	88,100
Right-of Way	650,000
Engineering	290,995
Inspection	242,496
Admin & Planning	36,374
TOTAL	\$3,732,922

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 21%*

*New Development Traffic /
Anticipated Traffic Growth = 79%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2099
Projected Construction Cost	\$37,882,091
Projected Soft Cost	\$6,824,940
Projected Total Cost	\$44,707,032

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$9,388,477
New Development Trips	\$35,318,555

PROJECT SCHEDULE:

State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	0%	\$0

Secure Funding	2095
Acquire ROW	2096
Complete Engineering	2098
Begin Construction	2099

Transportation District Cost:

West District	\$0
East District	\$0
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-32

PROJECT NUMBER: S-32

LOCATION:

Freedom Road (SR 3020) from Commonwealth Dr to Turnpike Bridge.

TRANSPORTATION DISTRICT: West

DEFICIENCY:

At additional travel lane should be added in each direction along Freedom Road.

PROPOSED IMPROVEMENTS:

Widen to five-lane Minor Arterial with left-turn lanes.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	1,928,182
Utility Relocation	222,500
Right-of Way	1,750,000
Engineering	231,382
Inspection	192,818
Admin & Planning	28,923
TOTAL	\$4,353,804

PROPORTIONAL SPLIT OF FUTURE PEAK HOUR TRAFFIC VOLUMES:

*New Pass Thru Traffic /
Anticipated Traffic Growth = 32%*

*New Development Traffic /
Anticipated Traffic Growth = 68%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2099
Projected Construction Cost	\$46,716,186
Projected Soft Cost	\$5,426,786
Projected Total Cost	\$52,142,971

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$16,685,751
New Development Trips	\$35,457,221

PROJECT SCHEDULE:

		Year
State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	0%	\$0
Secure Funding		2096
Acquire ROW		2097
Complete Engineering		2098
Begin Construction		2099

Transportation District Cost:

West District	\$0
East District	\$0
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-33

PROJECT NUMBER: S-33

LOCATION:

Freedom Road (SR 3020) from Turnpike Bridge to Route 19.

TRANSPORTATION DISTRICT: West

DEFICIENCY:

Add additional travel lane should be added in each direction along Freedom Road.

PROPOSED IMPROVEMENTS:

Widen to five-lane Commercial Collector with left-turn lanes.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	3,968,803
Utility Relocation	341,500
Right-of Way	2,750,000
Engineering	476,256
Inspection	396,880
Admin & Planning	59,532
TOTAL	\$7,992,972

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 33%*

*New Development Traffic /
Anticipated Traffic Growth = 67%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2099
Projected Construction Cost	\$84,557,129
Projected Soft Cost	\$11,170,029
Projected Total Cost	\$95,727,158

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$31,589,962
New Development Trips	\$64,137,196

PROJECT SCHEDULE:

		Year
State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	0%	\$0

Secure Funding	2096
Acquire ROW	2097
Complete Engineering	2098
Begin Construction	2099

Transportation District Cost:

West District	\$0
East District	\$0
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-34

PROJECT NUMBER: S-34

LOCATION:

Executive Drive (T-936) and Thomson Park Drive (T-975) from Freedom Road to Rochester Road.

TRANSPORTATION DISTRICT: West

DEFICIENCY:

To maintain an acceptable Level of Service in the year 2020, the roadway segment should have an auxiliary left-turn lane along the entire length of the roadways.

PROPOSED IMPROVEMENTS:

Widen to three-lane Commercial Collector Standards.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	3,264,411
Utility Relocation	222,500
Right-of Way	500,000
Engineering	391,729
Inspection	326,441
Admin & Planning	48,966
TOTAL	\$4,754,047

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 7%*

*New Development Traffic /
Anticipated Traffic Growth = 93%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2099
Projected Construction Cost	\$47,748,902
Projected Soft Cost	\$9,187,546
Projected Total Cost	\$56,936,449

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$3,985,551
New Development Trips	\$52,950,897

PROJECT SCHEDULE:

		Year
State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	0%	\$0

Secure Funding	2097
Acquire ROW	2097
Complete Engineering	2098
Begin Construction	2099

Transportation District Cost:

West District	\$0
East District	\$0
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-38

PROJECT NUMBER: S-38

LOCATION:

Haine School Road from Freedom Road to Rochester Road

TRANSPORTATION DISTRICT: West

DEFICIENCY:

The 2030 traffic projects are anticipated to be higher than the current roadway can accommodate.

PROPOSED IMPROVEMENTS:

Add left turn lanes at key intersections to maintain thru traffic flow.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	2,718,881
Utility Relocation	79,100
Right-of Way	590,000
Engineering	326,266
Inspection	271,888
Admin & Planning	40,783
TOTAL	\$4,026,918

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 21%*

*New Development Traffic /
Anticipated Traffic Growth = 79%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2099
Projected Construction Cost	\$40,575,865
Projected Soft Cost	\$7,652,175
Projected Total Cost	\$48,228,040

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$10,133,132
New Development Trips	\$38,094,908

PROJECT SCHEDULE:

State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	0%	\$0

Secure Funding	2097
Acquire ROW	2098
Complete Engineering	2098
Begin Construction	2099

Transportation District Cost:

West District	\$0
East District	\$0
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-40

PROJECT NUMBER: S-40B

LOCATION:

S.R. 228 from Route 19 to Franklin Road

TRANSPORTATION DISTRICT: East

DEFICIENCY:

The 2030 traffic projects are anticipated to be higher than the current roadway can accommodate.

PROPOSED IMPROVEMENTS:

Widen to 8 Lane Arterial

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	12,357,543
Utility Relocation	116,500
Right-of Way	3,100,000
Engineering	1,235,754
Inspection	1,235,754
Admin & Planning	185,363
TOTAL	\$18,230,914

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 33%*

*New Development Traffic /
Anticipated Traffic Growth = 67%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2099
Projected Construction Cost	\$186,521,216
Projected Soft Cost	\$31,819,801
Projected Total Cost	\$218,341,017

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$72,271,957
New Development Trips	\$146,069,061

PROJECT SCHEDULE:

	Year
Secure Funding	2097
Acquire ROW	2098
Complete Engineering	2098
Begin Construction	2099

Transportation District Cost:

West District	\$0
East District	\$0
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-41

PROJECT NUMBER: S-41

LOCATION:

S.R. 228 from Franklin Road to Seven Fields Borough.

TRANSPORTATION DISTRICT: East

DEFICIENCY:

The 2030 traffic projects are anticipated to be higher than the current roadway can accommodate.

PROPOSED IMPROVEMENTS:

Widen to 4 Lane Arterial Roadway.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	3,779,819
Utility Relocation	33,100
Right-of Way	0
Engineering	377,982
Inspection	377,982
Admin & Planning	56,697
TOTAL	\$4,625,580

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 57%*

*New Development Traffic /
Anticipated Traffic Growth = 43%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2099
Projected Construction Cost	\$45,665,106
Projected Soft Cost	\$9,732,768
Projected Total Cost	\$55,397,874

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$31,466,446
New Development Trips	\$23,931,428

PROJECT SCHEDULE:

		Year
State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	0%	\$0
Secure Funding		2096
Acquire ROW		2097
Complete Engineering		2098
Begin Construction		2099

Transportation District Cost:

West District	\$0
East District	\$0
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-42

PROJECT NUMBER: S-42

LOCATION:

Franklin Road (SR 3021) from Seven Fields Borough to Route 228.

TRANSPORTATION DISTRICT: East

DEFICIENCY:

Shoulders and drainage structures are substandard.

PROPOSED IMPROVEMENTS:

Widen and Realign to two-lane Residential Collector Standards.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	1,115,744
Utility Relocation	59,400
Right-of Way	330,000
Engineering	133,889
Inspection	111,574
Admin & Planning	16,736
TOTAL	\$1,767,344

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 58%*

*New Development Traffic /
Anticipated Traffic Growth = 42%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2099
Projected Construction Cost	\$18,026,232
Projected Soft Cost	\$3,140,215
Projected Total Cost	\$21,166,446

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$12,365,238
New Development Trips	\$8,801,208

PROJECT SCHEDULE:

		Year
State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	0%	\$0
Secure Funding		2096
Acquire ROW		2097
Complete Engineering		2098
Begin Construction		2099

Transportation District Cost:

West District	\$0
East District	\$0
Southeast District	\$0

REMARKS:

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-45

PROJECT NUMBER: S-45B

LOCATION:

Route 19 (SR 0019) from Route 228 to Ogle View/Rowan Roads.

TRANSPORTATION DISTRICT: East/West

DEFICIENCY:

Thru lanes will need to be added to the roadway to maintain an acceptable Level Of Service in the study year 2030.

PROPOSED IMPROVEMENTS:

Widen to eight-lane Minor Arterial.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	13,357,564
Utility Relocation	3,149,000
Right-of Way	4,900,000
Engineering	1,602,908
Inspection	1,335,756
Admin & Planning	200,363
TOTAL	\$24,545,592

PROPORTIONAL SPLIT OF FUTURE PEAK HOUR TRAFFIC VOLUMES:

*New Pass Thru Traffic /
Anticipated Traffic Growth = 48%*

*New Development Traffic /
Anticipated Traffic Growth = 52%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2099
Projected Construction Cost	\$256,373,921
Projected Soft Cost	\$37,594,301
Projected Total Cost	\$293,968,222

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$141,840,539
New Development Trips	\$152,127,683

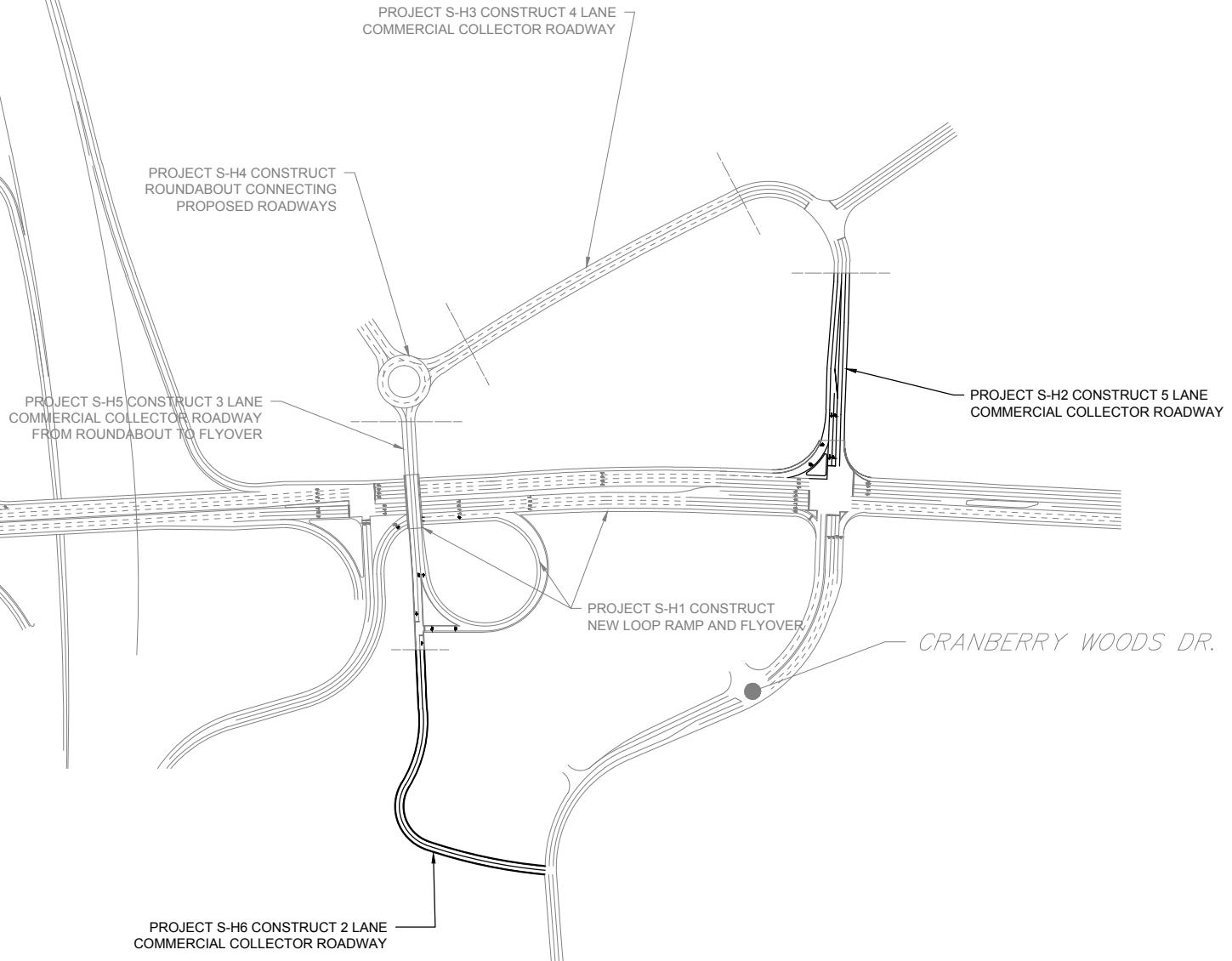
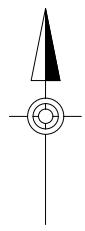
PROJECT SCHEDULE:

		Year
State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	0%	\$0
Secure Funding		2094
Acquire ROW		2095
Complete Engineering		2097
Begin Construction		2099

Transportation District Cost:

West District	\$0
East District	\$0
Southeast District	\$0

REMARKS:



500 250 0' 500

SCALE IN FEET

CRANBERRY TOWNSHIP IMPACT FEE UPDATE

CAPITAL IMPROVEMENTS DRAWING #S-H
DUTILH ROAD PARALLEL NETWORK
PROJECTS S-H1 THRU S-H6

SHEET: 1 OF: 1 DATE: 06/15/2011

HRG
Herbert Rowland & Goding, Inc.
Engineering & Related Services


CRANBERRY
TOWNSHIP
built for you
3525 Rochester Road, Suite 400
Cranberry Township, PA 16066-6499
(724)776-4806 FAX (724)776-5488

DESIGN DSM
DRAWN DSM
SCALE 1"=500'
PROJECT R0012610447

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-H2

PROJECT NUMBER: S-H2

LOCATION:

Local road network north of Route 228. North-South segment (New McElroy) opposite of Cranberry Woods Drive.

TRANSPORTATION DISTRICT: East

DEFICIENCY:

Lack of Roadway network capacity from I-79 to north of Route 228.

PROPOSED IMPROVEMENTS:

Construct 5 Lane Commercial Collector Roadway

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	1,974,040
Utility Relocation	0
Right-of Way	0
Engineering	197,404
Inspection	157,923
Admin & Planning	29,611
TOTAL	\$2,358,977

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

*New Pass Thru Traffic /
Anticipated Traffic Growth = 5%*

*New Development Traffic /
Anticipated Traffic Growth = 95%*

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2099
Projected Construction Cost	\$23,641,919
Projected Soft Cost	\$4,610,174
Projected Total Cost	\$28,252,093

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$1,412,432
New Development Trips	\$26,839,661

PROJECT SCHEDULE:

		Year
State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	0%	\$0
Secure Funding		2097
Acquire ROW		2097
Complete Engineering		2098
Begin Construction		2099

Transportation District Cost:

West District	\$0
East District	\$0
Southeast District	\$0

REMARKS:

See Improvement Drawing number S-H for a plan sketch of the proposed improvement.

**TRANSPORTATION CAPITAL IMPROVEMENTS FOR
CRANBERRY TOWNSHIP
PROJECT SUMMARY SHEET**

SEGMENT NUMBER: S-Int

PROJECT NUMBER: S-Int

LOCATION:

I-79 Interchange at location to be determined north of Route 228.

TRANSPORTATION DISTRICT: East/West

DEFICIENCY:

U.S. Route 19 projected to be over capacity.

PROPOSED IMPROVEMENTS:

Provide additional interchange to alleviate thru traffic on Route 19.

ESTIMATED COST SUMMARY:
(Current Year 2015 Dollars)

Construction	10,754,520
Utility Relocation	125,000
Right-of Way	1,500,000
Engineering	1,613,178
Inspection	1,075,452
Admin & Planning	161,318
TOTAL	\$15,229,468

**PROPORTIONAL SPLIT OF FUTURE
PEAK HOUR TRAFFIC VOLUMES:**

<i>New Pass Thru Traffic /</i>	<i>Anticipated Traffic Growth = 50%</i>
<i>New Development Traffic /</i>	<i>Anticipated Traffic Growth = 50%</i>

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2099
Projected Construction Cost	\$148,262,282
Projected Soft Cost	\$34,132,161
Projected Total Cost	\$182,394,443

COST ATTRIBUTABLE TO:

New Pass Thru Trips	\$91,197,221
New Development Trips	\$91,197,221

PROJECT SCHEDULE:

State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	0%	\$0

	Year
Secure Funding	2096
Acquire ROW	2097
Complete Engineering	2098
Begin Construction	2099

Transportation District Cost:

West District	\$0
East District	\$0
Southeast District	\$0

REMARKS:



CRANBERRY
• TOWNSHIP •

APPENDIX C

CAPITAL IMPROVEMENTS PLAN ADJUSTMENTS

HRG
Herbert, Rowland & Grubic, Inc.
Engineering & Related Services

Capital Improvements Plan Adjustments

Transportation Service District:	WEST	EAST
New Trip Ends (from traffic model)	9,544	13,126
Total Construction Cost Estimate	\$14,522,451	\$26,056,782
Trips At Previous Fees (Approved but not Collected by January 30, 2015)*	1,975	1,057
Dollar Value of Previously Approved Trips - fees not collected	\$2,938,010	\$1,525,296
Current Impact Fee Account Balance (As of December 31, 2014)*	\$316,906	\$6,596,907
Peliminary Adjusted Total Fee	\$11,267,535	\$17,934,579
5% Contingency	\$563,377	\$896,729
Subtotal	\$11,830,911	\$18,831,308
Final Adjusted Trip Ends	7,569	12,069
Adjusted Fee	\$1,563	\$1,560

Note: The above adjustments are made to compensate for the existing impact fee account balance and site developments that the Township has already given approval for but have yet to be constructed.

*Provided by Cranberry Township

March 2015



UPDATE2016

CRANBERRY PLAN UPDATE: ONLINE QUESTIONNAIRE SERIES

Report of Results

INTRODUCTION

As a component of the public outreach efforts for the Cranberry Plan Update, a short series of online questionnaires was conducted to gather input from community members. The series consisted of three separate questionnaires, with each questionnaire lasting a duration of one week. The questionnaire period in its entirety lasted a total of three weeks.

The questionnaire was implemented digitally, through Survey Monkey. Survey Monkey is a software company that provides an online platform to conduct outreach and gather information. Paper versions of the questionnaire were also available in locations throughout the Municipal Center, during the first Public Forum, and at a booth during Community Days. The first questionnaire was made available on Monday, June 30, 2015, with the final questionnaire ending on Monday, July 20, 2015. Each questionnaire consisted of eleven questions, including ten multiple choice questions and one open ended “general comments” question, in which participants could write in additional comments to expand upon the previously asked questions.

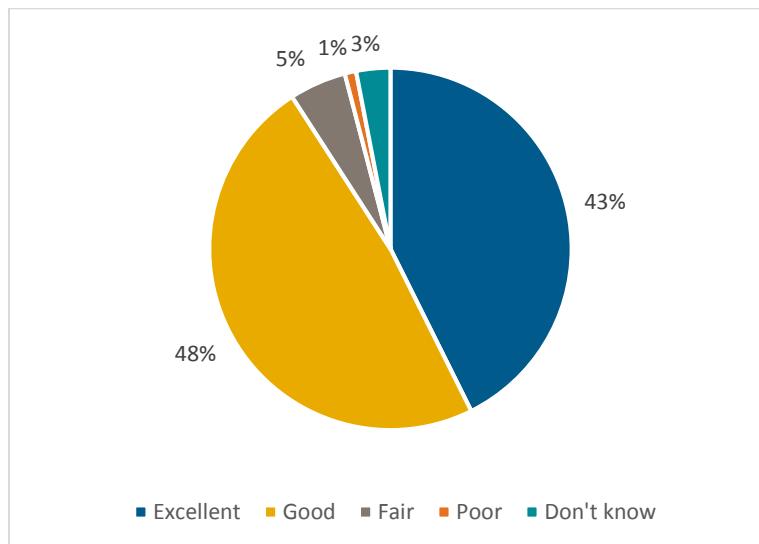
The first week’s questionnaire had 197 total responses. The second week’s questionnaire had 149 total responses. The third week’s questionnaire had a total of 225 responses. The majority of responses were attributed to the digital questionnaire format, rather than the paper questionnaire format. In the first week, 142 responses were digitally submitted, while 55 responses were submitted via the paper format. In the second week, 105 responses were digitally submitted, while 41 responses were submitted via the paper format. In the third week, 184 responses were digitally submitted, while 41 responses were submitted via the paper format.

The following highlights the results received from the questionnaires. The first 20 questions correlate to a questionnaire implemented during the Cranberry Plan development process. It should be noted that the questionnaire response rate during the initial Cranberry Plan was higher than the questionnaire response rate during the Cranberry Plan Update. As such, it is important to keep that in consideration when drawing further conclusions based upon this current feedback.

Responses

Question 1-1

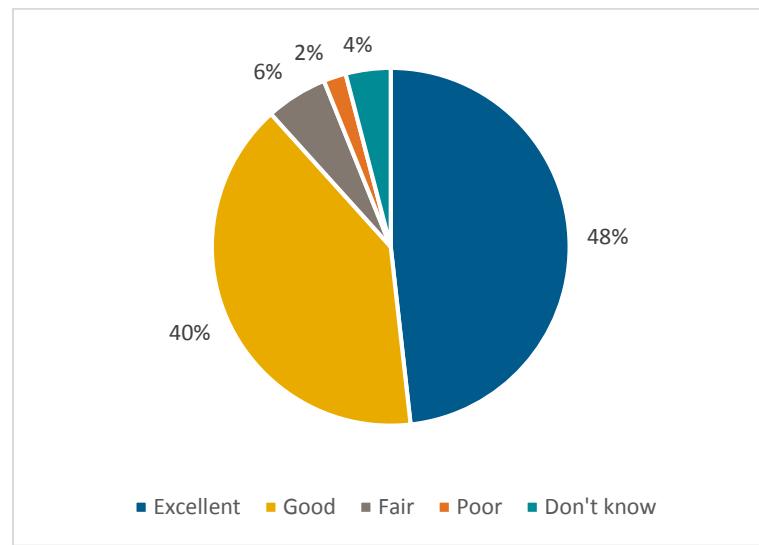
How do you view the overall quality of life in Cranberry Township?



91% of the responses from the Cranberry Plan Update questionnaire rated the quality of life in Cranberry Township as “Excellent” and “Good.” Of that 91%, 43% of the responses were “Excellent” and 48% of the responses were “Good,” signifying that most respondents are pleased with their quality of life.

Question 1-2

How do you rate Cranberry Township as a place to live?

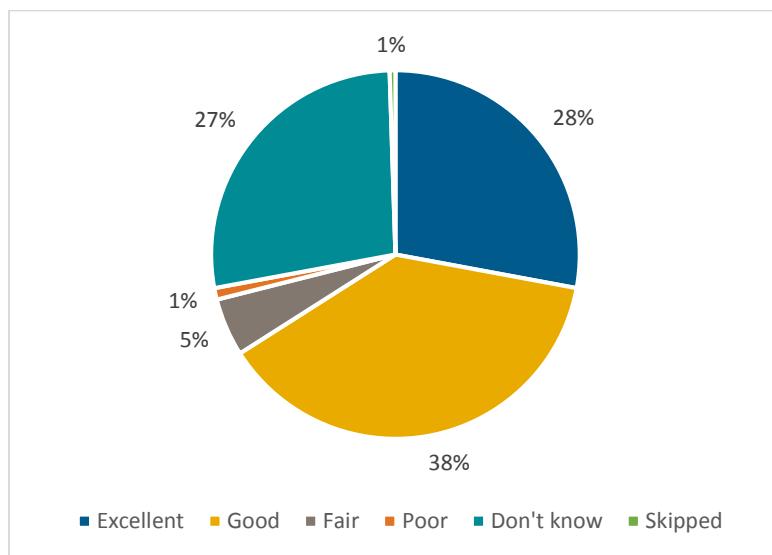


88% of the responses from the Cranberry Plan Update questionnaire rated Cranberry Township as a place to live as “Excellent” and “Good.” Of that 88%, 48% of the responses were

“Excellent” and 40% of the responses were “Good,” suggesting that most respondents are pleased with the housing and amenities the community provides.

Question 1-3

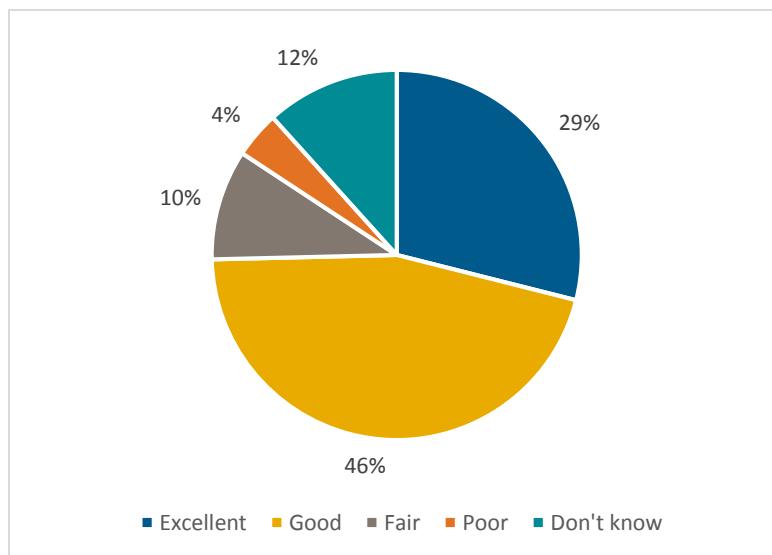
How do you rate Cranberry Township as a place to work?



66% of the responses from the Cranberry Plan Update questionnaire rated the Cranberry Township as a place to work as “Excellent” and “Good.” Of that 66%, 28% of the responses were “Excellent” and 38% of the responses were “Good.”

Question 1-4

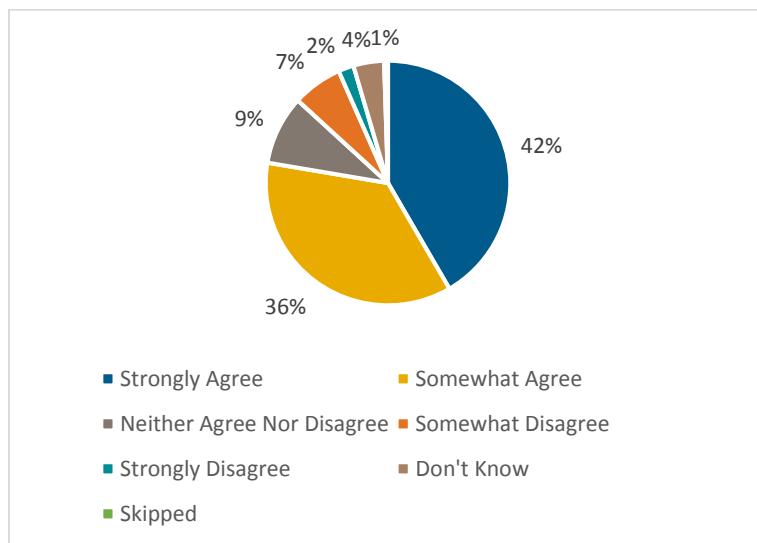
To what degree is Cranberry Township, as a community, open and accepting of people of diverse backgrounds?



75% of the responses from the Cranberry Plan Update questionnaire rated Cranberry Township's openness and acceptance of people of diverse backgrounds as "Excellent" and "Good." Of that 75%, 29% of the responses were "Excellent" and 46% of the responses were "Good."

Question 1-5

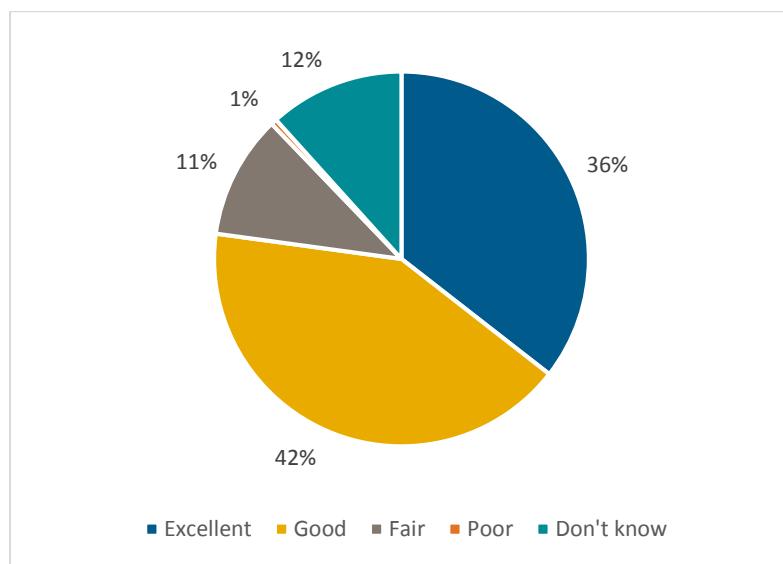
Please rate the following statement: I support the overall direction that Township government is taking.



78% of the responses from the Cranberry Plan Update questionnaire "Strongly Agreed" and "Somewhat Agreed" with the overall direction Cranberry Township was taking. Of that 78%, 42% of the responses were "Strongly Agree" and 36% of the responses were "Somewhat Agree," showing that a majority of respondents support the decisions of Township officials.

Question 1-6

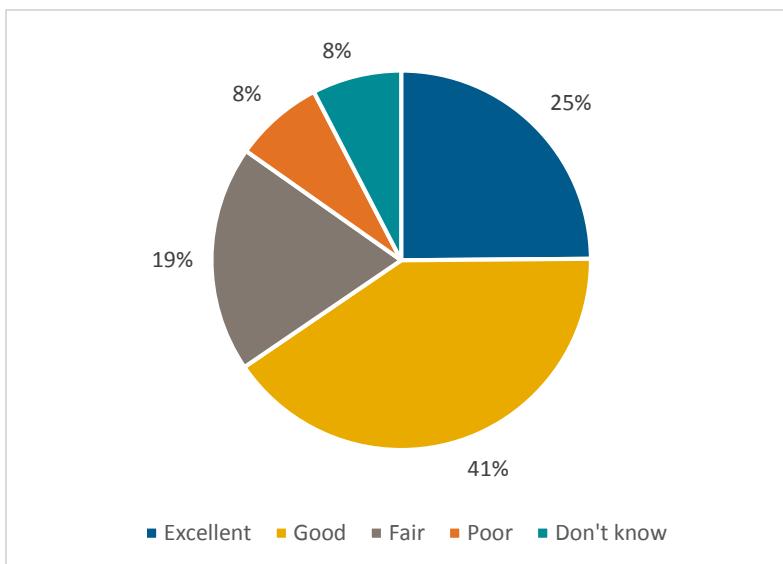
How do you rate the quality of the recreation programs and classes that Cranberry Township provides?



78% of the responses from the Cranberry Plan Update questionnaire rated the quality of recreation programs and classes in Cranberry Township as “Excellent” and “Good.” Of that 78%, 36% of the responses were “Excellent” and 42% of the responses were “Good,” suggesting that most respondents believe the programs and classes provided are adequate and can be improved.

Question 1-7

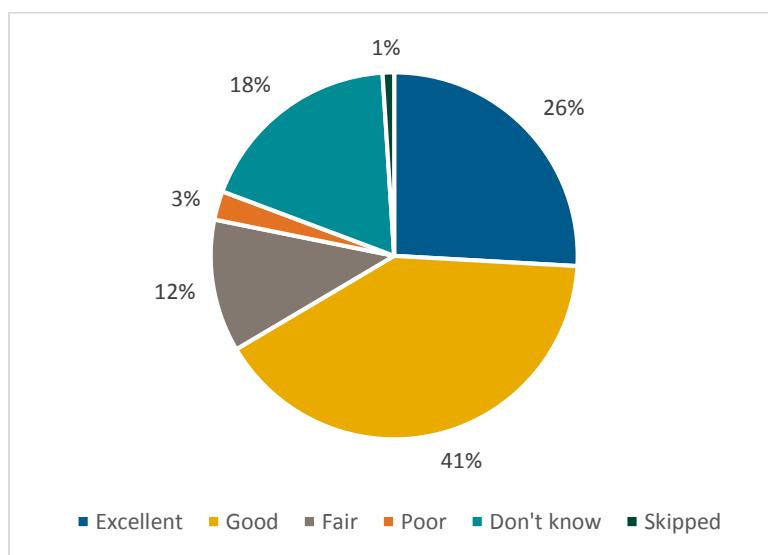
How do you view the quality of land use, planning, and zoning services that Cranberry Township provides?



66% of the responses from the Cranberry Plan Update questionnaire rated the quality of land use, planning, and zoning services in Cranberry Township as “Excellent” and “Good.” Of that 66%, 25% of the responses were “Excellent” and 41% of the responses were “Good,” suggesting that most respondents believe these services are adequate but can be improved.

Question 1-8

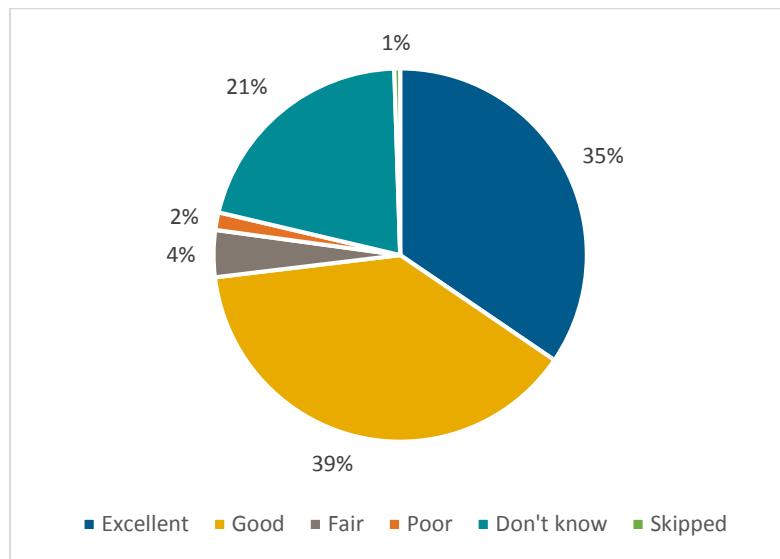
How do you view the quality of economic development services that Cranberry Township provides?



67% of the responses from the Cranberry Plan Update questionnaire rated the quality of economic development services in Cranberry Township as “Excellent” and “Good.” Of that 67%, 26% of the responses were “Excellent” and 41% of the responses were “Good.”

Question 1-9

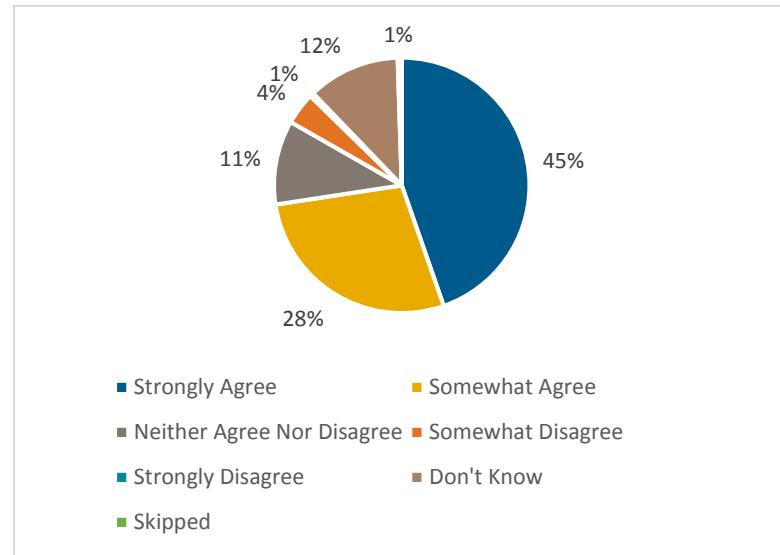
How would you rate the quality of the services provided by the Cranberry Public Library?



74% of the responses from the Cranberry Plan Update questionnaire rated the quality of services provided by the Cranberry Public Library as "Excellent" and "Good." Of that 74%, 35% of the responses were "Excellent" and 39% of the responses were "Good."

Question 1-10

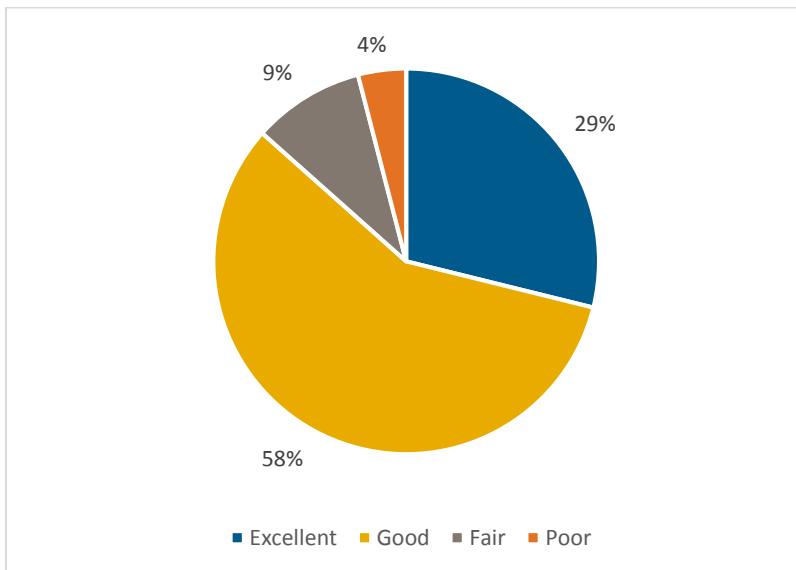
Please rate the following statement: Cranberry Township government welcomes citizen involvement.



73% of the responses from the Cranberry Plan Update questionnaire “Strongly Agreed” and “Somewhat Agreed” that Cranberry Township welcomes citizen involvement. Of that 73%, 45% of the responses were “Strongly Agree” and 28% of the responses were “Somewhat Agree.”

Question 2-1

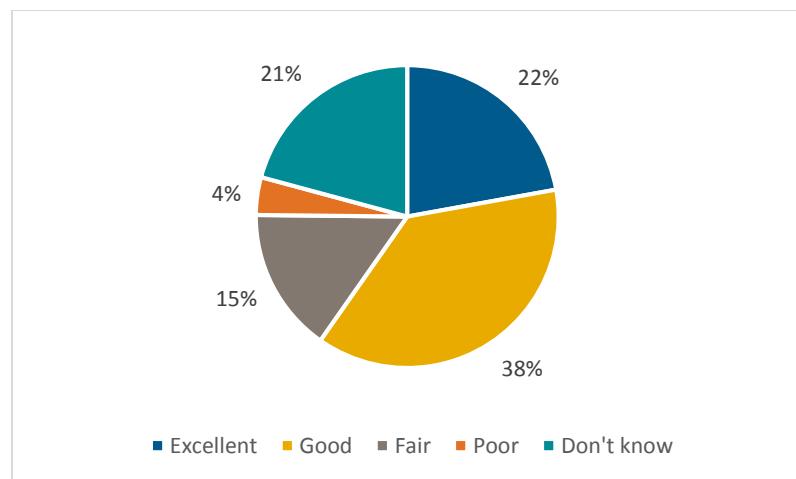
What do you think of the overall appearance of Cranberry Township?



87% of the responses from the Cranberry Plan Update questionnaire rated the appearance of Cranberry Township as “Excellent” and “Good.” Of that 87%, 29% of the responses were “Excellent” and 58% of the responses were “Good,” suggesting that most respondents are generally pleased with the look and feel of the community.

Question 2-2

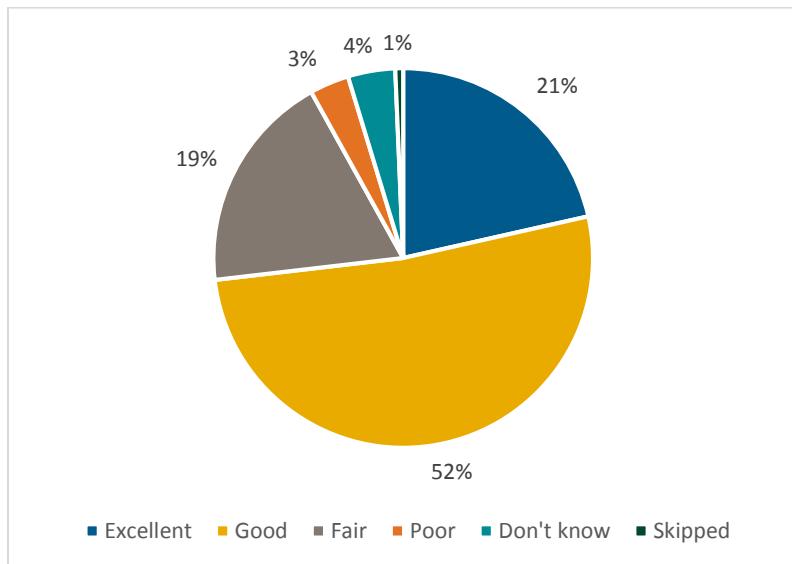
How do you rate the quality of the public schools in the community?



60% of the responses from the Cranberry Plan Update questionnaire rated the quality of public schools in Cranberry Township as “Excellent” and “Good.” Of that 60%, 22% of the responses were “Excellent” and 38% of the responses were “Good,” suggesting that most respondents believe there is room for improvement.

Question 2-3

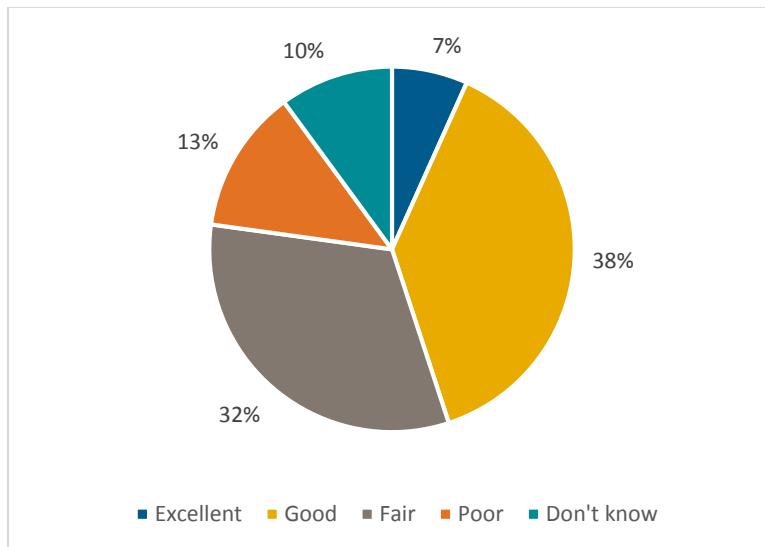
How would you rate the quality of new development in Cranberry Township?



73% of the responses from the Cranberry Plan Update questionnaire rated the quality of new development in Cranberry Township as “Excellent” and “Good.” Of that 73%, 21% of the responses were “Excellent” and 52% of the responses were “Good.”

Question 2-4

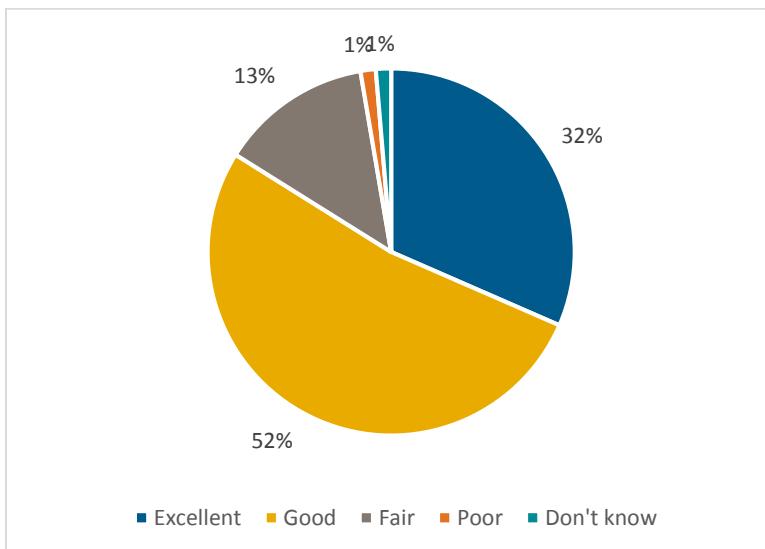
Please rate the accessibility of affordable and quality housing in the community.



45% of the responses from the Cranberry Plan Update questionnaire rated the accessibility of affordable and quality housing in Cranberry Township as “Excellent” and “Good.” Of that 45%, 7% of the responses were “Excellent” and 38% of the responses were “Good,” suggesting that most respondents believe this is an area where the Township can improve.

Question 2-5

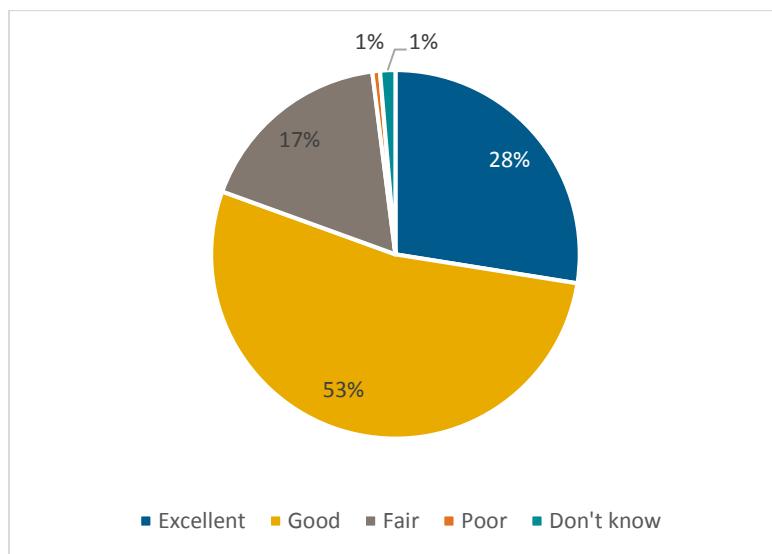
Please rate the shopping opportunities in Cranberry Township.



84% of the responses from the Cranberry Plan Update questionnaire rated the shopping opportunities in Cranberry Township as “Excellent” and “Good.” Of that 84%, 32% of the responses were “Excellent” and 52% of the responses were “Good.” Cranberry Township is noted to host a strong retail sector, and these responses validate that idea.

Question 2-6

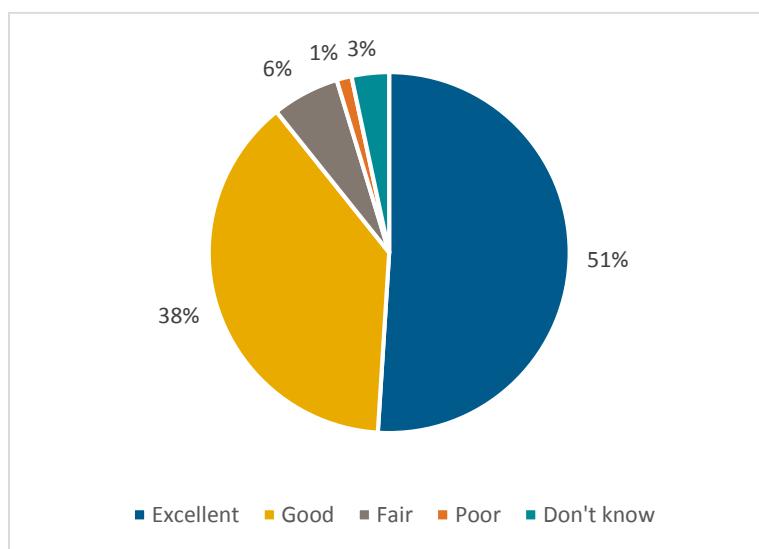
Please rate the accessibility of affordable and quality food in Cranberry Township.



81% of the responses from the Cranberry Plan Update questionnaire rated the accessibility of affordable and quality food in Cranberry Township as “Excellent” and “Good.” Of that 81%, 28% of the responses were “Excellent” and 53% of the responses were “Good,” signifying that respondents believe there is sufficient access to food grocery stores, markets, and restaurants in the community.

Question 2-7

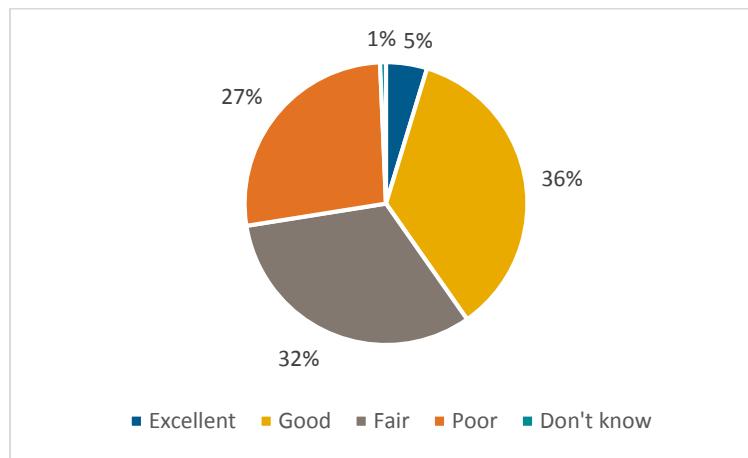
How do you view the quality of Graham, Community, and North Boundary parks?



89% of the responses from the Cranberry Plan Update questionnaire rated the quality of the parks in Cranberry Township as “Excellent” and “Good.” Of that 89%, 51% of the responses were “Excellent” and 38% of the responses were “Good.”

Question 2-8

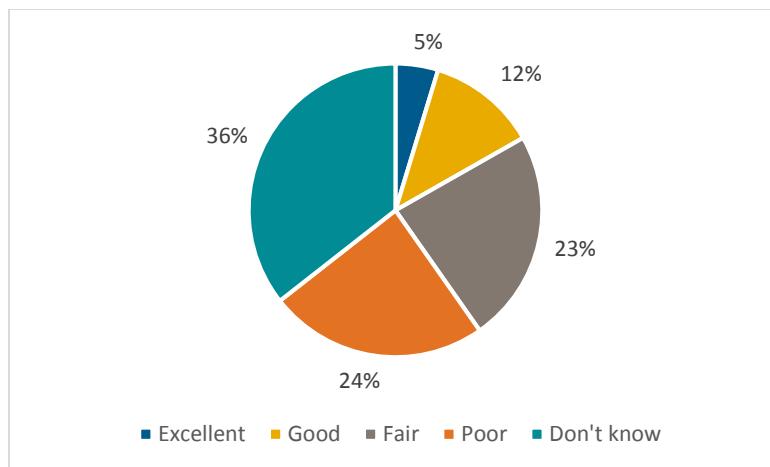
Please rate the ease of car travel in Cranberry Township.



41% of the responses from the Cranberry Plan Update questionnaire rated the ease of car travel in Cranberry Township as “Excellent” and “Good.” Of that 41%, 5% of the responses were “Excellent” and 36% of the responses were “Good.”

Question 2-9

Please rate the ease of bicycle travel in Cranberry Township.

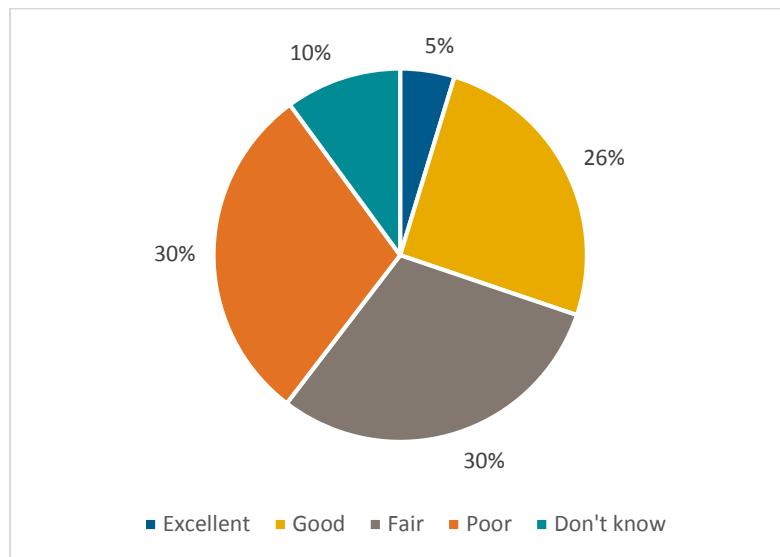


17% of the responses from the Cranberry Plan Update questionnaire rated the ease of bicycle travel in Cranberry Township “Excellent” and “Good.” Of that 17%, 5% of the responses were

“Excellent” and 12% of the responses were “Good,” suggesting that most respondents believe this is an area where the Township should improve.

Question 2-10

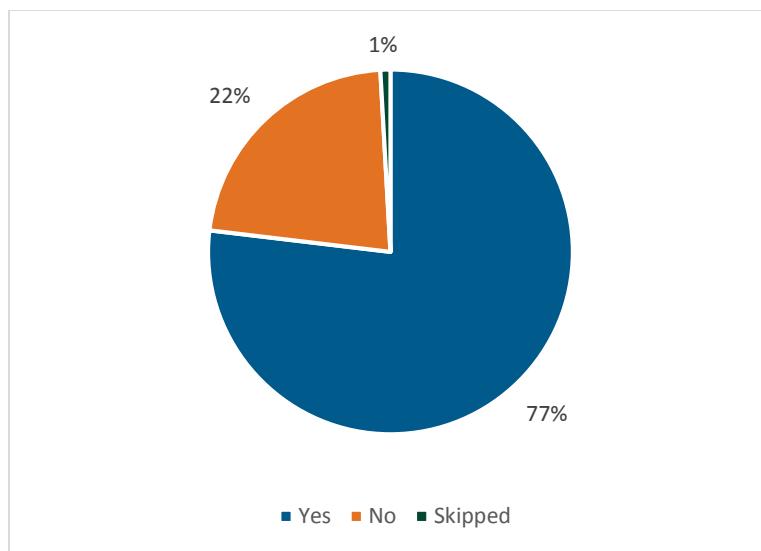
Please rate the ease of walking in Cranberry Township.



31% of the responses from the Cranberry Plan Update questionnaire rated the ease of walking in Cranberry Township as “Excellent” and “Good.” Of that 31%, 5% of the responses were “Excellent” and 26% of the responses were “Good,” suggesting that most respondents believe this is an area where the Township can improve.

Question 3-1

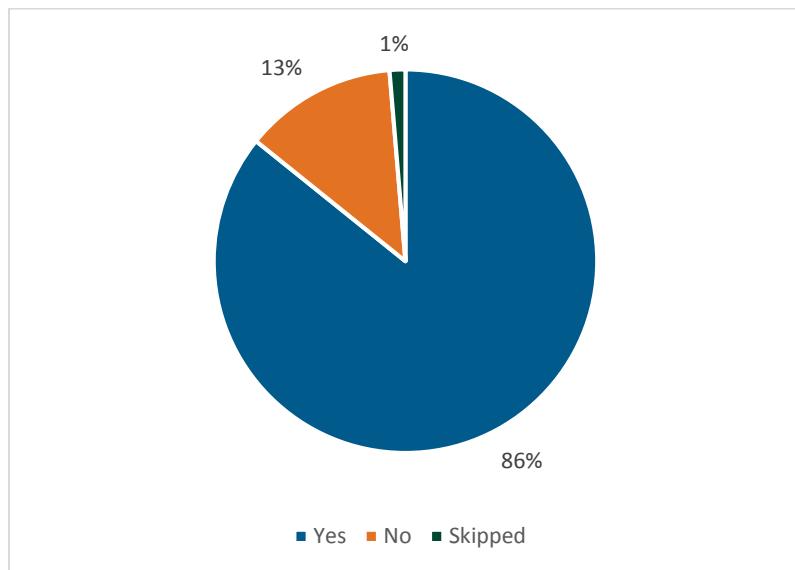
Do you feel that your tax dollars are being efficiently used within Cranberry Township?



77% of the respondents from the Cranberry Plan Update questionnaire thought that tax dollars were being used efficiently.

Question 3-2

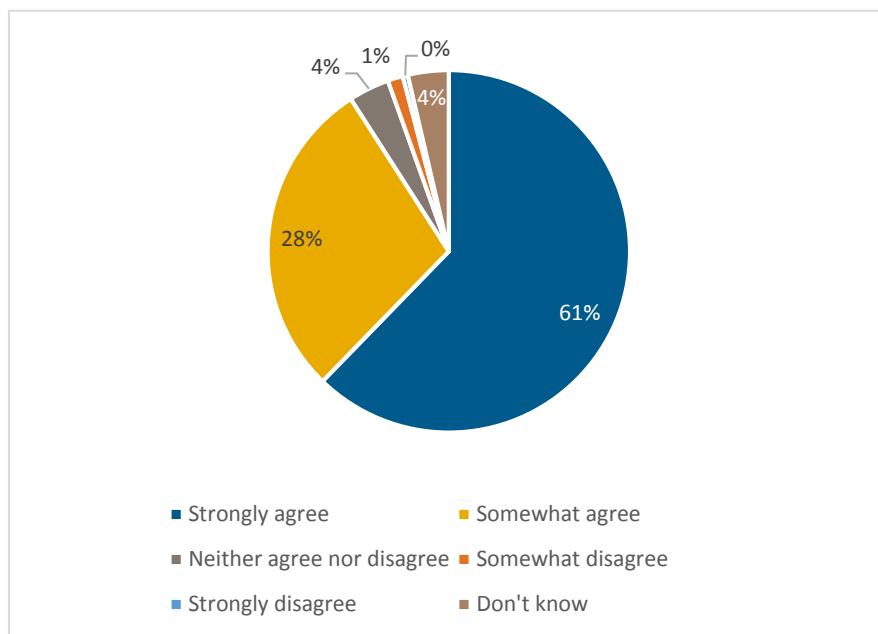
Do you feel that Cranberry Township has a strong brand and identity that is reflected in the planning and design of the community?



86% of the respondents from the Cranberry Plan Update questionnaire thought that tax dollars were being used efficiently.

Question 3-3

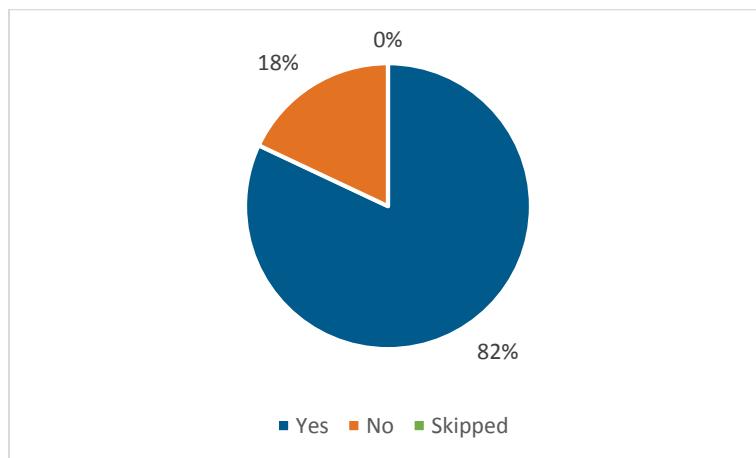
Please rate the following statement: I feel safe in my neighborhood.



89% of the respondents from the Cranberry Plan Update questionnaire "Strongly Agreed" and "Somewhat Agreed" that they felt safe in their neighborhood. Of that 89%, 61% of the responses were "Strongly Agree" and 28% of the responses were "Somewhat Agree," signifying that most respondents are feel safe and secure when at home.

Question 3-4

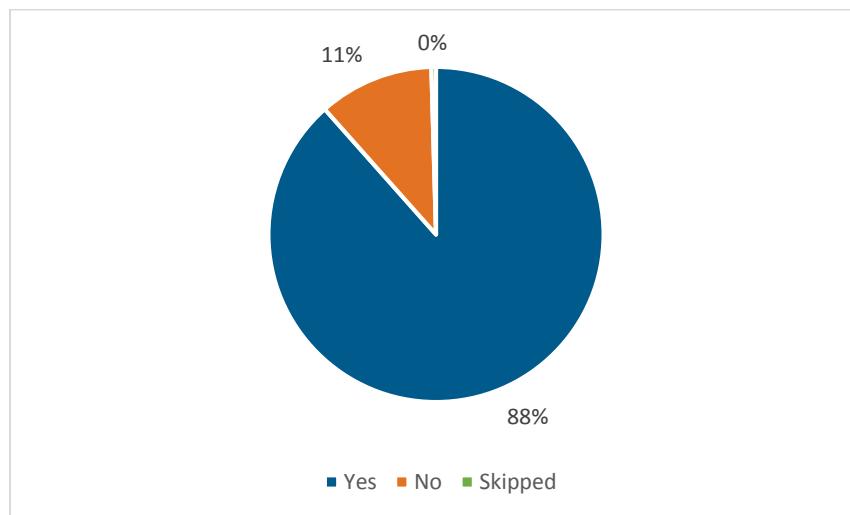
Do you feel there is an adequate and diverse variety of parks in Cranberry Township?



82% of the respondents from the Cranberry Plan Update questionnaire believed there is an adequate and diverse variety of parks, signifying that the respondents feel that the parks within the community sufficiently meet their needs.

Question 3-5

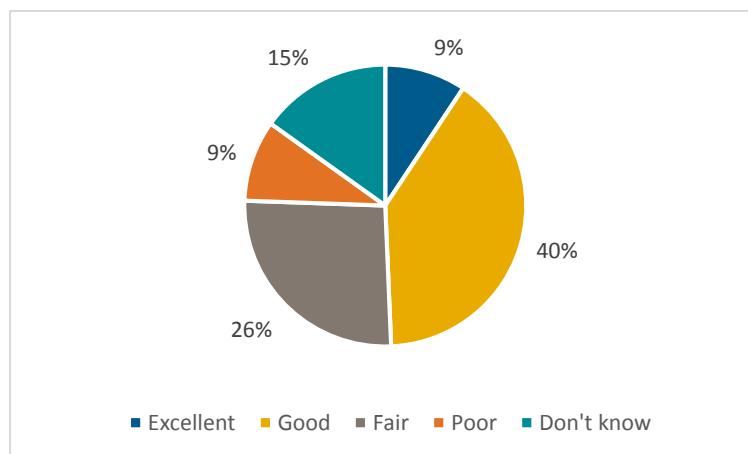
When you visit the Township parks, are the facilities you wish to use readily available?



88% of the respondents from the Cranberry Plan Update questionnaire indicated that park facilities are readily available to them, suggesting that there is an appropriate supply and range of facilities across the Township's park system.

Question 3-6

How do you rate the quality and amount of trails in the Township?

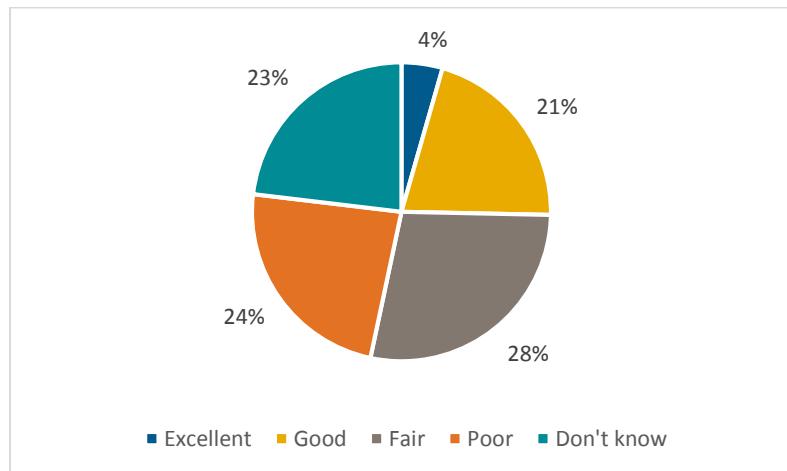


49% of the responses from the Cranberry Plan Update questionnaire rated the quality and amount of trails in Cranberry Township as "Excellent" and "Good." Of that 49%, 9% of the

responses were “Excellent” and 40% of the responses were “Good,” suggesting that most respondents feel that there should be more trails throughout the community.

Question 3-7

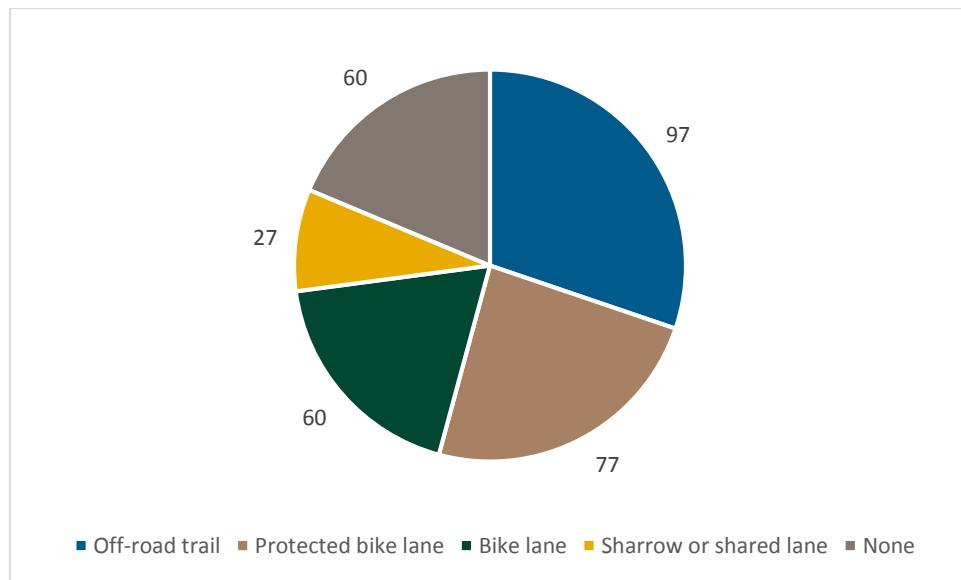
How do you feel about the quality and availability of bicycle infrastructure currently in the community?



25% of the responses from the Cranberry Plan Update questionnaire rated the quality and availability of bicycle infrastructure in Cranberry Township as “Excellent” and “Good.” Of that 25%, 4% of the responses were “Excellent” and 21% of the responses were “Good,” suggesting that the respondents feel this is an area which can be improved.

Question 3-8

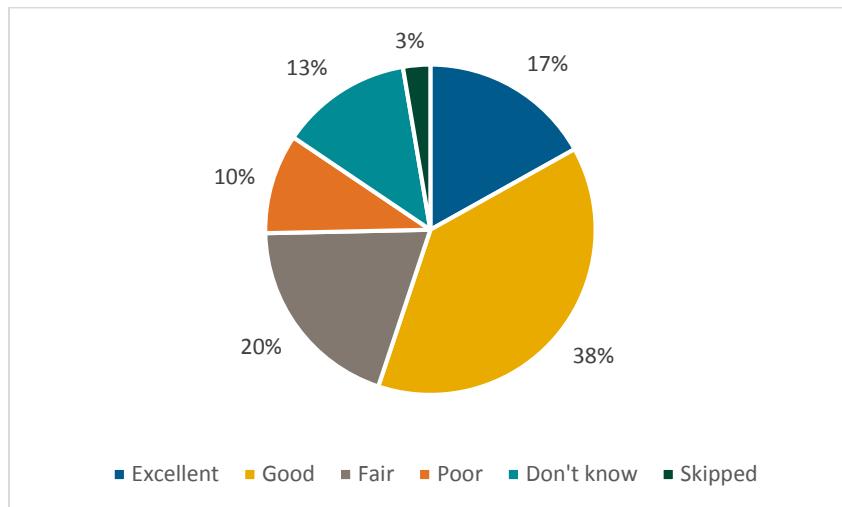
Which types of bicycle infrastructure would you most likely use? (Select all that apply)



A total of 321 responses were provided by 225 respondents. Off-roads trails were the most frequently reference bicycle infrastructure that respondents would use. 60 respondents indicated that they would not use any form of bicycle infrastructure.

Question 3-9

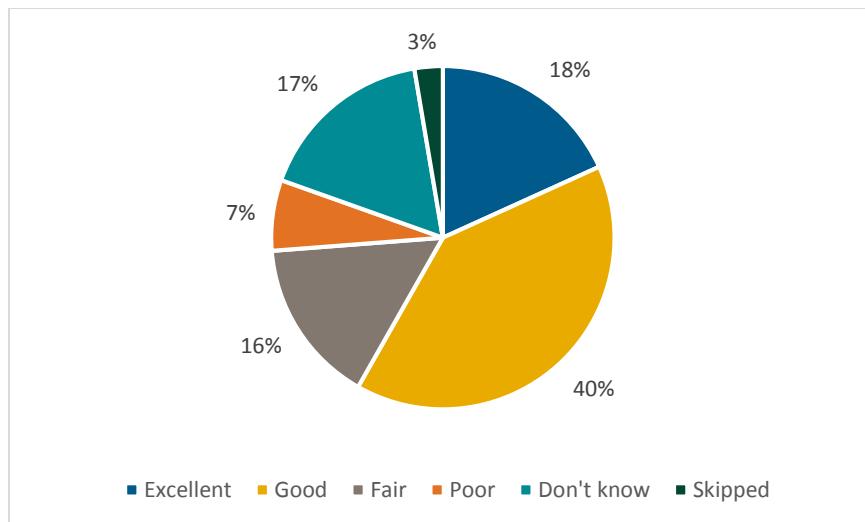
How do you rate Cranberry Township's efforts to protect natural resources and open space?



55% of the responses from the Cranberry Plan Update questionnaire rated the efforts to protect natural resources and open space in Cranberry Township as “Excellent” and “Good.” Of that 55%, 17% of the responses were “Excellent” and 38% of the responses were “Good.”

Question 3-10

How do you rate Cranberry Township's efforts to manage stormwater runoff?



58% of the responses from the Cranberry Plan Update questionnaire rated the efforts to manage stormwater runoff in Cranberry Township as “Excellent” and “Good.” Of that 58%, 18% of the responses were “Excellent” and 40% of the responses were “Good.”

APPENDIX A: FREQUENCY OF RESPONSES TO ALL SURVEY QUESTIONS

Question 2: How do you rate Cranberry Township as a place to live?						
	Excellent	Good	Fair	Poor	Don't Know	Skipped
How do you rate Cranberry Township as a place to live?	48% N=95	40% N=79	6% N=11	2% N=4	4% N=8	0% N=0

Question 3: How do you rate Cranberry Township as a place to work?							
How do you rate Cranberry Township as a place to work?		Excellent		Good		Fair	
		N=55	N=55	N=75	N=75	N=10	N=10
How do you rate Cranberry Township as a place to work?	Excellent	28%	38%	5%	5%	1%	1%
	Good	N=55	N=55	N=75	N=75	N=10	N=10
	Fair						
	Peor						
	Don't Know						
	Skipped						
	Total						
	1%	N=1	1%	N=54	27%	N=54	100% N=197

Question 4: To what degree is Cranberry Township, as a community, open and accepting of people of diverse backgrounds?							
	Excellent	Good	Fair	Poor	Don't Know	Skipped	Total
To what degree is Cranberry Township, as a community, open and accepting of people of diverse backgrounds?	29% N=57	46% N=90	10% N=19	4% N=8	12% N=23	0% N=0	100% N=197

Question 5: Please rate the following statement: I support the overall direction that Township government is taking.						
	Strongly Agree	Somewhat Agree	Neither Agree Nor Disagree	Somewhat Disagree	Strongly Disagree	Don't Know
Please rate the following statement: I support the overall direction that Township	42% N=82	36% N=71	9% N=18	7% N=13	2% N=4	4% N=8
					1% N=1	100% N=197

Question 6: How do you rate the quality of the recreation programs and classes that Cranberry Township provides?						
How do you rate the quality of the recreation programs and classes that Cranberry Township provides?	Excellent	Good	Fair	Poor	Don't know	Total
36% How do you rate the quality of the recreation programs and classes that Cranberry Township provides?	N=70 42%	N=82 11%	N=21 1%	N=1 12%	N=23 0%	N=197 100%

Question 7: How do you view the quality of land use, planning, and zoning services that Cranberry Township provides?						
How do you view the quality of land use, planning, and zoning services that Cranberry Township provides?	Excellent		Good		Fair	
	Poor	Don't Know	Poor	Don't Know	Poor	Don't Know
How do you view the quality of land use, planning, and zoning services that Cranberry Township provides?	25%	N=49	41%	N=80	19%	N=38
					8%	N=15
					8%	N=15
					0%	N=0
					100%	N=197

Question 8: How do you view the quality of economic development services that Cranberry Township provides?						
How do you view the quality of economic development services that Cranberry Township provides?	Excellent			Good		
	Poor	Fair	Good	Poor	Fair	Excellent
How do you view the quality of economic development services that Cranberry Township provides?	26%	N=51	41%	N=80	12%	N=23
Township provides?						
Excellent						
Good						
Poor						
Fair						
Don't Know						
Skipped						
Total						
N=197						

Question 9: How would you rate the quality of the services provided by the Cranberry Public Library?						
	Excellent	Good	Fair	Poor	Don't Know	Skipped
How would you rate the quality of the services provided by the Cranberry Public Library?	35%	N=68	39%	N=76	4%	N=8

Question 10: Please rate the following statement: Cranberry Township government welcomes citizen involvement.						
	Strongly Agree	Somewhat Agree	Neither Agree Nor Disagree	Somewhat Disagree	Strongly Disagree	
Please rate the following statement: Cranberry Township government welcomes citizen involvement.	45%	N=88	28%	N=55	11%	N=21

Question 11: What do you think of the overall appearance of Cranberry Township?						
	Excellent	Good	Fair	Poor	Don't Know	Skipped
What do you think of the overall appearance of Cranberry Township?	29%	N=43	58%	N=86	9%	N=14

Question 12: How do you rate the quality of the public schools in the community?						
	Excellent	Good	Fair	Poor	Don't Know	Skipped
How do you rate the quality of the public schools in the community?	22%	N=33	38%	N=56	15%	N=23

Question 13: How would you rate the quality of new development in Cranberry Township?						
	Excellent	Good	Fair	Poor	Don't Know	Skipped
How would you rate the quality of new development in Cranberry Township?	21%	N=32	52%	N=77	19%	N=28

Question 14: Please rate the accessibility of affordable and quality housing in the community.						
	Excellent	Good	Fair	Poor	Don't Know	Skipped
Please rate the accessibility of affordable and quality housing in the community.	7%	N=10	38%	N=57	32%	N=48

Question 15: Please rate the shopping opportunities in Cranberry Township.						
	Excellent	Good	Fair	Poor	Don't Know	Skipped
Please rate the shopping opportunities in Cranberry Township.	32%	N=47	52%	N=78	13%	N=20

Question 16: Please rate the accessibility of affordable and quality food in Cranberry Township.						
	Excellent	Good	Fair	Poor	Don't Know	Skipped
Please rate the accessibility of affordable and quality food in Cranberry Township.	28%	N=41	53%	N=79	17%	N=26

Question 17: How do you view the quality of Graham, Community, and North Boundary parks?						
	Excellent	Good	Fair	Poor	Don't Know	Skipped
How do you view the quality of Graham, Community, and North Boundary parks?	51%	N=76	38%	N=57	6%	N=9

Question 18: Please rate the ease of car travel in Cranberry Township.						
	Excellent	Good	Fair	Poor	Don't know	Skipped
Please rate the ease of car travel in Cranberry Township.	5% N=7	36% N=53	32% N=48	27% N=40	1% N=1	0% N=0

Question 19: Please rate the ease of bicycle travel in Cranberry Township.						
	Excellent	Good	Fair	Poor	Don't know	Skipped
Please rate the ease of bicycle travel in Cranberry Township.	5% N=7	12% N=18	23% N=35	24% N=36	36% N=53	0% N=0

Question 20: Please rate the ease of walking in Cranberry Township.						
	Excellent	Good	Fair	Poor	Don't know	Skipped
Please rate the ease of walking in Cranberry Township.	5% N=7	26% N=38	30% N=45	30% N=44	10% N=15	0% N=0

Question 21: Do you feel that your tax dollars are being efficiently used within Cranberry Township?

	Yes	No	Skipped	Total
Do you feel that your tax dollars are being efficiently used within Cranberry Township?	77% N=173	22% N=50	1% N=2	100% N=225

Question 22: Do you feel that Cranberry Township has a strong brand and identity that is reflected in the planning and design of the community?

	Yes	No	Skipped	Total
Do you feel that Cranberry Township has a strong brand and identity that is reflected in the planning and design of the community?	86% N=193	13% N=29	1% N=3	100% N=225

Question 23: Please rate the following statement: I feel safe in my neighborhood

	Strongly Agree	Somewhat Agree	Neither Agree Nor Disagree	Somewhat Disagree	Strongly Disagree	Don't Know	Skipped	Total
Please rate the following statement: I feel safe in my neighborhood.	61% N=137	28% N=63	6% N=13	1% N=3	0% N=1	4% N=8	0% N=0	100% N=225

Question 24: Do you feel there is an adequate and diverse variety of parks in Cranberry Township?

	Yes	No	Skipped	Total
Do you feel there is an adequate and diverse variety of parks in Cranberry Township?	82% N=184	18% N=40	0% N=1	100% N=225

Question 25: When you visit the Township parks, are the facilities you wish to use readily available?

	Yes	No	Skipped	Total
When you visit the Township parks, are the facilities you wish to use readily available?	88% N=199	11% N=25	0% N=1	100% N=225

Question 26: How do you rate the quality and amount of trails in the Township?

How do you rate the quality and amount of trails in the Township?	Excellent	Good	Fair	Poor	Don't know	Skipped	Total
9% How do you feel about the quality and availability of bicycle infrastructure currently in the community?	N=21	40% N=90	26% N=59	9% N=21	15% N=34	0% N=0	100% N=225

Question 27: How do you feel about the quality and availability of bicycle infrastructure currently in the community?

How do you feel about the quality and availability of bicycle infrastructure currently in the community?	Excellent	Good	Fair	Poor	Don't know	Skipped	Total
4% How do you feel about the quality and availability of bicycle infrastructure currently in the community?	N=10	21% N=47	28% N=63	24% N=53	23% N=52	0% N=0	100% N=225

Question 28: Which types of bicycle infrastructure would you most likely use? (Select all that apply)

Which types of bicycle infrastructure would you most likely use? (Select all that apply)	Sharrow or Shared Lane	Bike Lane	Protected Bike Lane	Off-Road Trail	None	Skipped	Total
8% Which types of bicycle infrastructure would you most likely use? (Select all that apply)	N=27	19% N=60	24% N=77	30% N=97	19% N=60	0% N=0	100% N=321

Question 29: How do you rate Cranberry Township's efforts to protect natural resources and open space?

How do you rate Cranberry Township's efforts to protect natural resources and open space?	Excellent	Good	Fair	Poor	Don't know	Skipped	Total
17% How do you rate Cranberry Township's efforts to protect natural resources and open space?	N=38	38% N=86	20% N=44	10% N=22	13% N=29	3% N=6	100% N=225

Question 30: How do you rate Cranberry Township's efforts to manage stormwater runoff?

How do you rate Cranberry Township's efforts to manage stormwater runoff?	Excellent	Good	Fair	Poor	Don't know	Skipped	Total
18% How do you rate Cranberry Township's efforts to manage stormwater runoff?	N=41	40% N=90	16% N=35	7% N=15	17% N=38	3% N=6	100% N=225

APPENDIX B: QUESTIONNAIRE GENERAL COMMENTS

- It is very disappointing that communities within Cranberry Township are not connected with walking or bike trails. The really only option is to drive everywhere. - Seems to be empty abandoned buildings which are left to rot which are fire hazards. - Cranberry Township just isn't walk poor bike friendly and feels disconnected. More requirements should be put on developers to link communities.
- Awesome
- consider redevelopment ordinance
- Could be more concerned with water and sewer infrastructure.
- Cranberry government does a fair job overall but sometimes developer interests are considered with more weight than the people. Development must be controlled to prevent sprawl and degradation of the current quality of life.
- Don't live in Cran Twp
- Full time police officers only - need to show dedication for long term employees
- Having lived in Cranberry Twp for 6 years now I can say I somehow miss Europe. That said, Cranberry is very safe, very woody and people are essentially very nice. What I miss the most is a downtown of reasonable size, with few cars or no cars at all, cafes, small retail stores, small restaurants and other, a cradle for social life. I do believe Cranberry has the room and a great potential to build that.
- I am concerned about the increase in population and its effect on traffic. Traffic control via technology will only go so far without major reconstruction and widening of roads, which will be extremely expensive. The time it takes to travel around town is getting to be very frustrating.
- I feel that the emphasis on diversity is a bit over the top. I answered Don't Know to the economic development services because I am not sure what that refers to. Finally, I think Cranberry is a fabulous place to live and raise children.
- I grew up on Long Island where there are 7 million people, and yet the traffic in Cranberry at times is worse than there. Not only is it inconvenient and thoroughly frustrating, it doesn't have to be this way. I'd like to see the intersections wider, and the roads wider, so that traffic can move more effectively. In addition, the amount of left hand turn signals followed by just a solid red left turn arrow is positively maddening. If you want to give the people making left hand turns a head start by providing a green arrow at certain locations, that is fine, but then allow us to make a left at our discretion when the opposing traffic dissipates. Driving in Cranberry has sucked the fun out of driving for me, and frustrates me to no end. Thank you.
- I have concerns regarding over-saturation. Squeezing residential developments into small areas. RE: Glen Eden Rd. And Powell Rd. Development. Rural roads with massive development. This surely will have a negative impact.
- I rated number 6 as fair only because I don't believe the pool is being utilized as it should be due to our unpredictable weather and sometimes having very wet summers. Although a huge expense for the Township, believe it should be domed so it can be used year around. In the long run it would pay off.
- I've been living in Cranberry since 1971, & have seen Cranberry grow enormously, for the better in my opinion, you really have no need to leave Cranberry, we have it all. Constant improvement, progress & growth & I'm quite sure it will continue, looking forward towards it both as an employee & resident. We have great leadership from our twp mgr & the board of supervisors. They see our needs & address them both for residents & employees. Be proud to live & work here. Sincerely, John D. Genick Jr.
- love living here

- Love the parks...growing up we only had cranberry park! The fitness stations are awesome. Just wish there were complete side walks on Rochester and Freedom roads. Both the overpass and underpass are very hard to walk on.
- N/A
- Not a useful survey -it just basically asks if you are doing a good job or not. Instead ask what-if questions like what if we had an actual towns center? Do we really need an underpass under 228? Should we think bigger than Cranberry? What if we extended Rt 228 to the west along Freedom Rd?
- Please don't develop all land, the woods are part of the charm.
- Please fix intersection at 19 and Rowan, with attention to Get go exiting. Way too many close calls.
- Side walks! Freedom road bridge!
-
- Thanks for asking for our input.
- thanks for asking the residents their opinions.
- The local government does an excellent job of running this community.
- The reason I answered #5 as I did is because I strongly believe that the traffic congestion problem on Freedom Road, etc. simply MUST be the primary thing to be addressed before anything else. It appears that the Board just continues to approve new housing subdivisions and new business development without any thought to the ADDITIONAL TRAFFIC PROBLEMS to which they are contributing! Please please think before voting to approve anymore residences or businesses!!!
- This may not be relevant to this survey, but I would like to see a school district just for Cranberry Township, or at least build new schools in the township so our children don't have to travel so far, especially young children who travel a half hour to CVE.
- traffic and infrastructure greatly impact the quality of life in Cranberry. It will only get worse as Development continues off of Rochester and Glen Eden. These old farm roads are not equipped to deal with the traffic demands. The turnpike and 79 completely divide the town and create bottlenecks to cross that will always be a problem. Solve the traffic problem and the quality of life will greatly improve. I just don't see this as a high priority with the township. It seems we are very concerned with the sewer plant and complying with ever changing EPA guidelines when any strides we make are dwarfed by the millions of gallons of raw sewage dumped into the 3 rivers due to Pittsburgh's antiquated systems. Let's put the plant on the back burner and focus on traffic!!!
- Very impressed with how well the township manages its infrastructure, a sharp contrast to how other communities get into serious trouble ignoring their infrastructure.
- We need more restaurants. The cranberry mall needs a facelift and the commercial properties, particularly on route 19 and freedom rd need to keep their properties well manicured.(some do not). Something has to be done with abandoned commercial buildings as well.(ie old Sheetz on Freedom Rd) Thank you!
- We provide a lot of opportunity for involvement and put a lot of thought into outreach. The real test of our outreach efforts is always after the initiatives are underway.
- Well done!
- I feel there are too many apartment buildings being built in the township considering the current roads that are in place within the township. Too much growth and not enough roadways in place to handle the growth. It makes it miserable to live here these days.
- Appearance -when you enter CT via the major routes you should know it! (in a good way) -a gateway that signifies you have entered a successful, thriving, attractive community. Parks- all 3 should be linked by bike/walking trail. Food - a true, farmers market location would enhance food access and serve as another building block for CT development of a town area. Car Travel - I did not rate as excellent but do rate as excellent CT's effort to address car travel concerns.

- We need a bike and pedestrian connection down freedom rd and across 19 and 79.
- - Unsure why Seneca Valley has gone from 9th to 15th in statewide rankings. - Appearance is getting better. Consistently in signage is nice. - Would love to see McGinnis Sisters or Whole Foods at the north end of cranberry. No shopping whatsoever in north end. - Congestion on 19 @ Freedom. - No bike opportunities. Needs development. - No walking opportunities. Needs development.
- Walking around anywhere in Cranberry is scary at best. The main arteries still lack sidewalks, such as 228, 19, Franklin Road. There are a few more dedicated bike lanes, but simply adding signs to busy two lane highways that say “share the road” is laughable. The reality is that walking or biking anywhere meaningful in the township remains difficult for everyday activities such as shopping, dining, errands, etc. The car and strip mall / chain restaurant culture will entrench itself if you let it.
- The only real problem I see is drugs in cranberry. The schools and businesses are full of them.
- When are you going to address the heroin epidemic that is sweeping Butler county?
- Overall appearance is good, but please keep in mind the balance between appearance in cost. For example, I don't think it is really necessary for fancy cranberry colored red light poles (especially when a huge silver overhead sign post was installed over Freedom road). Every dollar that is spent on these aesthetic items is one more tax dollar that has to be collected from someone (or from State funding). I appreciate the improvements in traffic and realize we are on the cutting edge of red light management. The roundabouts are great. But there are some improvements that could be made. Getting off I-79 south onto 228 west there are no right turns on red allowed. Also, some red lights during off hours are extremely slow to change...let's go back to blinkers between midnight and 6! Finally, with regard to traffic, route 19 east at the cranberry connector (“BP redlight”) should not have a red light (only the west bound should stop. Getting off the turnpike, instead of making a left turn to get on Rt 19 N, all traffic should be routed over the bridge to merge onto Rt 19 north. I have seen in other parts of the country these “always green” lanes so at least some directions of traffic can keep moving. Shopping opportunities are good, but retail rent is so high there are a lot of chain stores. The burden the township places on businesses (like landscaping) drives up rent costs.
- Cranberry lacks unique appearance in buildings. Although I would say facilities all appear to be in good condition, it lacks uniqueness. Additionally, Cranberry lacks original, local restaurants and shops as well as any outdoor “urban” spaces that are not surrounded by parking.
- more trails and bikeways
- Appears that we are not keeping up with basic road and street maintenance needs.
- Bicycle travel should be restricted to bike lanes or parks only for the safety of the bicyclists and motorists.
- Need more green space intertwined with all of the commercialization. More “common areas” would be nice, as well as walker/biker friendly trails.
- Traffic is horrible from 4:30pm to about 6:30. Especially on Rochester Rd and Freedom. You cant even avoid traffic with side streets.
- The heavy traffic delays on Freedom Road and Rochester Road are unacceptable. The “missing links” of sidewalk in the township make bicycle and pedestrian travel difficult. More planning should be done to ensure the appearance of new developments meet high expectations.
- going to need deer control soon
- We need more continuous sidewalks and dedicated bicycle lanes! Too many of our roads are dangerous for pedestrian and bicycle traffic.
- Some businesses do not maintain their exterior appearance including landscaping looking for a messy looking appear when driving through for visitors. There also seems to be no plan of what will be built where. Residential areas should be kept residential not allowing businesses to incorporate and often times there is not enough traffic to generate the business. Also we keep allowing building of new “strip malls” and the older store fronts just empty or fill with store like smokeless tobacco products.

- The Marathon gas station at the corner of Freedom and 19 is an eyesore!!! We had out of town guests last weekend, and it's embarrassing to drive through that intersection. The traffic flow on Freedom Road is atrocious.
- Some of these items can't be changed no matter how hard the Township tries to be excellent, such as walking and bicycle travel, it can be improved from 10 years ago, yes, but the Township isn't set up to make it a bike friendly or walk friendly place, everything is too spread apart - when I think of walk or bike friendly, I think of a heart of a city with houses built around it, unfortunately there's not a "heart", yet :)
- Please continue to work on enhancing our sidewalks, trials and bikeways.
- I feel the ease of walking in the township is improving however it still feels unsafe to walk along Freedom rd or if anyone would need to walk along rt 19
- Traffic is a major problem. getting around is very tough.
- Nobody should have to sit on a side road for 2 min at a light when there isn't traffic coming the other direction. Sat at Laport. That's not the only place. Same thing happens at Parkwood.
- Need more arts. Fine and performing. There wasn't even a question asking about it.
- You are heading for disaster. The community is over developed now and population estimates are for it to almost double in 10 years. DOOMED!!!
- Old shopping centers, empty buildings, and trailer parks need to be removed or refaced to fit in with the image of a growing, thriving Cranberry. This also applies to the schools. New, up-to-date buildings on par with the new Cardinal Wuerl are needed and a middle and high school within the Township are essential. Traveling outside the township for schools is not attractive to homebuyers. We would love to have more sidewalks. Especially from the Fox Run subdivision to the Rite Aid/Mad Mex plaza on Rt. 19. More walkability or the ability to ride bikes places would make a huge difference in our dayto-day lives. #8. Specifically Freedom Road is fair. I really appreciate the efforts made to improve non-car travel in Cranberry Twp, but even with signage and lane markings, traveling by either bike or foot near any major roadway is still ridiculously unsafe. If there's going to be a serious movement towards non-car travel there needs to be a REAL network of dedicated paths and trails with safe, properly designed crossings, and real coverage throughout the township. Side streets should be feeders to a dedicated bike/walk network if it's a serious endeavor, otherwise it's dangerous lip service.
- The size of the district and the rankings of the schools is not in line with the other developments of the township. I look at the elementary and middle school rankings and am shocked to see the decline by the time the high school rankings come out. I think it would greatly benefit the community to create a high school in cranberry. If this means remaining a big district but having multiple high schools it would be beneficial.
- Don't go anywhere in cranberry between 4:30-6. Traffic is a mess! It would be nice to be able to walk a dog in Graham Park. Too many chains coming to Cranberry. It would be nice to see some ma and pa places.
- Schools: the elementary schools in Cranberry are great; however, Seneca Valley is much too big. Both in terms of students and geographic footprint. It's causing my wife and I to consider moving before our children get to that point. With the size of Cranberry, one would think we could get our own High School. I realize without us, Seneca Valley is almost nothing...but it's time to cut the cord. We've grown exponentially over the last two decades and our needs call for our own HS. I shouldn't have to hop on the freeway, drive 15-20 minutes just to get to our township's high school. We aren't a farm-town anymore. Please please please!!!

- 2. Sidewalks need to expand/improve. I know this was a focus and in the works so I have confidence this is going to be addressed. Good work! Requests/wish list: More unique/non-chain restaurants; get a development built on corner of Ogleview/19; more integration of the new Cranberry “look” with the red posts/landscaping mandated for all developments... Looks so sporadic right now... Like we haven't figured out what we want to be. Thanks for doing this. Hope these are taken seriously and please give all thought and consideration of getting our own school district! I don't want to have to move... Ugh There are no sidewalks or street lights in the older neighborhoods. This makes for unsafe walking with the increased traffic. Also it is very unsafe on the designated walking and bike trail from Graham park to the industrial park. Path to pool from park Cost of housing a bit high. Would love to live in Cranberry Township. #9 “Dangerous”
- New housing plans to expensive
- Regarding bicycle, natural resources, and stormwater runoff, I would prefer to not pay attention to any three of those if it will save us money and tax dollars. Go for cheap and easy.
Too much spent on parks and bike infrastructure. Hardly ever used for all the expense.
- Please stop raising my taxes! Please stop spending money!!!!
Parks could use more natural area. Most park space now is for active rec activities.
It would be nice to be able to walk with my dog on park trails. Please consider allowing leashed dogs in parks. Most owners are responsible about cleaning up waste. I do not use the parks often because they are not dog friendly. The dog park is nice, but it would be nice to be able to use other areas of the park and not feel so segregated. Humans create more unwanted litter and trash in parks than dogs will ever.
The township supervisor needs to be replaced. The town is now overbuilt, especially when compared to its infrastructure, which will lead to long term, costly issues. Unfortunately the greed and ignorance of these so-called leaders have clouded their judgement.
- Keep the kids from playing on the exercise equipment in Graham Park as it were a playground.
- Regarding question 1 (tax dollars), the township should strive to lower taxes each year as the population becomes denser. The township spends too much money trying to keep things “pretty” when the money could be used for better projects.
- Would be pleased to have a more user-friendly online system for library. No need to use more tax dollars on it, though. Plenty is wasted on police and their vehicles. Cut funding from them and use towards actually useful things in the township. The Cranberry heights neighborhood was endangered with the new “traffic calming” infrastructure. It used to have several feet between the sidewalks (where kids ride bikes and walk) and the road. Now, there are several places where it is less than a foot. My kid falls and his head is no longer in the grass but under someone's tire. I was shocked at the thoughtless design and amazed at how much it must have cost me to do such a wasteful and dangerous thing. I'd like to see it redone at the cost of the idiots who designed it.
- Cranberry wastes a lot of my tax money. The Heights Drive route 19 extension construction is a prime example. They tore up perfectly good asphalt and installed “traffic calming” medians that are utterly useless. They do ZERO to slow traffic and actually endanger my family by narrowing the distance between the traffic lane and the sidewalk. They also inserted completely unnecessary stop signs. Whoever designed that epic failure should be fired. Also, why do the police need F-150's? Is this financially responsible? Cranberry Twp started off good, but is starting to get too big for its britches. Time to make some major cuts.
- I think that much more needs to be done to preserve natural lands and to be more planful about the use of space in Cranberry Twp as it develops. - Anne Gill 120 Mirage Drive
- About question 10 I live in a neighborhood full of homes whose yards flood, because we have nowhere to drain our storm water.
- Less emphasis off on road cycling and more on off road trails - not mountain biking but paved cycling trails.

- Let's quit expending so much energy & money on the "touchy/feely" stuff like parks and concentrate on more important things like BEING ABLE TO GET AROUND IN THE TRAFFIC IN CRANBERRY!! Widen the bridge over the turnpike on Freedom Road PLEASE!!
- keep up the great work
- Question should be reformatted in case you do not pay taxes to cranberry township
- Need extensive off road paved bike trails the length of Brush Creek for instance, or up and down along I-79 and the turnpike to the pool and over to North Park. Major development should always be buffered with at least 300 ft of existing forest, not a single row of trees as what happened between Shop n Save and McDonald Drive. The goal shouldn't be to develop every corner but to maintain some open space. Exception - force the issue at Sweet Licks, it's become an eyesore.
- Other items for consideration: -turnpike exit on Powell to help with traffic -add a grocery store that I'd like to shop at ... Whole foods or trader joes - more independent dining that is supported by community channels like Facebook so they don't go out of business as fast as they open - build a high school in cranberry - work to alleviate traffic congestion on freedom road - tear down old buildings like sweet licks. They ruin the overall appeal of this area. Rezone and reclaim areas to adjust traffic flow in other areas.
- Keep up the great work, Cranberry Township! I grew up here in Cranberry and my husband and I love it so much we decided to buy our own house here too! Thank you everyone for all you do on a daily basis to make Cranberry one of the absolute best places to live!
- Building more housing developments and commercial sites seems to be the main focus! Traffic is already a major problem & should be the main priority. Rarely are police officers spotted on the roads to keep drivers safe. Officers are also needed at the parks more often as a group of idiots continue to race, drive in the grass & shoot off fireworks at Graham! We have great parks but they won't stay that way if they aren't patrolled.
- Bicycle infrastructure in Cranberry???? There are these spots that pop up out of the blue that are marked as share the road and then are gone. If you're going to look at a bike route make a REAL route.....how can I safely move north and south as well as east and west across town in a communiting manner. I have avid cycling friends (including one that even is a manager at Trek) that would NEVER bike in town. It is VEEEEEEERY clear that whoever is making bike lanes here doesn't actually ride a bike.
- Stop the construction !! It is jammed packed in Cranberry and the traffic is crazy!!!!!! There won't be any green space left !!!!! We don't need anymore townhouses/condos/or any other housing plans for that matter!!!!
-
- The police dept is the best. We love them. If we were ever in trouble they always help! We also love the parks and recovery dept and the new updates coming to the pool. Keep up the great work!
- Answering yes or no to question #1 was difficult. I feel that tax money is largely well spent on police, administrative staff, park maintenance, etc, but then someone donates a statue and it turns in to a big landscaping project to build an unnecessary Indian village.
- Even though there are 'No pets' signs people still walk dogs in the park which is very upsetting. Also, groups using our parks for any type of ball game should be required to clean up (putting bottles, wrappers, etc...) in the trash before leaving the park. Or they can be charged a clean-up fee when reserving the park/ball field. Use the walking trails daily and enjoy how nice the grounds are kept - being groomed daily by the park personnel.
- Lower taxes. Don't spend it just save it.
- I would love to see a bike lane along Franklin Rd. There are so many bikes that use it and a lot of hills and turns. A sidewalk the entire length of North Boundary would also be nice
- The traffic circle on Glen Eden is a disaster! The scraping of the dirt on the side of the road to help with run off is ridiculous. The way the water ponds on the road at that location is dangerous.

- 19 from about Rochester, Rowan and up looks dated, old buildings, evacuated buildings. Need a grocery store or market for township residence that live north of rowan. Corners of 19 and North Boundary would be great place for a small grocery store etc. Need more restaurants that are not chains along 19
- sidewalks along Freedom Road would be a wonderful and much needed addition
- I would like to see more sidewalks connect and have walking path over the turnpike to get to graham park. Thanks. The Spudics
- With our growing population acquiring land for an additional park or two down the road would probably be a good idea while there are still large tracts of land to acquire.
- Please advance the sidewalk connection project and enhance bike trails. Stamps on the roads do not qualify. We need places to safely walk/ride with our kids. We can't walk to local businesses due to the lack of sidewalks. For the same reasons we can't have the old school neighborhood feel because our neighborhoods are not connected by safe sidewalks. A little bit of connection planning would go a long way!
- Not enough dog parks
- I want more up front information on proposed shale and other drilling. Many other places are citing pollution and health concerns that have not been addressed, yet I have heard nothing from Cranberry except the money they want to get from it.
- Get rid of old unused buildings, run down.....too many realtor signs, etc., election signs, looks cluttered & unkept...
- Walkability needs improvements.
- Our school taxes should stay within the Township with a district just made up of Cranberry students. At the very least, all elementary-aged students should have a school to go to within the township. All school buildings should be newer.
- Indoor tennis courts or bubble
- My neighborhood (Fox Run) needs a little bit of a crack down on speeding. There are a lot of kids that play outside as like most neighborhoods and people are driving 50+ mph. I saw a few weeks back they were having speed traps put in some neighborhoods. Mine should have been one. Also the stop sign at Rowan road and Fox Run is extremely dangerous to get out of if turning left onto Rowan Rd. Has there ever been talk of making it a four way stop?
- Traffic is a nightmare. Expanding freedom road, if it ever happens, isn't enough. Too many lights on freedom that aren't timed properly. Too many apartments and housing being put in.
- I wish there was more to do at the new Community park for little kids and that it was enclosed better. My youngest is a "runner" and the park is way to close to the road. Bushes won't stop her from getting to the street if she wants. I keep a close eye on her....but it would make me feel better to have a better barrier. The park is nice but we don't go there as much since the old structure was taken down. Maybe when she is a little older.
- While my family loves the new park, we are disappointed that there are limited items of interest for younger children (below 5). The climbing structures are geared more for older children. Also, the township has approved a large number of apartment and condo buildings. While this does bring more revenue, it also brings much more traffic and also changes the dynamic of the community. Are there appropriate changes in
- infrastructure planned to accommodate these increases? Are the schools ready to handle a large influx once these are all completed?
- More walkways
- Great community -a little concerned with the number of housing developments. Not sure the road infrastructure can handle the growth. Sometimes it seems that the area is growing too much - too fast.

- Need more sidewalks and bike trails. Also, would like to see more on mixed developments and less strip mall type developments. Make Cranberry more pedestrian friendly.
- Our Sewer frequently overflows because it cannot handle the amount of water on Wyndmere Drive. There is only one sewer on the street and it takes on too much water and cannot handle it, often flooding areas, basements, driveways, etc. !!!!!!
- Everything is built for kids sports and activities. If not an organized kids sport, it doesn't matter!
- We should have a splash pad at one of our parks that is free for kids to use in the summer.
- 5. Graham park needs a play ground, kids don't have any other options besides the exercise equipment, which isn't the intention. 10. Wyndmere drive has one main drain and in heavy storms looks like a lake. It does eventually go down, but should never get like that. It had done it twice since I moved here 3 years ago.
- Help stop speeding on main roads and people running red lights. More side walks rather than trails in the parks.
- Protected bike lanes and off-road trails are the only viable option if you want people to use them.
- I rarely ever see a police car in my street. Excessive speeding and running through stop signs and red lights is a MAJOR problem.
- I would like to see continued efforts in connectivity. The current bike shared roads are not safe. Efforts to contact local bikers would help identify the safest routes.



•CRANBERRY TOWNSHIP•
BUSINESS HUB

CRANBERRY TRANSIT PROJECT

Final Report

CRANBERRY TRANSIT PROJECT: FINAL REPORT

Prepared by Delta Development Group, Inc.



•CRANBERRY TOWNSHIP• **BUSINESS HUB**

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INTRODUCTION

According the American Public Transportation Association (APTA), 10.8 billion rides were taken on public transportation in 2014, the most in nearly six decades. These services afforded many - like senior citizens and persons with disabilities – personal freedoms they otherwise would not have. Some that used public transportation to save time and money or reduce pollution and congestion benefitted by choosing transit to improve the quality of their lives. Regardless of the reason, riders nationally used public transportation to get to work, school, shopping, entertainment, healthcare and other life activities.

Cranberry Township, a community experiencing commercial, retail, and residential growth, does not have public transportation services. Township residents do not have alternative transportation options to connect to local or regional jobs, education, retail, doctors' appointments or other services. As a result, the Township expressed interest in examining the potential for transit, focusing primarily on recommendations for service plans that will put the Township in a position to take immediate action, should an opportunity arise to implement transit service.

APPROACH

Delta Development Group (Consultant) was engaged by Cranberry Township to determine the potential for regional commuter and intra-community transit services along with recommendations for service plans and future action items. To accomplish Cranberry's objectives and obtain an understanding of potential demand, key origins and destinations, service alternatives, and costs of implementing and operating service, the following approach was employed.

- **Kick-off Meeting:** An initial meeting with Cranberry officials was conducted to confirm the project's objective and approach, identify key staff and stakeholders, and obtain and review past studies, plans and policies.
- **Preliminary Research:** Much has changed in Cranberry since the last transit study was conducted in 2005, so it was important to gain an understanding of the current environment. Reviews of past transit plans, surveys, service ideas, and industry basics were conducted.
- **Transit Demand Survey:** A survey was developed and distributed electronically to stakeholders and the community to gauge interest in riding transit and obtain input on key origins and destinations in the community, travel times, service frequencies, and fare pricing levels.
- **Analysis and Planning:** Using results compiled from research, surveys and meetings, the demand for transit service was gauged, a variety of route alternatives were developed, and those alternatives were evaluated to determine a preferred option.
- **Transit Service Plan:** Elements of the preferred option were further developed including route maps, bus stop locations, types of vehicles, operating and capital cost estimates, potential service providers, risks and contingencies, and recommendations and action items.

PREVIOUS STUDIES AND PLANNING EFFORTS

Research was conducted to determine the history and background of public transit in Cranberry Township. Over the years, multiple studies have been undertaken to gauge community interest and determine the viability of transit. Previously, Cranberry Township reached out to the community as part of broader planning efforts to develop goals for public transportation in the Township. Results of these studies and outreach efforts were examined to determine the basis for considering transit service in and around Cranberry.

CRANBERRY AREA TRANSIT STUDY

A planning project called Cranberry Area Transit Study sponsored by Southwestern Pennsylvania Commission (SPC) was undertaken in December 2004 to evaluate needs and identify options for public transportation in Cranberry Township and the surrounding area. The study area included Cranberry Township and the neighboring municipalities of: Harmony, Zelienople, Mars, Evans City, Seven Fields Borough, Callery Borough, Valencia Borough, Jackson, Adams, Forward, Middlesex Townships (Butler County), and Marshall and Pine townships (Allegheny County).

According to the study, rapid residential and employment growth had been occurring over the previous decade in the Cranberry area. It was found that industrial parks, the Route 19 retail corridor, remote office parks and numerous residential developments relied heavily on being served by the automobile. The study revealed that Cranberry had limited pedestrian amenities and a lack of transit facilities, however existing park-and-ride lots in adjacent areas were filled to capacity. This scenario, combined with low population density in the communities surrounding Cranberry Township, made transit service planning a challenge according to the study.

The Cranberry Area Transit Study was led by SPC, Cranberry Township, Butler County, Butler Township City Joint Municipal Transit Agency (The Bus), and the Pennsylvania Department of Transportation (PennDOT). Study partners included: Federal Transit Administration (FTA); Port Authority of Allegheny County (PAAC); Beaver County Transit Authority (BCTA); New Castle Area Transit Authority (NCATA); Butler Area Rural Transportation; Three Rivers Workforce Investment Board; study area municipalities; businesses; and private citizens.

Three types of transit markets were identified in the Study, including the following:

- Local circulator services that allow easier access to local jobs and retail centers.
- Inter-regional (study area) connections to other activity centers and smaller municipalities, such as Zelienople, Mars, and current terminus of the Port Authority system in the US Route 19 corridor.
- Regional commuting between the Cranberry area and the City of Pittsburgh.

The Study culminated in the identification of local, study area and regional service alternatives, which are summarized in Tables 1-3.

TABLE 1: LOCAL SERVICE ALTERNATIVES

ROUTE ALTERNATIVE	MAJOR NEEDS SERVED
L6 - Zelienople Loop	Seneca Park-n-Ride, Mercer Street, Spring Street, PA Route 68, US Route 19, PA Route 528, PA Route 528 Park-n-Ride
L7 - East West	Cranberry Transit Center (proposed), Rochester Road, US Route 19, PA Route 228, Seven Fields, Adams Ridge
L8 - North South Cranberry	Cranberry Transit Center (proposed), Rochester Road, Powell Road, Freedom Road, Commonwealth Drive

TABLE 2: STUDY AREA SERVICE ALTERNATIVES

ROUTE ALTERNATIVE	MAJOR NEEDS SERVED
S1 - ZELIENOPLE/HARMONY	Cranberry Transit Center (proposed), US Route 19, PA Route 68
S3 - Mars/Evans City	Cranberry Transit Center (proposed), US Route 19, PA Route 68, Mars-Evans City

TABLE 3: REGIONAL SERVICE ALTERNATIVES

ROUTE ALTERNATIVE	MAJOR NEEDS SERVED
R1 - PITTSBURGH EXPRESS	Cranberry Transit Center (proposed), US Route 19, Warrendale Park-n-Ride, I-79, I-279
R1A - Seven Fields Express	Seven Fields Park-n-Ride (proposed), PA Route 228, US Route 19, Warrendale Park-n-Ride, I-79, I-279
R3 - Zelienople Express	Cranberry Transit Center (proposed), US Route 19, Warrendale Park-n-Ride, I-79, I-279
R4 - Butler Express	Cranberry Transit Center (proposed), PA Route 68, PA Route 528, US Route 19, Warrendale Park-n-Ride, I-79, I-279
R5 - North Hills (PAAC)	Cranberry Transit Center (proposed), US Route 19
R6 - Rochester	Cranberry Transit Center (proposed), US Route 19, Freedom Road, Powell, Darlington Road, Rochester Road

From these alternatives, a plan was developed using a phased-approach to implementing transit services in and around Cranberry. That plan detailed the need for a “Demonstration Program” that focused on the institution initially of four routes: L8 – North South Cranberry; S1 - Zelienople /Harmony; S3 – Mars/Evans City; and R1 – Pittsburgh Express.

THE CRANBERRY PLAN

On April 2, 2009, Cranberry Township's Board of Supervisors unanimously approved a new comprehensive plan which was developed over a period of several years, and extending to 2030. The Cranberry Plan is intended to guide the Township's policies and legislative agenda throughout that period. Developed with extensive input from local residents as well as Township staff and outside consultants, the plan is comprehensive, detailed, and flexible. The plan included goals and priorities for public transportation, which remain relevant and important to the Township today.

According to the Plan, Cranberry Township's overall goals for public transit are to advocate for:

- Daily transit service to the City of Pittsburgh; and
- Affordable transit service in/around Cranberry Township

It also states that, in the short-term, Cranberry Township will:

- Continue to support current service levels from Route 528 park-and-ride lot to the City of Pittsburgh;
- Continue efforts to expand the existing park-and-ride lot in Warrendale;
- Explore the possibility of establishing a park-and-ride in the Route 228 corridor; and
- Plan for circulator service within Cranberry Township.

CRANBERRY COMMUTER SURVEY

In 2011, the Port Authority of Allegheny County (PAAC) began implementing service reductions and eliminations which affected transit service near Cranberry between the Brush Creek park-and-ride lot and downtown Pittsburgh. As a result, Cranberry residents approached the Township to discuss potential solutions to the elimination of commuter service as well as the opportunity to develop local transit services. Cranberry Township responded by conducting a public meeting to obtain feedback on PAAC's service cuts and potential strategies for alternative types of transit services for residents. As a supplement to that meeting, Cranberry uploaded a commuter survey questionnaire to its website and directed residents, workers and visitors to participate in the survey. Illuminating highlights from that survey are presented below.

- 337 out of 355 respondents said they were full-time employees that worked outside the home.
- 272 out of 350 respondents said they take public transit to and from work.
- 275 out of 352 respondents said they currently use public transit.
- The most important reasons that commuters use public transit are: 1) Schedules (102/350); 2) Parking (90/350); 3) Travel Time (64/350); 4) Routes (53/350); and 5) Fares (35/350).
- The most desired service type according to respondents is inbound service to Pittsburgh and outbound service to Cranberry during weekday rush hours (325/350).
- The majority of survey respondents indicated that they use the following park-and-ride lots: 1) BladeRunners Lot (167/349); 2) Brush Creek Lot (101/349); and 3) Route 528 Lot (16/349).
- The most convenient pick-up bus stop locations according to respondents are: 1) Freedom Road between Route 19 and Powell (56/339); 2) Route 19 between Freedom Road and Thorn Hill Road (54/339); and 3) I-79 at Warrendale Bayne Road (46/339).
- The most convenient outbound bus stop as identified by respondents is along Penn Avenue between Stanwix Street and David L. Lawrence Convention Center (186/327).

NATIONAL TRANSIT REPORTS

According to APTA, public transportation is a critical part of the solution to the nation's economic, energy and environmental problems, and is a primary way to improve quality of life in local communities. Significant public transportation statistics cited by APTA include¹ :

- 10.8 billion trips were taken on public transportation in 2014, the highest in 58 years.
- Over the past 20 years, transit ridership nationally is up 39 percent, outpacing both population growth (21 percent) and vehicle miles traveled (25 percent).
- 2011 research shows that public transportation in 498 U.S. urban areas saved 865 million hours in travel time and 450 million gallons of fuel.
- This same research shows that without public transportation, congestion costs in 2011 would have risen by \$21 billion in those urban areas.
- Every \$1 invested in public transit generates approximately \$4 in economic benefits.
- Every \$1 billion invested in public transportation supports and creates 36,000-50,000 jobs.
- Every \$10 million of capital investment in public transportation yields \$30 million in increased business sales.
- Values of homes located near public transit performed 42 percent better on average than those not located near transit.
- According to APTA's Transit Saving Report, a two-person household can save, on average, \$10,174 a year by downsizing to one car.
- Public transportation use in the U.S. saves about 4.2 billion gallons of gas annually.
- Households near public transit drive an average of 4,400 fewer miles than households with no access to transit.
- Public transportation use in the U.S. reduces carbon emissions by 37 million metric tons annually. (This is equivalent to Washington, DC; New York City; Atlanta; Denver; and Los Angeles combined stopping using electricity.)
- One person with a 20-mile round trip commute who switches from driving to public transit can reduce daily carbon emissions by 20 pounds or more than 4,800 pounds in a year.
- One person with a 20-mile round trip commute who switches from driving to public transit can reduce daily carbon emissions by 20 pounds or more than 4,800 pounds in a year.

¹ <http://www.apta.com/resources/statistics/Pages/default.aspx>

EXISTING CONDITIONS

Cranberry Township does not have public transportation services or transit amenities including park-and-ride lots within its boundaries. There are however four public transit agencies and two private carriers that operate service in adjacent communities and two park-and-lots located to the north and south of Cranberry.

NEW CASTLE AREA TRANSIT AUTHORITY

New Castle Area Transit Authority (NCATA) is the public transportation provider for Lawrence County. The agency provides transit service within New Castle and Lawrence County, and commuter service using the I-79 corridor to the City of Pittsburgh. NCATA serves a park-and-ride lot in Evans City (Route 528) with six round-trips every weekday to and from downtown Pittsburgh and another round trip that provides service to Pittsburgh's North Shore. NCTA also offers two additional trips to Pittsburgh on Friday evening. The cost for one round trip between Lawrence County and Pittsburgh is \$8.00.

TABLE 4: COMMUTER SERVICE BETWEEN NEW CASTLE AND PITTSBURGH

	NCTA	EVANS CITY PARK N RIDE	PITTSBURGH NORTH SHORE, RIVERS CASINO	EAST BUSWAY, PITTSBURGH	EVANS CITY PARK N RIDE	NCTA
WEEKDAYS	4:35 AM	5:10 AM		6:15 AM	6:45 AM	7:40 AM
WEEKDAYS	6:35 AM	7:40 AM		8:30 AM	9:00 AM	9:55 AM
WEEKDAYS	10:30 AM	11:30 PM	11:55 AM	12:30 PM	1:00 PM	1:55 PM
WEEKDAYS	2:50 PM	3:40 PM		4:30 PM	5:00 PM	6:00 PM
WEEKDAYS	3:00 PM	4:00 PM	4:25 PM		4:55 PM	5:50 PM
WEEKDAYS	3:20 PM	4:15 PM		5:00 PM	5:30 PM	6:30 PM
WEEKDAYS	3:35 PM	4:30 PM		5:20 PM	5:50 PM	6:45 PM
FRIDAY ONLY	5:30 PM	6:30 PM	6:55 PM	7:00 PM		
FRIDAY ONLY	10:00 PM	11:00 PM	11:25 PM	11:30PM		

SOURCE: <http://newcastletransit.org/pittsburgh-schedule/>

LENZNER COACH LINES

Lenzner Coach Lines is a private transportation carrier that operates a commuter route between the Warrendale park-and-ride lot and downtown Pittsburgh. Lenzner serves the park-and-ride every 30 minutes during weekday rush hours. The cost for one roundtrip between BladeRunners and Pittsburgh is \$11.50.

TABLE 5: LENZNER SERVICE BETWEEN CRANBERRY AND PITTSBURGH

		From: Cranberry Township, PA	→	To: Pittsburgh, PA		
	Select Day of Travel	Blade Runners, 103 Marshall Drive		506 Liberty Ave, in front of Jimmy John's Gourmet Sandwiches	EDMC, Liberty Ave side at PAT bus sign before 6th Ave (across from little park)	August Wilson Center, Liberty Ave, across from Mahoney's Restaurant
Weekdays	5:40a	→	6:13a	6:16a	6:19a	Route/Trip
Weekdays	6:10a	→	6:43a	6:46a	6:49a	
Weekdays	6:40a	→	7:13a	7:16a	7:19a	
Weekdays	7:10a	→	7:43a	7:46a	7:49a	
Weekdays	7:40a	→	8:13a	8:16a	8:19a	
Weekdays	8:10a	→	8:43a	8:46a	8:49a	
Weekdays	4:30p	→	5:13p	5:16p	5:19p	
Weekdays	5:00p	→	5:43p	5:46p	5:49p	

		From: Pittsburgh, PA	→	To: Cranberry Township, PA		
	Select Day of Travel	506 Liberty Ave, in front of Jimmy John's Gourmet Sandwiches	EDMC, Liberty Ave side at PAT bus sign before 6th Ave (across from little park)	August Wilson Center, Liberty Ave, across from Mahoney's Restaurant	Blade Runners, 103 Marshall Drive	Route/Trip
Weekdays	6:10a	6:13a	6:16a	→	7:10a	
Weekdays	6:40a	6:43a	6:46a	→	7:40a	
Weekdays	3:10p	3:13p	3:16p	→	3:51p	
Weekdays	3:45p	3:48p	3:51p	→	4:26p	
Weekdays	4:15p	4:18p	4:21p	→	4:56p	
Weekdays	4:45p	4:48p	4:51p	→	5:26p	
Weekdays	5:30p	5:33p	5:36p	→	6:11p	
Weekdays	6:00p	6:03p	6:06p	→	6:41p	

SOURCE: <http://www.coachusa.com/info/lenzner/ss.commuter.asp>

BUTLER TRANSIT AUTHORITY

Butler Transit Authority (The Bus) is the public transportation provider for Butler County. The agency operates five local fixed routes in the City of Butler, Butler Township, and Center Township but does not provide service in Cranberry Township. The Bus does not run service between Butler County and downtown Pittsburgh but is considering implementing commuter service in the near future.

MYERS COACH LINES

Myers Coach Lines (Myers) is a private transportation carrier that provides service from Butler to downtown Pittsburgh on weekdays. Myers offers five trips to Pittsburgh and five trips to Butler. The service does not operate in Cranberry Township. The cost to travel roundtrip between Butler and Pittsburgh is \$11.00 if purchased in advance, and \$14.00 roundtrip if purchased same day.

TABLE 6: MYERS SERVICE BETWEEN BUTLER AND PITTSBURGH

TO BUTLER	
E. BUSWAY	BUTLER
7:30 AM	8:35 AM
12:20 PM	1:25 PM
4:10 PM	5:20 PM
5:30 PM	6:40 PM
7:45 PM	8:50 PM
TO PITTSBURGH	
6:00 AM	7:20 AM
6:50 AM	8:30 AM
8:50 AM	10:00 AM
1:35 PM	2:45 PM
6:40 PM	7:45 PM

<http://www.myerscoachlines.com/myers/pageinfo/commuter.aspx>

BEAVER COUNTY TRANSIT AUTHORITY

Beaver County Transit Authority (BCTA) is the public transportation provider for Beaver County. BCTA provides community and commuter services to residents from various locations in Beaver County and to the City of Pittsburgh. They operate three routes that provide service to downtown Pittsburgh on weekdays. They do not serve Cranberry Township. The cost to travel round-trip on BCTA between Beaver County (Rochester) and Pittsburgh is \$7.50.

POR T AUTHORITY OF ALLEGHENY COUNTY

PAAC is the public transportation provider for Allegheny County. PAAC provides community and commuter services to residents of the City of Pittsburgh and Allegheny County. A large portion of PAAC's service is radial with the City of Pittsburgh as the core of its service area. PAAC previously provided a route between Cranberry and Pittsburgh; however they no longer serve Cranberry Township.

TRANSIT AMENITIES

PARK-AND-RIDE LOTS

There are two park-and-ride facilities located outside of, but near to, Cranberry that are served by public transit. The first is located about one mile north of Cranberry Township on Route 528, which is served by NCATA. The second is located about a half-mile south of Cranberry Township at BladeRunners parking lot, which is served by Lenzner Coach Lines.

More details about these two park-and-ride facilities are provided on Figures 1 and 2 below.

FIGURE 1: EVANS CITY PARK-AND-RIDE

[Click for FAQ](#) 

**I-79 EXIT 83-EVANS CITY-RT 528-JACKSON TWP
ZELIENOPLE, BUTLER COUNTY, PENNSYLVANIA**

LOCATION:
RT. 528 (LINDSAY RD.), WEST OF JO DEENER RD.
JACKSON TOWNSHIP
ZELIENOPLE, PA, 16063
APPROX. 25 MILES N OF DOWNTOWN PITTSBURGH

ADDITIONAL INFORMATION:
THIS FACILITY IS LOCATED ON RT. 528 DIRECTLY ACROSS FROM THE NB EXIT RAMP OF THE
EVANS CITY INTERCHANGE OF I-79 (EXIT 83).
OF SPACES: 335
OWNED BY: PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
PARKING FEE: (NONE)

AMENITIES:

ON-SITE PAVED STRIPED SHELTER(S) LIGHTING FENCING SIGN(S) NEWSPAPER VENDING MACHINE(S) HANDICAPPED SPACES(S) TRASH CAN(S)	NEARBY SIGN(S)
--	-------------------

TRANSIT AVAILABILITY:

TRANSIT SERVICE PROVIDED BY:
NEW CASTLE AREA TRANSIT AUTHORITY

ROUTES TO DOWNTOWN PITTSBURGH (UNLESS OTHERWISE NOTED):
NEW CASTLE AREA TRANSIT AUTHORITY
PITTSBURGH / CASINO

LOCATION MAP
Directions: [To] [From]

commuteinfo.org
a better way to work
1-888-819-6110

Two Chatham Center · Suite 500
112 Washington Place
Pittsburgh, PA 15219-3451
Phone 412-391-5590 FAX 412-391-9160
comments@spcregion.org - www.spcregion.org

LAST UPDATED: 6/26/2014

FIGURE 2: BLADERUNNERS PARK-AND-RIDE

Click for FAQ 

**BLADE RUNNERS ICE COMPLEX-MARSHALL DR-WARRENDALE
WARRENDALE, ALLEGHENY COUNTY, PENNSYLVANIA**



LOCATION MAP
Directions: [To] [From]

LOCATION:

103 MARSHALL DR. OFF COMMONWEALTH DR.
MARSHALL TOWNSHIP
WARRENDALE, PA, 15088
APPROX. 10 MILES N OF DOWNTOWN PITTSBURGH

ADDITIONAL INFORMATION:

PARK-N-RIDE SPACES ARE AVAILABLE AT BLADE RUNNERS ICE COMPLEX ON MARSHALL DR. IN THE THORN HILL INDUSTRIAL PARK OFF US 19 (PERRY HWY).

PARK-N-RIDE SPACES ARE RESTRICTED TO LENZNER COACH LINE RIDERS ONLY. PLEASE DO NOT USE FOR CARPOOL OR VANPOOL PARKING. RESERVATIONS AND PARKING PERMIT ARE REQUIRED. PLEASE REFER TO THE LENZNER COACH LINES WEBSITE FOR MORE INFORMATION.

OF SPACES: 160

OWNED BY: PRIVATE (FOR ADDITIONAL INFORMATION PLEASE CONTACT LENZNER COACH LINES.)

PARKING FEE: (NONE)

TRANSIT AVAILABILITY:

TRANSIT SERVICE PROVIDED BY:
LENZNER COACH LINES

ROUTES TO DOWNTOWN PITTSBURGH (UNLESS OTHERWISE NOTED):
LENZNER COACH LINES
PITTSBURGH COMMUTER SERVICE - [CRANBERRY TO PITTSBURGH]
PITTSBURGH COMMUTER SERVICE - [PITTSBURGH TO CRANBERRY]

AMENITIES:

ON-SITE PAVED STRIPED LIGHTING SIGN(S) HANDICAPPED SPACES(S) TRASH CAN(S)	NEARBY MAILBOX
---	-------------------



Two Chatham Center · Suite 500
112 Washington Place
Pittsburgh, PA 15219-3451
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commuteinfo.org ® a better way to work

1-888-819-6110

LAST UPDATED: 6/20/2013

BIKE AND PEDESTRIAN AMENITIES

Cranberry Township has undertaken a variety of efforts to develop sidewalks and create pedestrian and bike connections throughout and between all of its neighborhoods. In 1995, Cranberry amended its township code to require that all new developments and redevelopments have sidewalks, so that over time all of Cranberry would have a connected sidewalk system. In an effort speed-up that process and as an outgrowth of the township's comprehensive plan, Cranberry established several initiatives, most notably the Bicyclists and Pedestrian Connections Plan 2011, to improve mobility options and improve connections throughout the community.

The goal, according to the Bicyclists and Pedestrian Connections Plan, is to "...improve quality of life in the community by promoting bicycle and pedestrian transportation use, safety, and accessibility" and by making "meaningful connections to activity centers such as employment, retail, education, cultural and recreation."

The vision statement that emerged from the Bicyclists and Pedestrian Connections Plan is:

"Cranberry Township is a community where residents and visitors of all ages and abilities can choose to bike and walk safely and securely for everyday transportation and recreation."

Adhering to the Plan's goals and vision set forth in the Township's 1995 Comprehensive Plan, as well as rewriting ordinances and implementing the strategies established in the 2009's Cranberry Plan and the 2011 Bicyclist and Pedestrian Connections Plan has resulted in significant additions to the Township's pedestrian and bike networks as depicted in Table 7.

TABLE 7: PEDESTRIAN AND BIKE NETWORK METRICS

Progression					
Sidewalks		Trails		Bikeways	
Date	Mileage	Date	Mileage	Date	Mileage
1997	45	1997	10.77	1997	0
2011	119.45	2011	17.86	2011	1.11
2015	144.17	2015	20.6	2015	9.37
<i>Future Network</i>	<i>252.27</i>	<i>Future Network</i>	<i>23.37</i>	<i>Future Network</i>	<i>46.67</i>

This concerted effort, which proactively focuses on connecting the Township's communities through transportation projects, has shown substantial progress to accomplishing the plan. Growth in the pedestrian network is largely attributed to development patterns, with future plans in the queue to improve, strengthen, and expand the existing bicyclist and pedestrian infrastructure.

TABLE 8: PEDESTRIAN AND BIKE NETWORK COMPLETION STATUS

Networks					
Sidewalks	2015 Miles	Trails	2015 Miles	Bikeways	2015 Miles
Existing	144.17	Existing	20.6	Existing	9.37
Under Development	12.69	Under Development	0.26	Under Development	16.41
Planned	95.41	Planned	2.51	Planned	20.89
Total network	252.27	Total network	23.37	Total network	46.67
Percent completed	57%	Percent completed	88%	Percent completed	20%

The importance of Cranberry's Connections Plan cannot be understated; it provides the mechanism to include bicycle and pedestrian accommodations in current and future roadway improvement projects and land development activities.

LOCAL TAXI SERVICE

Taxi service, including new options like Uber and Lyft, are scarce to non-existent in Cranberry Township. Customers who have tried to utilize one of the only companies listed that provide taxi service, Cranberry Taxi Service, Inc. located in Mars, have expressed concerns with no-shows, unanswered phone calls and general lack of reliability. Uber and Lyft are located mostly in the Pittsburgh urban market area. While Uber only currently operates as far north as Wexford, Lyft notes the Township as a service area on its website. Both continue to expand their services into adjacent communities.

TRANSIT ORIENTED DEVELOPMENT

Transit Oriented Development (TOD) is a development type that focuses on implementing residential, retail, commercial and institutional uses right at a transit station and integrating development directly into the transit asset. TOD, which is situated within $\frac{1}{4}$ -mile or $\frac{1}{2}$ -mile walking radius from the station, balances different modes of transportation, and prioritizes pedestrian and bicycle connections around the station. In communities that have major transit assets, TOD is sometimes used to catalyze neighborhood redevelopment. TOD encourages public transit use, and walking and biking, thereby providing environmental benefits like reductions of emissions, pollution and congestion.

Other benefits of TOD include:

- Improved health, safety and general quality of life
- Reduced transportation costs
- Increased housing options and access to jobs
- Improved infrastructure and sharing of resources
- Reduction of sprawl

Because of the absence of transit and transit infrastructure, Cranberry currently does not have opportunities to consider or implement TOD, only TOD-like principles.

MARKET AND DEMOGRAPHIC DATA

MARKET

In 2009, Cranberry Township included a market analysis (the 2007 Market Analysis) in its comprehensive plan update as a tool to guide decision-making in developing the Cranberry Plan, the township's 25-year comprehensive plan. Recently, an update to the Market Analysis was conducted to five key areas:

1. Demographic Environment
2. Workforce (Inflow/Outflow and Age)
3. Economy (Jobs, Earnings, and Employment Trends)
4. Retail Market
5. Commercial Market

Key demographic observations directly from the update that provide "...indicators of the market for future housing and commercial development," which are important to predicting transit demand and service consist of:

- From 2000-2010, the Cranberry Corridor, which includes Jackson, Adams, and Cranberry Townships and Seven Fields Borough in Butler County, as well as Marshall and Pine Townships and the Town of McCandless in Allegheny County, outpaced its peer corridors, posting an 18.3% growth in population - the largest population gains in the region. From 2010-2014, the Cranberry Corridor still remained the fastest growing corridor, posting a 5.9% increase in population. However, the population growth experienced in the Airport Corridor, Crescent, Moon, Robinson, North Fayette, and Collier Townships, was only slightly less, growing at 4.5%.
- Adams, Pine, and Seven Fields were the primary drivers of population growth in the Cranberry Corridor between 2010 and 2014, with increases of 11%, 9%, and 8.5%, respectively.
- From 2010-2014, Cranberry surpassed McCandless Township as the municipality with the largest population in the Cranberry Corridor. Nearly one-third of the 98,000+ residents in the Cranberry Corridor live in Cranberry Township with a population of 30,170, compared to McCandless Township with a slightly smaller population of 28,921.
- Between 2010 and 2014, the number of households in Cranberry Township increased at nearly the same rate as its population, 8.05% and 7.40%, respectively, with a corresponding slight decrease in household size.
- Population projections for the year 2019 indicate that the population in all five corridors will continue to grow, but at a more modest pace than the prior decade. Projections have Cranberry Township's resident population growing by 7.66%, placing it behind Adams and Marshall Townships, which are projected to grow at 10.58% and 7.72% respectively.
- As part of its 2007 comprehensive plan update, Cranberry Township compared three potential growth scenarios and projected likely population change with each. The scenario most similar to the new zoning regulations that resulted from the plan estimated the Township's population in 2010 to be 32,238. The Township's 2010 population of 28,098 fell short of that estimate; however, the shortfall was likely influenced by the economic downturn that began in 2008 and the resulting decline in new housing development. As the economy and the housing market continues to recover and the goals of the comprehensive plan are more aggressively implemented, the Township's population will likely increase at a higher rate than is projected.

- The median household income (MHI) in Cranberry Township of \$99,156 (2014 estimated) is more than 35% higher than the MHI in the Monroeville/Murrysville Corridor (\$73,368), over 46% higher than the MHI in the Airport Corridor (\$67,653), and almost triple the MHI in Pittsburgh City (\$36,496). The MHI in the Washington Corridor (at \$92,604) is slightly less than the Cranberry Corridor. In 2010, only four municipalities in the study area had MHIs higher than Cranberry Township: Marshall (\$135,262), Pine (\$109,540), Upper St. Clair (\$100,805), and Peters, (\$89,065). In 2014, six municipalities in the study had MHIs higher than Cranberry Township: Adams (\$110,629), Marshall (\$139,604), Pine (\$131,590), Seven Fields (\$103,350), Peters (\$111,447), and Upper St. Clair (\$127,179).
- Approximately 78.50% of housing units in Cranberry Township are owner-occupied, compared to 85.65% in the Washington Corridor. The Monroeville/Murrysville and Airport Corridors owner occupied housing units are estimated at 71.70% and 71.70%, respectively. The City of Pittsburgh is more transient oriented with only 39% of its housing unit's owner occupied. Densely populated urban areas typically attract a younger population; however, Cranberry Township's median age is only 4.4 years older than in the City of Pittsburgh (34). The median age in the other corridors range from 39.2 to 49.8. While the median age in Cranberry Township is comparatively younger than most of its peers, a closer look at its growth by age group over the past decade reveals a clear shift in age of the population. As provided in the 2012 market analysis update, in 2000, nearly 33% of the Township's population fell between the ages of 25 and 44, and around 19% were between the ages of 45 and 64. In 2010, these age ranges represented almost equal shares (29% and 28.6% respectively) of the Township's population. By 2014, ESRI projected the age representation within these two age groups shifted; only 26.4% of the Township's population fell between the ages of 25 and 44, while over 35% fell between the ages of 45 and 64. The lower percentage of the population between the ages of 25-44 is likely a result of the shift in the type of housing developments within the Township. The Township's population over the age of 65+ continues to be comparatively low (4.5% of the total population).
- ESRI measures the diversity of a community using a “diversity index” that measures the probability that two people in the same community would be from the same race/ethnic group. Although its diversity index has increased since 2007 (9.7), Cranberry Township's diversity index of 11.7 still lags behind most of its peers. The Washington Corridor measures slightly below Cranberry Township with an index of 11.7. The City of Pittsburgh is the most diverse peer community with a diversity index of 53.6.

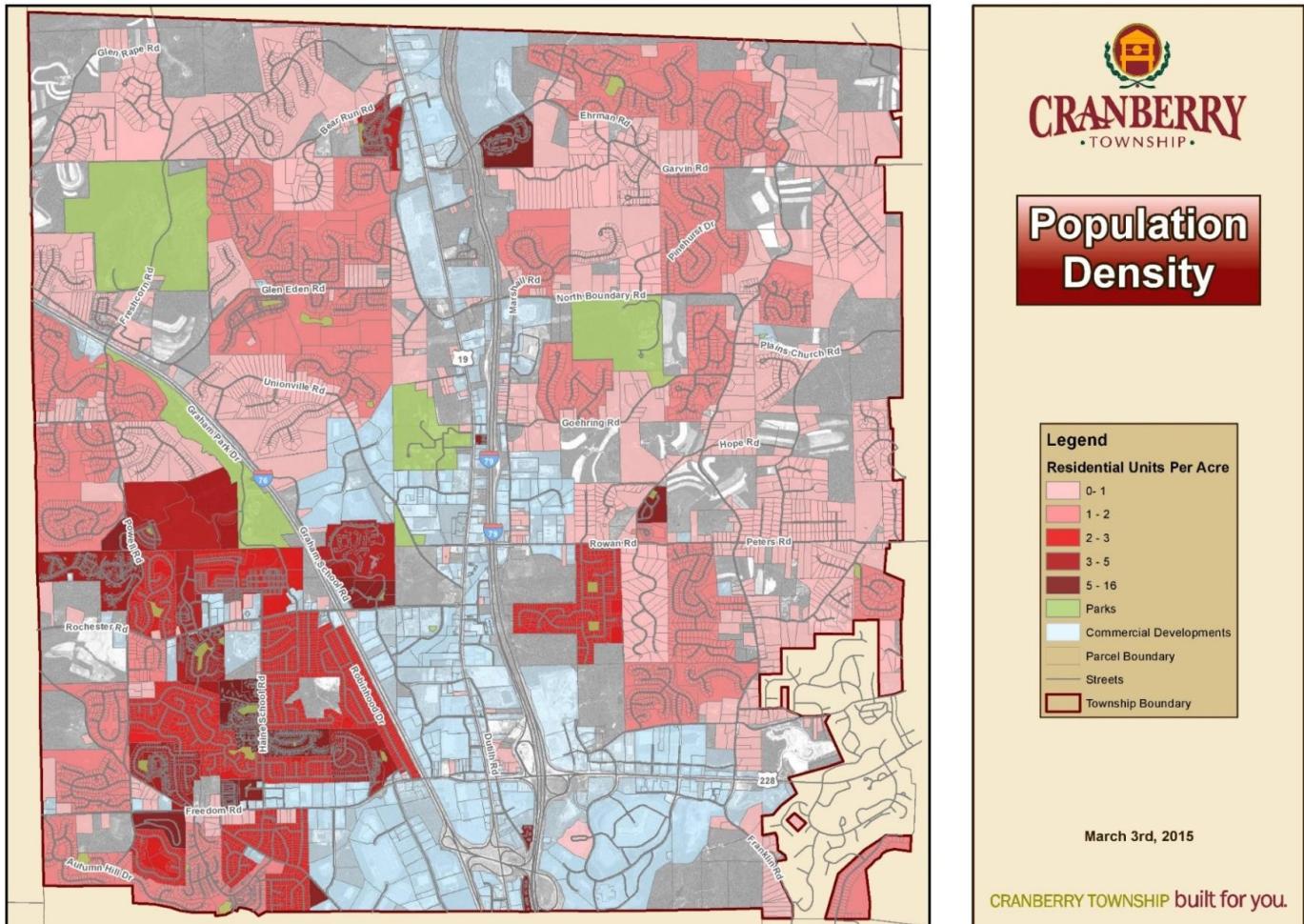
DEMOCRAPHICS

As part of an initiative to identify origins and destinations within Cranberry that might warrant transit service, Cranberry Township developed a series of maps depicting key locations and data. The first four maps identify overall population density as well as community demographics for underserved populations. When designing any kind of transportation investment, it is important to examine the potential impact on typically underserved populations like senior citizens, low income and minorities because these groups rely primarily on transit for their mobility needs. These maps serve as a starting point for potential transit service design and help identify potential ridership origins.

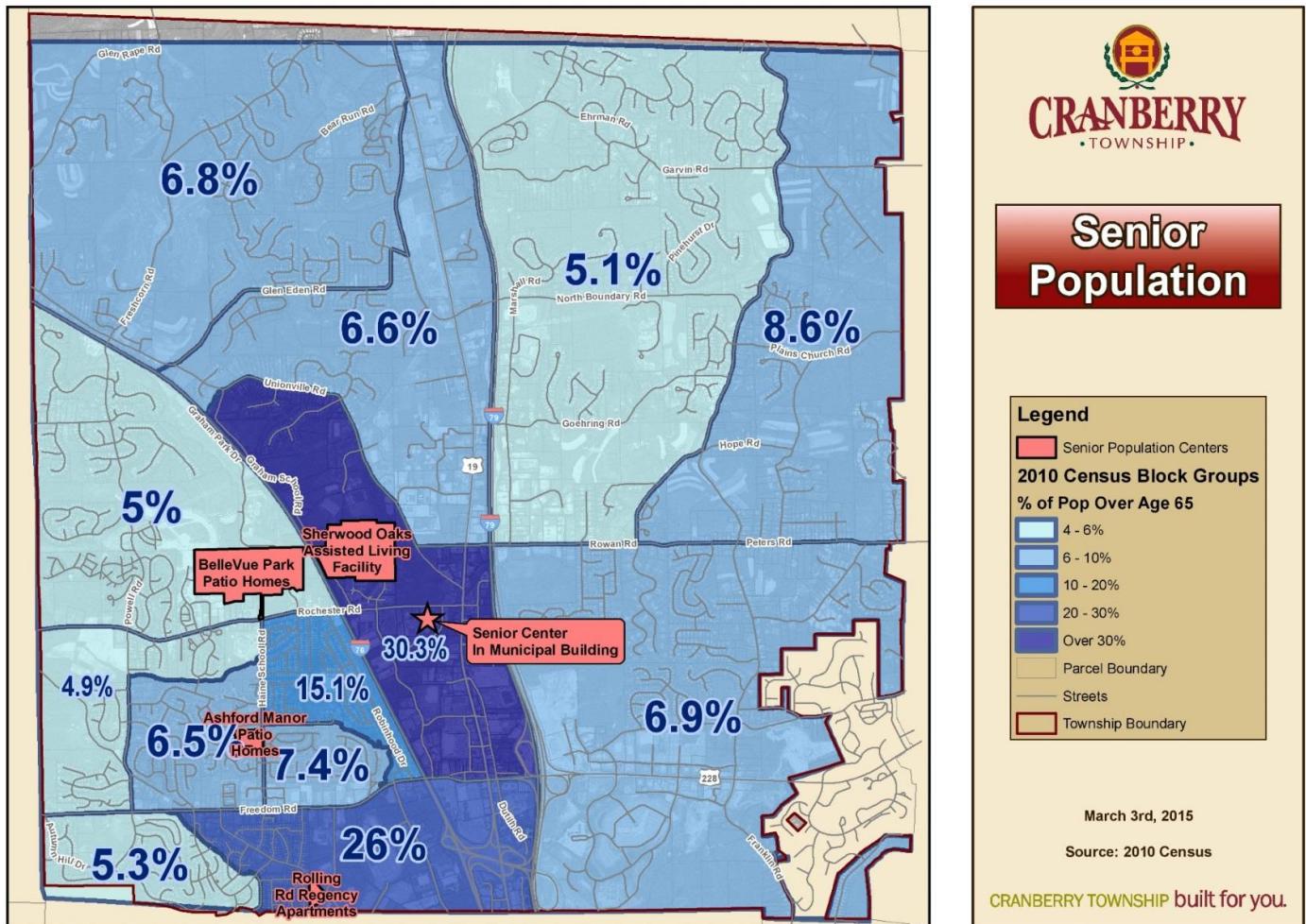
The second set of maps contains information on commercial development, existing transportation infrastructure, and employment. This information helps to identify potential ridership destinations and missing connections.

DEMOGRAPHIC MAPS:

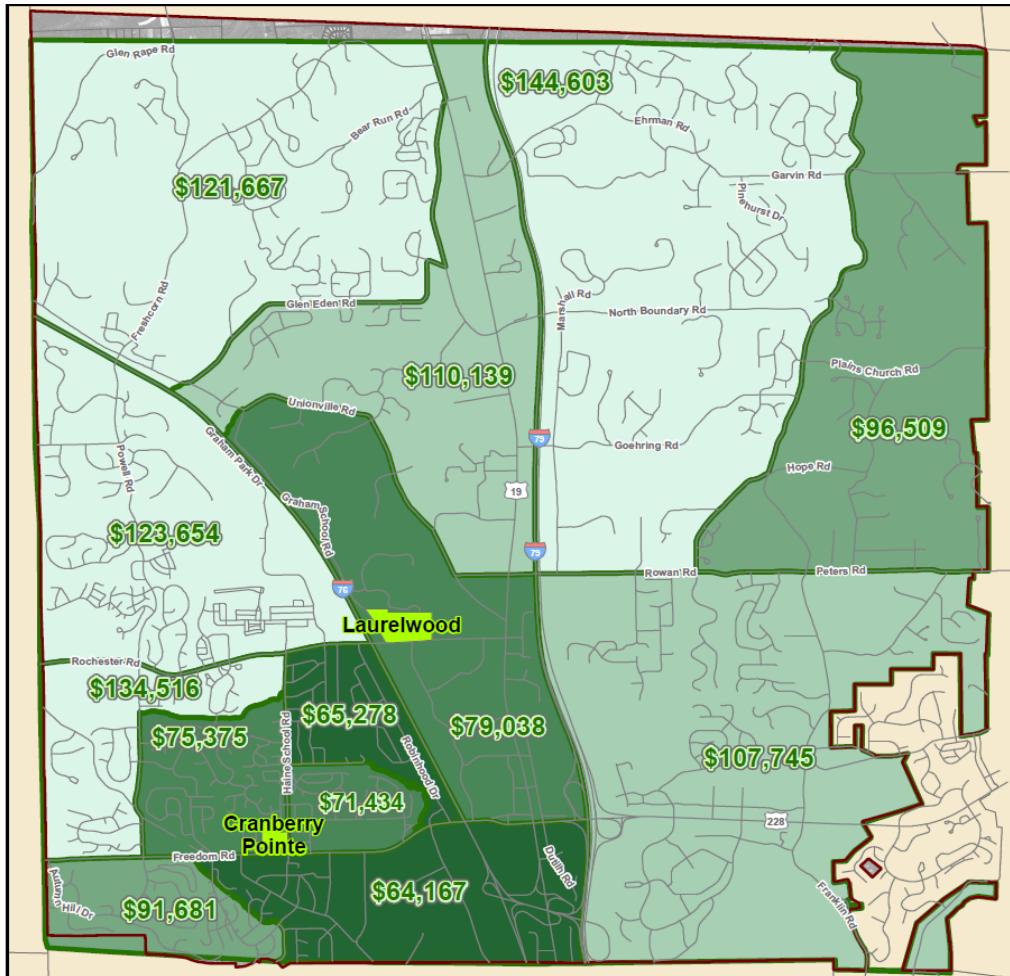
MAP 1: POPULATION DENSITY



MAP 2: SENIOR CITIZEN POPULATION



MAP 3: INCOME BY BLOCK GROUP



Income by Block Group

Legend

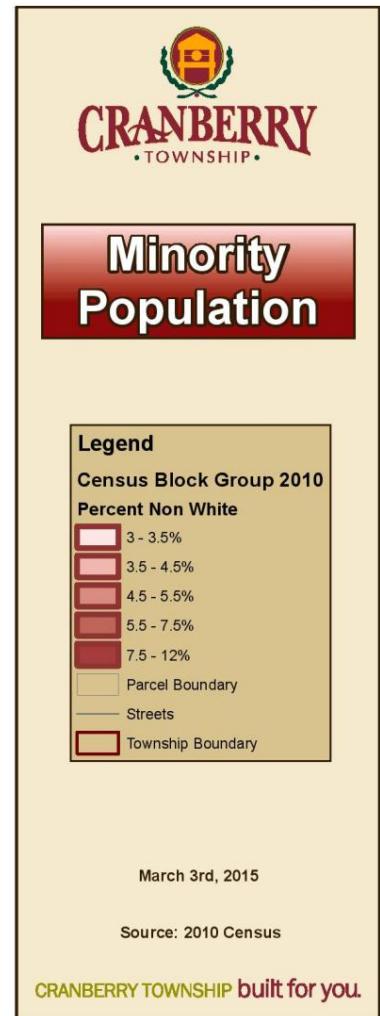
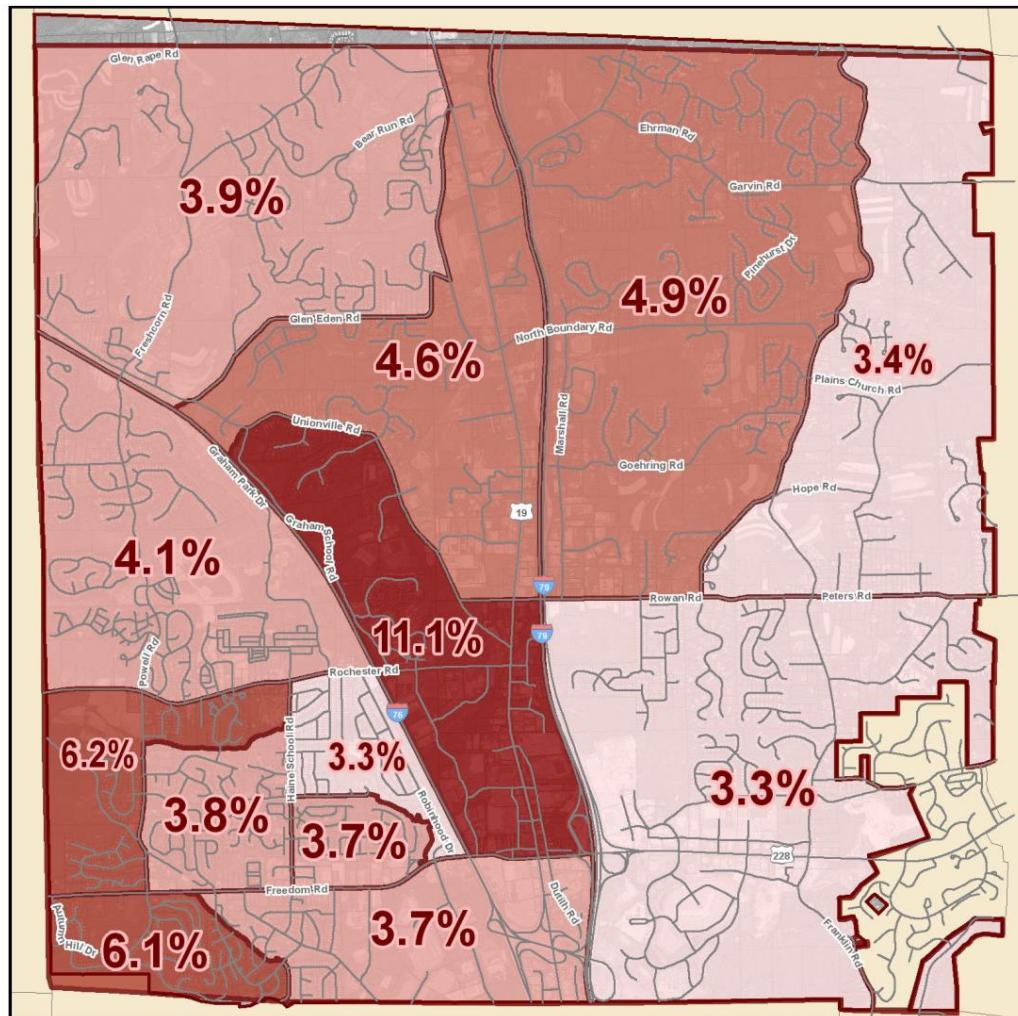
Low Income Housing
2010 Census Block Groups
2013 ACS Est. Household Income
\$60,000 - 70,000
\$70,000 - 80,000
\$80,000 - 100,000
\$100,000 - 120,000
\$120,000 - 150,000
Parcel Boundary
Streets
Township Boundary

March 3rd, 2015

Source: 2013 American Community Survey

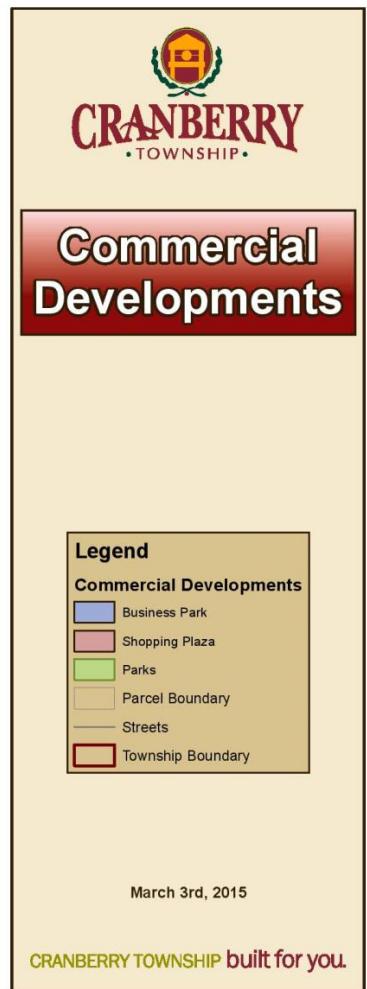
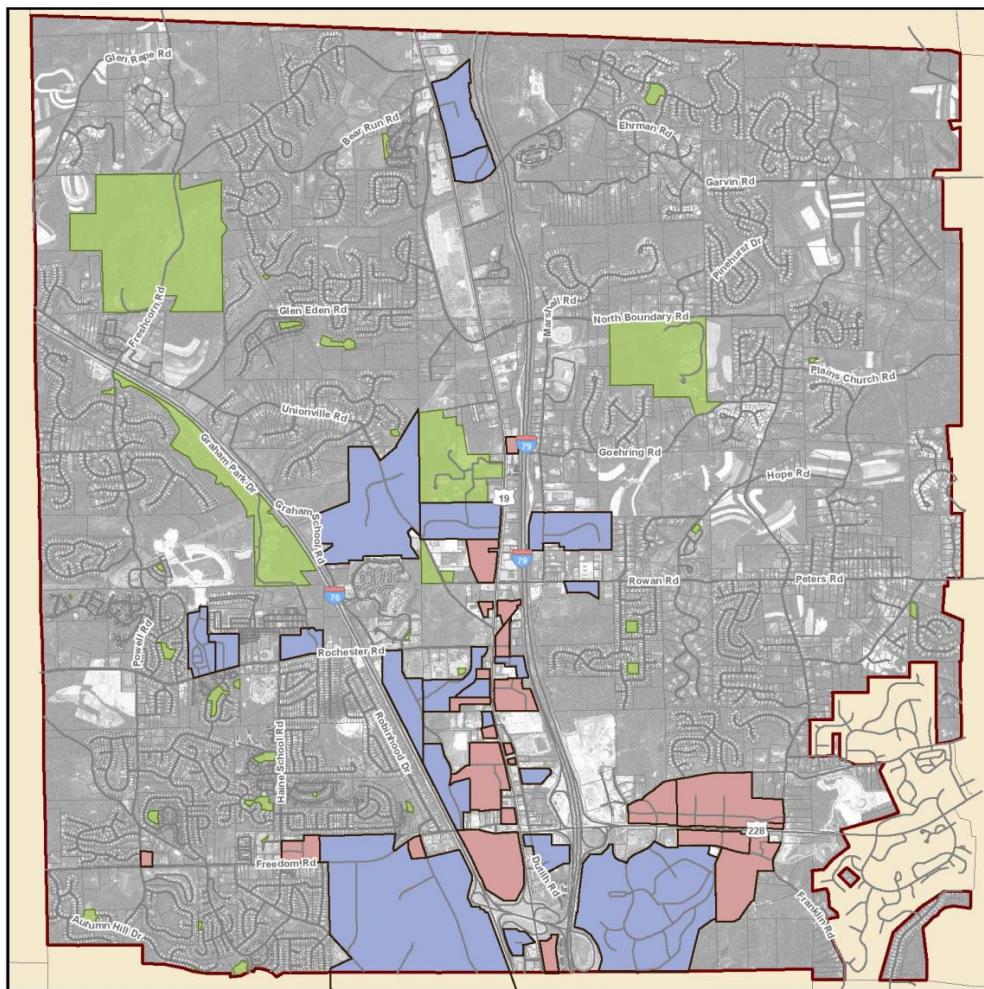
CRANBERRY TOWNSHIP built for you.

MAP 4: MINORITY POPULATION



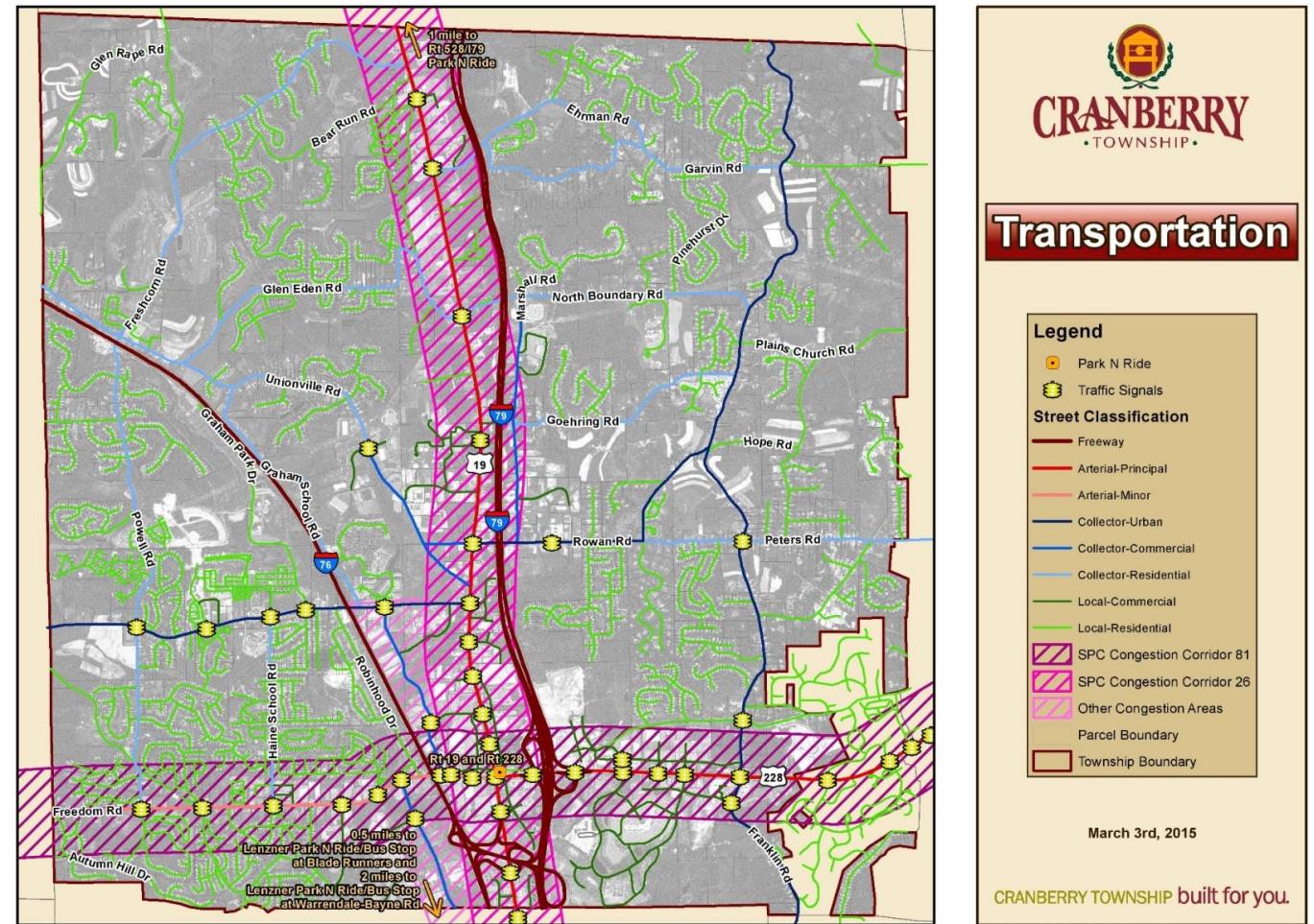
COMMUNITY MAPS:

MAP 5: COMMERCIAL DEVELOPMENTS

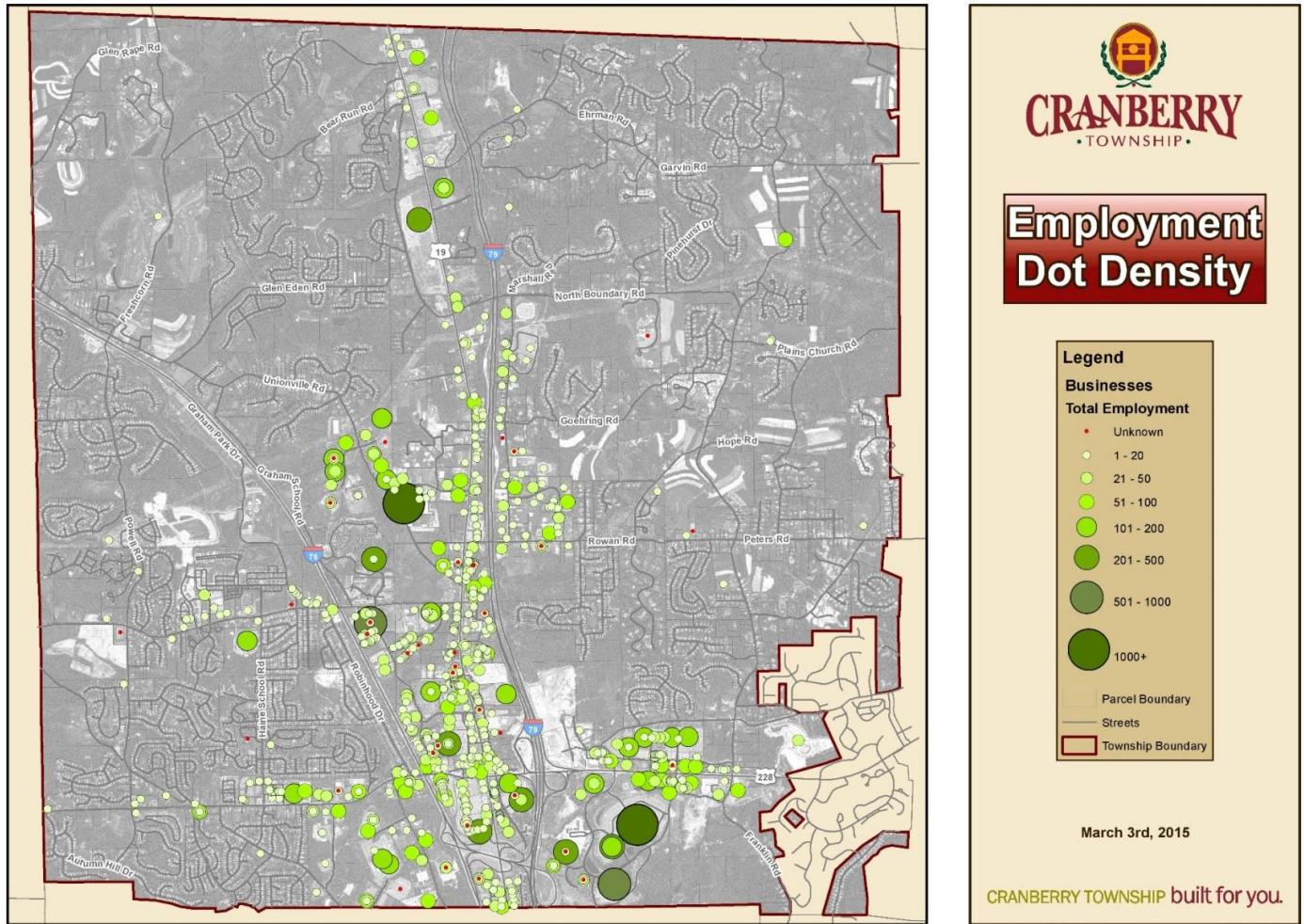


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MAP 6: TRANSPORTATION



MAP 7: EMPLOYMENT DOT DENSITY



In addition to the data from these maps, Cranberry Township developed a list of popular community destinations. These will be used as potential origins and destinations to consider during service planning.

- Community Park
- Cranberry Business Park
- Cranberry Commons
- Cranberry Corporate Center
- Cranberry Crossroads
- Cranberry Mall
- Cranberry Pointe
- Cranberry Springs
- Cranberry Square Drive
- Cranberry Township Municipal Center
- Cranberry Woods Business Park
- Graham Park
- North Boundary Park
- Streets of Cranberry
- Thorn Hill Industrial Park
- UPMC Campus
- Village of Laurelwood

COMMUNITY OUTREACH

STAKEHOLDERS

A list of community stakeholders was identified to interview individually about their thoughts on potential transit service in Cranberry Township. The list included representatives from major employers, property managers, human service organizations, health care, recreation facilities, and others. These interviews occurred over the phone and by e-mail between late March and early May 2015.

The primary question of the interview was, “Do you think that it would be valuable to have public transportation services in Cranberry Township? If yes, please describe the types of services needed. If no, please let us know why not.” All those interviewed thought that it would be valuable to have public transportation service in Cranberry Township. Responses to the interview questions consisted of the following:

- “[It is] increasingly difficult to attract young tech workers to Cranberry Township due to the lack of a live/work/play/walking environment”
- “Buses circulating around Cranberry Township connecting the business centers and retail areas”
- “Make the township more “bike friendly””
- “Businesses are having a hard time finding enough local employees to fill their jobs”
- “It’s needed, if for no other reason to reduce the traffic and congestion that will just continue to get worse”
- “The scale of the retail/housing/offices – all spread out – does not lend itself to
- convenient stops for any type of mass transit”

- “A loop bus system in and around Cranberry Township would be able to accommodate seniors, persons with disabilities, and staff members without cars”

See Appendix A for transcripts and more detailed summaries.

PUBLIC

CRANBERRY SURVEY SUMMARY

A survey was developed to obtain additional and more detailed input from the public that was distributed from March through May 2015. During that time, a total of 344 surveys were completed, four of which were duplicates and deleted from the totals and summaries. The first survey received back from a respondent was March 26, 2015 and the last survey was dated May 15, 2015. The survey, which was implemented through Survey Monkey, was closed on May 20, 2015.

The tables below summarize the responses to each question posed through the survey.

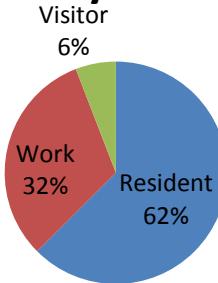
QUESTION 1

Please check all that apply.

Responded	344
Skipped	0
TOTAL:	344

I am a resident of Cranberry Township	Resident	277
I work in Cranberry Township	Work	140
I am a visitor to Cranberry Township	Visitor	26
TOTAL:		443

1. Resident, Worker and/or Vistor to Cranberry Township.

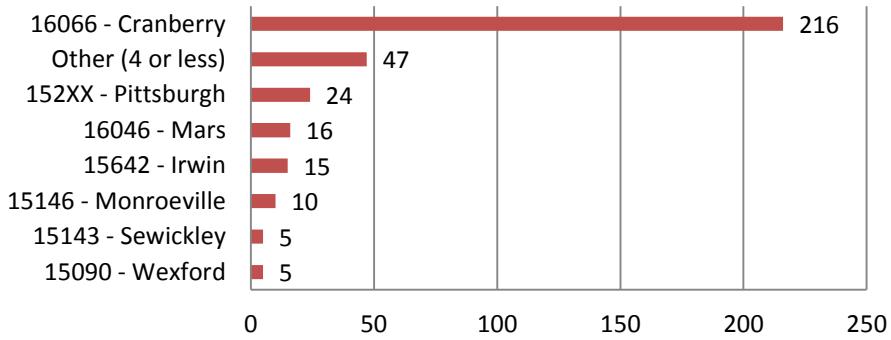


QUESTION 2

Please provide your home zip code.

Responded	338
Skipped	6
TOTAL:	344

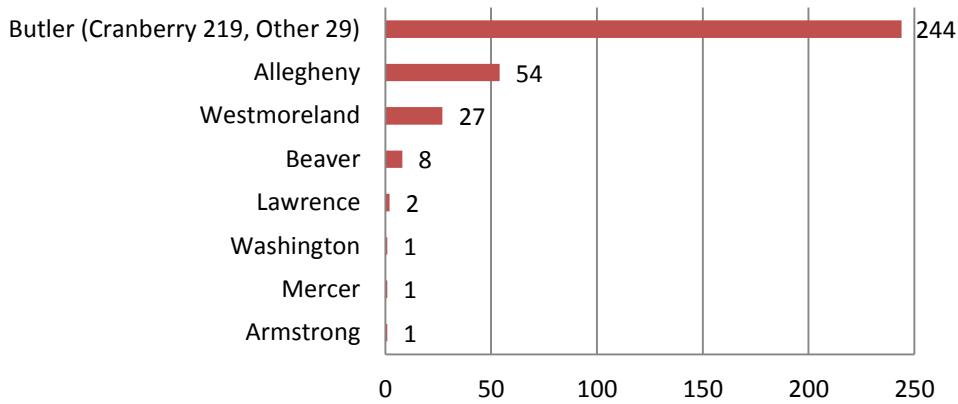
2. Home Zip Codes



Zip Codes by County:

COUNTIES	
Armstrong	1
Mercer	1
Washington	1
Lawrence	2
Beaver	8
Westmoreland	27
Allegheny	54
Butler (Cranberry 219, Other 29)	244

2A. Zip Codes by County

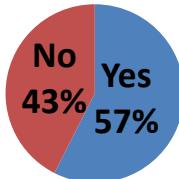


QUESTION 3

If local transit (bus) service was available in and around Cranberry Township, would you use it?

Responded	341
Skipped	3
TOTAL:	344

3. If local transit (bus) service was available in and around Cranberry Township, would you use it?



QUESTION 4

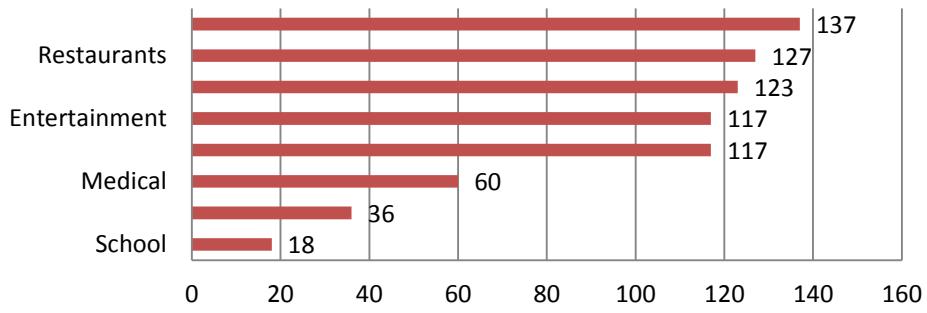
Would you ride the bus to go to the following? Please check all that apply.

Responded	336
Skipped	8
TOTAL:	344

A total of 726 responses were provided by 336 people.

Not interested in riding	116
Work	135
School	17
Shopping	121
Medical	59
Restaurants	126
Entertainment	116
Other	36

4. Would you ride the bus to go to the following? Check all that apply.



The following table summarizes the 36 “Other” comments:

COMMENT	#
Destinations Outside Cranberry Township	
A connection to another system	1
Butler, Gibsonia, Pittsburgh	1
Downtown Pittsburgh	6
Pittsburgh Airport and Downtown Pittsburgh	1
Pittsburgh, Airport, Strip District	1
Rivers Casino	1
Wexford, Warrendale	1
Visit friends and family not living in Cranberry.	1
Downtown Pittsburgh and to sporting/entertainment events.	1
Miscellaneous	
Appealing for Senior Citizens	1
To places that provide blood donations to the American Red Cross. I walk home from my job at Westinghouse.	1
Bus will result in more traffic congestion.	1
I would use the bus when my vehicle is being serviced or repaired.	1
I need more information. I may be interested if a bus was available near my home and went to Shadyside where I work. I would not drive somewhere to ride a bus.	1
General Areas	
Bars and Restaurants	1
Gym	1
Kids to sports practice	1
Parks	5
Sporting events and community events	2
It would be nice to have a safe way to go out and have some drinks and get home safe.	1
Van Pool	
I prefer the vanpool to get to work.	1
I ride a commuter van to work and there is no time in the day for trips outside of the office.	1
I am in a van pool right now and would ride a bus in an emergency.	1
Cranberry Township	
Township parks and recreational facilities.	1
I would ride to the parks (Graham, Cranberry, North Boundary).	1
I would ride to the park with my kids. It would also be awesome if busses were dog friendly.	1

QUESTION 5

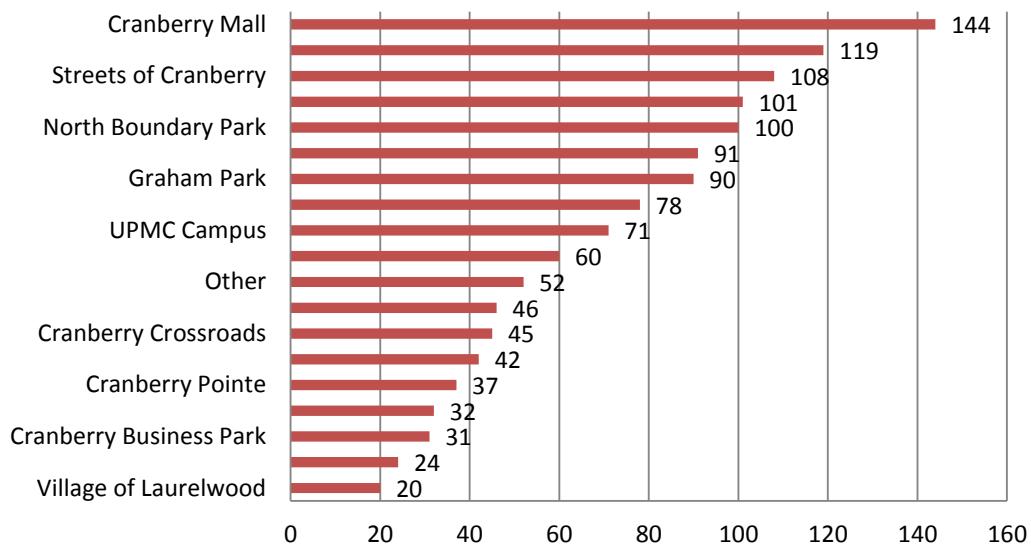
Please check all of the destinations that you would be interested in taking a bus to or from? Please check all that apply.

A total of 1,291 responses were provided by 329 people.

Responded	329
Skipped	15
TOTAL:	344

Not interested in riding	119
Community Park	91
Cranberry Business Park	31
Cranberry Commons	60
Cranberry Corporate Center	24
Cranberry Crossroads	45
Cranberry Mall	144
Cranberry Pointe	37
Cranberry Springs	32
Cranberry Square Drive	46
Cranberry Township Municipal Center	101
Cranberry Woods Business Park	78
Graham Park	90
North Boundary Park	100
Streets of Cranberry	108
Thorn Hill Industrial Park	42
UPMC Campus	71
Village of Laurelwood	20
Other	52

5. Bus Destinations



There were 52 people that selected “other” as an option; 62 written responses were submitted and then when separated into categories below.

Miscellaneous	6
Outside of Cranberry Township	34
Cranberry Township	22
TOTAL	62

The following table summarizes the responses by category:

MISCELLANEOUS	
Close to my house	1
Any school	1
Would depend on my needs.	1
Bus loop that hits the main attractions, possibly a north south route and an east west one (like Portland MAX).	1
Somewhere that would offer parking (like a park and ride lot). Otherwise, it's not worth it.	1
Plans	1
OUTSIDE OF CRANBERRY TOWNSHIP	
Pittsburgh and Pittsburgh Area	22
Pittsburgh Airport	1
Butler Township to Cranberry Township	1
Butler Township to Cranberry Township	1
Monroeville, PA	1
Zelienopole	4
Transit to nearest Park and Ride for PAT bus service	1
T-Bones Marketplace / Soergel Orchards (intersection of 910 & Brandt School Road)	1
Harmony	1
Wexford	1
CRANBERRY TOWNSHIP	
Golf Course	1
5000 Ericsson Drive and Motel 6	1
All along the 228 corridor with stops periodically.	1
Butler Community College (BC3)	2
Ericson Building	1
Costco, Walgreens	1
Estate at Seven Fields	1
Fox Run	1
Laurelwood to Cranberry Woods Drive	1
Lemieux UPMC	1
Danburry Farms	1
Seven Fields	1
YMCA	1
Any location on the south side of town.	1
Rolling Road / Cameron Drive	1
Highland Village	1
Municipal Building/Center	2
Target Plaza	1
Comtra	1
Restaurants	1

QUESTION 6

If you live or work in Cranberry Township, please provide the street name of this location.

Responded	324
Skipped	20
TOTAL:	344

Does not apply	51
Street Name	273
RESPONSES:	324

Street names provided by four or more respondents are listed in the following table.

Cranberry Woods Drive	44
Westinghouse Drive	39
St. Leonards Lane	8
Rochester Road	6
Route 19	5
Bellwood Court	4
Sunset Circle	4
Valerie Drive	4
Wayne Drive	4
Woodbine Drive	4

273 respondents provided street names, detail of which is provided in the table below.

Aberdeen Drive	3	Evan Court	2	Parkwood Drive	3
Anna Marie Drive	1	Executive Drive	1	Pennwood Place	1
Ashbury Lane	1	Fawn Trail	1	Persimmon Place	1
Auburn Drive	1	Fieldgate Drive	2	Peters Road	2
Autumn Hill Drive	1	Fox Run Circle	3	Pinehurst Drive	1
Beacon Hill Drive	3	Franklin Road	1	Powell Road	2
Bellwood Court	4	Granville Place	1	Reedmoor Lane	1
Berkshire Drive	2	Green Fields Court	2	Ridgemont Drive	1
Blue Ridge Drive	1	Greenwood Drive	1	Riva Ridge Drive	1
Brandywine Drive	1	Haine School Road	2	Robinhood Drive	2
Bristol Drive	1	Haldeman Dr	1	Rochester Road	6
Brookston Drive	1	Hastings Drive	3	Route 19	5
Bucks Road	1	Havenwood Drive	1	Royal Oak Court	2
Callery Road	1	Heathercroft Drive	1	Route 228	1
Cameron Drive	1	Hidden Meadow Drive	1	Russett Meadow Court	1
Canterbury Trail	1	Highland Court	1	Saige Court	1
Cathys Court	1	Hunter Drive	2	Sarah Court	3
Chaparral Drive	1	Ironwood Court	1	Settlers Village Circle	2
Chapel Way	1	Isleworth Lane	2	Sherwood Drive	1
Chatham Lane	2	Jennifer Drive	1	Skyview Drive	2
Chelsey Court	1	Joan Street	1	St. Leonards Lane	8
Churchill Court	1	Larch Drive	1	Stonefield Drive	2
Clearbrook Drive	2	Leatherbark Road	2	Stratford Court	2
Collingwood Court	1	Leonberg Road	1	Strawberry Circle	2
Commonwealth Drive	1	Lincolnshire Drive	1	Sunset Circle	4
Cottingham Circle	2	Little Creek Lane	2	Ten Point Lane	1
Cottonwood Court	1	Locust Lane	2	Thomson Park Drive	1
Coventry Court	1	Macintosh Court	1	Trail Court	1
Cranberry Woods Drive	44	Mallard Drive	2	Treesdale Drive	1
Cricketwood Court	1	Marshall Road	2	Valerie Drive	4
Cross Creek Drive	1	Maureen Drive	2	Village Drive	2
Crossing Ridge Trail	2	Mews Lane	1	Waterford Court	1
Daisy Drive	1	Monmouth Drive	2	Wayne Drive	4
Deemers Drive	1	Norman Drive	1	West Kensinger Drive	1
Deer Run Community	1	North Boundary Road	1	Westinghouse Drive	39
Deerfield Drive	1	North Point Circle	1	Windgap Drive	1
Dorsch Drive	1	Northfield Road	1	Windsor Court	1
Dutilh Road	1	Oakridge Trail	1	Windwood Heights Drive	1
Ehrman Farms	1	Oakview Drive	1	Wood Hollow Drive	2
Emeryville Drive	1	Paddington Lane	1	Woodbine Drive	4

QUESTION 7

Comments or suggestions?

Responded	151
Skipped	193
TOTAL:	344

151 people provided 164 comments, which are summarized by category below.

General comments expressing interest in public transportation and/or local Cranberry Township shuttle bus.	37
Cranberry Township Service Ideas	19
General comments expressing no or lack of interest in public transit and/or local Cranberry Township shuttle bus.	33
Comments about service outside of Cranberry Township.	50
Miscellaneous	25

Additional detail on comments submitted by survey respondents is provided in Appendix B.

FINDINGS

Public transit service in Cranberry Township is not a new idea. Over the years it has been looked at from many angles and many different outcomes. Previous studies along with recent market and demographic data, and stakeholder and public input, resulted in the following important findings about public transportation in Cranberry Township.

1. The Cranberry Area Transit Study identified demand for local and commuter transit services, particularly service to and from downtown Pittsburgh.
2. The Study identified a “Demonstration Program” that consisted of preferred route alternatives, which seem to be applicable to fulfilling today’s needs and current conditions.
3. Implementing commuter service to and from Pittsburgh as well as local transit services is consistent with The Cranberry Plan, the township’s comprehensive plan.
4. A survey conducted by Cranberry in 2011 showed that the most desired type of transit service consists of inbound service to Pittsburgh in the morning and outbound service to Cranberry in the evening during weekday rush hours.
5. The majority of respondents to Cranberry’s transit survey said they use park and ride lots as part of their commute to and from downtown Pittsburgh, primarily BladeRunners, Brush Creek and Route 528 lots.
6. 275 out of 352 respondents or 78 percent said they ride transit to work in Pittsburgh.
7. According to APTA, over the past 20 years, transit ridership nationally is up 39 percent, outpacing both population growth (21 percent) and vehicle miles traveled (25 percent).
8. Transit is cited by APTA as a critical part of the solution to the nation’s economic, energy and environmental problems, and is a primary way to improve quality of life in local communities.
9. Several adjacent transit agencies provide commuter service to and from Pittsburgh including NCATA, BCTA, Lenzner and Myers. Round trip fares for service to and from Pittsburgh are \$8.00, \$7.50, \$11.50 and \$11.00 respectively.
10. There are two adjacent, nearby park-and-ride lots that are utilized by Cranberry residents including BladeRunners in Warrendale and Route 528 in Jackson Township.
11. Cranberry has been diligently implementing its Bicyclists and Pedestrian Connections Plan, which provides a way to add bicycle and pedestrian accommodations to all current and future roadway improvement projects and land development activities.
12. The Township does not have viable taxi service, which is typically an important transportation alternative in communities the size of Cranberry.
13. Although TOD is a desirable strategy used to assuage sprawl and help improve communities, it is not a suitable development type for Cranberry because of the absence of transit infrastructure in the community. The Township does incorporate several TOD principles, such as mixed-use development, higher density in specific areas, and increased walkability. These development tools could be utilized more in certain areas where TOD would be more likely to be incorporated.
14. Cranberry’s demographics, such as household income, diversity index and other indicators, are not conducive to implementing local transit service alternatives nor commensurate with community transit use.
15. Having said that, survey and demographic results show that there is interest and likely success in implementation of commuter service to and from downtown Pittsburgh.
16. Stakeholders interviewed as part of the Transit Project, consisting of major employers, think that there is value to having a transit system in Cranberry.

17. Out of 341 responses to a recently distributed public survey about transit, 57 percent replied they would use transit and 43 percent said they would not.
18. Of the 57 percent that responded affirmatively to using transit, 135 said they would use it for work, 126 said they would use it to go to restaurants, 121 to shop and 116 to go to entertainment venues.
19. Major destinations that 329 survey respondents said they wanted to be served by transit include: Cranberry Mall (144); Cranberry streets (108); Township Center (101); North Boundary Park (100); and community park (91).
20. Out of 324 respondents, most identified Cranberry Woods (44 responses) and Westinghouse Drive (39) as their place of employment.

SUGGESTIONS FOR TRANSIT IN CRANBERRY

Results of previous studies, transit use and survey responses demonstrate that there is interest in and demand for transit services in Cranberry Township. Service between Cranberry and downtown Pittsburgh is the most viable based on historical use and public input; however interest has also been expressed for service connecting local destinations around Cranberry. The following suggestions are intended to guide Cranberry through immediate next steps to develop and implement transit services for Township residents.

1. DEVELOP A PLAN FOR COMMUTER SERVICE BETWEEN CRANBERRY AND PITTSBURGH

Cranberry residents have historically used commuter service, and continue to demonstrate demand based on responses to two surveys. In order to provide residents with the regional transit service they need, it is important to consider re-instituting commuter service between Cranberry and Pittsburgh. As such, the following approach is intended to serve as a foundation for finalizing and implementing a commuter service plan.

Trip times and frequencies must coincide with typical work “start” and “end” times, an example of which is provided in Sample 1.

WEEKDAY A.M. SERVICE		
TRIPS	LV CRANBERRY	AR PITTSBURGH
1	5:30 AM	6:15 AM
2	6:00 AM	6:45 AM
3	6:30 AM	7:15 AM
4	7:00 AM	7:45 AM
5	7:30 AM	8:15 AM
6	8:00 AM	8:45 AM

WEEKDAY P.M. SERVICE		
	LV PITTSBURGH	AR CRANBERRY
1	3:15 PM	4:00 PM
2	3:45 PM	4:30 PM
3	4:15 PM	5:00 PM
4	4:45 PM	5:30 PM
5	5:15 PM	6:00 PM
6	5:45 PM	6:30 PM
7	6:15 PM	7:00 PM

The plan requires three vehicles in the morning and three vehicles in the evening to achieve this level of service. Shaded colors designate vehicles that are needed to make repeat trips to accommodate the sample schedule.

An annual budget needs to be established based on the final service plan estimated hours and costs.

SAMPLE 2: COMMUTER SERVICE COST ESTIMATE

INBOUND SERVICE PLAN ESTIMATES						
Trips	On Road	In Service	Off Road	Daily Minutes	Annual Hours	Annual Estimated Cost
Trip 1	30	45	45	120	510	\$64,861.80
Trip 2	30	45	45	120	510	\$64,861.80
Trip 3	30	45	45	120	510	\$64,861.80
Trip 4		45	30	75	318.75	\$40,538.63
Trip 5		45	30	75	318.75	\$40,538.63
Trip 6		45	30	75	318.75	\$40,538.63
Total Minutes	90	270	225	585	2486.25	\$316,201.28

OUTBOUND SERVICE PLAN ESTIMATES						
Trips	On Road	In Service	Off Road	Daily Minutes	Annual Hours	Annual Estimated Cost
Trip 1	30	45	45	120	510	\$64,861.80
Trip 2	30	45	45	120	510	\$64,861.80
Trip 3	30	45	45	120	510	\$64,861.80
Trip 4		45	45	90	382.5	\$48,646.35
Trip 5		45	30	75	318.75	\$40,538.63
Trip 6		45	30	75	318.75	\$40,538.63
Trip 7		45	30	75	318.75	\$40,538.63
Total Minutes	90	315	270	675	2868.75	\$364,847.63

	Annual Commuter Service Budget	\$681,048.90
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Source: National Transit Database Operating Expense per Vehicle Revenue Hour

The sample budget is based on the following: six inbound trips and seven outbound trips on weekdays; time allotted for vehicles to get to and from the garage and make repeat trips; and NTD operating expense data. The budget is conservative in that forecasts apply the expense per revenue hour to all service hours resulting in a “worst case scenario.”

To achieve commuter service that does not require public subsidy, each trip would have to carry:

37 riders per trip @ \$5.50 one way; or
41 riders per trip @ \$5.00 one way; or
51 riders per trip @ \$4.00 one way.

After it is determined whether this type of service is financially feasible, a decision will need to be made whether to operate service through an existing transit agency, i.e. Butler Transit Authority, or contract with a private transit operator. It is recommended that Cranberry officials determine the pros and cons of public versus private carriers, and the expenses and responsibilities associated with each.

ACTION ITEMS

Making commuter service from Cranberry to Pittsburgh become a reality cannot be accomplished alone. The Township must seek partners in other communities with similar needs, as well as potential private sector contributors. It is important to recognize that the Township and any future partners must provide a product that people will want to use. A regional transportation system from Cranberry can be built, but it needs support to ensure its economic sustainability. The Township should actively take the following measures as first steps in implementing such a system -

- 1A. Determine where potential riders come from and where they want/need to go
- 1B. Establish optimal mode(s) of transit for the service (i.e. van, bus, rail, etc.)
- 1C. Conduct a routing analysis to determine potential routes and costs
- 1D. Foster partnerships with other stakeholders
- 1E. Generate political support for the system

2. DEVELOP A PLAN FOR LOCAL TRANSIT SERVICE IN CRANBERRY

Using results of the Cranberry Transit Study, data gathered and input provided, several potential local service scenarios for Cranberry Township emerged. Considerations that went into developing the scenarios focused on the following:

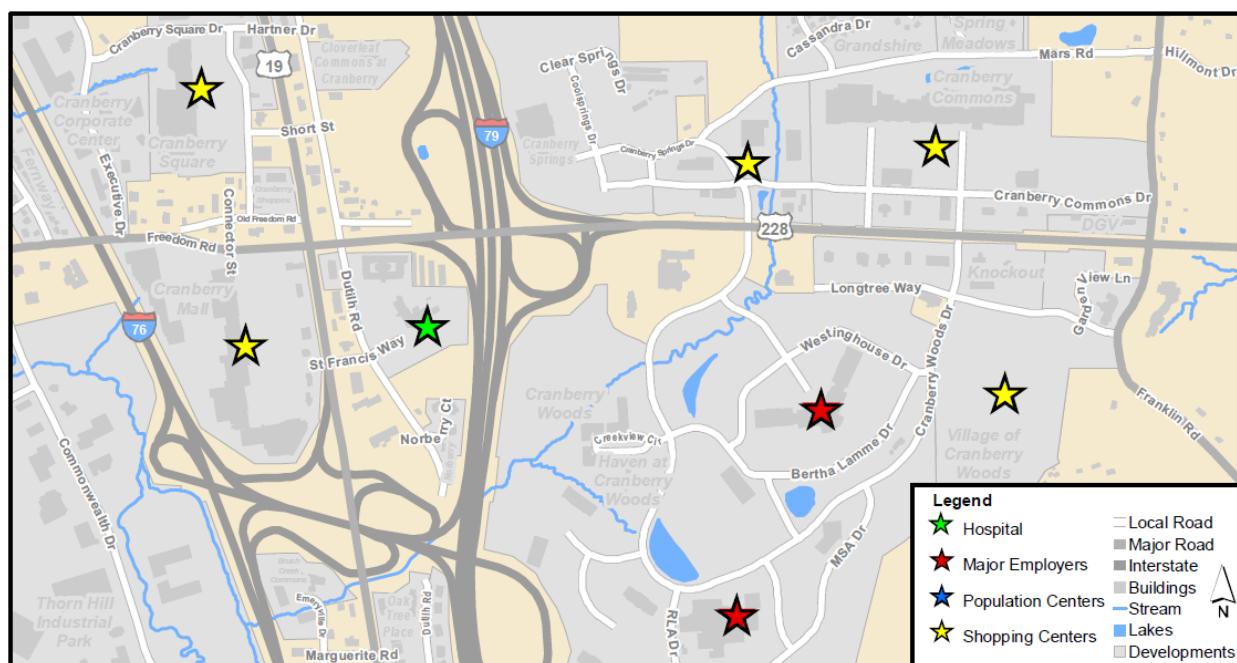
- Service can be designed to travel to many points-of-interest and destinations in Cranberry; however, those areas are low density. Providing efficient and effective transit service in low density areas is a challenge and likely not to be successful.
- Successful local transit services need to be simple and easy to understand, especially for a population that is not accustomed to transit.
- To encourage ridership, the service should be frequent, timely, and predictable.
- To make transit more attractive than driving in a marketplace like Cranberry, the service will have to be positioned and marketed as an option that is more convenient or inexpensive or environmentally friendly as compared to driving.

Field views, stakeholder interviews, demographic analysis, and results of a public survey identified potential origins and destinations for transit services in Cranberry Township. These locations were mapped and taken into consideration in the design of local service scenarios. Key origins and destinations that emerged from study efforts are provided in Table 9.

TABLE 9: KEY ORIGINS AND DESTINATIONS

Residential	Employment	Retail
Local Streets	Westinghouse	Cranberry Commons
Townhouses	Mine Safety Appliances	Cranberry Mall
Apartments	Business Park	Walmart
Senior Housing	Cranberry Crossroads	
	Cranberry Woods	
	UPMC	

MAP 8: KEY ORIGINS AND DESTINATIONS



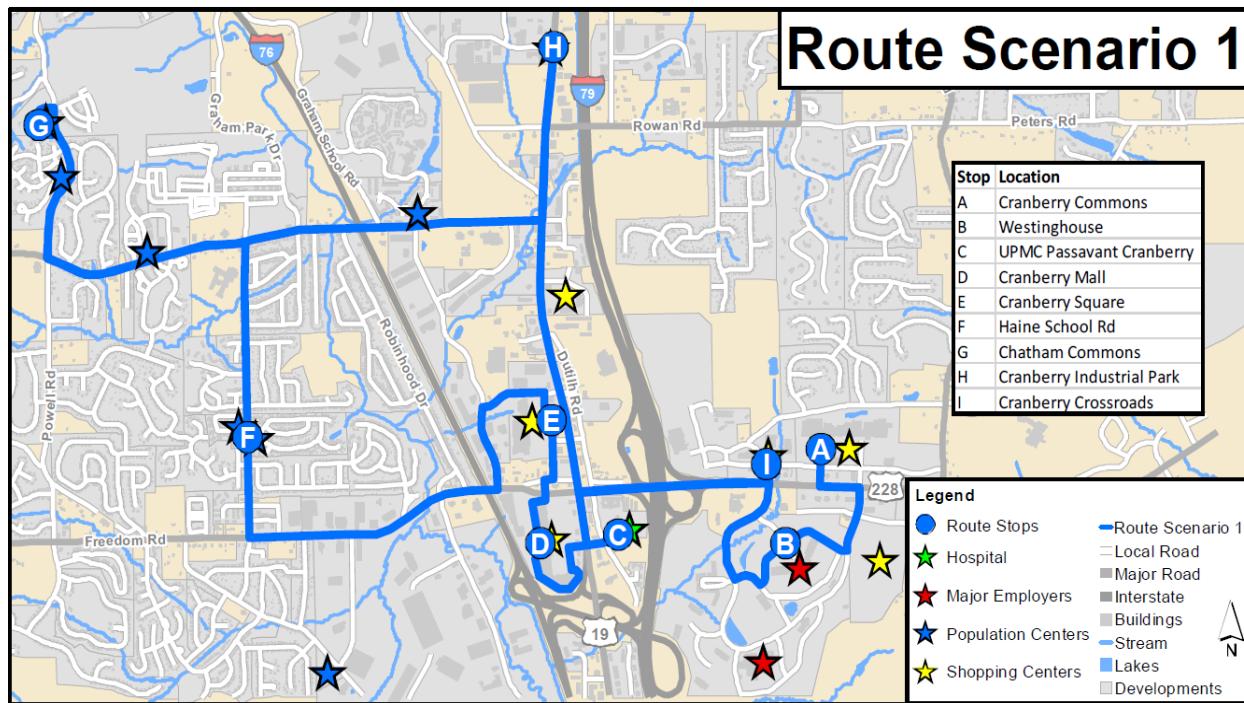
Using these origins and destinations, several local service scenarios were designed as an example of the types of routes and trips that can be developed and areas in Cranberry that can be served by local transit. Scenarios focused on maximizing efficiency by forecasting the use of one transit vehicle to fulfill service requirements. It is recommended that Cranberry Township review these scenarios (plus those resulting from the previous Cranberry Transit Study), make modifications as necessary, obtain additional feedback from the community, and examine feasibility.

It should be noted that in all scenarios, total service hours do not include time to and from the service provider's facility, driver breaks, or other potential contract requirements. The total cost is based on weekday (five day a week) service for 255 days a year and \$75 estimated hourly rate for contacted service.

Route Scenario 1: Residential to Commercial Districts

Route 1 connects higher density housing areas with priority commercial centers. During a 12-hour period, 12 round trips can be efficiently scheduled; however the trip times may not advantageous for workers. Transit service to the retail and commercial areas under this scenario would be primarily used for shopping, restaurants, and other flexible trips. The following table illustrates a sample schedule.

MAP 9: ROUTE SCENARIO 1



SAMPLE 3: ROUTE SCENARIO 1 POTENTIAL TRIPS

RUN	START	TO COMMERCIAL TIMEPOINTS			TERMINUS	FROM COMMERCIAL TIMEPOINTS			END
1	6:00 am	6:15 am	6:30 am	6:45 am	7:00 am	7:15 am	7:30 am	7:45 am	8:00 am
2	8:00 am	8:15 am	8:30 am	8:45 am	9:00 am	9:15 am	9:30 am	9:45 am	10:00 am
3	10:00 am	10:15 am	10:30 am	10:45 am	11:00 am	11:15 am	11:30 am	11:45 am	12:00 pm
4	12:00 pm	12:15 pm	12:30 pm	12:45 pm	1:00 pm	1:15 pm	1:30 pm	1:45 pm	2:00 pm
5	2:00 pm	2:15 pm	2:30 pm	2:45 pm	3:00 pm	3:15 pm	3:30 pm	3:45 pm	4:00 pm
6	4:00 pm	4:15 pm	4:30 pm	4:45 pm	5:00 pm	5:15 pm	5:30 pm	5:45 pm	6:00 pm

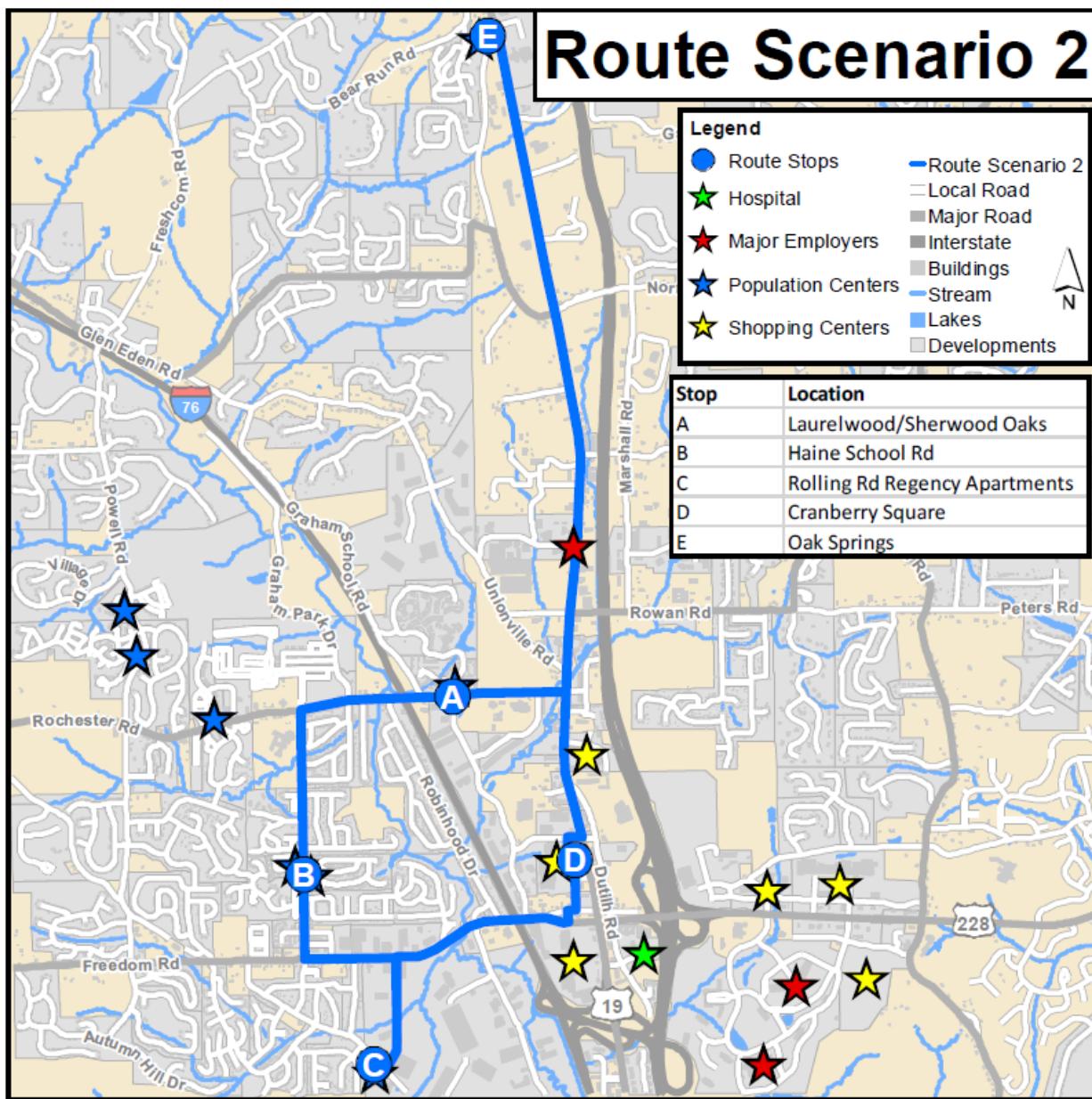
If need is demonstrated, the schedule above can be enhanced to be more compatible with an employer's start and quit times, but it would require additional hours. If riders express a need to ride for work trips, earlier and later service would be required.

This service would be operated with one vehicle and cost approximately \$229,500 per year.

Route Scenario 2: Seniors to Shopping Districts

Route 2 is intended to connect senior living centers with shopping locations. During a 10-hour period, 10 round trips can be scheduled with time for flag stops along the route, allowing for a more personalized service. This route scenario is geared toward senior citizen riding during off-peak hours for shopping, restaurants, and other flexible trips. Seniors often provide a stable ridership base for transit. The following table illustrates a sample schedule,

MAP 10: ROUTE SCENARIO 2



SAMPLE 4: ROUTE SCENARIO 2 POTENTIAL TRIPS

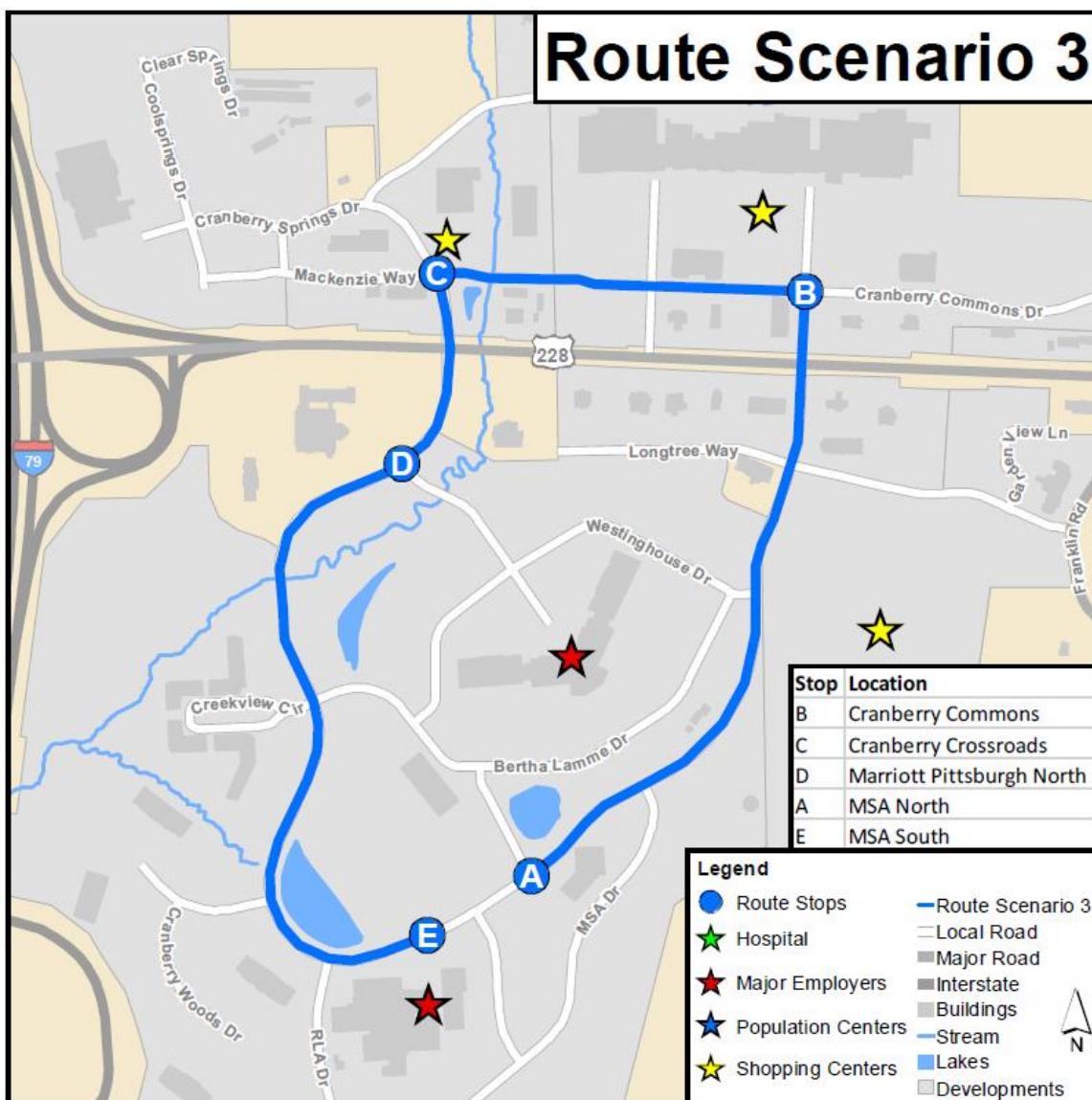
RUN	START	TO SHOPPING TIMEPOINTS			TERMINUS	FROM SHOPPING TIMEPOINTS			END
1	8:00 am	8:15 am	8:30 am	8:45 am	9:00 am	9:15 am	9:30 am	9:45 am	10:00 am
2	10:00 am	10:15 am	10:30 am	10:45 am	11:00 am	11:15 am	11:30 am	11:45 am	12:00 pm
3	12:00 pm	12:15 pm	12:30 pm	12:45 pm	1:00 pm	1:15 pm	1:30 pm	1:45 pm	2:00 pm
4	2:00 pm	2:15 pm	2:30 pm	2:45 pm	3:00 pm	3:15 pm	3:30 pm	3:45 pm	4:00 pm
5	4:00 pm	4:15 pm	4:30 pm	4:45 pm	5:00 pm	5:15 pm	5:30 pm	5:45 pm	6:00 pm

Route 2 would be operated with one vehicle and cost approximately \$191,250 per year.

Route Scenario 3: Lunchtime Shuttle

Route Scenario 3 is intended to connect major employer sites with nearby key retail and restaurant locations for service during lunch. Over a three-hour, mid-day period, 9 round trips can be efficiently scheduled, allowing for frequent and convenient service. This scenario would be geared toward employees who are looking to travel conveniently to lunch and run errands to locations that are too far to walk. The following table illustrates a sample schedule.

MAP 11: ROUTE SCENARIO 3



SAMPLE 5: ROUTE SCENARIO 3 POTENTIAL TRIPS

RUN	START	TO LUNCH TIMEPOINTS				TERMINUS	FROM LUNCH TIMEPOINTS				END
		11:05 am	11:10 am	11:15 am	11:20 am		11:25 am	11:30 am	11:35 am	11:40 am	
1	11:00 am					11:20 am					
3	11:40 am	11:45 am	11:50 am	11:55 am		12:00 pm	12:05 pm	12:10 pm	12:15 pm	12:20 pm	
5	12:20 pm	12:25 pm	12:30 pm	12:35 pm		12:40 pm	12:45 am	12:50 am	12:55 am	1:00 pm	
7	1:00 pm	1:05 pm	1:10 pm	1:15 pm		1:20 pm	1:25 pm	1:30 pm	1:35 pm	1:40 pm	
9	1:40 pm	1:45 pm	1:50 pm	1:55 pm		2:00 pm	2:05 pm	2:10 pm	2:15 pm	2:20 pm	

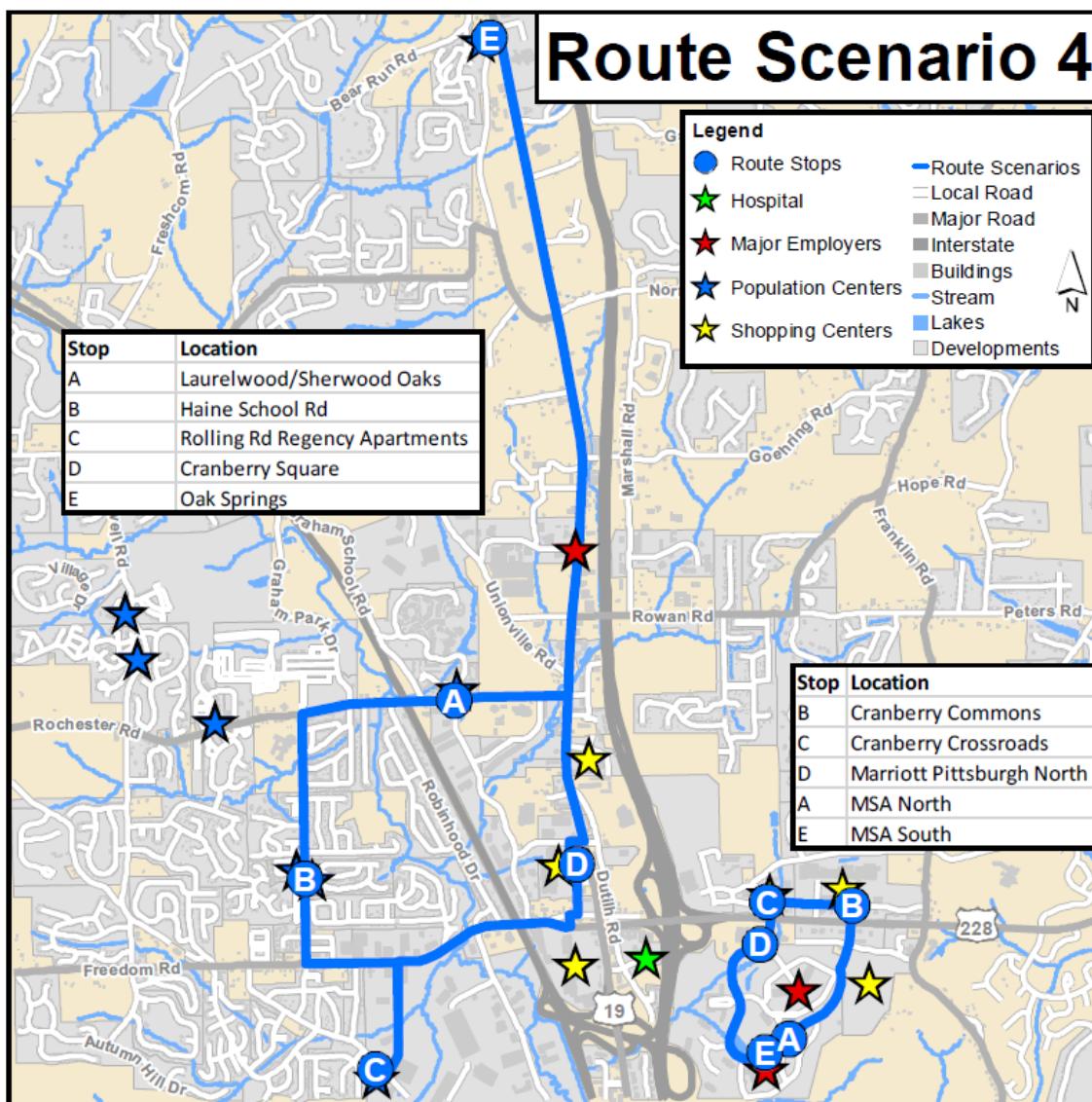
Route Scenario 3 would be operated with one vehicle and cost approximately \$63,687 per year.

Route Scenario 4: Combination Service

In order to serve more rider types in the most cost effective manner, the aforementioned routes could be combined into one route that functions differently depending on time of day and market served. The most effective for Route Scenario 4 would be combining Scenario 2 – Senior Citizen Shopping Service and Scenario 3 – Lunchtime Shuttle.

Route Scenario 4 would operate as Route 2 from 8:00 a.m. to 11:00 a.m. then travel cross-country to the Route 3 where it would operate from 11:00 a.m. to 2:20 p.m. before resuming Route 2 until 6:00 p.m. This scenario offers service to more areas for the same annual cost as Route Scenario 2.

MAP 12: ROUTE SCENARIO 4



DETERMINE WHETHER TO IMPLEMENT COMMUTER AND LOCAL TRANSIT SERVICE PLANS

Prior to implementing commuter and/or local transit services, Cranberry will need to finalize services plans, develop operating and capital budgets, and assess Return on Investment (ROI). Typically, the following steps are undertaken prior to establishing new routes.

- Obtain feedback on the route scenarios/schedules from local residents/users
- Modify scenarios and schedules accordingly
- Develop operating and capital budgets
- Identify funding sources and sustainability plan
- Build partnerships with private and public funding partners
- Develop and implement a marketing plan
- Determine service delivery methods and providers
- Plan kick-off event
- Implement service
- Operate and monitor service
- Modify as needed

ACTION ITEMS

Understanding the needs of the local business community is critical in ensuring the efficiency, effectiveness, and success of a commuter service. Routing must be convenient for users in a way that using a personal vehicle for the same travel needs. In creating such a system, the Township should first embark on the following steps –

- 2A. Integrate Commuter Service with other transportation modes (i.e. bike and pedestrian network)
- 2B. Conduct a thorough routing analysis to ensure network reaches key destinations and users
- 2C. Review and update current street grid, as necessary, to designate parallel roadways
- 2D. Review, update, and adopt Official Map
- 2E. Explore services such as car shares, Uber, Lyft, etc. and implement as necessary
- 2F. Review Land Development requirements to enhance transit requisites in specific locations and ensure that they are conducive to transit

3. ESTABLISH A CENTRALLY LOCATED, CONVENIENT PARK-AND-RIDE LOT

Establishing a park-and-ride lot is one way to determine demand and establish use for commuter transit services. For Cranberry Township, a community that does not have transit, the likely approach would be to establish the lot initially as rideshare for commuters that desire to carpool or vanpool from a convenient, safe parking location. Over time and based on use and demand for transit, the lot could be utilized as a stop on a commuter route with service implemented commensurate with demand.

For the Township to implement a successful park-and-ride, the following features will need to be incorporated:

- **Convenient Location:** Most successful park-and-ride lots are located at highway interchanges or crossroads with easy access onto the main corridor that connects with the regional economic activity center. Lots located in the midst of congested corridors with traffic signals that cause delays to access and egress don't work as well.
- **Ample Space:** Customers rely on having a space available upon arriving at a park-and-ride lot. Any lot that is

established will - from the onset - need to have adequate space so that customers don't have to leave their car parked illegally or go searching for space elsewhere.

- **Free:** All park-and-ride lots in the Southwestern Pennsylvania region (except for Port Authority's 2,000 space parking garage at South Hills Village and a few privately-operated ones) are free for customers. In addition to the forecasted cost of a round-trip fare for commuter bus service (around \$11), layering on a parking charge would be cost prohibitive.
- **Safe:** Successful park-and-ride lots have amenities that convey feelings of safety and security. Lots need to have adequate lighting because usage typically occurs during early morning and evening hours when it is dark. Lots need to be paved as well to decrease pedestrian accidents like tripping and falling, which are prevalent in lots that have gravel or unpaved surfaces.
- **Well-Maintained:** Usage is maximized when lots are maintained consistently. Routine maintenance including patching and paving, landscaping and weeding, trash pick-up, snow removal and shelter cleaning will need to be performed on an ongoing basis to provide a convenient and safe environment for users.

ACTION ITEMS

Constructing a park-and-ride lot within Cranberry Township could be a critical first step in implementing a transit system to service the community. Considering the primary features listed above, the Township should undertake the following –

- 3A. Determine potential locations
- 3B. Explore possible Transit Hub location(s)
- 3C. Relocate and expand current vanpool lot
- 3D. Explore design standards for Park-and-Ride lots to ensure multi-use amenities

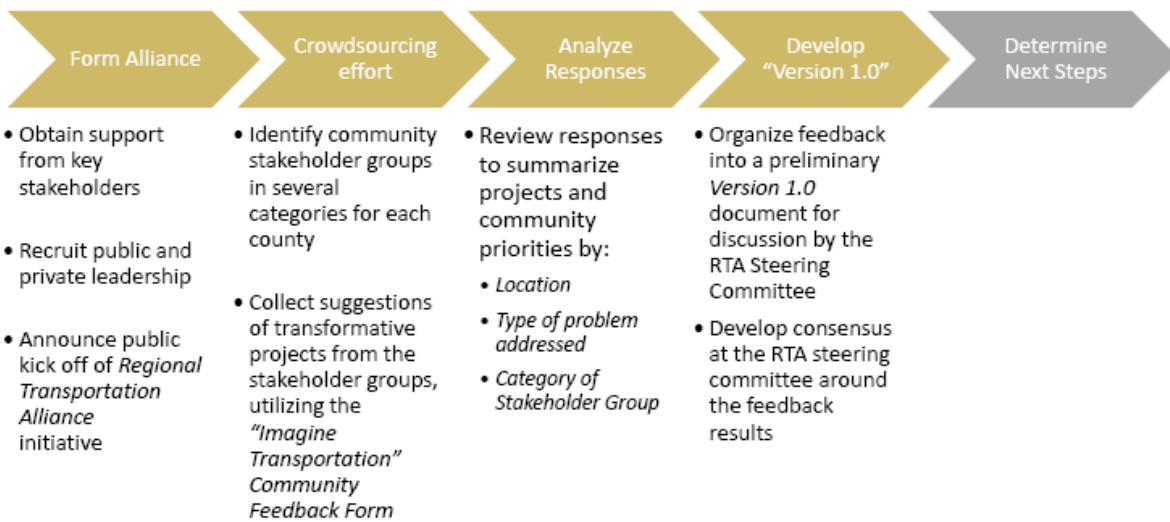
4. ENGAGE IN THE DISCUSSION OF REGIONAL TRANSPORTATION PRIORITIES

The region recently launched an initiative through the “Regional Transportation Alliance” to discuss ways to improve connectivity and increase “...competitiveness, economic vitality, and quality of life” in Southwestern Pennsylvania. The RTA consists of public and private partners engaging in dialogue about how the region can identify and implement better transportation. Each county, including Butler, has representation on the Alliance; Butler’s representative is Kim Geyer, Assistant to Chairman Brian Heery.

It is important for Cranberry to provide input through the RTA’s “Imagine Transportation” Community Feedback Form, which can be accessed at www.regionaltransportationalliance.org and through Butler County’s representative. The RTA would like organizations to describe the top two transportation ideas “...that would be game-changers for your community.” Cranberry’s can present its vision for major capital transit project(s) that could be transformative for the Township through the input process.

The RTA’s approach for this plan is provided in Figure 3, which was taken from the RTA’s presentation dated October 5, 2015, GoBurgh Meeting.

FIGURE 3: RTA's IMAGINE TRANSPORTATION APPROACH



ACTION ITEMS

Regional transit cannot be accomplished in a vacuum. The system requires partners and community stakeholders whose input and interest are vital in ensuring the success of the endeavor. Recognizing that Cranberry would not be operating alone in a regional transit system, the Township should begin the following –

- 4A. Determine other communities with transit needs to find potential partners
- 4B. Become acquainted with RTA members
- 4C. Attend sessions related to regional transit
- 4D. Build relationships with potential advocates
- 4E. Consider future transit and/or technological advances that would impact a regional system

5. CONTINUE IMPLEMENTING THE BICYCLISTS AND PEDESTRIAN CONNECTIONS PLAN

Filling the gaps in pedestrian and bike connections throughout Cranberry will provide a foundation for implementing transit services. The pathways established by completing the Plan will enable pedestrians to access bus stops should Cranberry decide to implement transit. This important infrastructure is also critical to TOD because it provides the framework for community connections that link residential, retail, commercial and institutional developments to transit.

ACTION ITEMS

A robust and connected bicyclist and pedestrian network is critical to the long-term health of Cranberry Township. Space designated for transit stops will impact sidewalk and bikeway design and placement, therefore, all three attributes should be considered with each other in planning for the future of the community. Pedestrian connectivity and bicyclist amenities have become a top priority for Cranberry. With that mind, it is recommended that the Township continue on its current path, while also completing the following –

- 5A. Complete a Trail Master Plan for the Township

- 5B. Fill in the missing links in the pedestrian network, using both contributions from new development, as well as resources provided by the Township
- 5C. Update the Bicyclist and Pedestrian Connections Plan to include protected bike lanes and shared-use paths
- 5D. Build relationships with potential advocates
- 5E. Consider technological advances and innovative design solutions to increase bicyclist and pedestrian amenities

CONCLUSION

Cranberry Township is a progressive, forward-thinking community that strives to meet the needs of its residents, businesses, and visitors. The Township recognizes the growing need for mass transit service in the community. While that system may take on a variety of forms – be it commuter service, local service, construction of a park-and-ride, or a sole focus on regional transit – the Township is working proactively to explore all options and capitalize on any opportunities that may arise.

Offering mass transit in Cranberry Township will not come without challenges and costs. However, careful, strategic planning for the system and working with other communities and potential partners, will aid greatly in offsetting costs and ensuring the long-term effectiveness and success of the system.

APPENDIX A: STAKEHOLDER INTERVIEW SUMMARIES

SOUTHWESTERN PENNSYLVANIA COMMISSION

TOM KLEVAN, MULTIMODAL PLANNING MANAGER

The discussion focused on the previous Cranberry Transit Plan and current demand for transit in Cranberry Township. Some federal money could be available for transit service in the area, but it requires a significant local commitment and state support. SPC is available as a resource for Cranberry Township transit projects.

SOUTHWESTERN PENNSYLVANIA COMMISSION, COMMUTEINFO PROGRAM

LISA KAY SCHWEYER, COMMUTEINFO PROGRAM DEVELOPER

A discussion was held on current commuting demand from Cranberry Township, as well as on park-and-ride use in the area. Many vanpool riders are not interested in switching to transit service. Alternate options for transportation services exist in other areas similar to Cranberry Township. In some instances, according to Lisa Kay, Chambers of Commerce have purchased vehicles for use as an on-demand shuttle service.

CRANBERRY BUSINESS PARK

DICK DONLEY, CHASKA PROPERTY ADVISORS

There are more than 2,000 employees in the Cranberry Business Park, and transportation is a major factor in a tenant's decision to move or remain here. Public transportation is becoming a more important factor to the Park's tenants, especially in the tech area. It is increasingly difficult to attract young tech workers to Cranberry Township due to the lack of a live/work/play/walking environment that areas such as the South Side or increasingly, East Liberty have. Millennials care much less about cars than prior generations, and more about what they perceive as "lifestyle".

Public transportation from the Pittsburgh Central Business District (CBD) to Cranberry Township is something that might help connect Cranberry to major population hubs, and would be worth discussing with major tenants. Also, buses circulating around Cranberry Township connecting the business centers and retail areas could also be worth looking into. An effort to make Cranberry Township more "bike friendly" might also make sense, since it will be very difficult to make walking distances between residential, business, and retail areas viable. It was suggested that maybe some of those seldom-used sidewalks along Route 19 could be used for bikes.

PITTSBURGH NORTH REGIONAL CHAMBER

JIM BOLTZ, EXECUTIVE DIRECTOR

There absolutely is a need for public transportation in Cranberry Township. Businesses are having a hard time finding enough local employees to fill their jobs. With improved transit services, especially to the south and west, those markets would open up to employers.

GRAHAM PARK, CRANBERRY TOWNSHIP

PETE GEIS, DIRECTOR, CRANBERRY TOWNSHIP PARKS, RECREATION AND COMMUNITY SERVICES

Township Transit is EXTREMELY important. As a Cranberry Township employee and resident, Pete has noticed property values increase and as a manager is finding entry level and seasonal positions very difficult to fill. Cranberry borders many communities that could possibly fill these positions, but they do not have access to affordable public transportation.

CRANBERRY WOODS

JAMES F. MURRAY-COLEMAN, TRAMMELL CROW COMPANY

Transit is needed if for no other reason to reduce the traffic and congestion that will just continue to get worse. Unfortunately, the scale of the retail/housing/offices – all spread out – does not lend itself to convenient stops for any type of mass transit within Cranberry Township. No one will walk from store to store with packages. People are too committed to their cars, and until gas is much, much more expensive, there is no motivation to do anything but drive from the Target to the Starbucks to the bank, even though they are within eyesight of each other. There are also no sidewalks connecting them, and just not enough sidewalks in Cranberry Township period.

Before busses, Cranberry Township should focus on making the community more walkable and more connected with trails and sidewalks – at least make it easy for people to use their bikes as a first step, and walk conveniently, if they are inclined to get the exercise.

Additionally, middle income folks just don't like buses (unless you live in a city and can't afford to park your car there). Trains, yes. Buses, no. Class issue, no doubt.

UPMC

RODGER ALTMAYER, COMMUNITY PROJECT DEVELOPMENT DIRECTOR

Overall, the region requires improved public transportation; specifically, routine and reliable service between the suburbs, including Cranberry Township, the downtown central business district, and the Oakland/Shadyside corridor. At this point, and with the exception of the South Hills and East End, few options exist.

SHERWOOD OAKS

MARK BONDI, PRESIDENT AND CEO

Yes, it would be valuable. These might be pipe dreams, but it would be great to have:

- Rapid transit from Cranberry Township to Pittsburgh (rail or bus).
- A loop bus system in and around Cranberry Township would be able to accommodate seniors, persons with disabilities, and staff members without cars.
- More parking for some of the overcrowded park-and-ride lots, which are not located in Cranberry but are used by Cranberry residents.

APPENDIX B: SURVEY GENERAL COMMENTS

GENERAL COMMENTS EXPRESSING INTEREST IN PUBLIC TRANSPORTATION AND/OR LOCAL CRANBERRY TOWNSHIP SHUTTLE BUS

The following bulleted list provides the specific comment or suggestion by category.

- Being able to board a bus or a shuttle to go from one location to another within Cranberry Township should be a natural thing. There is nothing less efficient than using a car to just go to the post office or to a bakery. There is nothing wrong with being carless (not careless!). I do believe in an interconnected city where you can choose from using your car, walking, using a bike or a bus/shuttle to go where you need to go and come back home safe within an hour or two or three. I grew up in northern France and moved to Cranberry Township in 2009 and I wish I could enjoy a similar life here. I can't see any reason why it wouldn't work.
- Any type of transit would help decrease some of the traffic congestion and move us to the future.
- Believe it has potential for international residents based on seeing them walking with groceries.
- Good to think ahead – getting cars off the road would be beneficial.
- Great idea! Now you need feedback. Getting the info out - 'Information Boards' at major intersections, churches, grocery stores, shopping centers, restaurant/bars, etc.
- Efficacy for public transportation should include wheelchair accessible transportation. Cranberry Township needs to provide this service to the elderly and disabled residents.
- Thank you for looking at public transit.
- Thanks for keeping public transit on your radar.
- Bus service would decrease cars on roads in this area. Great for those working jobs in this area.
- I would love to be able to take a bus to work.
- This sounds awesome. I hope this comes to fruition.
- This would be helpful.
- Yes, we need transportation.
- Public transit is a necessity for growth of the community. Gives access to residents who don't have the capability for automobiles. Public transit will create jobs and also be attractive to companies looking to locate in Cranberry Township. I don't see how public transit could have any negative effects.
- Public transit is needed here! Also, bike paths would be nice too. The public transit should have the ability to put your bike on the front and/or the public transit stops should have bike racks.
- Transportation in Cranberry Township would be fantastic. I have two children with special needs. Transportation would help these two access places in Cranberry Township and points beyond. It would give them independence and remove the stress of getting them to work from my husband and I. Thank you for considering bringing public transportation in Cranberry Township.
- I think it could be good and of use to some, but not for me specifically.
- I think having a transit plan is terrific and long overdue. If folks had a bus of some type, this would greatly reduce our reliance on cars. Also, it would help teens to be able to get back and forth to after school jobs.
- Would love to see not only for locally to Cranberry Township, but also to Pittsburgh. We have three young adults in our home and they need help getting to and from work in Cranberry Township.
- I'm not interested in riding for myself, but would welcome the option.
- We need public transportation in Cranberry Township. Traffic is becoming horrible by the day, with new developments and more cars in the same 2-lane roads. I don't leave the house during rush hour. I know many people who are avoiding Cranberry Township because of bad traffic. Our success will kill us. Please

think about public transportation, because we will become a choked, horribly congested place.

- Lots of elderly around, a great way to help us.
- Public transportation along with better pedestrian and cycling access would make Cranberry Township a much more social destination.
- When the Westinghouse employees that live and commute from the Monroeville area originally inquired about bus service to Cranberry Township, we were told that the Port Authority buses do not cross county lines. Therefore, the van pools were started and this seems to be working out for most of the people. I believe that once the people are at the Westinghouse offices, they tend to just stay within the building(s) until time to leave for the day. Some may go out to lunch or shopping in the warmer weather, but not many that I know of. I think the transit plan is a good idea for those who live in this area, since it's so congested on the roads now.
- I would use a bus when my vehicle breaks down, but it happens frequently enough that I might have a need to use the bus at those times.
- I think it's a good idea to institute public transportation in Cranberry Township. Since I only work here, however, I likely would not use it. I do use a commuter vanpool (CommuteInfo) to get to and from Cranberry Township (Irwin to Cranberry daily).
- I think it's a great idea -- not sure if I would be able to make use of it due to times I would be in town, as I live in Cranberry Township, but work in Harmarville.
- Should be considered if it's for in and around Cranberry Township only and not any future plans to expand. i.e., bringing/taking people from Cranberry Township to Ross to North Shore etc... Brings in bad demographics.
- I've been van pooling to Oakland and the University of Pittsburgh since 1989 when 279 opened. Saves gas, nice people, and a more relaxing time than driving. As people age, we don't always want to drive everywhere, while I love Cranberry Township, it is not the easiest place to get around without a car. Having grown up in Squirrel Hill I was surprised when I moved out here that there wasn't any transportation inside Cranberry Township or nearby communities.
- It would be nice for teens, which don't drive, to be able to go to work, movies, library, or park on their own. I would like it on days when I don't have access to a car, to not be stuck at home. It's too far to walk anywhere, and biking is not practical with large hills and no safe route even without hills.
- With the area growing, a need is here for public transit. It would enable employers to capture more people wanting to work in Cranberry Township.
- I'm the Lead Concierge for the Marriott in Cranberry Township. We definitely need more transportation in this growing area of residential and industry. To request a cab in Cranberry Township when there are very few available and the expense for the guests to go a few miles is quite expensive. Cranberry Township needs more outlets for transportation.
- I myself would not be interested in mass transit, but notice the many workers who walk on Route 19 to and from their jobs that could use it to alleviate their walking to work within our community.
- I take a CommuteInfo van pool to Cranberry Township and therefore, I can't go shopping or go to many restaurants during the day. If there was a bus service I could do that.
- I would probably use public transit around Cranberry Township.
- The bus could be useful for me for adult nights out, but that is still a maybe as I'm not sure the route the bus would be on and if it could be helpful. Nice idea, but not quite sure of its usefulness.
- Public transit needed to give blood donations. I walk home daily after work, and the whole Westinghouse group where I work knows this. I could potentially lose my job because of the lack of public transport:

Winter of 2014 and winter 2015, I have walked back home from work in -20 to -5 centigrade temperature. I learned how to fight the freezing cold. Tested during walk and selected after the test, winter shoes, jacket, underwear, socks, Samsung smart phone, and Galaxy S5. However, because due to late arrival, I am recently in danger of being fired. Removal of Thornhill Bridge connecting to Route 19 lengthened my long walk home. But my spirit is not broken.

CRANBERRY TOWNSHIP SERVICE IDEAS

- Provide shuttle to Wal-Mart and YMCA.
- A route from the hotels to office parks may have potential based on comments regarding the challenges of taxis that I have heard.
- Handicap accessible!
- I am interested in public transportation options for teenagers to safely get from home to after-school jobs and extracurricular activities.
- Buses would have to run often in order for Westinghouse employees to utilize. At least in 15 minute intervals.
- I walk to Costco/Wal-Mart and the library from work at lunch and crossing the street even with a traffic light is a dangerous event.
- I don't know the names of the shopping plazas in the area, but since I ride in a vanpool to work it would be nice to get out at lunch time to go shopping or to a restaurant.
- Please include Danburry Farms in the transit route. We are 90% elderly residents who need good transportation.
- I think some type of shuttle to the schools (including Seneca Valley Main Campus) would be a great idea.
- Wheelchair accessibility would be required.
- Without some means of online hailing or tracking timing of next available service, it will be hard to make use of the service.
- Two good routes would be: 1) along Franklin Road, to Route 228 to north on Route 19 and back through Ehrman Farms to Franklin Road and maybe zigzag through north Boundary Road and Goehring Road 2) Along north on Powell Road, to Rochester Road to Hayne School Road and along Freedom Road to Route 19 north to Glen Eden Road to Powell Road and back to Freedom Road.
- Please make sure that the transportation would be, not only handicapped friendly, but able to bring service dogs on them as well. Maybe a ramp or a lift. Just suggesting.
- Locations I frequent in Cranberry Township include; Home Depot, Lowes, Best Buy plazas, and the post office. I travel to these locations at lunch and after work.
- Interested in safe public transit w/no need for a designated driver (restaurants, etc).
- Public transportation that serves Westinghouse Dr (Cranberry Woods) between 11:00 a.m. and 1:00 p.m. is needed, especially to enable individual/group lunches in any Cranberry Township restaurants or any need to go shopping.
- Run at least on the hour during normal business hours. Travel on Powell and Haine School Roads for pick-up. Seniors over 65 years (with pass) ride free. Initially offer service during business week.
- I would love to take the bus to/from work, but would need enough bus routes to have flexibility for working early/late, as needed, plus a convenient bus stop near my home to make this practical (that all seems pretty unlikely).
- If Cranberry Township offered local transit, then transferring from the Port Authority drop-off to get to

Cranberry Woods, etc. would be convenient.

GENERAL COMMENTS EXPRESSING NO OR LACK OF INTEREST IN PUBLIC TRANSIT AND/OR LOCAL CRANBERRY TOWNSHIP SHUTTLE BUS

- A Cranberry Township -centric bus system is a terrible idea. Yes, it would be a positive for traffic congestion (hardly) and pollution, but there is just no need. There is plenty of parking where I need to be and I don't need to wait for my car as I would a bus. I've always thought the Cranberry Township brain trust had good ideas and this is the first time I've read something like this and just shook my head.
- Forget the buses; I'd just like better sidewalks and the ability to cross Routes 19 and 228 safely.
- I believe a Bus Program in Cranberry Township is a waste of time and money. It would be used by very few people.
- I dislike this idea immensely. The taxis are more than enough.
- I am currently riding on Commuter Vanpool from Monroeville to Cranberry Township for work. If there is no bus service available for my daily commute to work, then I am not interested in any local bus transit.
- I do not support the idea of a transit system in Cranberry Township. Our roads are congested enough without adding additional traffic from buses. I don't feel we have a community that would need the use of a public transit, and in fact it would take some of the value away from our community as transit systems tend to aide in those that are less fortunate who normally would not use our community's facilities. I hope our local government rethinks the idea of this.
- Cranberry Township has many young folks. They do not ride buses. That is the way they grew up.
- I do not see the need for building an infrastructure in an area like Cranberry Township that does not have the same needs as that of a densely populated urban area. We do not have parking capacity or funding issues. Most people within the community would still use their personal means of transportation within this area - versus mass transit...in my opinion. ...not worth the added costs.
- I prefer vanpools rather than buses.
- Personally, I am opposed to Cranberry Township implementing a public transit line. No one that I know of here in town would use this as transportation. I also couldn't see it helping the traffic situation-if anything I would think it would make it worse with frequent bus stops.
- Study the impact of bringing in public transportation and the increase in crime, especially theft and disorderly conduct. Public transportation would only benefit low income residents of surrounding areas. Cranberry Township will become a less desirable community with public transportation.
- I feel that with public transportation comes crime. I am against it.
- I feel like public transportation could potentially cause traffic conditions in already congested areas.
- Would not ride a bus, but would ride a light rail.
- Waste of money! Most individuals have their own transportation. I find that the Port Authority of Allegheny County and New Castle Transit all have financial issues and this is not a burden we want or need. Anyone who wants/needs to get around has plenty of alternatives.
- Public transit is great in theory, but ends up draining resources. It is not sustainable.
- We do not need public transit. We moved here so we were not in the city.
- I would not like to pay additional taxes for any bus service in Cranberry Township.
- We do not need to pay more taxes! Cranberry Township is terrible at managing money! There are too many programs and regulations that drain the last dollar from tax payer's wallets. The last thing we need is more government programs, more government employees, and more government welfare! Please, cut the government programs and certainly nothing like a boondoggle transit program!

- While I like the idea of saving money and helping the environment, as a non-resident worker in Cranberry Township, I do not think that taking a bus would provide enough flexibility of schedule for me. From 15101, I drive to work in Cranberry Township to arrive 10:30 a.m. or 11:00 a.m. I occasionally run errands at lunch time or get take-out lunches. I leave in the evenings around 7:00 p.m. or 8:00 p.m., and most days do activities or shopping in Wexford on the way home, finally returning home around 10:00 p.m. or 10:30 p.m.
- I don't think Cranberry Township has the need for mass transit. Yes, we are a growing community, but I don't believe we are large enough to warrant a mass transit system.
- Public transit ruined Monroeville. Please don't bring that here. The trouble that comes with that service is not worth it. Living in Cranberry Township since 1982, I would definitely move out.
- The only time I would consider public transportation is for a night out where I would be drinking. But bus service would most likely end before I would be ready to head home!
- Sounds like another want-a-be-like-others government program (whether or not federal or state grants are involved) to provide local ride benefits to "low incomes". As one of the real "tax payers", I am sure the actual costs of operating a transit system including; vehicles, buses, vans, salaries, and benefits will be much greater than any income such a system could produce. I vote "no" and vote "no" to the politician who votes "yes".
- Keep buses out of Cranberry Township. This is one step closer to connecting our community to the public transport of Pittsburgh. Don't open our community to the crime rates and issues that Pittsburgh has.
- I just don't see the benefit in spending money on buses or other large motor vehicle fleets to transport people within Cranberry Township.
- I take a Commute Van from Irwin to Cranberry Township. I wouldn't have enough time to take public transportation to anywhere else while I am there.
- I need a bus into Cranberry not inter-Cranberry Township. The problem is I can't get there in the first place. I would like to see the buses coming from the outer residential areas into Cranberry Township, including Freedom Road into Beaver County and north on Route 19 outside of the Cranberry Township.
- Is this a gas powered bus to cause more pollution? Why don't you have transportation to take you to the strip or some other venue? Most people in Cranberry Township have at least one vehicle. I really don't understand the purpose. People over 65 or over have special needs use BART. Not a good use of tax payers hard earned money.
- Please, please do not bring public transportation to Cranberry Township. Look at Monroeville Mall and all of the problems they are having. Look at the McKnight Road corridor and the recent store hold-ups and shootings that are taking place there. If store owners say they can't get anyone to work there without public transportation, tell them to pay their employees more. They'll have more job applicants than they'll know what to do with. I'll gladly pay .25 cents more for my kid's happy meal every time, than try to fund public transportation through my taxes. Ask the Cranberry Township Police Department if they want this, that's whose voice should be heard. The parking lots at Cranberry Mall and Target on Route 228 are well-known meeting places where drugs are sold and police arrest sexual predators through sting operations. Now you want to put bus stops there with a pipeline straight into the city. When was the last time you rode on a Port Authority bus? I thought so. I moved out to Cranberry Township to get away from that. Do the right thing and keep it out!
- Honestly, with two little ones, I prefer to have my car to ensure I have anything I might need and be able to come and go, as needed.

- I wouldn't use a bus, but I would absolutely use bike lanes if they were available along Routes 19 and 228, or parallel roads to get to work at Cranberry Woods.
- Without better transit *into* Cranberry Township at the start of the work day, I'm stuck bringing a car to work anyway. With a car in the parking lot already, it's going to be hard to convince me to walk a mile to a bus stop, wait 20 minutes for a bus, take twice as long to reach my destination, and pay for the privilege.

COMMENTS ABOUT SERVICE OUTSIDE OF CRANBERRY TOWNSHIP

- Cranberry Township as a transportation hub to points outside is something I would consider. Partner with the City of Pittsburgh and Allegheny County to bring light rail, or more realistically, rapid bus transit, up the 279-79 corridor. You'd have a winner there.
- Better transportation to Pittsburgh. The current options are expensive.
- High speed rail will be beneficial between the City of Pittsburgh and Cranberry Township.
- For several months I caught the bus to work, all the way down at the Exit 5 Park and Ride. I wish they would restore the 13K line with additional service.
- I am currently in a van pool commuting from Monroeville to Cranberry Woods. I would use the bus from a Monroeville or Murrysville area Park and Ride lot if the pricing were not too much more than what I am currently paying for membership in the van pool. Van pool costs are about \$120 per month.
- I am part of a vanpool that commutes daily between Monroeville and Cranberry Township via the PA Turnpike, I-79 interchange and 228 off-ramp.
- Either Cranberry Township or Pittsburgh should make it possible to commute between the locations. We shouldn't have to rely on car pooling.
- Consider public transportation into downtown Pittsburgh, Ross Park Mall, Robinson Mall, and Butler.
- Commuter bus service to downtown Pittsburgh would be great if only the 279 HOV Lane could someday be extended past the inbound morning congestion. These lanes are underutilized, and this should be the northern region's top transit priority.
- Would attract more workers to living in this area and would save commute time and fuel from outlying areas.
- Bus from/to Monroeville. Many employees of Westinghouse still live out east in or near Monroeville. A Park and Ride would be a huge hit.
- I commute out of the city (Ross) to Cranberry Township and would love to carpool. Unfortunately, other than Westinghouse, folks don't seem to car pool. Even one day a week to save gas and pollution would be valuable. The streets in Cranberry Township are so congested that reducing a few cars would help. I used to live in Seven Fields and having even an east/west on 228/Freedom and north/south on 19 would be great. It would give children some freedom to get places. Of course, there need to be more sidewalks for safe ingress and egress from the bus stops and public education on pedestrian safety and rights.
- Mostly needed is bus transit to Pittsburgh.
- Park and Ride to downtown.
- Park and Ride to Pittsburgh or Butler is all that I see myself using this for. Possible for events to avoid traffic and to allow for adult beverages.
- This is a great idea. I already car pool, but it would be great to have additional transit to downtown Pittsburgh and to the Moon Township/Airport area.
- Would the buses go beyond Cranberry Township into Wexford or to McKnight Road? It would be nice to go to those shopping areas and possibly transfer to downtown Pittsburgh.
- I think bus service would work for a lot of people in Cranberry Township, but I'm talking about services to and from downtown Pittsburgh.

- Would love to see public transit that would go outside of Cranberry Township, such as down Pittsburgh for people that work down there but live here.
- We need transportation into the city that has several pickup/drop off time slots and that can be used when needed without having to buy tickets ahead of time!
- We need transportation from Butler to Cranberry Township to bring workers into our community to fill quality jobs.
- I use to take the 13K to Pittsburgh and miss that route.
- I would take public transportation from Cranberry Township to Pittsburgh.
- While it probably falls outside the scope of the plans currently being discussed, the most valuable transit for me would be something that travels from some central location in the City of Pittsburgh up into the major Cranberry Township business parks for people who commute between Cranberry Township and the City.
- When Westinghouse moved to Cranberry Township, many of us were located near the old facility (Monroeville and surrounding area). There are currently many car pool groups that travel from Park and Ride lots near the Monroeville and Irwin Turnpike interchanges. It would be nice to have public transit that aligned with our work schedules. Start times range from 6:00 a.m. – 9:00 a.m. and end times range from 3:30 p.m. to 6:30 p.m.
- We need a mass underground system linking Pittsburgh and Oakland to the northern communities to eliminate the heavy car traffic to and from the City.
- I would love to see a light rail system on I-79 (in the median) to connect Pittsburgh to Cranberry Township to Erie.
- Rides to Pittsburgh would be very helpful.
- I don't see a need for local transportation, but suburb to suburb to transportation could be useful for work commuting (Cranberry Township to Robinson, Cranberry Township to Monroeville, etc.)
- This is a commuter town. Most households have two plus cars. There is a lack of Park and Rides and absolutely no transportation to the City.
- The private bus line that currently runs isn't very desirable, because you can't park at Blade Runners if you don't have a monthly pass. I don't want to buy a monthly pass, as I don't go down town every day (just 3 days a week), so buying a monthly pass would be wasteful.
- Light rail / trains are needed for farther destinations like Pittsburgh and Butler.
- Since Westinghouse moved its headquarters from Monroeville to Cranberry Township, there are many car pools and van pools established. If a bus service was offered to ride back and forth between these two areas you would have a big response.
- If anything, commuter transportation (both into and out of Cranberry Township) is much needed, and this would cut down on traffic immensely. I could see the benefit of adding buses or trains (a light rail system would be fantastic like other cities) for commuters that are coming into Cranberry Township to work from other municipalities and also for residents of Cranberry Township who are traveling outside Cranberry Township to work (i.e. Downtown).
- I would also be interested in public transit from/to Pittsburgh or Monroeville. I have not found any Port Authority buses that travel this route.
- Living downtown and commuting to Cranberry Township would be greatly aided by public transportation. The area is booming and I would really like to see public transportation become part of Cranberry Township's plans.

- It was very obvious that many people used the public transportation from here in the north down to Pittsburgh when the Port Authority buses were running from the Park and Ride down to the city. Having a Park and Ride here somewhere in Cranberry Township that connected to downtown would be a huge blessing. It would save money for the riders and help the environment with less traffic and congestion. I would take advantage myself of the ride to and from Pittsburgh to avoid parking when I need to meet my husband or have other appointments down there. I may even take it just to shop a bit downtown. Parking down there is a nightmare. You asked and I've obliged. I hope something like that becomes available again.
- Interested in a Cranberry Express service to downtown.
- I would love to see Cranberry Township partner with the Butler Transit Authority in creating a route that connects the City of Butler with Cranberry Township. I feel as though this could strengthen Cranberry Township's shopping economy and could bolster it as a nightlife destination for Butler County.
- I'd consider riding the bus to work (in Oakland), if it didn't go through downtown and require transfer. (And if PAT actually made it to Cranberry Township.)
- My husband works downtown and I currently work from home. We would use the transit. He currently takes the bus into downtown from Warrendale. It would be nice if there was a bus stop on Parkwood/Persimmon that would take him to the bus in Warrendale.
- I would be interested in a bus service for the morning and evening commute to work. I live north of Route 80 and travel down Route 79 to get to Cranberry Township. I would be interested in a bus service from the Grove City Outlet Mall (or even farther north) to the Cranberry Township Woods Business Park. If such a service is set-up, there would need to be a day time parking location for my vehicle at Grove City.
- I would be interested in transportation from Cranberry Township to other destinations, i.e., Pittsburgh, Waterfront Mall, Outlets in Grove City, Wexford, and Butler.
- I would probably use public transit primarily to get to work in Pittsburgh. Having one Park and Ride that is full by 7:00 a.m. is not helpful. I know there are hundreds of us that would love to take the bus. Please, another Park and Ride!
- I would probably not use it often, but Port Authority going as far as Cranberry Township would be nice.
- I live in Penn Hills and work at Westinghouse in Cranberry Township. I am in a CommuteInfo vanpool which leaves Lowes in Monroeville to go to Westinghouse. There are about 12 of us on the van. I am very grateful for this van to get me to Cranberry Township and back home. This van is great for the environment and also saves me money. Since Cranberry Township is a distance from my home, I would never have a need to take a bus. However, if I didn't have a vanpool, I would certainly be interested in riding on a bus from Monroeville to Cranberry Township.
- I live outside of Cranberry Township and would only ride the bus if it was available in my area, Westmoreland County.
- I take a Lenzer bus from Blade Runners to Pittsburgh everyday. It stops running at 6:00 p.m. and the last bus is 8:00 a.m. to go to the City.
- I think it would be better to focus on commuting options to and from Pittsburgh, as opposed to within Cranberry Township. As of now, both fellow residents and workers I know in the area will always have a car in Cranberry Township, and with ample parking I think there's little incentive to take public transit within Cranberry Township. On the other hand, I think public transit - particularly a railway or buses that run throughout the day in both directions - would help continue growth in both residential and commercial spaces. For example, I am starting a local development team for my company (based in London). As a resident, I obviously prefer this to be in or near Cranberry Township, but much of the startup/development

talent I'm trying to attract live in/near Carnegie Mellon University and University of Pittsburgh in Oakland. If there were reliable public transportation for the many commuters in and out of Cranberry Township, I could reasonably set up the office here. As it stands, I will most likely have to find office space in Oakland, Downtown, or the Strip to be able to attract this talent.

- I'd like to see a push to get more commute-time busing in and out of Cranberry Township. I need more Park and Ride options within 30 minutes of Cranberry Township, so that I can take a short jaunt from my house to a Park and Ride and take a bus the rest of the way. The price and convenience must be a compelling trade-off for the simplicity lost when I use a Park and Ride rather than just driving to work.

MISCELLANEOUS

- I currently take a 15 passenger van pool vehicle between work and home.
- I'm in a vanpool.
- I vanpool from Irwin to and from work.
- Cranberry Township has everything anyone could ever need all within a small area. I don't think it could be any better.
- I used to live in Cranberry Township and work in Oakland. I would have exploited potential solutions in this space.
- Improve the timing of the lights to improve flow of traffic especially at Routes 228 and 19.
- Survey needs improved to really be useful.
- Not sure how often I'd ride. It would depend on availability, schedule, and price.
- You might consider asking Westinghouse for permission to come and do a presentation to employees on public transportation. There are many people who commute (either carpool or vanpool) to Cranberry Township on a daily basis from the East.
- I think a subway would be better than a bus (joking of course).
- You seem to have gotten Route 228 fixed between Route 19 and Franklin Road but that is about it. The rest is a horrible mess to have to drive through. This area is being overwhelmed with businesses and homes and the roads are not designed to handle it.
- We need a smaller government. This would need to be completely self funded i.e., no tax dollars.
- If a bus service is not feasible, I think we need to increase the number of taxis.
- My commute is too short for public transportation to be feasible.
- There are still many improvements to be made, but in the 15 years we've lived in Cranberry Township, there has been huge improvement in roads and traffic flow. I'm looking forward to when Freedom Road (all the way back to the Beaver county line) is fully updated.
- There needs to be a better access road from 279 for Westinghouse traffic. The Route 228 exit ramp backs up on 279 and it very dangerous. Also, the exit ramp from the PA Turnpike and combined on ramp to Route 228 are too close. Dangerous to merge especially around 8:00 a.m.
- The light on Freedom Road turning into the Sheetz should be green when the traffic is flowing East bound and not an arrow. Many times it is more convenient to go up to the next light (where Sheetz use to be) and turn left into there and then turn left and go into the Sheetz the back way.
- Most people do not know the names of the developments. It would be better to use some of the stores/businesses to describe those locations.
- The 228/I-79 intersection is a vehicle pile-up waiting to happen. Too many lanes with drivers having to cross over to reach intended destination.

- My recommended transportation feedback is to increase sidewalks and connectivity for both the fitness and safety of residents. Major neighborhoods should be connected.
- Personally, I don't think I would need to use a bus on a regular basis; however, when I moved to Cranberry Township, it would have been nice to know about the Cranberry Township taxi as I was without a vehicle several different times when my husband or I were having work done on our vehicles, and didn't know anybody in the area.
- Ride a vanpool from Harrison City to Westinghouse in Cranberry Township.
- I live in Cranberry Township, but work in the city. Will there be an option for transit to the City or is it strictly for travel within the Cranberry Township?
- I would also love to see more sidewalks as a means of public transportation. The roads are so busy that if there aren't sidewalks, it is completely unsafe to walk. I live very close to Costco/Wal-Mart and I would love to walk, but I can't because there are no sidewalks on my street, Route 228 or Rochester. I see people trying to walk on Route 228 all the time and I feel so bad for them. It is dangerous! I also live very close to Graham Park, but I have to take my car because there are no sidewalks and the roads just have so much traffic.
Please add sidewalks!
- My first wish for Cranberry Township traffic improvements would be for you to widen Freedom Road West of Cranberry—down at least as far as Lovi Road. It's an insanely heavy traffic corridor that is long, long overdue for expansion. My second wish would be for dedicated biking lanes and subsidies and incentives for individual companies to add bike racks to their facilities.