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Glossary of Study Terms

FTA - Federal Transit Administration PennDOT - Pennsylvania Department of Transportation SPC - Southwestern Pennsylvania Commission BCTA - Beaver County Transit Authority BTCJMTA - Butler Township-City Joint Municipal Transit Authority NCATA - New Castle Area Transit Authority PAAC - Port Authority of Allegheny County

1.0 Executive Summary Cranberry Area





1.0 Executive Summary

1.1 Vision Elements

"How can an investment in public transit support and enable the Cranberry area communities to successfully achieve its future vision?"

This fundamental question provides the focus of the study undertaken in this assignment. For many years now, the Cranberry area has been attempting to deal with growth that has been promoted by key regional highway development. The community has seen an investment in a strategy that is neither balanced, integrated, nor diversified, but rather a highly auto-oriented system that serves the Township, providing easy connections to other regional locations, but offering residents and other system users a largely undeveloped system of secondary and local roads. This picture is one that both local leaders and their public have indicated should be changed and reoriented toward more balance and connectivity, with those changes being enabled via effective land use strategies, development incentives, rational parking supplies, and high quality public transit.

A comprehensive three-pronged investment strategy will enable the Cranberry area to move concretely in the direction of its vision by:

- Advancing a focused effort to redirect growth to more mixed use, pedestrian-oriented and higher density patterns thereby allowing Cranberry and the surrounding municipalities to become less reliant on regional roads to accommodate local travel needs,
- Developing a connective street system that would be able to handle much more of the local traffic and be consistent with establishing a system of public transport to ease the need to "just get around town," and
- Implementing a high-quality commuter and local transit system that would complete the full plan.

Without question, the tie between transit and a willingness to aggressively manage future growth is inextricable. Transit and effective growth management



are synergistic in nature, and should be central to the future of the Cranberry area. This study provides specific guidance for the high quality commuter and local transit system appropriate to the market in the Cranberry area.

1.2 Purpose and Need

This study has been led and supported financially by the Board of Supervisors of Cranberry Township. Through their leadership and engagement of neighboring communities, this study addresses transit and transportation in the context of a broad community vision. Implementation of the study recommendation will continue to require strong leadership on the part of Cranberry Township officials, as well as state and federal assistance.

This study has identified both current and future transit needs internal to the defined study area as well as needed connectivity to regional and service area markets. The process of needs identification has been conducted in numerous ways including the following:

- Clarifying and confirming the future vision of this economic sub-region with both elected officials and the many faces of public interest.
- Reviewing prior studies and experience with transit.
- Identifying future growth patterns, socio-economic trends and travel and congestion trends.
- Conducting a thorough public outreach process through all phases of the study to develop and validate the plan.
- Revising current barriers to effective balanced mobility.

The study area for the Cranberry Area Transit Study is shown in Exhibit 2-1 (Page 2-4). It includes municipalities in the southwest corner of Butler County and in the northwest portion of Allegheny County; Beaver County borders the study area to the west. The Butler County municipalities included are the boroughs of Callery, Evans City, Harmony, Mars, Seven Fields, Valencia, and Zelienople, as well as the townships of Adams, Cranberry, Forward, Jackson, and Middlesex. The study area also includes the townships of Marshall and Pine, located in Allegheny County.



The following are the 5 key transportation needs for the study area travel markets:

- 1. The existing transit service, as well as related facility and supporting infrastructure is very limited and does not support the communities' vision for transportation and community development.
- 2. A transit system in the study area is needed to support non-auto work, shopping and social, recreational, and personal trips. It should service local circulation of travelers as well as regional trips.
- 3. Transit service is not available to provide non-auto modal choice in major corridors and between activity centers within Cranberry Township, the study area and the region. These corridors and activity centers have been identified.
- 4. The existing transit service in the study area provides low frequency service, insufficient parking, and service at park-n-ride facilities, and minimal pedestrian linkages and facilities. Specific service needs and support structures have been identified and include high frequency and more reliable service, more park-n-ride service, an appropriate mix of vehicles, development of multimodal centers, and links to pedestrian facilities.
- 5. Transit system improvements need to be designed and phased to be financially viable based on ridership projections and a realistic assessment of other possible revenue sources.

1.2.1 Transit Technologies and the Cranberry Area Markets

The Baker team worked with the community and key market segments via the public involvement process to enable an understanding of the variety of transit technologies available and the service and cost characteristics of each as they would apply to this sub-regional marketplace and the identified needs. Three types of markets were carefully identified, including the following:

• <u>Local</u> circulator services that allow easier access to local jobs and retail centers.



- Inter-regional (<u>study area</u>) 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.

Selecting and developing a consensus of a transit service technology for a given market involves finding the right balance of speed and access. For example, there is an inverse relationship between trip speed and the number of stops or stations. To accommodate the above cited needs in the area, the optimum mix of modes includes express commuter services with limited stations (and adequate parking), local small bus fixed routes connecting nearby communities to other services at a central "hub", and frequent local circulator services to "get around town".



1.3 Public Involvement and Outreach

Over 800 people were reached through the study process in a variety of ways. Our outreach was proactive and included attending and participating in regularly scheduled meetings of different community groups and organizations including: municipalities; churches; educational institutions; major employers and business groups; homeowners' associations; senior citizens; and, transit agencies.

Key findings from the public involvement activities included the following:

- 1. Service destinations identified within the study area were widely dispersed
- 2. Commuters within Cranberry identified Downtown Pittsburgh as their destination more often than any other. However, commuters outside of Cranberry most often identified Cranberry itself as their destination.
- 3. Employers identified "lack of transit" as an impediment to recruitment, particularly for low to moderate wage scale employees.
- 4. Funding sources for transit were a major concern.
- 5. Lack of transit service and insufficient parking at park-n-rides were frequently expressed concerns.

1.4 Alternatives Analysis and Screening

The project Steering & Stakeholders Committee worked hand in hand with the consulting team through the process of evaluation of transit technologies. Through the 2-stage evaluation and screening process, several key conclusions were reached as follows:

- Based on both estimates of ridership and known cost, the applicability of light rail does not justify further consideration.
- A high-quality bus "system" that addresses existing commuter service deficiencies, connects to other sub-regional population centers, and provides local circulator services would be appropriate to serve the market demands.



• Future service extensions that penetrate neighborhoods and key employment centers are appropriate to this market.

The full analysis identified many current *physical system deficiencies* to be addressed in the development of the recommended system, including the following:

- A critical deficiency in parking capacity to serve an expanded commuter system.
- The lack of a central transit "hub" that would allow effective local distribution throughout the local service area.
- Other capital program needs including fleet and a local location for lightduty maintenance of the fleet.
- A system design that facilitates "ease of use" with coordination of stop / station siting and parking to facilitate modal transfers.

Future Program - The Recommended System

The Future Program Alternative meets most of the identified needs in the community at a reasonable cost and has been reviewed by all study members. The Future Program service concepts have been categorized as local, study area and regional and correspond to Exhibits 1-1a through 1-1c. Throughout this report, all exhibits are referenced as local (a), study area (b), and regional (c). Exhibit 1-2 illustrates these concepts in map form.

Route Alternative (Local)	Major Needs Served	Notes	
L6 - Zelienople Loop	Seneca Park-n-Ride, Mercer Street, Spring	Added at the request of	
	Street, PA Route 68, US Route 19, PA	the Steering &	
	Route 528, PA Route 528 Park-n-Ride	Stakeholders Committee.	
L7 - East West	Cranberry Transit Center (proposed),		
	Rochester Road, US Route 19, PA Route		
	228, Seven Fields, Adams Ridge		
L8 - North South	Cranberry Transit Center (proposed),		
	Rochester Road, Powell Road, Freedom		
	Road, Commonwealth Drive		

Exhibit 1-1a:	Future Program l	ocal	Service	Concents
	Tuture rrogram	Lucui	JEI VILE	concepts



Exhibit 1-1b: Future Program Study Area Service Concepts

Route Alternative (Study Area)	Major Needs Served	Notes
S1 - Zelienople / Harmony	Cranberry Transit Center (proposed), US Route 19, PA Route 68	
53 - Mars / Evans City	Cranberry Transit Center (proposed), US Route 19, PA Route 68, Mars-Evans City Road	

Exhibit 1-1c: Future Program Regional Service Concepts

Route Alternative (Regional)	Major Needs Served	Notes
R1 - Pittsburgh Express	Cranberry Transit Center (proposed), US Route 19, Warrendale Park-n-Ride, I-79, I-279	Routes R1, R1A, and R3 are coordinated between Pittsburgh and Cranberry, forming a comprehensive express service in the corridor.
R1A - Seven Fields Express	Seven Fields Park-n-Ride (proposed), PA Route 228, US Route 19, Warrendale Park-n- Ride, I-79, I-279	Routes R1, R1A, and R3 are coordinated between Pittsburgh and Cranberry, forming a comprehensive express service in the corridor.
R3 - Zelienople Express	Cranberry Transit Center (proposed), US Route 19, Warrendale Park-n-Ride, I-79, I-279	Routes R1, R1A, and R3 are coordinated between Pittsburgh and Cranberry, forming a comprehensive express service in the corridor.
R4 - Butler Express	Cranberry Transit Center (proposed), PA Route 68, PA Route 528, US Route 19, Warrendale Park-n-Ride, I-79, I-279	This route supplements R3 at the PA Route 528 Park-n-Ride and then runs express to Pittsburgh.
R5 - North Hills (PAAC)	Cranberry Transit Center (proposed), US Route 19	This service is currently provided by PAAC Route 12A during off-peak hours only.
R6 - Rochester	Cranberry Transit Center (proposed), US Route19, Freedom Road, Powell, Darlington Road, Rochester Road	

Exhibit 1-2: Future Program Service Concepts







1.5 Implementation Plan

The key recommendation of this study, then, is to proceed with a two-year demonstration program that begins to establish service viability. Larger capital investments can be deferred until this initial viability is validated. The longer-term improvements that make up the full \$26.5 million system can be done incrementally and as growth and legislative authority allow. It should be noted that it is most likely that currently proposed state legislation will <u>not</u> address the expansion needs of this proposal. Therefore, a "legislative fix" to allow for expansions will need to be sought during the course of the demonstration.

1.5.1 Funding Requirements and Implementation Issues

The primary recommendation from this study is to enter into a partnership with the Commonwealth of Pennsylvania for a demonstration program that will enable a validation of the study's ridership and cost estimates prior to advancing the capital facilities program. A summary of the implementation issues is presented below.

Demonstration Program

A plan for a demonstration service that could be implemented in the short term (12 to 18 months) was also created which includes local circulator and expanded commuter services and coordinated through the establishment of a temporary "hub" to assure connectivity. A connecting service to the City of Butler is noted as optional and subject to local decision.

A financial analysis for the demonstration program is shown below both with and without the Butler service, and for a baseline case and a more optimistic case. The key assumptions for the baseline case are consistent with local experience of other suburban operators in this market for unit costs and leases. The more optimistic case assumes that unit costs for services and facilities can be secured at a 15% discount to the baseline case. These budget estimates provide a starting point for local officials to make a determination to proceed. Local funds that would need to be provided to advance the demonstration program are in the range of \$65,000 to \$146,000. State law allows discretion in regard to



local funding support and sources. Subsequent to the issuance of this report, discussions will be initiated by local officials to fine-tune the details of making the demonstration program happen. It is likely that a start-up cannot be expected until spring of 2006.

	Baseline Case			Optimistic Case			
Option	Cubaidu	State	Local	Subaidu	State	Local	
	Subsidy	Match	Match	Subsidy	Match	Match	
With Butler Service	\$972	\$826	\$146	\$620	\$527	\$93	
Without Butler Service	\$783	\$666	\$117	\$435	\$370	\$65	

Exhibit 1-3:	Demonstration Program	Summary
	(all data in \$000)	

Note: All cost sharing is assumed at 80/20 share state/local.

Long-Range Capital Investment and Service Plan

If the demonstration program meets the expectations of all parties, plans can be advanced to make the system permanent by making appropriate capital investments, as authorized by the Commonwealth. Facilities and/or assets to be acquired are itemized in the table below.

Exhibit 1-4 below itemizes the required capital investment for the Long-Range Program.

Capital Asset Description	Number	Unit Cost (\$000)	Total Cost (\$000)
Transit Center (hub)	1	\$4,000	\$4,000
Light-duty maintenance center	1	\$10,000	\$10,000
Park-and-ride/van pool lot	1	\$6,000	\$6,000
BRT Stations	6	\$150	\$900
Fleet Expansion			
Commuter Coaches	8	\$350	\$2,800
Mini Buses	6	\$150	\$900
Spare Parts Inventory	1	\$140	\$140
ITS Systems	1	\$1,260	\$1,260
Amenities Program	1	\$500	\$500
Total Cost			\$26,500
Federal - 80%			\$21,200
State - 16-2/3%			\$4,386
Local - 3-1/3%			\$914

Exhibit 1-4: Future Program Capital Investment Plan

2.0 Purpose and Need





2.0 Purpose and Need

2.1 Background and Purpose of Study

Cranberry Township is located in the southwest corner of Butler County, Pennsylvania. In the last 10 - 15 years, this part of the Pittsburgh region has experienced locally significant growth rates. The automobile has driven growth in the study area with transit playing a negligible role. Butler Township-City Joint Municipal Transit Authority (BTCJMTA), Port Authority of Allegheny County (PAAC), New Castle Area Transit Authority (NCATA) and their related paratransit operators have provided minimal transit service. The Beaver County Transit Authority (BCTA) had previously provided a modest subscription service to two local employers as well. Local officials from Cranberry Township and Butler County have determined that the future growth of the local sub-region should be managed to an improved <u>level of quality</u> with a more balanced investment program in transportation infrastructure. This study will examine the optimum role for the public transit portion of the study area's multimodal future.

The purpose of this study is to determine transit alternatives that are suitable in helping the Cranberry area and its residents (and job seekers) improve mobility to be more multimodal, provide access to meaningful employment, and just make it easier to "get around town." The following needs have been identified through the course of this study:

- Mobility throughout the study area may continue to decline if a single mode (auto) strategy is maintained. With the continued rate of growth anticipated in key corridors, peak period travel delays will continue to increase. Higher density and mixed-use development through effective land management techniques are also needed simultaneously.
- Existing travel system design does not adequately provide for integration of multimodal use in the study area such as transit and bike and pedestrian uses.



 No sense of "place" or town center currently exists in the community; no "main street" can be identified, particularly one that is easily accessible and walkable.

In terms of the metropolitan area, historically, the Cranberry Township area has been designated by the U.S. Census as a rural area and the local transit systems have been treated as part of the Commonwealth's rural transit program for funding purposes. However, with the last census, Cranberry Township and the surrounding municipalities have become part of the region's designated urbanized area, which opens opportunities for federal transit funding. Collateral with this designation change has been the recent decision of the Butler County (BTCJMTA) Board of Commissioners to re-designate the jurisdiction of its transit system from one serving only the City of Butler to one with countywide authority.

Congestion on US Route 19, PA Route 228, and I-79 means the loss of efficient access to the substantial employment opportunities in the township. This same congestion inhibits movement in the study area to other destinations in Butler, Allegheny, and Beaver Counties. Both study area residents and travelers destined for the study area need multimodal options. In the future, auto access will continue to be the most important mode. However, other transit options are needed to complement future growth plans.

This study provides the township, the county, and the region with the foundation to develop a comprehensive transit plan for the Cranberry area. This plan has:

- Defined common interests across the various communities and public interests in the study area identifying the project need from the public involvement process (Chapter 3),
- Translated those expressed needs into a vision and plan strategy and develop responsive transit alternatives that address the project need. These alternatives may include service options such as routes or circulators, facilities such as park-n-rides or transit centers, vehicle options, or other concepts that may arise from the public input process or the project team's technical assessments, and



• Grounded that vision in the context of an implementation plan and developing and evaluating a plan for the successful implementation of the transit alternative. The Cranberry Area Transit Study will assess regulatory issues, opportunities for collaboration with other regional transit providers, capital and operating costs, project planning and development scenarios, financial options, and operating concepts.

This section provides the results of the Needs Assessment for this study. It discusses transit needs for the study area, which were identified from public input gathered from an extensive public outreach effort. This assessment also includes some analyses of current and future conditions for the study area.

2.2 Description of Study Area

The study area for the Cranberry Area Transit Study is shown in Exhibit 2-1. It includes municipalities in the southwest corner of Butler County and in the northwest portion of Allegheny County; Beaver County borders the study area to the west. The Butler County municipalities included are the boroughs of Callery, Evans City, Harmony, Mars, Seven Fields, Valencia, and Zelienople, as well as the townships of Adams, Cranberry, Forward, Jackson, and Middlesex. The study area also includes the townships of Marshall and Pine, located in Allegheny County.

The determination of the study area boundaries was developed through consensus among members of the study team, local municipal officials, key stakeholders, and members of the study Steering & Stakeholders Committee. The study team recognized that there are surrounding communities/areas that have travel demands in and out of the study area. These demands were considered throughout this study.

The study area is located approximately 20 miles from downtown Pittsburgh. It encompasses an area of approximately 150 square miles. Much of the commercial development is in the southern portion of the study area,







concentrated adjacent to the I-79, I-279, and US Route 19 corridors. An interchange with the Pennsylvania Turnpike exists in Cranberry Township. Residential development is located throughout the study area: traditional neighborhoods typically exist in the established boroughs and individual residences are generally scattered throughout the townships in Butler County, with the exception of Cranberry and Adams Townships, where significant housing developments have recently occurred. Strong growth in residential neighborhoods also exists in both Pine and Marshall Townships in Allegheny County.

2.3 Review of Previous Studies

The following reports and studies were reviewed to gain insight into the study area's planning process, transit goals, and needs, and to review for consistency among the planning efforts. Each report or study discussed below provides a summary of the transit-related goals, strategies, or recommendations contained in the document.

Southwestern Pennsylvania Commission (SPC) Long Range Plan

The goals and objectives of the Cranberry Area Transit Study are consistent with the Southwestern Pennsylvania Commission's (SPC) vision for southwestern Pennsylvania to be recognized locally, nationally, and internationally as one of the best regions in the United States in which to live, work, play, and invest.

The goals related to this vision that are consistent with the goals of the Cranberry Area Transit Study are listed below.

- Quality of Life and Economic Development
 - Land use and community development throughout the region will be well planned to protect our natural amenities and to strengthen communities, offering a variety of living environments, good public services, a well-balanced economy, and family-sustaining jobs, accessible from comfortable, affordable homes.
 - The region's quality of life will be a competitive advantage in economic growth.



- Transportation and Mobility
 - The safety, security, services, diversity, and capacity of the region's transportation system will be strategically maintained and improved
 - A balanced, integrated, multimodal transportation system, linking important regional activity centers and major development areas
 - Businesses access to markets
 - Workers access to jobs
 - Residents access to services
 - Residents and visitors access to tourist attractions

The goals and objectives of the Cranberry Area Transit Study are also consistent with the SPC Long Range Plan on Public Transportation. Many factors are forcing transit agencies to reconsider how they can best serve their constituencies, including the geographical expansion of the population, changing work schedules, and the increased prevalence of "reverse commutes" to suburban job opportunities, and available financial resources.

Regional Strategic Transit Visioning Study - Cranberry Charrette (2001)

Participants in a community design charrette held in 2001 concluded that the Cranberry area is not transit-friendly, pedestrian-friendly, or bicycle-friendly. These participants concluded that all trips require an automobile and generally required driving over long distances on expansive and <u>expensive</u> roads. Through a series of public meetings and focus groups, a list of good and bad things about Cranberry was generated. Visions and ideas for the township were developed from these discussions. The following design principles were established:

- Create a downtown for Cranberry, which is mixed use and pedestrian friendly.
- Create a multimodal transportation center to accommodate public transportation vehicles, stations, stops, park-n-ride and kiss-n-ride facilities, bicycles, pedestrians, and related retail and services.
- Connect the houses and jobs in Cranberry to the downtown and to the multimodal transportation center by circulator buses and bike trails.



• Enable mobility of the existing commercial areas of Cranberry, by reordering land uses and making them more pedestrian and public transportation friendly.

Regional Parking User Surveys (2004)

In this study, the users of 88 parking facilities (paid parking facilities and parkn-ride lots) across the metropolitan area were surveyed to gather data on the characteristics of these users. Several of the surveyed facilities were located within the study area. Details of the results from these surveyed facilities are discussed in Section 2.5 of this report.

Job Access in the Cranberry Area (Three Rivers Workforce Investment Board - 2004)

This study was designed to determine what impact job access has on employers and transit-dependent workers in the Cranberry area. In addition, the study is intended to identify barriers that impede employer-employee matches and to produce information that could be used to strategically overcome job-access barriers. Job opportunities in the Cranberry area have grown in recent years and the area continues to attract economic development. Considerations about workforce availability and jobs access do not seem to play a primary role in employer location decisions.

Surveys of employers, employees, and job seekers revealed that inadequate public transit is perceived as a barrier to accessing jobs in the Cranberry area, as noted below:

- 27% of the employers interviewed for this study cited transportation barriers as a factor affecting their ability to attract and recruit qualified employees.
- 375 Cranberry area workers were surveyed under the Job Access Reverse Commute (JARC) project; 42% of these employees cited a lack of adequate public transit in the Cranberry area as a problem.
- 210 CareerLink job seekers were also surveyed under the JARC project. Of the 79 respondents who relied on public transit, 54 (68%) indicated that they would commute 30-60 minutes for work. However, only 7 (9%)



said that they would go to Cranberry for work. This suggests that the Cranberry area is perceived as too distant or inaccessible by transitdependent job seekers.

• One major employer had relocated its business site from downtown Pittsburgh to the Cranberry area, opting for a suburban site. When the move had been completed, the employer noted that it had had to replace 60% of its work force, primarily due to worker inability to travel to the Cranberry area.

Transit lines have been in place since the year 2000 to provide access to Cranberry area jobs for City of Pittsburgh residents. These lines do not reach a large portion of the Cranberry area's businesses and the schedules do not accommodate non-traditional work hours. However, 70% of the employers interviewed for this study had positions for which employees were required to work "non-traditional" hours. Twenty-seven percent (27%) of employers interviewed provide some type of employee transit benefit. Twenty-two percent (22%) cited flexible hours as an employee transportation benefit, while only 6% offered some type of subsidy for transportation expenses.

County of Butler Comprehensive Plan (2002)

Within the Butler County Comprehensive Plan, Cranberry is singled out due to the amount of development occurring and Cranberry's relationship to Beaver and Allegheny Counties. According to the Goals and Objectives, Cranberry should be encouraged in the transition from a suburban bedroom community to a fullservice information-age city. Surrounding areas will likely become suburbs to this new urban entity.

Butler County Transit Study (SPC - 1994)

Key findings from this 1994 study included the following:

- Develop a multimodal county transportation system that will provide the public with an optimum level of service and convenience.
- Maintain existing and develop new transportation services, which will be responsive to the special needs of persons having transportation problems.



- Identify transportation services which, if implemented, would improve access to job markets in western Pennsylvania for Butler County residents.
- Identify expanded or new transportation services, which would attract additional markets and result in reduced traffic congestion and improved air quality.

Demonstration Project (1996-1998)

One of the implemented recommendations of the Butler County Transit Study was the Butler County Flexible Route Service Demonstration Project, which was started in 1996. This service was designed to provide some transit opportunities to the greatest number of locations to which people would want to travel in the Butler-Cranberry corridor.

Beaver County Transit Authority Transit Development Plan (1999)

In Beaver County, destinations that the greatest percentage of survey respondents would like to access by bus included the Pittsburgh International Airport and Cranberry Township. Each was mentioned by 25% to 33% of those surveyed. The surveyed riders estimated they would take an average of about 6 round trips a month to each of these locations if the locations were easily accessible by bus. As a result of this study, BCTA subsequently initiated a subscription service to several employment sites in the western part of the study service area.

PA Route 228 Improvement Project - Needs Study (2001)

The purpose of this project was to provide a safe and efficient means of transporting people, goods, and services in an east-west direction in the PA Route 228 study area, which included the PA Route 228 Corridor of Cranberry, Adams and Middlesex Townships in Butler County. The Needs Study focused on traffic issues associated with current and projected growth in the study area and the adequacy of the existing network to respond to travel demand under design 2025 conditions. Several deficiencies were found and identified.



Cranberry Township Community Development Plan (1995)

A major weakness in Cranberry is an unbalanced and incomplete transportation system. The area is designed for vehicular traffic, not pedestrians, and, as such, does not support transit use. Sidewalks or walking paths seldom exist between developments or between residential and non-residential areas. This is very noticeable along US Route 19. Having very little public transportation compounds the problem. Several recommendations were made in this plan, including:

- Provide better transportation and circulation within the township.
- Ensure that the township has a public transportation system. Public transportation will help alleviate traffic congestion and ensure adequate circulation throughout the community for all residents.

The Action Plan consisted of identifying funding sources for a public transportation system, feasibility studies, and local transportation.

Other Transportation Projects in Area

- Zelienople Traffic Study
- Crows Run Corridor
- Rosebaugh Bridge (Adams Township)
- Peffer Bridge (Jackson Township)
- Warrendale/Bayne Road & I-79 Improvements
- Seneca Valley Interchange (I-79)
- Glade Run Bridge (Middlesex Township)
- Historic Harmony Trail

2.4 Public Outreach Effort

As part of the Cranberry Area Transit Study, a public outreach program was developed to promote public ownership in the study and provide the Study Partners with confidence that the study outcomes reflect community values and sense of needs. The primary objective of the program has been to facilitate the efficient implementation of decisions by identifying community needs and



desires for transit options, gaining public feedback on preliminary and refined alternatives, and building consensus on the study outcomes. Included in the public outreach program are the following outreach activities:

- Community Outreach Meetings
- Steering & Stakeholders Committee Meetings
- Public Open House Meetings
- A Recent Park-n-Ride Facility Questionnaire

A detailed account of the public involvement program is cited in Chapter 3 of this report.

2.5 Existing Transportation System

The transportation system within the study area consists of several components (modes). These include transit facilities and routes, a detailed roadway network, and some pedestrian/ bicycle provisions. These components are detailed in the following paragraphs.

Existing Transit Facilities and Routes

The study area currently has limited transit facilities and routes. Exhibit 2-2 depicts the transit facilities and routes that exist within the study area. These consist of park-n-ride lots and bus routes.

There are six park-n-ride lots within the study area with a total capacity of 500 spaces. These lots are located along the I-79 / US Route 19 corridor at the following locations:

- Blade Runners (124 spaces)
- Warrendale (106 spaces)
- US Route 19 and PA Route 228 (80 spaces)
- Cranberry Community Park (40 spaces)
- I-79 at PA Route 528 (75 spaces)
- Cranberry at RIDC Business Park (75 spaces)





Exhibit 2-2: Transit Routes and Park-n-Ride Facilities



The Blade Runners and Warrendale Park-n-Ride lots are served by PAAC routes and are typically filled to capacity by 6:30 AM. There is no transit service at the other three park-n-ride lots in the study area; they provide carpool / vanpool opportunities. The I-79 at PA Route 528 lot is typically filled to capacity; however, observations of the two Cranberry Township park-n-ride lots revealed that these lots are only partially filled (25-50%) at 10 AM.

In addition to the park-n-ride lots listed above, carpool activity has historically occurred at a site on Freedom Road, at its intersection with Haine School Road. This site was abandoned in 2004. Commercial development of this site has been proposed which would include an area to support continued park-n-ride activity.

Limited transit service is provided in parts of the project study area by the following agencies:

- Port Authority of Allegheny County (PAAC)
- Butler Township-City Joint Municipal Transit Authority (BTCJMTA)
- New Castle Area Transit Authority (NCATA)

The PAAC has two routes, which provide minimal service to the study area.

- 12A North Hills Shopper makes 8 trips to Cranberry throughout the 12hour time period from 10 AM to 10 PM. This route makes several stops in the northern sections of Allegheny County and ends in downtown Pittsburgh. The trip from Cranberry to downtown Pittsburgh takes approximately 70 minutes, depending on the number of stops.
- 13 K Cranberry Express route makes 5 trips in the morning peak from Downtown Pittsburgh to Cranberry and then back to Downtown Pittsburgh. In the early evening, this route makes 3 trips. This trip takes approximately 50 minutes.

BTCJMTA has no routes traveling to the Cranberry area. There are 5 circulator routes serving living centers, medical facilities, shopping centers, and various other Butler area destinations. Myers Coach provides daily weekday service



from Grove City to Downtown Pittsburgh (via PA Route 8 with a stop in the study area at Cooperstown) and its buses stop at the Butler terminal 6 times a day.

NCATA provides service during the morning and evening peak periods between the I-79 at PA Route 528 park-n-ride lot at the Evans City interchange and downtown Pittsburgh. This trip is approximately 23 minutes.

In February of 2001, BCTA initiated a service from Rochester to Cranberry as part of the Job Access Reverse Commute project. This service was discontinued on December 31, 2001. The ridership ranged from 374 to 724 daily passengers. These passenger levels would indicate good ridership potential from market sub-areas to the west of the Cranberry service area. Noteworthy here are comments from follow-on surveys that indicated some job seekers would use the service if there were a transfer hub in place and a local circulation system. In other words, once a passenger gets to the Cranberry area, there is no way to get to a final destination or "around town."

Detailed Roadway Network - Roadway Functional Classification and Traffic Volumes

In the last 20 years, the Cranberry area has grown at a strong rate. This growth has been fueled by development of three major highway facilities and has been a wholly auto-driven phenomenon. Auto congestion has continued to grow at a rate that cannot be fully mitigated by a single mode of travel. The existing roadway network in the study area is made up of interstates (I-76, I-79, and I-279), principal arterials (US Route 19, PA Route 228, PA Route 8), minor arterials (Freedom Road, Rochester Road), and local and collector roads (Franklin Road, Haine School Road, Robinhood Road). Exhibit 2-3 depicts a map of the roadway functional classifications and current daily traffic volumes of the main roadways in the project study area.

Access to the Pennsylvania Turnpike passes through the study area, with interchange access provided within the study area from US Route 19 and also directly from I-79 with the recent completion of the Cranberry Connector.









Pedestrian / Bicycle Provisions

The service area has had an inconsistent approach to provision of facilities for pedestrians and bicyclists over time, as well. This important aspect of mobility should be addressed in concert with this plan since these intermodal connections are transit friendly and help move in concert with the concept of a walkable / bikeable community.

Sidewalk / Paved Shoulder Inventory

An important component of a transit system is the provision of pedestrian and bicycle facilities, as transit patrons typically must walk or bike to a transit station. An inventory of existing sidewalks and paved shoulders along the main roads within the study area was conducted for this study. This inventory is shown in Exhibit 2-4. As shown, the existence of sidewalks throughout the study area is very limited. Few of the main roads in the study area have a paved shoulder on at least one side of the road.

Current Travel Characteristics

Traffic Congestion

Several areas throughout the study area currently experience congestion during the weekday periods and on weekends. These include:

- The Pennsylvania Turnpike Interchange at US Route 19 (recent completion of the Cranberry Connector project has helped to improve operations on US Route 19).
- Intersection of US Route 19 and PA Route 228.
- Freedom Road, from US Route 19 to Powell Road.
- Rochester Road.
- Various locations along US Route 19 (adjacent to commercial/retail areas).
- Various sections of PA Route 228 (adjacent to commercial/retail areas).

Recent Park-n-Ride Facility Questionnaire

As noted in Section 2-4, a recent survey of the Warrendale and Blade Runners' park-n-ride facilities was conducted. Almost 90% of the respondents commented that there is a daily shortage of parking spaces at these facilities. Of the limited number of survey responses, the majority of patrons of these facilities reside in Cranberry area.







Regional Parking User Surveys

SPC recently performed a survey of parking facilities within its region (the project was performed prior to the addition of Lawrence County to SPC's region). Included in this project was the random survey of various park-n-ride lots (conducted in the spring of 2003), including the following facilities, which are located in the study area:

- Warrendale Lot
- US Route 19 and PA Route 228 Lot
- Cranberry Community Parking Lot
- I-79 and PA 528 Lot

As noted above, the Warrendale Lot is the only facility that was surveyed that is currently served by transit; both of the surveyed facilities located in Cranberry Township provide for carpool / vanpool opportunities only. The origins and destinations of the survey respondents at these facilities are shown in Exhibit 2-5.

As shown in this exhibit, most of the patrons of the Warrendale Park-n-Ride come from within the study area; many also come from eastern Beaver County. It is also interesting to note that a patron of the I-79 at PA Route 488 Park-n-Ride lot (located north of the study area in Butler County) was destined for the study area.

Journey-to-Work

To determine current resident-to-work travel patterns, the U.S. Census journey-to-work and place-of-work information for Cranberry Township was evaluated. This census database was developed from the Year 2000 census long form questionnaire. For any given municipality, it estimates the location of work for its residents. The database can also provide an estimated origin of employees for a given municipality.





Exhibit 2-5: Origins and Destinations from Park-n-Ride User Surveys



Exhibit 2-6 is a thematic map indicating the top 14 work locations of Cranberry residents. These top 14 locations represent 73% of Cranberry's working residents. The highest concentration of workers is in Cranberry Township. Of Cranberry's estimated 12,079 workers for the year 2000, approximately 2,947 (24%) work in the municipality. The next two top locations are the City of Pittsburgh (2696 workers or 22% of the total workers) and Marshall Township with 896 workers or 7% of the total.

Exhibit 2-7 demonstrates where people who work in Cranberry actually live. This thematic map illustrates the top 8 locations, which represent approximately 40% of the total workforce. Once again, Cranberry Township itself is the top location. However, the combination of the City of Butler and Butler Township is the next highest location. New Sewickley Township is next, followed by the City of Pittsburgh.

Some general conclusions can be drawn from this information with regards to possible commuting patterns and transit:

- Cranberry Township residents who also work in Cranberry could be likely candidates for transit commuting,
- The municipalities adjacent to Cranberry also have likely transit commuting demand and,
- The BTCJMTA service area could also provide transit-commuting patrons to the Cranberry area.

Transit Trip Purpose / Reasons for Utilizing Transit

While commuter travel is an important sector of transit patrons, it usually represents less than half the transit trip purposes. Exhibit 2-8 lists the trip purpose for transit riders according to a recent Bureau of Transportation Statistics survey. This same poll inquired about the reason for using public transit. These results are shown below in Exhibit 2-9.





Exhibit 2-6: Top 14 Work Locations of Cranberry Township Residents








Primary Transit Trip Purpose	Percentage
Work / work-related	43%
Social, religious worship, personal business	34%
Medical services	9%
Shopping	8%
College/other school	4%
Other	2%

Exhibit 2-8: Transit Rider Trip Purpose

Exhibit 2-9: Transit Rider Reasons for Using Public Transit

Reason Given for Using Public Transit	Percentage
More convenient	42%
Have no vehicle available	28%
Cheaper/Cost Less/Saves Money/Parking too	15%
expensive	
Away from home on business or pleasure travel	7%
Faster than other means of transportation	3%
Other	3%
Parking not available	2%
Less impact on the environment	0%

The data indicates that transit service for the study area will be successful if it can service not only the commuter trip, but also the social, medical, and shopping trips of the area. The main emphasis of the service must also be to provide convenience and to serve those individuals who are without other available means of transportation. This group includes the young (i.e., not cable of driving) and the senior population.

High Activity Areas

The Cranberry Township Transportation Demand Model for the 1999 Base Year was reviewed in terms of high activity areas. This review revealed that many of the largest traffic generators in Cranberry Township are concentrated in the vicinity of the US Route 19 / PA Route 228 intersection. Exhibit 2-10 on the next page shows the areas (zones) that produce the largest number of vehicle



trips per day. It should be noted that access to/from these generators is provided via US Route 19 and/or PA Route 228.

Generator	Daily Vehicle Trips
US Route 19 Commercial (various)	41,952
Cranberry Mall	30,355
Wal Mart	21,952
PA Route 228 Mall	21,320
Thorn Hill Industrial Park	11,581

Exhibit 2-10: Largest Vehicle Trip Generators in Cranberry Township

2.6 Socioeconomic Trends

Demographic data (population, employment, number of households, etc.) contained in SPC's Cycle VII Year 2030 Travel Forecast was reviewed. This document provided Year 2000 U.S. Census data and Year 2030 anticipated projections for each of these socioeconomic measures. A summary of this review is discussed below.

Historical Trend

Exhibit 2-11 lists Year 1990 and Year 2000 population recorded from U.S. Census data. Between 1990 and 2000, the population within the study area grew by approximately 19,500 persons (a 40.9% increase). Five of the eleven municipalities in the study area accounted for almost 96% of this growth; close to half of the overall growth occurred in Cranberry Township.



Municipality	Year 1990 Population	Year 2000 Population	Population Change	Percent Change
Adams Township	3,911	6,774	2,863	73.2%
Callery Borough	420	444	24	5.7%
Cranberry Township	14,816	23,625	8,809	59.5%
Evans City Borough	2,054	2,009	(45)	-2.2%
Forward Township	2,339	2,687	348	14.9%
Harmony Borough	1,054	937	(117)	-11.1%
Jackson Township	3,078	3,645	567	18.4%
Mars Borough	1,713	1,746	33	1.9%
Marshall Township	4,010	5,996	1,986	49.5%
Middlesex Township	5,578	5,586	8	0.1%
Pine Township	4,048	7,683	3,635	89.8%
Seven Fields Borough	556	1,986	1,430	257.2%
Valencia Borough	364	384	20	5.5%
Zelienople Borough	4,158	4,123	(35)	-0.8%
STUDY AREA	48,099	67,625	19,526	40.6%

Exhibit 2-11:	Historical	Population	Growth	in Study	/ Area
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Exhibit 2-12 lists the age distribution of the population in the study area for Years 1990 and 2000. For the entire study area, the under-16-years-of-age group grew the fastest - at a rate of 58% - while the rest of the population grew at 36% for 16- to 65-year-olds and 27% for those over 65 years of age.



	>	/ear 1990		У	'ear 2000	
Municipality	Age Distribution			Age	Distributi	on
	<16	16-65	65+	<16	16-65	65+
Adams Township	902	2,615	394	1,847	4,361	566
Callery Borough	102	277	41	126	280	38
Cranberry Township	4,306	9,428	1,082	6,678	15,029	1,918
Evans City Borough	457	1,259	338	453	1,237	319
Forward Township	497	1,624	218	675	1,711	301
Harmony Borough	178	718	158	168	614	155
Jackson Township	796	1,907	375	764	2,281	600
Mars Borough	241	845	627	297	870	579
Marshall Township	1,054	2,582	374	1,788	3,745	463
Middlesex Township	1,259	3,750	569	1,339	3,530	717
Pine Township	822	2,641	585	2,430	4,515	738
Seven Fields Borough	99	449	8	552	1,321	113
Valencia Borough	70	194	100	65	161	158
Zelienople Borough	566	2,472	1,120	772	2,371	980
STUDY AREA	11,349	30,761	5,989	17,954	42,026	7,645

Exhibit 2-12: Age Distribution of Population in Study Area

Exhibit 2-13 shows the population density for the municipalities in the study area. There is a clear indication that the boroughs are more densely populated than the townships. There is land available in the townships for future growth.



	Land Area	Year 1990	Year 2000	
Municipality	sq mile	Persons per	Persons per	
	sy mile	sq mile	sq mile	
Adams Township	22.6	173	300	
Callery Borough	0.5	793	838	
Cranberry Township	22.8	651	1,038	
Evans City Borough	0.8	2,536	2,480	
Forward Township	23.3	100	115	
Harmony Borough	0.4	2,774	2,466	
Jackson Township	21.1	146	172	
Mars Borough	0.4	3,807	3,880	
Marshall Township	15.6	258	385	
Middlesex Township	22.9	243	243	
Pine Township	16.8	241	458	
Seven Fields Borough	0.8	662	2,364	
Valencia Borough	0.4	958	1,011	
Zelienople Borough	2.1	1,961	1,945	
STUDY AREA	150.6	319	449	

Exhibit 2-13: Population Density in Study Area

Exhibit 2-14 lists the number of households in the study area and those households without automobiles. Auto ownership has increased over the past 10 years by 2% across the study area. Over 95% of the households own automobiles.



	1990 Hou	seholds	2000 Households		
Municipality	Total with	Without	Total with	Without	
	Autos	Autos	Autos	Autos	
Adams Township	1,360	56	2,382	19	
Cranberry Township	5,203	163	8,352	190	
Forward Township	824	17	970	35	
Jackson Township	1,043	60	1,358	12	
Marshall Township	1,334	7	1,944	59	
Middlesex Township	1,930	91	2,045	59	
Pine Township	1,393	35	2,411	47	
Callery Borough	143	14	157	17	
Evans City Borough	819	91	819	71	
Harmony Borough	416	25	409	23	
Mars Borough	636	106	687	102	
Seven Fields Borough	262	0	757	15	
Valencia Borough	102	6	100	0	
Zelienople Borough	1,776	305	1,956	305	
STUDY AREA	17,241	976	24,347	954	

Exhibit 2-14: Households and Auto Ownership in Study Area

Future Projections

Population, employment, and household levels recorded for Year 2000 and projected for Year 2030 are shown in Exhibit 2-15. This exhibit shows increases of approximately 15,000 people, more than 6,400 jobs, and more than 15,800 households within the study area from Year 2000 to Year 2030.



			Percent		Percent		Percent
Description	Year	Year	Change	Year	Change	Year	Change
Description	2000	2010	(2000 to	2020	(2000 to	2030	(2000 to
			2010)		2020)		2030)
Population	67,625	79,690	17.8%	80,328	18.8%	82,603	22.1%
Employment	44,552	48,471	8.8%	50,193	12.7%	51,041	14.6%
Households	24,347	34,961	43.6%	37,037	52.1%	40,180	65.0%

Exhibit 2-15: Projected Growth in Study Area

Development Activity

As the population, employment, and household projections indicate, residential and commercial growth is expected to occur in the study area overall. Development in the township area currently covers most land use types. This includes primarily residential and commercial. Exhibit 2-16 below indicates the 15 largest employers, based on the number of employees in the study area.



Employer	Type of Business	Location	Employees
Cilipioyor			
AEO Management	Management Services	Warrendale	1,500
TRACO	Manufacturer	Cranberry	1,072
Verizon Wireless	Customer Service Center	Warrendale	988
Lutheran Affiliated Services	Management Services	Cranberry	800
Butler Auto Auction	Wholesale	Cranberry	928
Society Auto	Professional	Professional	
Engineers Inc	Organization	Warrendale	722
Coventry Healthcare	Claims Processing	Cranberry	574
Glidden Company	Paint/Wallpaper	Wexford	500
Mine Safety Appliance	Manufacturer/ Research	Cranberry	452
Wal Mart	Retail	Cranberry	369
St. John Specialty Care	Nursing Home	Mars	365
Kirby Electric Inc.	Electrical Work	Warrendale	350
Giant Eagle	Retail	Cranberry	330
UPMC Health System	Health Services	Cranberry	319
Target	Retail	Cranberry	312

Exhibit 2-16: Top 15 Largest Employers in Study Area

2.7 Future Conditions

Planning Initiatives

Several planning initiatives were identified through review of several documents, which was discussed in Section 2.3 - "Previous Studies." These documents encompassed the following government and planning agencies and working groups:

- Southwestern Pennsylvania Commission (SPC)
- Pennsylvania Department of Transportation (PennDOT)
- Cranberry Township
- Port Authority of Allegheny County (PAAC)
- Butler County



- Beaver County Transit Authority (BCTA)
- Three Rivers Workforce

The Long Range Plan (LRP) for the Southwestern Pennsylvania region, published by SPC, identifies goals and objectives for the region's transportation system and specific studies and projects that should be pursued to achieve those goals and objectives. As noted previously in Section 2.3, the current study is one of the planning studies included in the LRP.

Continued coordination among the various agencies listed above, as well as with the surrounding townships, will be critical in the successful implementation, maintenance, and operation of any public transportation project. For instance, the Cranberry Township Community Development Plan identified several future roadway corridors in the township. The design of these roadway projects should include elements to complement public transportation (such as sidewalk provisions); likewise, the public transportation alternatives identified and developed in this study should consider these planned roadways.

Projected Traffic Volumes

Projected traffic volumes were generated in the Cranberry Travel Demand Model developed for Cranberry Township in July 2001 by URS Corporation. Exhibit 2-17 shows Year 1999 and Year 2020 traffic volumes for key segments along US Route 19 and Freedom Road/PA Route 228. The Year 2020 volumes include several improvement projects for the Cranberry area, including the Cranberry Connector, which has a significant impact on traffic movement in the Cranberry area.



Street	From	То	1999 Volume*	2020 Volume*	Percentag e Growth
US Route 19	I-76 On-ramp	Freedom Road / PA Route 228	59,787	78,541	31%
US Route 19	Freedom Road / PA Route 228	Dutihl Road	66,301	49,735	-25%
US Route 19	Dutihl Road	Rochester Road	70,879	60,712	-14%
US Route 19	Rochester Road	Rowan Road	69,876	50,474	-28%
US Route 19	Rowan Road	North Boundary Road	52,906	43,927	-17%
Freedom Road / PA Route 228	Haines School Road	Executive Road	35,235	28,607	-19%
Freedom Road / PA Route 228	Executive Road	US Route 19	67,532	30,438	-55%
Freedom Road / PA Route 228	US Route 19	McElroy Road	51,518	69,896	36%
Freedom Road / PA Route 228	McElroy Road	Franklin Road	46,425	50,797	9%

*2020 Cranberry Travel Demand Model includes the following built projects: Heights Drive, Cranberry Connector, and I-79 North Ramps

While traffic is decreasing to the north and west of the intersection of US Route 19 and Freedom Road/PA Route 228, it is increasing to the east of this intersection, where commercial developments continue to grow. Likewise, overall trips in Cranberry area will continue to grow as the township continues to develop. Between 1999 and 2020, total trips within Cranberry area are anticipated to increase by 14%.

Future Congested Travel Times

The increase in traffic volumes in Cranberry area has a direct effect on future congested travel times. The projected travel times for Year 2020 from the Cranberry Travel Demand Model show how increased traffic and congestion increase travel times. Projected travel times during congested periods are shown below:



US Route 19 Northbound:

- I-76 to Freedom Road/PA Route 228 13 minutes (average speed of less than 5 mph)
- Freedom Road/PA Route 228 to Rochester Road 14 minutes (average speed of less than 5 mph)

Freedom Road/PA Route 228 Westbound:

- Franklin Road to US Route 19 23 minutes (average speed of less than 5 mph)
- US Route 19 to Haine School Road 31 minutes (average speed of less than 5 mph)

2.8 Transit Needs

As documented in this memorandum, those in the study area and its corridors currently experience and will continue to experience needs related to transit service.

The following are the 5 key transportation needs for the study area:

- 1. The existing transit service, facilities, and supporting infrastructure is very limited and does not support the communities' vision for transportation and community development.
- A transit system in the study area is needed to support work, shopping, and social / recreational / personal trips. It should service local circulation of travelers as well as regional trips.
- 3. Transit service is needed in major corridors and activity centers within Cranberry Township, the study area, and the region. These corridors and activity centers have been identified.
- 4. Specific service needs and support structure has been identified and includes high frequency and reliability, more park-n-ride service, an appropriate mix of vehicles, development of multimodal centers, and links to pedestrian facilities.



5. Transit system improvements need to be designed and phased to be financially viable based on ridership projections and a realistic assessment of other possible revenue sources.

Below are the key characteristics of each of the project needs:

- 1. The existing transit service, facilities, and supporting infrastructure is very limited and does not support the communities' vision for transportation and community development.
 - a. Existing transit service in the study area is limited to two Port Authority routes with little to no local circulation routing, New Castle Area Transit servicing a park-n-ride facility in the northern part of the study area, and Butler Township-City Joint Municipal Transit Authority operating a route on PA Route 8 in the eastern portion of the study area.
 - b. Sidewalks supporting pedestrian access to/from possible transit service are limited. Most sidewalks in the study area are located in the boroughs and in neighborhood developments only.
 - c. Paved shoulders (for use by either pedestrian or bicycle modes) along major routes in the study area appear with much more frequency than sidewalks; however, many of the roadways currently do not include them.
 - d. The communities' vision is to become less auto-oriented and more multimodal.
- A transit system in the study area is needed to support work, shopping, and social / recreational / personal trips. It should service local circulation of travelers as well as regional trips.
 - a. The public outreach effort thus far has consistently identified the communities' desire to service the work / work-related trips, the shopping / retail area trip, and "personal business" trip, which includes social, recreational, religious services, etc.
 - b. Two distinct aspects of the transit service identified are the desire for both local circulation in the study area as well as regional service to key points outside the study area.



- 3. Transit service is needed in major corridors and activity centers within Cranberry Township, the study area, and the region. These corridors and activity centers have been identified.
 - a. Cranberry Township specific service areas include the following:
 - i. Corridors
 - 1. US Route 19
 - 2. PA Route 228
 - 3. Freedom Road
 - 4. Rochester Road
 - 5. Powell Road
 - 6. North Boundary Road
 - ii. Activity Areas
 - 1. Cranberry Mall
 - 2. PA Route 228 shopping areas
 - 3. Wal Mart
 - 4. Shopping areas along US Route 19
 - 5. Major employment areas / Industrial Parks
 - 6. Cranberry Municipal Center
 - 7. Future Multimodal center
 - b. Transit Service should serve the following corridors and activity areas within the study area:
 - i. Corridors
 - 1. PA Route 8
 - 2. US Route 19
 - 3. PA Route 228
 - 4. I-79 / I-279
 - ii. Activity Areas
 - 1. Zelienople Borough
 - 2. Evans City Borough
 - 3. Harmony Borough
 - 4. Mars Borough
 - c. Areas outside of the study area that should be included in possible regional service should include:
 - i. Pittsburgh
 - ii. Oakland



- iii. Butler City / Township
- iv. Areas of Beaver County
- v. Pittsburgh International Airport
- 4. Specific service needs and support structure has been identified and includes high frequency and reliability, more park-n-ride service, an appropriate mix of vehicles, development of multimodal centers, and links to pedestrian facilities.
 - a. Participants of the community outreach effort have consistently requested transit service that would be frequent and reliable.
 - b. There is an overwhelming desire to expand the capacity of the park-nride facilities, particularly the lots where transit service is provided. This takes the form of both increasing the number of spaces at the existing facilities and creating new park-n-ride facilities.
 - c. There is a general concern over utilizing large buses. Smaller transit vehicles seem to be desirable for local circulation service. Larger vehicles seem appropriate to constituents for regional trips.
 - d. The thought of a Multimodal Center at or near the Cranberry Municipal Center emerged in previous studies and during the needs portion of this study.
 - e. The concept of appropriate pedestrian amenities was also a central theme during the needs analysis process.
- 5. Transit system improvements need to be designed and phased to be financially viable based on ridership projections and a realistic assessment of other possible revenue sources.
 - a. The identification of capital and operational funding for any enhancement to the existing transit service will be identified.
 - b. Ridership projections for the alternatives should be assessed. The 1994 Butler County Transit Study conducted for SPC (formally SPRPC) has initial transit ridership estimates and should be utilized as a starting point.
 - c. Possible phasing of an enhanced transit service should be considered as a possible method of addressing the funding issue.

3.0 Public Involvement and Outreach



3.0 Public Involvement And Outreach



3.0 Public Involvement And Outreach

3.1 Introduction

Public input is the cornerstone for determining the future of transit in the Cranberry area. The goal of the public involvement program for the Cranberry Area Transit Study is to allow the public to guide the study and to ensure that the recommendations and outcomes reflect community values and enable the community's future vision.

The public involvement process was designed to build awareness and gather public input during the three (3) phases of the study, including needs assessment, preliminary service concepts analysis, and study outcome reporting. During each phase of the study, multiple opportunities were provided for information distribution and exchange with the public. Meetings



included general public meetings and public officials' briefings; meetings with community organizations, municipal groups, and transit agencies; and coordination of the study Steering & Stakeholders Committee. The project team and sponsors attended 45 meetings (Exhibit 3-1) reaching over 800 people in the process.

Type of Meeting	Number of Meetings
General Public	2
Public Officials	3
Community Outreach	25
Municipalities	8
Transit Agencies	2
Steering & Stakeholders Committee	5
Total	45

Exhibit 3-1:	Meeting	Type	Summary
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In addition to meetings, information was exchanged with the public through the study web site, newsletters, a display at the Cranberry Township Municipal Building, and the distribution and return of comment forms.

General Public and Public Officials' Meetings

Two joint public officials' briefings and public meetings were held, one during needs assessment and a second to gather public input on preliminary service concepts. Both meetings were held in the Cranberry Township Municipal Building central court. These meetings were publicized through local newspaper ads, press releases, public service announcements, a display in the Cranberry Township Municipal Building, and the study website.



The project team utilized display boards, 3-D visualizations, handouts, and comment forms during these meetings. Attendees were encouraged to contribute comments and ask questions of the project team, and provide written feedback through comment forms. The summary of the needs assessment public meeting is located in Appendix A and the summary for

the preliminary service concepts public meeting is provided in Appendix B.

A third public officials' briefing was conducted at the conclusion of the study to present study outcomes, the Demonstration and Vision Programs, and build relationships towards an inter-agency agreement.

Municipal / Community Outreach / Transit Agency Meetings

From the start, it was the project team's intention to allow the public to guide the study and to reach as many people and key organizations as possible to build awareness and gather input. We found the most effective way of contact was the development of a speakers' bureau to make presentations before established community organizations during their regularly scheduled meetings.

A summary of municipal, community outreach, and transit agency groups that met with the project team follows in Exhibit 3-2.



Category	Organization	
	Cranberry Township	
	Economy Borough	
AAisinalitiaa	Mars Borough	
Municipalities	Jackson Township	
	Middlesex Township	
	Seven Fields Borough	
	Dutilh United Methodist Church	
Churches	St. Ferdinand's Church	
	Victory Christian Fellowship	
	Butler County Community College	
Educational Institutions	Mars School District	
	Seneca Valley School District	
	Regional Learning Alliance	
	Coventry Healthcare	
	Sherwood Oaks Retirement Facility	
	Thorn Hill Industrial Park	
Major Employers / Business	TRACO	
Major Employers / Business	UPMC Passavant	
	Wal-Mart	
	Cranberry, Zelienople/Harmony, and Butler County Chambers of Commerce	
	Cranberry Homeowners' Association Forum	
Homeowners' Associations	Freedom Woods' Homeowners' Association	
	Rock Lake Homeowners' Association	
	Cranberry Senior Center	
	Cranberry Township Senior Citizen's Club	
Senior Citizens	Zelienople Senior Citizens' Center	
	55+ Group - Dutilh Methodist Church	
	Evans City Senior Center	
Transit Approise	New Castle Transit Agency	
Transit Agencies	Beaver County Transit Agency	

Exhibit 3-2: Public Outreach Municipal, Community, and Transit Agencies



Additional Public Contact

Two newsletters were completed (June 2004 and December 2004). The June edition introduced the study, educated the public on transit service options, and invited the public to participate in the process. The December newsletter reported the study outcomes, including the recommendation for a Demonstration Program in the near term and the Future Program for the long term.

An interactive study web site, <u>www.spcregion.org/CATS</u>, was developed and maintained by SPC with links to the other study sponsors. The website was updated on a regular basis to update the public on study progress, publicize public meetings, and solicit public comment.

Two press releases were distributed to local and regional newspapers, one prior to each public meeting.

The database of contacts was regularly updated and included a total of 366 unduplicated entries. The database was used to distribute newsletters.

3.2 Summary of Public Input

3.2.1 Community Outreach

We invited the public to guide the study. Our outreach was proactive and involved attending and participating in regularly scheduled meetings of different community groups and organizations, including municipalities, churches, educational institutions, major employers and business groups, homeowners' associations, senior citizens, and transit agencies.

We gathered public input at each of these meetings, including comment forms and meeting summary reports. Key points noted during the outreach included the following:

• At total of 30 contacts (representing 45 meetings) were made and over 800 people were reached through community outreach between February and July 2004. The objective of the outreach sessions was to educate



and inform the public about the study and gather feedback on transit needs.

- The following types of groups made up the contact list: Churches (3); Educational Institutions (4); Major Employers (7); Municipal Governments (6); Homeowners' Associations (3); Senior Citizens (5); and Transit Agencies (2).
- Transit is seen as important to:
 - Young people, who do not drive or have access to an automobile to enable them to participate in after-school activities and jobs or attend college in Cranberry
 - Provide access to employment in the Cranberry area, particularly for the lower wage jobs.
 - Provide commuter service from southern Butler County to jobs in Pittsburgh.
 - Seniors, for local access to shopping centers, doctor's offices and entertainment sites in Cranberry and for regional access to locations in the rest of Butler County and Pittsburgh.
- Transit does not appear important to some people because they are unaware of a current need, i.e., they never thought about the topic or they drive themselves.
- Places to Serve:
 - Local Cranberry (3); PA Route 228, Cranberry Municipal Building, Cranberry Woods, Freedom Road, Rochester Road, Proposed Cranberry Town Center, Rowan Road, and Thorn Hill Industrial Park all mentioned
 - Commuting To downtown Pittsburgh (12) from southern Butler County, and to Cranberry from Beaver County (7) and Butler County (5).
 - Regional Connections Cranberry (4); Pittsburgh (3); Zelienople (3); Butler City (2); Beaver County (2); with mentions for Clearview Mall, Grove City outlets, New Wilmington, Passavant North Hills, Pittsburgh International Airport, and Station Square.
- Recommended modes include large and small buses, taxies, and para transit (door-to-door and on-demand service). Seniors mentioned the need for low-floor buses.
- Possible station locations in Cranberry included the Cranberry Mall, Cranberry Township Municipal Building, and Burger King. Service features



should include convenience, reliability, comfort, and the provision of adequate parking for patrons.

- Major employers in Cranberry were interviewed to determine if and how transit might play a role in recruitment.
 - The majority of employees come from western Beaver County and Butler County.
 - While many employers require shift work, the majority of workers appear to work the daylight shift.
 - Lack of transit appears to be a recruitment impediment for low-tomoderate-wage-scale employees.
- Other issues mentioned included funding (5) and transit problems (16).
 - People are concerned about the source of the funding for a transit service plan.
 - Transit problems range from a lack of existing service to lack of parking at available park-n-ride facilities.

A detailed summary of the community outreach program is included in Appendix C.

3.2.2 Comment Forms

Comment forms provided an excellent opportunity to gather public input. Forms were distributed in a number of ways, including at public meetings, during community outreach, over the study website, at the display at the Cranberry Township Municipal Building, and at the Warrendale and Blade Runners' park-nride facilities.

A total of 122 comment forms were returned to the study team, with over 50% coming from the park-n-ride facility users. A summary of the responses follows.



Characteristics of Respondents

• Number of comments submitted by form, comment box, or e-mail: 122

Source/Meeting	Number	Percentage
Park-n-Ride Survey	61	50%
Community Open House	28	23%
Comment Box	19	16%
Received by E-mail	7	6%
Cranberry Homeowners Association Forum	5	4%
Received by Mail	2	2%
TOTAL	122	100%

Exhibit 3-3: Source of Comment Respondents

Exhibit 3-4:	Residences	of Comment	Respondents
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Location	Number	Percentage
Cranberry Township	39	32%
Other	26	21%
Unknown	57	47%
TOTAL	122	100%

Identified Needs

- Transit Needs Identified:
 - Cranberry is growing
 - Need to reduce traffic
 - Need service to downtown Pittsburgh
- Important Places to Serve:
 - Local Shopping; recreation facilities; municipal building; schools and colleges; senior centers and housing; PA Route 228
 - Commuting Downtown Pittsburgh; park-n-ride lots
 - Regional Connections Pittsburgh; Airport; Evans City; Butler, Clearview Mall, I-79, PA Route 910, St. John's Nursing Home, Mars; Zelienople



Preferred Transit Modes

- Large buses for commuting/regional routes (Airport, Pittsburgh, Butler)
- Small shuttle buses for local/neighborhood routes
- Light rail to Pittsburgh, Airport

Suggestions for Routing/Stations

- Potential Routes US Route 19; Freedom Road; PA Route 228; I-79/I-279; PA Route 8; Rochester Road; Cranberry to Downtown
- Suggested Stations:
 - Local shopping centers, including Wal-Mart, Cranberry Mall, Target/Lowes
 - Cranberry municipal building
 - Church parking lots
 - Office/industrial parks
 - Locations near parking areas
 - Regional Airport, Pittsburgh, Butler, Erie, New Castle, Zelienople

Suggestions for Park-n-Ride Service

- Suggested improvements to park-n-ride lots:
 - Expand number of spaces and number of available lots
 - Curtail use of lots for carpooling
- Suggestions for additional park-n-ride lots:
 - Local shopping centers
 - Regional Butler, Clearview Mall, Evans City, I-79, PA Route 910, St. John's Nursing Home, Mars

Additional Comments/Suggestions (actual responses)

- Transit should include ways for people to safely walk and ride bicycles
- Thanks for taking the time to do this survey! A good transit system is vital to maintaining a vibrant community.
- The study should include a comprehensive approach to moving people out of their single-occupant vehicles (i.e., target large employers to provide incentives for those traveling in HOVs, flextime for employees to move out of peak hours.



- The park-n-ride lot on the corner of Freedom and Haine School Road was to be started by now. Is that still an option? Or is that no longer being done. This has been talked about for several years but was put on hold because of a shopping center development. We keep waiting and hoping, but never hear anything more about it.
- I don't care if some "poor" or "elderly" person gets service.
- Model after a city such as Washington D.C. where in suburban areas, light rail is used to feed people to the bus routes which remain closer to the city.
- New Sewickley in Beaver County adjacent to Cranberry is beginning to experience residential and commercial spillover growth from Cranberry. Along Freedom-Crider Road (at Lovi Road) the Tri-County Commerce Park may be a good location for a park-n-ride. The Beaver County Transit Authority currently concentrates on the PA Route 60/Parkway West and PA Route 65 corridors, but they and/or the Port Authority should be examining New Sewickley as an extended part of Cranberry. BCTA should be part of the Initiative team.
- What about building a parking lot and charging \$1 to park there, except that Port Authority riders would park free if they have a current bus pass or tickets?
- The only cost-effective transit route is to downtown Pittsburgh. Transit to airport and Butler would serve limited number of persons. I have seen Butler County bus and it is always empty.
- Don't put it in my neighborhood.

A summary of the park-n-ride facility users' comment forms is provided in Appendix D and a summary of all other comment forms is provided in Appendix E.

4.0 Alternatives Development And Screening





4.0 Alternatives Development And Screening

4.1 Introduction

The development of the preferred alternative involved an iterative process that screened a large number of alternative routes down to a preferred transit system relying heavily on both public input and steering committee guidance. The study process started with the completion of a Purpose and Need statement identifying the transportation needs of the community. Needs were determined based on both quantitative research into demographics, economic conditions and physical characteristics of the study area, and qualitative observation and discussion with community stakeholders. A set of preliminary alternative routes was then developed during a workshop of the technical committee to address those needs identified. The preferred system alternative was developed through the 3-step process below:

- 1. Develop and screen a long list of potentially feasible route alternatives down to a short list of promising route alternatives,
- 2. Screen the short list to a preferred system alternative, and,
- 3. Refine the preferred Future Program Alternative.

An additional demonstration system alternative (Demonstration Phase 1) was developed from the preferred system alternative. It is further detailed in Chapter 5. The demonstration Phase 1 alternative is a scaled-down system that can be implemented more quickly and at a lower cost.

4.2 Developing and Evaluating the Long List

The long-list screening task included three elements: a workshop to develop the initial set of alternatives, analysis to score each of the alternatives, and a policy committee meeting to review the results of the analysis.



The initial set of long list alternatives was developed by the Technical Committee during a workshop attended by study principals. The Committee used the information it received from public outreach, stakeholder interviews and quantitative research. The committee then designed a series of route alternatives to serve the identified transportation needs of the study area. The routes were categorized into three groups: <u>Local</u>, serving the needs of Cranberry Township; <u>Study Area</u>, linking Cranberry to other parts of the study area; and <u>Regional</u>, linking Cranberry Township and the study area to the rest of the Pittsburgh region. The route alternatives were not mutually exclusive and could be combined in any number of ways to create a complete transit system.

The needs assessment identified a number of important locations, corridors, and markets that should be served by any new transit service in the study area. This assessment was used to develop a list of route alternatives for local, study area, and regional markets as listed in Exhibits 4-1a through 4-1c and as shown in the map Exhibits 4-2a through 4-2c.

Route Alternative (Local)	Major Markets Served	Notes
L1 - West Loop	Cranberry Transit Center (proposed),	Routes L1, L2 and L3
	Rochester Road, Haine School Road or Powell Road, Freedom Road, US Route 19	are alternatives to each other.
L2 - West Loop	Cranberry Transit Center (proposed),	Routes L1, L2 and L3
Commonwealth	Rochester Road, Haine School Road or Powell	are alternatives to
	Road, Freedom Road, Thorn Hill Road	each other.
	Commonwealth Drive, US Route 19	
L3 - West Loop Thorn	Cranberry Transit Center (proposed),	Routes L1, L2 and L3
Hill	Rochester Road, Haine School Road or Powell	are alternatives to
	Road, Freedom Road, Rolling Road, Thorn Hill	each other.
	Road, US Route 19	
L4 - East Loop Rowan	Cranberry Transit Center (proposed), US Route	Routes L4 and L5
	19, Rowan Road, Franklin Road, Seven Fields,	are alternatives to
	Adams Ridge, PA Route 228, Cranberry Woods	each other.
L5 - East Loop	Cranberry Transit Center (proposed), US Route	Routes L4 and L5
Boundary	19, Boundary Road, Franklin Road, Seven Fields,	are alternatives to
	Adams Ridge, PA Route 228, Cranberry Woods	each other.

Exhibit 4-1a:	Long List	Table of Local	Service Concepts
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Route Alternative (Study Area)	Major Markets Served	Notes
S1 - Zelienople / Harmony	Cranberry Transit Center (proposed), US Route 19, PA Route 68	Routes S1 and S2 are alternatives to each other.
52 - Zelienople / Harmony / Butler	Cranberry Transit Center (proposed), US Route 19, PA Route 68	Routes S1 and S2 are alternatives to each other.
53 - Mars / Evans City	Cranberry Transit Center (proposed), US Route 19, PA Route 228, Mars- Evans City Road	Routes S3 and S4 are alternatives to each other.
S4 - Mars / Evans City / Butler	Cranberry Transit Center (proposed), US Route 19, PA Route 228, Mars- Evans City Road, PA Route 68	Routes S3 and S4 are alternatives to each other.
S5 - Valencia	Cranberry Transit Center (proposed), PA Route 228, Old State Road	Route S5 duplicated Route S4 between Cranberry and Mars.
S6 - Mars / Route 8 / Butler	Cranberry Transit Center (proposed), PA Route 228, PA Route 8	Route S6 duplicated Route S4 between Cranberry and Mars.

Exhibit 4-1b: Long List Table of Study Area Service Concepts

Exhibit 4-1c: Long List Table of Regional Service Concepts

Route Alternative (Regional)	Major Markets Served	Notes
RO - Pittsburgh Express (LRT)	Cranberry Transit Center (proposed), US Route 19, Warrendale Park-n-Ride, I-79, I- 279, Downtown	Routes RO and R1 are alternatives to each other.
R1 - Pittsburgh Express (BRT)	Cranberry Transit Center (proposed), US Route 19, Warrendale Park-n-Ride, I-79, I- 279, Downtown	Routes RO and R1 are alternatives to each other. Routes R1, R1A, R2 and R3 provide complementary service in the corridor. Any or all could be implemented together.
R1A - Seven Fields Express	Route 228, Seven Fields Park-n- Ride (proposed), US Route 19, Warrendale Park-n-Ride, I-79, I- 279, Downtown	Routes R1, R1A, R2 and R3 provide complementary service in the corridor. Any or all could be implemented together.
R2 - Oakland Express	Cranberry Transit Center (proposed), US Route 19, Warrendale Park-n-Ride, I-79, I- 279, I-579, East Busway	Routes R1, R1A, R2 and R3 provide complementary service in the corridor. Any or all could be implemented together.



Route Alternative (Regional)	Major Markets Served	Notes
R3 - Zelienople	Cranberry Transit Center	Routes R1, R1A, R2 and R3 provide
Express	(proposed), US Route 19,	complementary service in the
	Warrendale Park-n-Ride, I-79, I-	corridor. Any or all could be
	279, Zelienople, Downtown	implemented together.
R4 - Butler Express	Cranberry Transit Center	Route R4 is an extension of Route
	(proposed), PA Route 68,	R3.
	Zelienople, Harmony, US Route 19,	
	Warrendale Park-n-Ride, I-79, I-	
	279, Downtown	
R5 - North Hills	Cranberry Transit Center	This service is currently provided
(PAAC ¹)	(proposed), US Route 19	by PAAC ¹ Route 12A during midday
		hours only.
R6 - Rochester	Cranberry Transit Center	Route R6 and R7 are alternatives
	(proposed), US Route19, Freedom	to each other.
	Road, Powell, Darlington Road,	
	Rochester Road	
R7 - Baden	Cranberry Transit Center	Route R6 and R7 are alternatives
	(proposed), US Route 19, Freedom	to each other.
	Road, BCTA ² Park-n-Ride	

¹ = Port Authority of Allegheny County; ² = Beaver County Transit Authority



Exhibit 4-2a: Long List Local Service Concepts





Exhibit 4-2b: Long List Study Area Service Concepts





Exhibit 4-2c: Long List Regional Service Concepts





4.2.1 Evaluation Criteria - Long List

Each route alternative in the long list for the Cranberry Area Transit Study was evaluated using the criteria presented in Exhibit 4-3. Each route alternative received a score, allowing the study to develop a network of the most appropriate routes and to judge between alternative routes that serve the same corridor.

Category	Criteria	Indicator
Cost	Operating cost	Total annual operating cost
	Capital cost	Total project construction cost
Land Use	Population served by route	Number of people living with in $\frac{1}{4}$ mile
Community Input	Strength of support	Numeric score
	Strength of opposition	Numeric score
System Integration	Number and quality of connections to PAAC and other transit operators	Numeric score
Study Area Connectivity	Number of identified activity centers served	Numeric score
Quality of the Pedestrian Environment	Quality of sidewalks, crosswalks, etc. along each route	Numeric score
Transit Oriented Development (TOD) Supportive	Serves areas identified by Cranberry Township as potential TOD locations.	Numeric score

Exhibit 4-3:	Long Lis	t Fvaluation	Criteria
	Long LIJ		

The long list evaluation criteria included both <u>quantitative</u> and <u>qualitative</u> measures. The following criteria are <u>quantitative</u>:

- *Operating cost* Data was based on the per service hour costs of similar services, both in the Pittsburgh area and in similar cities. Total operating cost for each alternative was used for the first level screening.
- *Capital cost* The capital cost of each line alternative was determined based on standards developed from experience in the Pittsburgh area. The light rail option had its capital costs estimated using recent per mile cost experience for similar projects elsewhere in the country.



• Population within $\frac{1}{2}$ mile - The total population within $\frac{1}{2}$ mile of each route or station. This figure was calculated using Geographic Information Systems (GIS) to analyze 2000 Census data.

The following criteria are <u>qualitative</u> and use a numeric scoring system of 1 to 5, with 1 indicating a highly undesirable attribute of the alternative and 5 a highly desirable attribute:

- Community Input This criterion includes two indicators, strength of support and strength of opposition. The score was based on the Steering & Stakeholders Committee meetings, the Leadership Workshop, the Public Workshop, and all other sources of involvement, including the website, letters, phone calls, and individual conversations.
- System Integration This criterion refers to the number and quality of connections to the regional transit system at the north and south ends of the corridor and the feeder system within Butler County.
- Study Area Connectivity This is a measure of the coverage of each route of the major activity centers, including historic borough centers, shopping malls, employment centers, and residential areas. This criterion is not an absolute count, but a subjective comparison with other route alternatives based on their relative performance and the relative importance of the activity centers along each route.
- Pedestrian Environment This criterion was scored based on qualitative judgment of the quality of the walking environment within $\frac{1}{2}$ mile of each route.
- *TOD Supportive* A qualitative assessment of the route alternative's contribution to mobility in areas of Cranberry Township where future transit-oriented development will likely occur.

4.2.2 Applying the Criteria

These criteria were used to develop a score for each route alternative using the following methodology.



Operating Cost

The operating cost estimates for the first level screening were created using the following process.

- 1. The length of each route was estimated using either Map Quest or by measuring from the three Preliminary Service Concept Maps.
- 2. An average speed for each alternative was estimated based on traffic conditions and road type. For regional routes, the average speed of the existing PAAC Route 13K (20mph) was used.
- 3. Round trip running time in hours was found by dividing the round trip distance by the average speed.
- 4. The number of trips per hour from the alternatives development process was entered. This number varies from 6 (10-minute headways) for the main Cranberry to Pittsburgh alternative R1 to 5 (2-hour headways) for study area routes that serve a mainly rural local service function.
- 5. The number of hours of service that each route would provide was entered. For most routes, the number assumed was 12 hours. This would allow service from roughly 6 or 7 in the morning to 6 or 7 in the evening, giving riders the opportunity to visit businesses and services open during regular business hours and to commute to most daytime jobs. The exception was Route R1, which was assumed to operate for 18 hours a day (roughly 6:00 am to midnight), since this route serves downtown Pittsburgh with its wide variety of jobs, services, and cultural institutions that operate from early morning to late night. This route would also provide service along the main US Route 19 corridor.
- 6. An estimated average cost per service hour was entered. This number is based on other small transit properties in western Pennsylvania.
- 7. The running time, number of trips, and the average cost per hour were multiplied to get the operating cost per service day for the alternative.
- 8. The daily operating cost was multiplied by the annual number of days of service to reach an annual operating cost. A default value of 300 was used representing Monday through Saturday service with no service on Sundays or holidays. Another option for weekend service would be to provide shorter hours on both Saturday and Sunday.


Capital Cost

The capital cost estimates for the first level screening were created using the following process. Only capital costs that vary by route were considered to allow a fair comparison between alternatives. Items such as the US Route 19 busway, the maintenance facility, and park-n-ride capacity were considered to be independent of the specific route alternatives. Key assumptions for this analysis are discussed below.

- 1. The number of shelters was estimated by the number of activity centers the route passes through, one for each location. The estimated cost for each shelter was assumed to be \$3,000.
- 2. The number of buses required to operate the service was estimated by dividing the round trip run time by the headway and rounding up. No attempt was made at this point to account for layover or interlining, which is part of level 2 screening. Mini-buses for local routes were assumed to cost \$75,000, 30-foot mid-sized buses for study area routes were assumed to cost \$200,000, and 40-foot coaches for regional routes were assumed to cost \$350,000. These unit costs reflect the most recent local experience of operators in the service area.
- 3. The cost of shelters and buses was totaled.
- 4. The total cost was annualized by dividing the total cost by the estimated life of the type of bus assumed for each type of route.
- 5. A special methodology was created for Light Rail Transit (LRT) that used \$2.5 M per station, \$3 M per vehicle and \$30 M per mile of construction. The route length was assumed to be the same as bus alternative R1 that follows I-279 and I-79 from Pittsburgh to US Route 19 to the transfer center.
- 6. A budget for amenities such as shelters, sidewalks, and bike/pedestrian improvements was estimated at \$500,000.

Study Area Connectivity

The Study Area Connectivity score was calculated by counting the number of corridors and activity centers listed in the needs analysis that each route served. System integration was calculated by counting the number of connecting points to other systems along the route, with one point added for park-n-ride



access and one additional point for a PAAC connection due to the large number of destinations served by that system.

Qualitative Scores

The scores for the other qualitative criteria, Community Input, Pedestrian Environment and TOD Support were developed through review and discussion with the Working Committee.

4.2.3 Long List Screening Results

Exhibits 4-4a through 4-4c that follow show the results of the long list screening analysis. Detailed results of the long list screening are included in Appendix F.

Local Service Concepts

The local routes that were included in the long list were created in the working group Workshop and were an experiment to determine whether an intensive level of transit service was practical for Cranberry Township, in keeping with the Steering & Stakeholder Committee's interest in supporting the new land use vision that has been created for the community. The route alternatives included were very frequent and provided excellent coverage of the township.

The long list screening helped in understanding transit operating costs and the locations in the township where population and other activities most justify transit service. The area west of US Route 19, for instance, had more population concentration and was therefore most likely to benefit from transit service. The area most conducive to transit on the east side of US Route 19 was along the PA Route 228 corridor. Five local routes were selected for the long list and were identified as L1 through L5 in the following table.



Route Alternative	Annual Annual		Composite
(Local)	Operating Cost	Capital Cost	Score
L1 - West Loop	\$562,000	\$49,000	4.6
L2 - West Loop Commonwealth	\$608,000	\$50,000	4.4
L3 - West Loop Thorn Hill	\$585,000	\$49,000	4.7
L4 - East Loop Rowan	\$1,006,000	\$80,000	2.2
L5 - East Loop Boundary	\$1,301,000	\$95,000	1.7

Exhibit 4-4a: Long List Local Service Concepts Screening Results

The annual operating costs estimated in the analysis were very high and were not considered practical at this time by the Committee. As a result, the five original local route alternatives, L1, L2, L3, L4, and L5, were dropped from further consideration with the idea that other local circulator service would be identified as the plan progresses.

Study Area Service Concepts

The Study Area alternatives were designed to provide comprehensive coverage of corridors and communities in the Study Area (Exhibit 4-4b). Several alternatives that extended service to Butler were included. Alternatives were retained in all study area corridors. A variation of Route 52 via PA Route 528 was selected as the best option for further study to provide service to Butler.

Study Area routes S1, S2, S3, and S5 were recommended for further analysis. Routes S4 and S6 were not carried forward for the following reasons:

- Route Alternative S4 This route was dropped from further consideration because it serves a smaller population and does not present the same opportunities for coordination with express services to Pittsburgh as route alternative S2.
- Route Alternative S6 This route was dropped from further consideration due to its low score on the criteria and the fact that it ran outside the study area and duplicated other routes while inside the study area.



Route Alternative	Annual	Annual	Composite
(Study Area)	Operating Cost	Capital Cost	Score
S1 - Zelienople / Harmony	\$232,000	\$21,000	9.1
S2 - Zelienople / Harmony / Butler	\$507,000	\$62,000	4.9
53 - Mars / Evans City	\$323,000	\$42,000	7.1
S4 - Mars / Evans City / Butler	\$498,000	\$62,000	4.8
S5 - Valencia	\$238,000	\$41,000	7.2
S6 - Mars / Route 8 / Butler	\$457,000	\$42,000	4.0

Exhibit 4-4b: Long List Study Area Service Concepts Screening Results

Regional Service Concepts

The regional routes (Exhibit 4-4c) were designed to provide service between Cranberry, Zelienople, Seven Fields, Butler, Pittsburgh, Oakland, Rochester, Baden, and a connection to PAAC service along US Route 19. Since interest in light rail transit (LRT) in the study area was expressed during the public meetings, it was included in the long list of alternatives. LRT proved to be much more expensive than various express bus alternatives and was dropped. All express bus alternatives were retained for further study to determine the combination of routes that would best serve the market. As previously mentioned, Route RO (the LRT alternative) was not considered beyond the long list due to its very high cost, many times the bus alternative in both operating and capital cost criteria.

Route Alternative	Annual	Annual	Composite
(Regional)	Operating Cost	Capital Cost	Score
R0 - Pittsburgh Express (LRT)	\$5,561,000	\$22,667,000	0.1
R1 - Pittsburgh Express (BRT)	\$1,288,000	\$234,000	1.2
R1A - Seven Fields Express	\$245,000	\$89,000	6.0
R2 - Oakland Express	\$320,000	\$89,000	4.3
R3 - Zelienople Express	\$335,000	\$118,000	5.5
R4 - Zelienople Butler Express	\$526,000	\$177,000	3.8
R5 - North Hills (PAAC)	\$148,000	\$30,000	9.8
R6 - Rochester	\$192,000	\$30,000	6.8
R7 - Baden	\$172,000	\$30,000	8.3

Exhibit 4-4c: Long List Regional Service Concepts Screening Results



The results of the long list screening were presented to the Steering & Stakeholders Committee at Cranberry Municipal Building on July 22, 2004. Based on the analysis and discussion at the meeting, Route Alternatives L1, L2, L3, L4, L5, S4, S6, and R0 were eliminated from further study.

4.3 Developing and Evaluating the Short List

The long list screening and discussions with the Steering & Stakeholders Committee resulted in the following short list of alternatives. The short list routes are listed in Exhibits 4-5a through 4-5b and shown in map Exhibit 4-6. While local route alternatives were not analyzes as part of the short list, it was recommended that they be developed of the final plan.

Route Alternative (Study Area)	Major Needs Served	Notes
S1 - Zelienople / Harmony	Cranberry Transit Center (proposed), US Route 19, PA Route 68	
S2 - Zelienople/ Harmony / Butler	Cranberry Transit Center (proposed), US Route 19, PA Route 68	Route includes S1 and an extension to Butler.
53 - Mars / Evans City	Cranberry Transit Center (proposed), US Route 19, PA Route 228, Mars-Evans City Road	
S5 - Valencia	Cranberry Transit Center (proposed), PA Route 228, Old State Road	S5 duplicates S3 bet. Cranberry & Mars.

Exhibit 4-5a: Short List Table of Study Area Service Concepts

Exhibit 4-5b: Short List Table of Regional Service Concepts

Route Alternative (Regional)	Major Needs Served	Notes
R1 - Pittsburgh Express (BRT)	Cranberry Transit Center (proposed), US Route 19, Warrendale Park-n- Ride, I-79, I-279, Downtown	Routes RO and R1 are alternatives to each other. Routes R1, R1A, R2 and R3 provide complementary service in the corridor. Any or all could be implemented together.



Route Alternative (Regional)	Major Needs Served	Notes
R1A - Seven Fields Express	Seven Fields Park-n-Ride (proposed), PA Route 228, Warrendale Park-n- Ride, I-79, I-279, Downtown	Routes R1, R1A, R2 and R3 provide complementary service in the corridor. Any or all could be implemented together.
R2 - Oakland Express	Cranberry Transit Center (proposed), US Route 19, Warrendale Park-n- Ride, I-79, I-279, I-579, East Busway	Routes R1, R1A, R2 and R3 provide complementary service in the corridor. Any or all could be implemented together.
R3 - Zelienople Express	Cranberry Transit Center (proposed), US Route 19, Warrendale Park-n- Ride, I-79, I-279, Zelienople, Downtown	Routes R1, R1A, R2 and R3 provide complementary service in the corridor. Any or all could be implemented together.
R4 - Butler Express	Cranberry Transit Center (proposed), PA Route 68, PA Route 528, US Route 19, Warrendale Park-n-Ride, I- 79, I-279, Downtown	Route R4 is an extension of Route R3.
R5 - North Hills (PAAC)	Cranberry Transit Center (proposed), US Route 19	This service is currently provided by PAAC Route 12A during off peak hours only.
R6 - Rochester	Cranberry Transit Center (proposed), US Route 19, Freedom Road, Powell, Darlington Road, Rochester Road	Route R6 and R7 are alternatives to each other.
R7 - Baden	Cranberry Transit Center (proposed), US Route 19, Freedom Road, Beaver County Transit Authority Park-n- Ride	Route R6 and R7 are alternatives to each other.





4.3.1 Evaluation Criteria - Short List

Each transit line included in the short list was evaluated using the criteria presented in Exhibit 4-7. Each line received a score, allowing the study to develop a network of the most appropriate lines and to judge between alternative lines that serve substantially the same corridor.

Criteria	Indicator	
Operating Cost Estimates	Total annual operating cost based on preliminary service plan.	
Ridership Estimation	Estimation of annual ridership.	
Efficiency	Estimate annualized total cost per rider.	
Community Input	Five point score based on the relative strength of support to opposition.	
Elderly Population	Number of elderly people living with in $\frac{1}{4}$ mile.	
Low Income Population	Number of low-income people living with in $\frac{1}{4}$ mile.	
Financial Feasibility	Is total annual cost reasonable?	

Exhibit 4-7: Short List Evaluation Criteria

The following define the short list evaluation criteria:

- Operating Cost This figure was based on the service hour costs of similar services, both in the Pittsburgh area and in similar cities. Total operating cost for each alternative route was used for this level of screening.
- *Ridership Estimation* Ridership estimates for Regional and Study Area routes were created using the SPC regional transportation model. Since the model works by tabulating travel demand between traffic analysis zones (TAZs), only longer routes that travel between at least two, or preferably more, zones can be accurately estimated. The model could not be used for short routes such as the Local routes due to this limitation. Local routes were judged on the other criteria only.
- *Efficiency* Operating hours and ridership estimates were used to develop a boarding ride per revenue hour (BRRH) statistic. This figure allows the comparison of different routes with similar characteristics as to the number of riders that will be attracted for a given amount of service provision. Different types of routes, such as local and regional,



cannot be directly compared because the number of riders per service hour would naturally vary since one is a short distance service and one is a long distance service.

- Community Input This category includes two criteria, strength of support and strength of opposition. The score would be based on the Steering & Stakeholders Committee meetings, the Leadership Workshop, the Public Workshops and all other sources of involvement, including the website, letters, phone calls, and individual conversations.
- Elderly Population The population over 65 years of age living within $\frac{1}{4}$ mile of each stop or station was calculated using GIS data to estimate the size of this transit-supportive market.
- Low Income Population This criterion would have counted the population below the poverty level living within $\frac{1}{4}$ mile of each stop or station using GIS data to estimate the size of this transit-supportive market. However, changes in the way the U.S. Census tabulated sensitive statistics like income made it impossible to count low-income populations on a detailed level. This criterion was eliminated in the final review.
- *Financial Feasibility* This criterion was a subjective assessment of the relative total benefits provided by a particular route compared to its total costs.

4.3.2 Applying the Criteria

These criteria were used to develop a recommendation for each route alternative using the following methodology.

- After reviewing the ridership estimation figures from SPC and discussions with the Steering & Stakeholders Committee, schedules for each route were adjusted as necessary to reflect the expected ridership and the transportation needs of the area being served. In an effort to lower annual operating cost, most routes that were assumed to operate 12 hours a day were changed to operate 10 hours a day. This includes all Local and some Regional routes.
- 2. Operating revenue hours were recalculated for the new schedules.



- 3. Each of the Regional and Study Area routes was "coded" into the SPC regional transportation model and the model was run to determine what level of ridership could be expected on each route. Additional analysis was completed to determine where along the length of the route riders were boarding and alighting to determine whether the entire route or just a portion of it was justified.
- 4. The estimated daily ridership for each route was divided by the daily number of service hours required for the route to determine the BRRH.
- 5. Recent community input was reviewed and reflected in the matrix.
- 6. The elderly population was calculated using GIS.
- 7. Based on the total cost of the route and the benefits it is expected to provide, a subjective assessment of the overall financial feasibility of the route was developed.
- 8. Given all of the criteria considered, an overall recommendation was determined. This is a suggestion only and was meant to stimulate further conversation at the Steering & Stakeholders Committee Meeting.

4.3.3 Short List Screening Results

The SPC model analysis determined that Study Area service to Butler would largely duplicate existing service in Butler. It also determined that it was just as convenient for most riders to travel to downtown Pittsburgh on frequent buses from Cranberry and transfer to other PAAC service to get to Oakland as to provide less frequent but direct express buses to Oakland. The additional operating cost of the direct option was not justified.

The modeling also estimated where people would want to board buses in the study area. A proposed park-n-ride lot at Wexford Interchange attracted the highest number of riders, 690, followed by the existing lot at Warrendale at 325. Park-n-rides to the north in Butler County attracted between 186 at the Cranberry Municipal Building down to 18 at Zelienople/Harmony.

A summary of the results is shown below in Exhibits 4-8a through 4-8b. Detailed results are included in Appendix F. The "phasing" noted in these exhibits denotes a logical sequencing of service development.



Route Alternative (Study Area)	Estimated Boardings / Rev. Hour	Estimated Productivity	Recommendation
S1 - Zelienople/ Harmony	150	12.3	Phase 1
S2 - Zelienople/ Harmony/Butler	610	23.3	Phase 2
S3 - Evans City	250	14.8	Phase 1
S5 - Valencia	190	15.8	Not Recommended

Exhibit 4-8a: Short List Study Area Service Concepts Screening Results

Exhibit 4-8b: Short List Regional Service Concepts Screening Results

Route Alternative (Regional)	Estimated Boardings / Rev. Hour	Estimated Productivity	Recommendation
R1 - Pittsburgh Express (BRT)	1,040	26.6	Phase 1 (Peak), Phase 2 (Off-Peak)
R1A - Seven Fields Express	360	23.7	Phase 2
R2 - Oakland Express	530	32.1	Phase 3
R3 - Zelienople Express	660	31.9	Phase 1
R4 - Zelienople Butler Express	140	14.3	Phase 3
R5 - North Hills (PAAC)	390	37.0	Phase 1
R6 - Rochester	470	47.4	Phase 1
R7 - Baden	140	16.1	Not Recommended

The results of the short list screening were presented to the Steering & Stakeholders Committee at a meeting at the Mine Safety Appliance Company on September 16, 2004. The recommendations provided by the study team were accepted. Primary concerns were the total cost of the program and the way the new services would interact with existing PAAC, NCATA, and BTCJMTA. Most specifically, PAAC was concerned that the new services be coordinated with its existing Route 13K without a loss of PAAC ridership, but including enough new service to fill latent demand from Butler County, which was thought to be high. Rather than incorporating the 13K into the new Cranberry area service pattern from the start of service, as was assumed in the short list, it was felt that leaving the 13K in its current configuration and restricting new services to Butler County would better define organizational responsibilities and clarify funding needs in the early years of service provision in the Cranberry area. This



decision affects routes R1, R1A, and R3. Route R4 did not include pick up stops in Allegheny County.

In other changes, the routes that were not recommended for further consideration, R7 and S5, were eliminated. Both of these alternatives had high costs for the level of ridership estimated and parts of both routes would be served by other routes. In addition, it was decided that the modeling results were persuasive enough to eliminate route R2, Cranberry to Oakland, originally retained for future implementation in Phase 3, from further consideration. While this route was estimated to attract a reasonable number of riders, the alternative of more frequent service and a transfer downtown attracted nearly as many for a lower overall operating cost.

4.4 Refinement of Future Program Alternative

The results of the short list screening and the stakeholder discussions that followed were used to refine a final Future Program Alternative. This plan meets most of the identified needs in the community at a reasonable cost, has been reviewed by all study members, and is the final plan.

Although the short list alternatives included a three-phase approach to implementing the system, it was decided in the preferred alternative to simply present the final network and leave the exact phasing of services to future study.

Local service alternative routes were added to address needs identified by the public and Steering & Stakeholders Committee as well as to create a complete transit system which provides commuting and local circulator service options. Exhibit 4-9 lists the local route alternatives that were analyzed.



Exhibit 4-9: Local Service Concepts

Route Alternative (Local)	Major Needs Served	Notes
L6 – Zelienople Loop	Seneca Park-n-Ride, Mercer Street,	Provides local circulator
	Spring Street, PA Route 68, US Route 19,	service in Zelienople and
	PA Route 528, PA Route 528 Park-n-Ride	Harmony area.
L7 - East West	Cranberry Transit Center (proposed),	Simplified combination of
	Rochester Road, US Route 19, PA Route	route alternatives L4 and
	228, Seven Fields, Adams Ridge	L5.
L8 - North South	Cranberry Transit Center (proposed),	Simplified combination of
	Rochester Road, Powell Road, Freedom	route alternatives L1, L2
	Road, Commonwealth Drive	and L3.

L6, L7, and L8 were analyzed using the short list criteria, the results of which are shown in Appendix F and Exhibit 4-10.

Exhibit 4-10:	Local Servic	e Concepts	Screening Results ¹

Route Alternative (Local)	Annual Operating Cost
L6 - Zelienople Loop	\$80,000
L7 - East West	\$140,000
L8 - North South	\$159,000

¹ No technical method or model was available to estimate boardings for local services.

The three local alternative routes and the regional and study area alternative routes which resulted from the short list screening were combined to develop the Future Program. The Future Program service concepts are listed in Exhibits 4-11a through 4-11c and illustrated in map Exhibit 4-12 that follow.



Route Alternative (Local)	Major Needs Served	Notes
L6 - Zelienople Loop	Seneca Park-n-Ride, Mercer Street, Spring	Added at the request of
	Street, PA Route 68, US Route 19, PA	the Steering &
	Route 528, PA Route 528 Park-n-Ride	Stakeholders Committee.
L7 - East West	Cranberry Transit Center (proposed),	
	Rochester Road, US Route 19, PA Route	
	228, Seven Fields, Adams Ridge	
L8 - North South	Cranberry Transit Center (proposed),	
	Rochester Road, Powell Road, Freedom	
	Road, Commonwealth Drive	

Exhibit 4-11a: Future Program Local Service Concepts

Exhibit 4-11b: Future Program Study Area Service Concepts

Route Alternative (Study Area)	Major Needs Served	Notes
S1 - Zelienople /	Cranberry Transit Center (proposed), US	
Harmony	Route 19, PA Route 68	
53 - Mars / Evans	Cranberry Transit Center (proposed), US	
City	Route 19, PA Route 68, Mars-Evans City Road	

Exhibit 4-11c: Future Program Regional Service Concepts

Route Alternative (Regional)	Major Needs Served	Notes
R1 - Pittsburgh Express	Cranberry Transit Center (proposed), US Route 19, Warrendale Park-n-Ride, I-79, I-279	Routes R1, R1A, and R3 are coordinated between Pittsburgh and Cranberry, forming a comprehensive express service in the corridor.
R1A - Seven Fields Express	Seven Fields Park-n-Ride (proposed), PA Route 228, US Route 19, Warrendale Park-n- Ride, I-79, I-279	Routes R1, R1A, and R3 are coordinated between Pittsburgh and Cranberry, forming a comprehensive express service in the corridor.
R3 - Zelienople Express	Cranberry Transit Center (proposed), US Route 19, Warrendale Park-n-Ride, I-79, I-279	Routes R1, R1A, and R3 are coordinated between Pittsburgh and Cranberry, forming a comprehensive express service in the corridor.



Route Alternative (Regional)	Major Needs Served	Notes
R4 - Butler Express	Cranberry Transit Center (proposed), PA Route 68, PA Route 528, US Route 19, Warrendale Park-n-Ride, I-79, I-279	This route supplements R3 at the PA Route 528 Park-n-Ride and then runs express to Pittsburgh.
R5 - North Hills (PAAC)	Cranberry Transit Center (proposed), US Route 19	This service is currently provided by PAAC Route 12A during off-peak hours only.
R6 - Rochester	Cranberry Transit Center (proposed), US Route19, Freedom Road, Powell, Darlington Road, Rochester Road	

Exhibit 4-12: Future Program Service Concepts





5.0 Implementation Plan





5.0 Implementation Plan

5.1 Introduction

This study has provided answers to several important questions, including the following:

- 1. Is there a specific need for transit services in the communities in and around Cranberry Township?
- 2. If so, what is the most effective way to expand mobility, mitigate congestion and meet current and future demands proactively?
- 3. Based on the study results, what resources are then necessary to make this expansion happen?

The evaluation process has yielded a recommended alternative that has been endorsed by the project Steering & Stakeholders Committee. This last stage of the study will provide further guidance for those steps that are recommended to advance the selected project into implementation.

With completion of the primary study and resulting recommendations, local officials and sponsors necessarily enter a period of choices and decisions that will allow this project to be implemented. Categorically, these decisions can be classified into issues of *jurisdiction, resources,* and *service development*.

To establish a sensible decision-making approach, local officials need to understand the current state of transit funding and programs at both the Federal and State levels. This study has been completed at a time when the reauthorization of a Federal Transportation Program has been debated in both houses of Congress and with the Administration *without result*. The nation currently continues to operate under the former legislation and a continuing proration of appropriations until the Administration and Congress can resolve both funding levels and program requirements.



Similarly, at the state level, the Governor and the legislature continued discussions to provide for a sustainable and dedicated funding program for all transit agencies in the Commonwealth. As such, it is premature to anticipate results or program changes. However, any new funding is unlikely to allow for a service expansion such as that which is being proposed in this study.

Absent a clear sense of any programmatic change or funding levels, it is prudent to recommend a conservative approach to implementation. With these issues in mind, the study team has recommended a 2-phase approach to implementation, the first of which is a demonstration program of a base service plan that provides both expanded commuter service as well as a local circulator service. Each phase of the plan is detailed in the following paragraphs.

5.2 Phase 1 - Demonstration Program

The initial phase would advance a 2-year (minimum) demonstration program to validate ridership, revenues, and costs identified in this study and provide a base system under which a system can be logically expanded in the future based on growth patterns. Such a program would constitute a shared business arrangement between local sponsors and state government without using Federal aid. It would avoid the expenditure of funds for the permanent capital improvements until the demonstration plan can be tested and validated for effectiveness. This conservative approach to implementation allows further community dialogue and supports an incremental decision-making approach for local officials.

The demonstration phase alone presents jurisdictional issues that also would need to be resolved before advancing. For example, a project delivery organization needs to be able to meet several "tests" before moving ahead. Such an organization must have a legal ability to do the following:

- Become a recipient of state grant support under a demonstration program, thereby accepting the legal responsibilities of a public grantee,
- Execute the service delivery plan by either contracting for service, or via self-delivery (an operating agency), and



• Ultimately, to be able to be a recipient of "urban" program funds from the Commonwealth of Pennsylvania under its current program.

Currently, no such organization exists, though it is most logical for the Butler Township - City Joint Municipal Transit Authority (BTCJMTA) to become that organization since it has received local jurisdictional authority from the Board of Butler County Commissioners to operate countywide, something not previously authorized. A determination should be sought from the state department of transportation as to the legal ability of BTCJMTA to become a demonstration program grant recipient. Another reason for this approach is that a legislative remedy may be necessary for BTCJMTA to be able to receive operating and maintenance funding support under the state's urban program. Currently, BTCJMTA is able to receive only rural program funds from the state.

The demonstration plan network was developed based on the Future Program for the Cranberry area. This smaller, more affordable system was created using the following criteria:

- *Coverage* The system covers as much of the key routes identified in the planning process as possible.
- *Cost* The demonstration program funding is limited, so only the key routes could be covered at the lowest frequency and span of service that would attract riders from the key markets.
- *Key Markets* The demonstration program is aimed at the most likely markets to use transit commuters from the communities along Route 19 to Pittsburgh and seniors and other groups who typically rely on transit more heavily in the more built-up parts of the study area.

The Demonstration Program service concepts are listed in Exhibits 5-1a through 5-1c and are illustrated in map Exhibit 5-2. As shown, both local circulator and expanded commuter services are recommended to be tested together, and coordinated through the establishment of a temporary "hub" to assure connectivity. A connecting service to the City of Butler is noted as optional and subject to local decision.



Route Alternative (Local)	Major Needs Served	Annual Operating Cost	Notes
L8 - North South	Cranberry Transit Center (proposed), Rochester Road, Powell Road, Freedom Road, Commonwealth Road	\$159,000	This route serves the areas west of the PA Turnpike and connects with PAAC Route 13K at Warrendale Park-n-Ride.

Exhibit 5-1a: Demonstration Program Local Service Concepts

Exhibit 5-1b: Demonstration Program Study Area Service Concepts

Route Alternative (Study Area)	Major Needs Served	Annual Operating Cost	Notes
S1 - Zelienople /	Cranberry Transit	\$232,000	This route serves areas north
Harmony	Center (proposed),		of Cranberry and makes a
	US Route 19, PA		timed connection with R1 for
	Route 68		commuters to Pittsburgh.
53 - Mars/Evans	Cranberry Transit	\$323,000	This route serves the area
City	Center (proposed),		east of Cranberry and makes
	US Route 19, PA		a timed connection with
	Route 228, Mars-		Route R1 for commuters to
	Evans City Road		Pittsburgh.

Exhibit 5-1c: Demonstration Program Regional Service Concepts

Route Alternative (Regional)	Major Needs Served	Annual Operating Cost	Notes
R1 - Pittsburgh Express (BRT)	Cranberry Transit Center (proposed), US Route 19, Warrendale Park-n-Ride, I-79, I- 279, Downtown	\$358,000	In the demonstration service, Route R1 provides a trunkline connection to Pittsburgh and the PAAC system. Off-peak service is operated every 2 hours instead of every 30 minutes.



R4 - Butler Express (Optional Service)	Cranberry Transit Center (proposed), PA Route 68, PA Route 528, US Route 19, Warrendale Park-n- Ride, I-79, I-279, Downtown	\$152,000	This route would operate with two trips during peak times.
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Precise routing and scheduling for the program can be completed once the key hub and parking nodes are known and prior to submission of the funding application. A preliminary funding analysis for the demonstration program has been completed both with and without inclusion of the Butler service element. The preliminary financial plans are shown in Exhibits 5-3 and 5-4. Note that for each case, the exhibits illustrate state/local match for a range of match ratios. For planning purposes, we have assumed the split to be 85-15. Exhibit 5-2: Demonstration Program Service Concepts



Cranberry Area Transit Study





Exhibit 5-3: Demonstration Program Proposal Annual Operating Budget Estimate

Baseline Cost Case (all data in \$000)

Base Case Annual Operating Expenses Fleet Leases Park-n-Ride Leases Subtotal	\$1,130 \$120 <u>\$50</u> \$1,300	\$1,300		
Fare box Recovery @ 50% Lottery Reimbursement Subtotal	\$455 <u>\$63</u> \$518	\$518		
Subsidy Requirement State/Local Match Ratio Annual State Match Annual Local Match	\$783 <u>90-10</u> <u>\$704</u> <u>\$78</u>	\$783 <u>85-15</u> \$665 \$117	\$783 <u>66-33</u> \$522 \$261	\$783 <u>50-50</u> <u>\$391</u> <u>\$391</u>
With Butler Service				
Annual Operating Expenses Fleet Leases Park-n-Ride Leases Subtotal	\$1,352 \$130 <u>\$60</u> \$1,542	\$1,542		
Fare box Recovery @ 50% Lottery Reimbursement Subtotal	\$500 <u>\$70</u> \$570	\$570		
Subsidy Requirement State/Local Match Ratio Annual State Match Annual Local Match	\$972 <u>90-10</u> <u>\$875 \$97</u>	\$972 <u>85-15</u> \$826 \$146	\$972 <u>66-33</u> \$648 \$324	\$972 <u>50-50</u> <u>\$486</u> \$486



Exhibit 5-4: Demonstration Program Proposal Annual Operating Budget Estimate

Optimistic Case (all data in \$000)

Base Case Annual Operating Expenses Fleet Leases Park-n-Ride Leases Subtotal	\$956 \$84 <u>\$40</u> \$1,080	\$1,080		
Fare box Recovery @ 50% Lottery Reimbursement Subtotal	\$540 \$105 \$645	\$645		
Subsidy Requirement State/Local Match Ratio Annual State Match Annual Local Match	\$435 <u>90-10</u> <u>\$392</u> <u>\$44</u>	\$435 <u>85-15</u> \$370 \$65	\$435 <u>66-33</u> \$290 \$145	\$435 <u>50-50</u> <u>\$218</u> <u>\$218</u>
With Butler Service				
Annual Operating Expenses Fleet Leases Park-n-Ride Leases Subtotal	\$1,176 \$94 <u>\$50</u> \$1,320	\$1,320		
Fare box Recovery @ 50% Lottery Reimbursement Subtotal	\$585 \$115 \$700	\$700		
Subsidy Requirement State/Local Match Ratio Annual State Match Annual Local Match	\$620 <u>90-10</u> <u>\$558</u> <u>\$62</u>	\$620 85-15 \$527 \$93	\$620 <u>66-33</u> <u>\$413</u> <u>\$207</u>	\$620 <u>50-50</u> \$310 \$310



Expanded Commuter Services - Expanded express services between Cranberry area communities and the City of Pittsburgh are proposed to operate from 3 or 4 new park-n-ride sites in the local area (approximately 400 spaces) every 30 minutes in a peak hour operation and every 2 hours for off-peak and Saturday services. Services would be operated using a commuter coach fleet of eight (8) vehicles. The most critical aspect of this service is the ability to site the available parking and establish a temporary "hub" for coordination with other services. Site evaluation for the parking reservoirs is underway by agencies staff members.

Service Area and Local Services - Local community services would also be established as part of the demonstration program that would connect the communities of Zelienople, Harmony, Mars, and Evans City. A local circulator service operating on the west side of US Route 19 and connecting to the hub would also become part of the demonstration program. These routes would be operated by a small or minibus fleet with hourly service for all weekdays and Saturdays.

For a demonstration program to be advanced, there are also a number of "critical path" items that need to be resolved in a positive fashion as well. Beyond the jurisdictional issues cited above, local funding resources will need to be guaranteed to leverage state support for the program. Precisely how and who provides that financial support will need to be negotiated among local leaders as early as possible. A second critical path item (currently underway) is to identify the "in the field" options for securing a minimum of 400 park-n-ride spaces and a temporary operating hub that will be needed for commuter connections. Location of at least 4 sites is optimum, and it is likely that these spaces will need to be leased by either the project sponsor or local municipalities. In the overbuilt retail parking environment that exists, a retailer may be able to "donate" space as a private sector contribution to the program. Additionally, it may be possible to work with the Department of Transportation to establish a portion of these spaces in state-controlled public rights-of-way.

Other critical path items include the identification of a qualified local carrier to provide the services of the demonstration program. Proposals should be sought



based on a further detailed service and operations plan to assure consistency and fairness of the competitive process.

These issues would need to be resolved prior to advancing a proposal to the state for the demonstration. It is recommended that these issues be advanced quickly for resolution to determine the ability to enter into a demonstration program. Such an agreement among key local parties should be documented into a "Memorandum of Understanding," or MOU. This step will allow all parties to express their respective commitments to the demonstration program and establish key aspects of needed working relationships. For example, an MOU would identify how communities will collaborate in setting approved parking and "station" locations and what each party would provide.

Should these issues be resolved positively, an application can then be prepared for submission to the department based on a refined cost and revenue model and a firmer identification of subsidy requirements. It is further recommended that local officials work together to advance an implementation plan that permits the start-up of demonstration service in the spring of 2006. In general, it is unwise to startup a new operation in either the winter or the summer. Fall and spring start-up is far preferable and can allow adequate time for marketing of the new service to occur. Additionally, this schedule would enable meaningful local talks and, where needed, would allow municipalities or County government to enter financial support into their normal budgeting processes.

With the advancement of a demonstration program, it will be important to discuss and agree on how to measure the effectiveness of the program from both a service and financial perspective, i.e., what constitutes success?

5.3 Phase 2 - Future Program

With the successful completion of the demonstration program, this long-term program can be expanded incrementally based on both changing growth patterns as well as local ability to assemble continuing local financial support and state matching aid. This approach will allow the local sponsors to be in a position to leverage Federal support for the design and construction of permanent capital



assets for the system, including a modern transit hub, new fleet, a light duty maintenance center, and the establishment of permanent "stations" (with parking) for the expanded commuter system. A preliminary budget for the second phase capital program is shown in Exhibit 5-5. As noted, the full program cost is expected to total \$26.5 million, to be funded under historical levels of match from the Federal and State government. All capital assets for the permanent system are noted, but can be constructed sequentially, or as funding can be assembled and design and environmental clearances are secured.

		Unit	
		Cost	Total Cost
Capital Asset Description	Number	(\$000)	(\$000)
Transit Center (hub)	1	\$4,000	\$4,000
Light-duty maintenance center	1	\$10,000	\$10,000
Park-and-ride/van pool lot	1	\$6,000	\$6,000
BRT Stations	6	\$150	\$900
Fleet Expansion			
-Commuter Coaches	8	\$350	\$2,800
-Mini Buses	6	\$150	\$900
-Spare Parts Inventory	1	\$140	\$140
ITS Systems	1	\$1,260	\$1,260
Amenities Program	1	\$500	\$500
Total Cost			\$26,500
-Federal - 80%			\$21,200
-State - 16-2/3%			\$4,386
-Local - 3-1/3%			\$914

Exhibit 5-5: Capital Investment Plan

It is important to note that a significant "amenities" program should be developed concurrently with the capital plan that would include sidewalks, stations offering connections to bike paths at suitable locations, and full ITS passenger information systems. It may be possible to secure funding for these improvements under other grant programs such as Main Street or Community Development programs. Federal "Job Access - Reverse Commute", or JARC funds should also be sought within the Transit Operator's Committee of the Southwestern Pennsylvania Commission.



It is recommended that the Township work to establish a "transit center or "hub" as part of a larger effort to develop its proposed "Main Street / Town Center." As is currently proposed, the site directly across Rochester Road from the current Municipal Center is an excellent location. Permanent locations for 5 - 6 stations would also begin to give the system a more permanent "face." The proposed service concept would include an expansion of the commuter express service with the application of Bus Rapid Transit (BRT) design principles to assure that this service does not become delayed with local congestion. These design principles may include dedicated lanes, queue jumpers, etc., in certain road system links.

An optional strategy for implementation would include repackaging this transit study and its identified needs with land use planning and "Main Street" has a comprehensive integrated program. Such a strategy would allow the applicant to access a broader range of funding, such as state infrastructure banks or Department of Commerce funding. The additional benefit of this strategy is that it allows both land use and transit program initiative to proceed together. Since land development and transit program success are interrelated, the strategy will optimize the application of public funding and help the communities in the Cranberry area to achieve a fully balanced program.

5.4 Advancing the Project to Implementation

This study has been completed at a conceptual level and enters a period of local decision-making. The next stages of work would be for all affected local parties, i.e., each municipality, the Southwest Pennsylvania Commission (SPC), local service providers including BTCJMTA and Port Authority of Allegheny County, and other key parties to negotiate an intergovernmental agreement which would spell out the roles and responsibilities of all local parties that would need to collaborate through the implementation process. Such an effort can also be completed in two (2) phases - the demonstration phase and the final phase. For the first phase (demonstration), it would be sufficient to develop a Memorandum of Understanding, or MOU, among responsible parties. Roles and responsibilities would address a range of issues, including legal and regulatory, funding arrangements for both capital and operating programs, and how the



system would be operated. For example, such an agreement should include incorporation of any applicable design standards for transit systems that are currently in development.

5.4.1 Elements of a Local Intergovernmental Agreement

Once all stakeholders of such an agreement are identified, there should be clarity as to the purpose of such an agreement, but, at a minimum, a statement of purpose and a set of defining principles under which this agreement will be developed and approved by the parties are critical. They should include the following:

Phase 1 Memorandum of Understanding

- To identify, document, and agree on the particular interests of each party with respect to the project and the requirements to be placed on each party during its development,
- To describe the respective roles and responsibilities of each party and to establish methods of collaboration to achieve the goals and objectives to advance the project,
- To establish a dispute resolution process to resolve any issues that may arise as the project advances, and
- To agree and commit to a specific funding strategy and allocation of local resources for all project phases going forward.

Phase 2 Intergovernmental Agreement

Assuming Phase 1 is successfully completed, and the parties wish to continue to establish transit as a permanent part of their future, a more detailed intergovernmental agreement should address the following topical areas at a minimum:

- Coordination with regional plans and priorities
- The project development and delivery process to be used (i.e., design/build or design-bid-build)
- Environmental clearance process
- Designated liaison for coordination with Federal and State officials



- Project master budget and schedule
- Project management strategy
- Coordination with local plans, land use, permitting, and zoning
- Right-of-Way acquisition and use procedures
- Coordination of utilities
- Design reviews and quality assurance
- Insurance and indemnification requirements
- Use of eminent domain
- Training and certification of operators
- Safety and security provisions
- Traffic plans during and after construction
- Ethics and standards of conduct provisions (if needed)

Advancing The Project With Federal Aid

A critical issue to be resolved through this agreement process is whether or not to seek Federal funds for environmental clearance, design, and construction. This issue alone is quite complex and deserves a thoughtful understanding of all ramifications of seeking this aid. Adding to the current complexity of this issue is that Federal Reauthorization of its transportation program has not been completed as of this report date. Neither funding levels nor program requirements are known to date. Both SPC and local officials must stay alert to developments as this important legislation continues through the legislative approval process.

In current Federal programs, the most prominent program for which such an expansion could take place is the "New Starts" program. This program, however, has been historically utilized by major urban transit systems to initiate major capital-intensive programs such as a new light rail line. Throughout the congressional discussions, however, much discussion centered on development of a program called "Small Starts." Such a program, if later it became part of the new authorization, would be a logical "place" to seek funding for this project - projects under \$75 million with simplified eligibility and implementation requirements.

Assuming, again, that a new Federal program is in place following a successful completion of the demonstration program, we can assume that capital assets will



be able to be purchased at an 80% Federal share and with a one-sixth (1/6) state share as in the past. Local funds that leverage these state and Federal funds are noted in Exhibit 5-3 and Exhibit 5-4.



Appendices

Appendix A

CRANBERRY AREA TRANSIT STUDY

Public Meeting No. 1 Final Summary



Report prepared by: Olszak Management Consulting, Inc.

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I. EXECUTIVE SUMMARY

Introduction

Southwestern Pennsylvania Commission (SPC) conducted its first community open house for the Cranberry Area Transit Study on Tuesday, March 16, 2004 and Wednesday, March 17, 2004 at the Cranberry Township Municipal Building, 2525 Rochester Road, Cranberry Township. The meeting was held in an open-house format and included separate public officials' briefing times. The purpose of the meeting was to:

- Introduce the project
- Educate the public on transit options
- Gather feedback on transit needs in the project area

Project Team members led attendees through the stations, provided information and answered questions.

Public Officials' Briefings

Public officials' briefings were conducted from 1:00 - 2:00 p.m. and 4:00 - 5:00 p.m. Officials had the opportunity to visit the stations and displays and discuss the project with the project team. The public officials that attended include:

	FIRST NAME	LAST NAME	TITLE	REPRESENTING
1.	Mr. Edward	Vogel	Supervisor	Adams Township
2.	Mr. Bill	Detwiler	Councilman	Borough of Seven Fields
3.	Mr. Tom	Smith	Borough Manager	Borough of Seven Fields
4.	Mr. James	Kennedy	Commissioner	Butler County Commissioners
5.	Mr. Harold	Herr	Councilman	Harmony Borough
6.	Mr. Scott	Anderson	Director of Code Administration and Land Development	Pine Township
7.	Mr. Mike	Dennehy	Supervisor	Pine Township
8.	Mr. Phil	Henry	Supervisor	Pine Township
9.	Ms. Marlene	Lott		Representative Daryl Metcalfe's Office
10	Ms. Pam	Wahal	Legal Assistant	Senator Jane Orie's Office
11	. Ms. Marla	Marcinko	Borough Manager	Zelienople Borough

PUBLIC OFFICIALS
A total of 31 comment forms were completed. A brief summary of responses is provided below. A more detailed recap is included in section IV of this report.

- Residence of respondents: Cranberry (15); Other (7); Unknown (9)
- Identified Needs: Transit is needed (13); reduce traffic (4); Cranberry is growing (4); more Park-n-Ride lots (3)
- Important Places to Serve:
 - Local Shopping (18); recreation facilities (7); municipal building (6); schools and colleges (5); senior centers and housing (5)
 - Commuting Downtown Pittsburgh (14); Park-n-Ride lots (3)
 - Regional connections Points north (13); Pittsburgh-non-commuting (7); Airport (7)
- Potential Routes Route 19 (17); Freedom Road (11); Route 228 (10); I-79/I-279 (6); Route 8 (6); Rochester Road (5)
- Preferred Modes Small shuttle buses (16); large buses (7); rail (6)
- Suggested Stations:
 - Local shopping centers (15) including Wal-Mart (2); Cranberry Mall (2)
 - Cranberry municipal building (5)
 - Locations near parking areas (3)
 - o Regional Airport, Pittsburgh, Butler, Erie, New Castle, Zelienople
- Was the information understandable? 19 yes, 12 no answer.

II. GENERAL INFORMATION

When and Where:

March 16, 2004 11:30 – 2:00 p.m. – Public Meeting 4:00 - 7:00 p.m. - Public Meeting 1:00 – 2:00 p.m. and 4:00 – 5:00 p.m. - Public Officials' Briefings *March 17, 2004 11:00-2:00 p.m. – Public Meeting Cranberry Township Municipal Building 2525 Rochester Road Cranberry Township, PA 16066 *Second day scheduled due to inclement weather on March 16

Purpose:

- Introduce the project
- Educate the public on transit options
- Gather feedback on transit needs in the project area

Who Was Invited:

Letters were mailed to public officials in the project area inviting them to attend the public officials briefing.

The community was notified of the meeting via newspaper advertisements, community calendars, the Cranberry Township website and radio PSA's.

A press release was sent to local media on Thursday, March 11, 2003. A copy of the press release is included in the Appendix.

A 3.75 by 4.75 inch ad ran in the *Pittsburgh Post-Gazette North, Butler Eagle, Cranberry News Weekly and Cranberry Journal Star*, all on Wednesday, March 10, 2004 (6 days prior to the meeting)announcing the public meeting. A copy of the ad is included in the Appendix.

Who Attended:

• A total of forty-eight (48) people attended the three meetings, including eleven (11) public officials and thirty-seven (37) general public.

The following Project Team Members also attended the March 16 meeting:

Bruce Ahern, *Michael Baker* Max Heckman, *Michael Baker* Carla Santoro, *Michael Baker* Robbie Robbins, *Michael Baker* Carol Uminski, *SPC* Chuck Imbrogno, SPC Lynn Colosi, URS Glenda L. Murphy, Olszak Jamie L. Brush, Olszak

Media Coverage:

The meeting was covered by local media, as follows:

- The Butler Eagle ran a follow-up article on page one of the March 17 edition.
- The Cranberry Journal Star sent a staff writer to cover the public meeting.

III. FORMAT

The public meeting was structured in an open house format and provided the public with an opportunity to speak one-on-one with project team members, to receive information, to ask questions and to identify issues of concern and need regarding the project. Display boards were available for viewing.

Open House Area:

The Open House Area included four Display/Information Stations.

Registration Station- Attendees were asked to sign-in, provide their contact information, and were given a fact sheet.

Introduction – Attendees were provided an overview of the project.

• Displays:

Station Sign and four display boards: Project Overview; Project Area Map; Project Schedule and What We've Heard.

Transit Options – Attendees were shown options for different modes of transit.

• Displays:

Station Sign and five display boards of transit: Menu; Community; Local; Neighborhood; Transit Oriented Development (TOD).

Comment Area – Attendees completed their own comment forms and were provided the opportunity to mark a map of the project area to show where they lived, worked or traveled and identify the area of greatest need for transit, transit routes and potential station locations.

• Displays:

Station Sign and two large maps of project area mounted on easels.

V. ANALYSIS OF COMMENT FORMS

- Number of comment forms completed: 31
- Residence of respondents: Cranberry (15); Other (7); Unknown (9)
- Identified Needs: Transit is needed (13); reduce traffic (4); Cranberry is growing (4); more Park-n-Ride lots (3)
- Important Places to Serve:
 - Local Shopping (18); recreation facilities (7); municipal building (6); schools and colleges (5); senior centers and housing (5)
 - Commuting Downtown Pittsburgh (14); Park-n-Ride lots (3)
 - Regional connections Points north (13); Pittsburgh-non-commuting (7); Airport (7)
- Potential Routes Route 19 (17); Freedom Road (11); Route 228 (10); I-79/I-279 (6); Route 8 (6); Rochester Road (5)
- Preferred Modes Small shuttle buses (16); large buses (7); rail (6)
- Suggested Stations:
 - Local shopping centers (15) including Wal-Mart (2); Cranberry Mall (2)
 - Cranberry municipal building (5)
 - Locations near parking areas (3)
 - o Regional Airport, Pittsburgh, Butler, Erie, New Castle, Zelienople
- Was the information understandable? 19 yes, 12 no answer.

Detailed findings from the comment forms follow. Because a large number of participants did not complete comment forms, this report ends with a section containing verbal comments captured by Lynn Colosi and Max Heckman.

Comment Form Respondents

Meeting Date	Meeting	Number
2/16/04	Homeowners Associations	5
3/16/04*	Community Open House	26
	Total	31

* Additional meeting held 3/17 due to weather.

	Comme	Comment Forms	
Zip	Numbe	Percent	
	r		
16066 (Cranberry)	15	48%	
15044 (Gibsonia)	2	6%	
16037 (Harmony)	2	6%	
16063 (Zelienople)	2	6%	
15005 (Baden)	1	3%	
Unknown	9	29%	
Total	31	100%	

Findings

1. How do you feel about current transit needs in your community?

Number	Category	Responses
13	Need - general	A need certainly exists. Definitely needed. Enthusiastic. I believe there certainly exists a need for a more comprehensive and efficient transit system. It is needed. It would be great. Lacking in community-residential areas to commuter transit, more frequent commuter buses to city. Needed. Parking is too expensive in Pittsburgh. Room for much improvement - I think there is a great need for efficient, easily accessible public transportation that is now extremely limited. The needs are great in size. There is no current transit in my community, so I think it would be a great asset. Very limited. We need some plan to expedite not using a car.
4	Need - traffic problems	At this point it would be an added convenience. It might (alleviate) traffic during the week. Less traffic, reduce air pollution. Too much traffic in Cranberry Township. Yes, it would limit the amount of vehicle usage on the road.
4	Need - growing	Cranberry's growth warrants additional transit options. I am not aware of what is offered since I am still able to drive; however, for the future, bus service would be a great help. I think if you build it they will come; with all the expansion in and around Zelienople planned and around Cranberry it is going to be needed desperately. With all the growth and development, the time is right to consider some type of transit system both bus and taxi.
3	Need - parking	Needs are met but lack parking spaces or multiple locations (only 2 exist today). Parking at the Park-n-Ride areas are entirely too small. By 7:30 the parking places are taken. We need more Park-n-Rides with express service into Pittsburgh.
1	Need - Butler	We also need transit into downtown Butler.
1	Need - Downtown	Need improvement to Downtown Pittsburgh.
1	Need - Zelienople	Public transit is needed in the Zelienople area to points south.
1	No need	We do not need buses, etc. People have car or do not move out here. We have very clean air and do not need any public transportation.
4	Other	I do not know of any local transit. The transit needs to Pittsburgh seem to be working. If one is developed - it should be self-funded and not need subsidized. I'm open to suggestions, however I oppose regional activity. Not an urgent need but would be an enhancement if it is done without raising taxes - would love to be without burden to township budget.

2. Where are the most important places you feel transit should serve?

Number	Category	Responses
18	Shopping	Cranberry Mall (2). Locally for shopping purposes. Malls (5). Movies. Restaurants. Shopping. Shopping areas (5). Shopping centers (3). Shopping strips.
7	Recreation	All parks. Community parks. Evening activities for children. Local parks. Parks. Pool in summer. Cranberry Pool.
6	Municipal Building	Community building. Municipal building (2). Municipal center. Municipal center - Cranberry Township. Should come here.
5	Educational	Colleges. Elementary, middle and senior schools in Zelie. From main arteries to schools. High schools. Schools.
5	Senior	Retirement housing on Rochester Road. Senior center. Senior citizen housing plans. Senior/assisted living homes. Seniors.
3	Medical	Being retired and growing older, it would be nice to have transit to various hospitals, medical facilities. Hospital. Medical offices
6	Other	All large housing plans. Churches. Costco. Industrial parks. Local businesses. Residential to communities.

Local Circulator Services

Commuting

Number	Category	Responses
14	Downtown Pittsburgh	Downtown (10). Cranberry to Pittsburgh (2). Pittsburgh/Oakland. T-Stations.
		1-Stations.
3	Park & Ride	Commuter lots. Park & Ride. Park & Ride to Pittsburgh

Regional Connections

Number	Category	Responses
13	Points north	Ross Park Mall (2). Zelienople (2). Cranberry and Harmony north. Cranberry to Butler. Erie and other points north. Grove City. Meadville. New Castle. Slippery Rock.
7	Pittsburgh (except commuting)	City events. Downtown theaters. Downtown sporting events (Pirates and Steelers games). Train station. Oakland. Station Square. Strip District stores.
7	Airport	Airport (5). Greater Pittsburgh Airport. Pittsburgh and Airport south.
4	Points south	Allegheny County. UPMC Passavant. Wexford. McKnight Road.
6	Other	Route 19. Route 228. Route 8. Seven Fields. Up and down Route 19. Beaver County.

Number	Route
17	Route 19 (16). Route 19 to Ross Park Mall
11	Freedom Road (10). Freedom Road - Cranberry Mall - Haines School Road
10	Route 228 (9). Route 228 shopping.
6	I-279/I-79-Downtown Pittsburgh. I-79 (3). I-79/279 (2).
6	Route 8 (5). Route 8 corridor.
5	Rochester Road
3	Powell Road (3)
2	North Boundary Road (2)
2	North to Zelienople (2).
1	Babcock Blvd.
1	Bowan Road
1	Commonwealth
1	Cranberry Twp to Pittsburgh-Downtown and Oakland
1	East-West, Wheeling, Steubenville, Youngstown
1	Economy Borough (Bradford Park area)
1	Franklin Road and Route 228
1	Glen Eder Road - Powell Road
1	Pearce Mill Road
1	Pittsburgh-Erie
1	Put in a sort of beltway circle
1	Red Belt
1	Rock Road
1	Rolling Road
1	Roven Road
1	South to Passavant Hospital and Ross Park Mall
1	The 2 parks in Cranberry
1	Thomson Road
1	Wallace Road
1	West to Beaver Valley
1	Zelienople-Cranberry-Pittsburgh
1	Zelienople-Wexford-Beaver

3. What potential corridors and routes should be served?

Number	Category	Mode
16		Shuttle buses. Shuttle buses to the Park-n-Ride might lighten the overcrowded parking at Blade Runners. Small buses. Small shuttle buses (5). Small shuttle buses at appropriate times for lunch, theater matinees, store hours. Small shuttle would be less expensive to operate and maintain plus easier access to/in various housing developments. Small shuttles (2) Smaller (buses) to Butler. Smaller buses to Airport. Smaller buses to local shopping. Use mini buses to bring (people) into station - then get on suspended rail cars to get on the mini beltway to all the stops.
7	Large	Large buses (2). Large buses for local services. Large buses to Pittsburgh. Large buses to Zelie. Larger buses to Downtown - rush hours. Same large buses as used today.
6	Rail	Consider rail from Mars to Pittsburgh via existing rail lines. I like light rail for larger commutes but need buses to get to these hubs. Light rail. Light rail with its own right of way. Suspended electric rail cars above the existing roads would use less ground space and not interfere with existing roads. "T".
4	Mixed	All, depending on traffic flows. Both - depending on need. I believe in a combination approach in order to truly meet demand. Medium to large, depending on the passenger participation.
6	Other	Whatever is appropriate. Electric buses or trolley. Fewer buses - they add to traffic congestion. Park-n-ride - increase spaces and schedule (more options needed). Vans. Whatever works for the greater majority.

4. What modes (large buses, small shuttle buses) do you feel should be considered?

5. What locations would make good station options?

Number	Category	Locations
15	Local - Shopping	Wal-Mart (2). Cranberry Mall (2). Cranberry Mall, if parking is available to Park-n-Ride going into downtown Pittsburgh. All malls. All shopping centers. Grocery stores. Giant Eagle. Kohl's. Lowes. Mall on 228. On 228 near current shopping area. Maybe spaces in the Target/Kohl's/Lowes shopping center can be made available. Williamsburg Cleaners
5	Local - Municipal Building	Cranberry Township. Cranberry Township municipal building. Freedom and Haine. Municipal center. Municipal building.
3	Local - Parking	Locations near parking areas. Somewhere with ample parking. Where there is adequate parking or accessibility.

Number	Category	Locations
23	Local - Other	Ashford Manor condo entrance. Community center. Community parks. Cranberry Library. Dance centers. Gas stations. High schools. Hospital. Housing plan entrances. Indoor soccer. Industrial parks. Locations accessible on Route 228 (to 79). May need numerous and varied locations to accommodate elderly passengers who may not be able to walk long distances or up and down hills within township. Office buildings. Pool. Possibly other parking areas located in Thorn Hill Industrial Park (where Blade Runners is located) can be used for parking. Rochester and Haine. Route 19 corridor. School bus stops. Selected locations on Route 19. Senior center. Senior housing parking lots. Subdivisions on the bus line.
9	Regional	Airport. Butler. Cranberry (2). Erie. New Castle. Pittsburgh (2). Zelienople.
2	Other	In Pine our new town center which will be located at Route 19 and Wallace Road - across from Northway Christian. Stay away from anywhere along Route 19 due to traffic congestion.

6. How did you hear about today's meeting?

Number	Category
10	Just Walking By
6	Mail
2	Newspaper Ad
1	Township meeting
1	Word of Mouth
11	Not specified

7. Was the information presented understandable?

Number	Category
19	Yes
12	No answer

Comments about the presentation

Well done for exploratory introduction

The walk-thru was very informative

She did an excellent job

Need more specifics for flows and directions

Didn't have time to stay - bad snowstorm

Additional comments from completed forms:

Comment The study should include a comprehensive approach to moving people out of their single-occupant vehicles (i.e., target large employers to provide incentives for those traveling in HOVs, flex-time for employees to move out of peak hours. Additional transportation options are needed. Getting into and out of Pittsburgh easier could help both area economies.

Heading north, although Erie is farther away, is a viable option to be considered.

Bus stops would have to be safe areas to wait and also not require too much walking since most non-drivers would be senior citizens or youth.

We need rapid transit along the 279-79 corridor from Cranberry to downtown Pittsburgh. This should consist of a high-speed light rail system or something similar. This seems to work on the South Side.

Additional (unwritten) comments from meeting attendees:

From a resident, Bruce

Locally he'd like to see service to Cranberry Park/swimming pool. Also service to the park off of Mashuda, which has the baseball and football fields and is the location where all of the holiday celebrations are held.

Bruce envisions smaller buses only doing local routing from plan to plan. Wants the route to connect with Port Authority park and ride and to Evans City park and ride for commutes to town. He also wants bike trails connecting all of the parks.

From Brian, another resident

He's all for transit service locally and to Pittsburgh. He wants "Special Event" service to Pirates and Steelers games and to Grove City Shops.

Marlene, resident

She said that Simon is building a new mall near 79 and that integrating a transit facility and park and ride would make sense.

Unnamed resident

He wants to see high-speed rail utilizing the HOV lane with stations in Zelienople and Cranberry to Downtown Pittsburgh.

Notes from Maps:

- Seven Fields Borough will be adding a restaurant and Giant Eagle
- There should be a Park and Ride at Lowe's plaza on SR 228
- There are two abandoned rest areas on I-79 north of Rowan Road. They could be used for Park N Ride and/or transit stations if they were connected to the local road system.
- A Park and Ride lot is needed closer to Zelienople.
- There is a utility R/W along Boundary Road use for transit?
- Incorporate with SR 228 Study
- The following activity centers within the study area were mentioned as locations that should be served by public transportation:
 - Cranberry Mall
 - Cranberry Municipal Center
 - Warrendale Park and Ride Lot (mentioned 4 times) local buses could drop people off there to transfer to Pittsburgh bus lot fills up by 7 AM.
 - SR 528 Park and Ride
 - Blade Runners Park and Ride
 - Parks (Boundary, Mashuda)
 - There will be a new Y on US 19 north
 - Sherwood Oaks
 - Zelienople area and rural areas closer to Route 8 have many elderly who drive but probably shouldn't.
 - There is a retirement community next to Lutheran School in Zelienople that is not shown on the map.
 - Harmony Boro needs service to Cranberry and Pittsburgh
- The following destinations external to the study area were mentioned:
 - Downtown (4 times)
 - Airport (3 times)
 - Ross Park Mall
 - o North Hills Passavant Hospital
 - Oakland
 - o Erie
 - o Butler
 - Grove City Shops

Other Comments:

- Bike lanes or bike paths are needed.
- Cranberry, Seven Fields, Adams have many early teens who can't drive yet, totally dependent on parents local transit service needed for them. Sell monthly passes to make it affordable.
- We should talk to taxi and limo drivers in the area, find out where people go.
- Do it privately. In Boston area, large employers and retail/restaurant centers band together and pay for systems that run between office parks, nearby residential areas and businesses it's worthwhile to deliver customers and employees to where they are needed. Don't have to worry about union rules, etc.

- Bring back the buses for the old people.
- Establish service up and down Route 19. Service Cranberry Road and Marshall Road and also to Pittsburgh.

Attachments

- I. Newspaper Ad
- II. Press Release
- III. Public Officials' Invitation Letter

NEWSPAPER AD

PUBLIC MEETING ANNOUCEMENT CRANBERRY AREA TRANSIT STUDY



What do you feel are the current transit needs in the Cranberry area?
What areas should transit serve?

TRANSIT STUDY The Cranberry Area Transit Study is the first step in identifying and developing a variety of transit options for Cranberry Township and the surrounding area.

WE NEED YOUR INPUT...

The Southwestern Pennsylvania Commission invites you to attend a public meeting regarding the Cranberry Area Transit Study. 2525 Rochester Road Cranberry Township, PA 16066 The meeting will be

Sponsors of this study include: Southwestern Pennsylvania Commission, Butler County, Butler Township City Joint Municipal Transit Agency and Cranberry Township.

For more information regarding this Study, please contact Carol Uminski at 412-391-5590 ext. 363.

11:30 AM – 2:00 PM and 4:00 PM – 7:00 PM

Tuesday

March 16, 2004

Cranberry Township Municipal Building 2525 Rochester Road Cranberry Township, PA 16066 The meeting will be conducted in an Open House format. Visitors may attend anytime during the hours specified. The meeting location is accessible to persons with disabilities.

II. PRESS RELEASE



PRESS RELEASE

Contact:

Shannon O'Connell, Communications Coordinator

Southwestern Pennsylvania Commission 412-391-5590 ext. 334; email: soconnell@spc9.org

For Immediate Release 03/11/04

Citizens Asked to Discuss Transit Needs in Cranberry Area

Pittsburgh, PA - The Southwestern Pennsylvania Commission (SPC) is hosting a

community open house to hear what citizens have to say about transit needs in Cranberry and surrounding communities and to introduce the Cranberry Area Transit Study. This public open house will include two sessions designed to make it more convenient for citizens to participate. Visitors are encouraged to stop by the open house any time on Tuesday, March 16, 2004 from

11:30 a.m. to 2:00 p.m. or from 4:00 p.m. to 7:00 p.m. at the Cranberry Township Municipal

Building at 2525 Rochester Road, Cranberry Township.

The Cranberry area has experienced rapid residential and employment growth over the last decade. As a result, industrial parks, the Route 19 retail corridor, remote office parks and numerous residential developments rely heavily on the automobile for transportation. The area faces limited pedestrian amenities, a lack of local transit facilities and existing park-n-

rides that are at capacity. These factors, combined with lower population density in the area surrounding Cranberry Township, make transit service planning a challenge.

In addition to introducing the Cranberry Area Transit Study, this open house will give citizens the chance to talk about public transit options and provide input on transit needs in the Cranberry area and surrounding communities.

"This study includes a comprehensive public involvement and comment process, which is vital in understanding what the community wants and needs," said SPC President and CEO, Jim Hassinger. "The Cranberry Area Transit Study will also evaluate the effectiveness of various public transportation options, and provide an estimate of costs for the implementation plan."

The study is designed to determine the needs for public transportation, evaluate a variety of solutions and present a recommended implementation plan for Cranberry Township, Butler County and the surrounding area. The study is being led by SPC, Butler County, Butler Township City Joint Municipal Transit Agency (BTCJMTA) and Cranberry Township. Study partners also include Port Authority of Allegheny County, PENNDOT and the Federal Transit Administration. A consultant team, led by Michael Baker, Jr., Inc., has been hired to conduct the study, which is expected to conclude by December 2004.

The meeting facility is accessible to persons with disabilities. For more information regarding the Cranberry Area Transit Study, please call Carol Uminski, SPC study administrator, at (412) 391-5590, ext. 363.

###

III. PUBLIC OFFICIALS' INVITATION LETTER

March 8, 2004

Name Title Organization Address City, State Zip

Dear

:

Please join us for our first public officials' briefing on the **Cranberry Area Transit Study.** The purpose of this meeting is to introduce the study and gather input from elected officials concerning the current transit needs for Cranberry Township and surrounding communities.

The briefing is scheduled for Tuesday, March 16, 2004 at the Cranberry Township Municipal Building, 2525 Rochester Road, Cranberry Township, PA. The meeting will be conducted in an open house format and you are invited to attend from 1:00 – 2:00 PM or 4:00 – 5:00 PM at your convenience.

Please RSVP to Jamie Brush at Olszak Management Consulting, Inc. at (412) 281-9262 or via email to <u>jbrush@olszak.com</u>.

We appreciate your support and look forward to your involvement in this important study.

Sincerely,

John Milius, Co-Chair Supervisor Cranberry Township Board of Supervisors

P. Johnston

David Johnston, Co-Chair Director Butler County Planning Commission

Appendix **B**

CRANBERRY AREA TRANSIT STUDY

Public Meeting No. 2 Final Summary



Report prepared by: Olszak Management Consulting, Inc.

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V.	Attachments	B-16

I. EXECUTIVE SUMMARY

Southwestern Pennsylvania Commission (SPC) conducted its second community open house for the Cranberry Area Transit Study on Tuesday, June 22, 2004 at the Cranberry Township Municipal Building, 2525 Rochester Road, Cranberry Township. The meeting was held in an open-house format and included separate public officials' briefing times. The purpose of the meeting was to:

- Present the preliminary transit service concepts to the community
- Gather comments on the preliminary concepts

Project Team members led attendees through the stations, provided information and answered questions.

Public Officials' Briefings

Public officials' briefings were conducted from 1:00 - 2:00 p.m. and 4:00 - 5:00 p.m. Officials had the opportunity to visit the stations and displays and discuss the project with the project team. The public officials that attended include:

FIRST NAME	LAST NAME	TITLE	REPRESENTING
12. Mr. Scott	Lowe	Commissioner	Butler County
13. Ms. Judy	Snyder	Commissioner Jim Kennedy's Assistant	Butler County
14. Ms. Kathy	Zembrowski	Special Assistant	Congresswoman Melissa Hart's Office
15. Mr. Randy	Kunkle	Borough Manager	Economy Borough
16. Mr. Jeff	Smith	President	Harmony Borough
17. Mr. Bill	Campbell	Assistant Planner	Marshall Township
18. Mr. Neil	McFadden	Township Manager	Marshall Township
19. Ms. Michelle	Mixell	Planning Director	Marshall Township
20. Ms. Pam	Wahal	Legal Assistant	Senator Jane Orie's Office
21. Mr. Bill	Woods	Council Member	Valencia Borough
22. Mr. R.E.	Robertson	Councilman	Zelienople Borough

PUBLIC OFFICIALS

II. GENERAL INFORMATION

When and Where:

June 22, 2004 11:30 a.m. – 2:00 p.m. – Public Meeting 4:00 - 7:00 p.m. - Public Meeting 1:00 – 2:00 p.m. and 4:00 – 5:00 p.m. - Public Officials' Briefings

Purpose:

- Present the preliminary transit service concepts to the community
- Gather comments on the concepts

Who Was Invited:

Letters were mailed to public officials in the project area inviting them to attend the public officials briefing.

The community was notified of the meeting via newspaper advertisements, a newsletter sent to the project database, community calendars, the Cranberry Township website, the project website, and radio PSA's. Flyers were posted in classrooms at Butler County Community College and the Transit Study display at the Cranberry Township Municipal Building was flagged with the public meeting announcement.

A 3.25 by 4.25 inch ad ran in the *Pittsburgh Post-Gazette North* and the *Butler Eagle* on Friday, June 18, 2004 (4 days prior to the meeting)announcing the public meeting. A copy of the ad is included in the Appendix.

Who Attended:

• A total of thirty-three (33) people attended the two meetings, including eleven (11) public officials and twenty-two (22) general public.

The following Project Team Members also attended the June 22 meeting:

Bruce Ahern, *Michael Baker* Max Heckman, *Michael Baker* Carla Santoro, *Michael Baker* Robbie Robbins, *Michael Baker* Carol Uminski, *SPC* Chuck Imbrogno, *SPC* Glenda L. Murphy, *Olszak* Jamie L. Brush, *Olszak*

Media Coverage:

The meeting was covered by local media, as follows:

- The Butler Eagle ran a follow-up article on page 9 of the Friday, July 9 edition.
- The Pittsburgh Post –Gazette North ran a follow-up article in the Sunday, July 11 edition.

III. FORMAT

The public meeting was structured in an open house format and provided the public with an opportunity to speak one-on-one with project team members, to receive information, to ask questions and to identify issues of concern and need regarding the project. Display boards were available for viewing.

Open House Area:

The Open House Area included four Display/Information Stations.

Registration Station- Attendees were asked to sign-in, provide their contact information, and were given a fact sheet, project newsletter, and comment form.

Introduction – Attendees were provided an overview of the project.

• Displays:

Station Sign and four display boards: Project Overview; Project Area Map; Project Schedule and Community Outreach

Community Needs – Attendees were presented with a summary of community needs for transit as provided by the public through community outreach and asked to provide comments on them.

• Displays:

Station Sign and four display boards that summarized what the community identified as transit needs. The boards were accompanied by a flip chart for the public to record their comments.

Preliminary Service Area – Attendees were shown three maps of preliminary service concepts and asked to provide comments on them

• Displays:

Station sign and three maps: Local Service Concepts; Study Area Service Concepts; Regional Service Concepts. Each map was accompanied by a flip chart to gather public comment.

Comment Area – Attendees were encouraged to complete their own comment forms at the comment area or to return the comment forms by mail by July 2, 2004.

IV. SUMMARY OF PUBLIC COMMENT

Comments collected at Station 2, Community Needs

- Transit should pick up seniors at their residences.
- Park-n-ride facilities should be properly maintained (trash pickup, snow removal, etc.)
- There is a Hide-n-ride at the Sheraton in Cranberry
- Consider serving the Tech 21 project

Comments collected at Local Service Concepts map

- Transit should serve swimming pool in 'east loop' (Boundary Park)
- Cranberry Mall could be a potential transit hub
- Service should run through Marshall residential areas including:
 - Woodland Road
 - Tech 21 project
 - \circ Route 19 to Wexford
- There is lots of growth on Powell Road

Comments collected at Study Area Service Concepts map

- Transit should service Seneca Valley Schools
- Don't forget about the Park-n-rides at Route 8
- Publicly fund the terminals, privately fund the buses? Or vice versa?
- Why is there a deviated fixed route to serve Valencia? Is that necessary?
- Extend 'green' route to Passavant Hospital
- Extend 'blue' route to Wexford
- Use Franklin Road from Evans City to Warrendale

Comments collected from one (1) comment form that has been returned to date

• Money could be spent to preserve the area across from the Cranberry Township Municipal Building rather than working to destroy it. I would not use any of the proposed transit concepts. Stop the study.

Attachments

- I. Newspaper Ad
- II. Public Officials' Invitation Letter
- III. Original Sign-in Sheets (to be inserted at project conclusion)
- **IV.** Original Comment Forms (to be inserted at project conclusion)

I. Newspaper Ad

PUBLIC MEETING ANNOUNCEMENT CRANBERRY AREA TRANSIT STUDY

Please join us to review preliminary transit service ideas for Cranberry Township and the surrounding area.



YOUR SUGGESTIONS ARE IMPORTANT

The Southwestern Pennsylvania Commission invites you to attend a public meeting regarding the Cranberry Area Transit Study.

For more information regarding this Study, please contact Carol Uminski at 412-391-5590 ext. 363. June 22, 2004 11:30 AM – 2:00 PM and 4:00 PM – 7:00 PM

Tuesday

Cranberry Township Municipal Building 2525 Rochester Road Cranberry Township, PA

Sponsors of this study include: Southwestern Pennsylvania Commission, Butler County, Butler Township City Joint Municipal Transit Agency and Cranberry Township.

II. Public Officials' Invitation Letter

June 9, 2004

«FirstName» «LastName» «Title» «Organization1» «Organization2» «Address1» «Address2» «City», «State» «Zip»

Dear «Salutation» «LastName»:

Please join us for a very important public officials' briefing on the **Cranberry Area Transit Study.** The purpose of this meeting is to view the preliminary public transit ideas for Cranberry Township and surrounding communities and to provide comments on the ideas.

The briefing is scheduled for **Tuesday, June 22, 2004 at the Cranberry Township Municipal Building**, 2525 Rochester Road, Cranberry Township, PA. **The meeting will be conducted in an open house format and you are invited to attend from 1:00 – 2:00 PM and 4:00 – 5:00 PM at your convenience.**

Please RSVP to Jamie Brush at Olszak Management Consulting, Inc. at (412) 281-9262 or via email to <u>jbrush@olszak.com</u>.

We appreciate your support and look forward to your continued involvement in this important study.

Sincerely,

hn W. milius

John Milius, Co-Chair Supervisor Cranberry Township Board of Supervisors

Javid P. Johnston

David Johnston, Co-Chair Director Butler County Planning Commission

Appendix C

CRANBERRY AREA TRANSIT STUDY

Community Outreach Summary



Report prepared by: Olszak Management Consulting, Inc.

Appendix C Cranberry Area Transit Study Community Outreach Summary

SUMMARY

- At total of 30 contacts representing 35 meetings and over 800 people were reached through community outreach between February and July 2004. The objective of the outreach sessions was to educate and inform the public about the study and gather feedback on transit needs.
- The following types of groups made up the contact list: Churches (3); Educational Institutions (4); Major Employers (7); Municipal Governments (6); Homeowners' Associations (3); Senior Citizens (5); and Transit Agencies (2).
- Transit is seen as important to:
 - Young people, who do not drive or have access to an automobile, to participate in after school activities and jobs or attend college in Cranberry.
 - Provide access to employment in the Cranberry area, particularly for the lower wage jobs.
 - Provide commuter service from southern Butler County to jobs in Pittsburgh.
 - Seniors to access to shopping, doctor's visits and entertainment in Cranberry and regionally to the rest of Butler County and Pittsburgh.
- Transit does not appear important to some people because they are unaware of a current need, i.e., it has never come up or people drive.
- Places to Serve:
 - Local Cranberry (3); Route 228, Cranberry Municipal Building, Cranberry Woods, Freedom Road, Rochester Road, Proposed Cranberry Town Center, Rowan Road, and Thorn Hill Industrial Park all mentioned
 - Commuting To downtown Pittsburgh (12) from southern Butler County; and, to Cranberry from Beaver County (7) and Butler County (5)
 - Regional connections Cranberry (4); Pittsburgh (3); Zelienople (3); Butler City (2); Beaver County (2); with mentions for Clearview Mall, Grove City outlets, New Wilmington, Passavant North Hills, Pittsburgh International Airport and Station Square,
- Recommended modes include large and small buses, taxies and Para transit (doorto-door and on demand service). Seniors mentioned the need for low floor buses.

- Possible station locations in Cranberry included the Cranberry Mall, Cranberry Township Municipal Building, and Burger King. Service features should include convenience, reliability, comfort and ample parking.
- Major employers in Cranberry were interviewed to determine if and how transit might play a role in recruitment.
 - The majority of employees come from western Beaver County and Butler County.
 - While many employers require shift work, the majority of workers appear to work daylight.
 - Lack of transit appears to be a recruitment impediment for low to moderate wage scale employees.
- Other issues mentioned included funding (5) and transit problems (16).
 - People are concerned about where the funding for a transit service plan will come from.
 - Transit problems range from a lack of existing service to lack of parking at available park-n-ride facilities.

Detailed findings from the surveys follow.

COMMUNITY OUTREACH CONTACTS

At total of 26 contacts and over 220 people were reached through community outreach between 2/16/04 and 5/6/04. The objective of the outreach sessions was to educate and inform the public about the study and gather feedback on transit needs.

Type of Group	Number of Contacts	Organization
Church	3	St. Ferdinand's Church
		Victory Christian Fellowship
		Dutilh United Methodist Church
Educational	4	Butler County Community College
		Seneca Valley School District
		Mars School District
		Regional Learning Alliance (RLA)
		Dennis Zeitler, Board President, RLA
Major employer	7	Coventry Health Care
		Wal-Mart
		TRACO
		Sherwood Oaks Retirement Village
		Thorn Hill Industrial Park
		UPMC Passavant Cranberry
		Cranberry, Zelienople/Harmony, and Butler County Chambers of Commerce

Type of Group	Number of Contacts	Organization
Municipal Government	6	Economy Borough
		Mars Borough
		Jackson Township
		Middlesex Township
		Borough of Seven Fields
		Cranberry Township Board of Supervisors
Homeowners' Associations	3	Cranberry Homeowners' Association Forum
		Freedom Woods Homeowners' Association
		Rock Lake Homeowners' Association
Senior citizens	5	Cranberry Senior Center
		Sherwood Oaks Retirement Village
		Cranberry Senior Citizens Club
		Zelienople Senior Center
		Evans City Senior Center
Transit agency	2	New Castle Area Transit Authority
		Beaver County Transit Authority

IMPORTANCE OF TRANSIT

Transit is seen as important to:

- Young people, who do not drive or have access to an automobile, to participate in after school activities and jobs or attend college in Cranberry.
- Provide access to employment in the Cranberry area, particularly for the lower wage jobs.
- Provide commuter service from southern Butler County to jobs in Pittsburgh.
- Seniors to access to shopping, doctor's visits and entertainment in Cranberry and regionally to the rest of Butler County and Pittsburgh.

Transit does not appear important to some people because they are unaware of a current need, i.e., it has never come up or people drive.

Number	Type of Group	Importance of Transit	Comment
4	Church	Is important	 Community outreach is important to VCF. There is a seniors group that meets once a month. Think of seniors and youths that do not drive yet. There is a shift group service, like a coffee house, once a week for 18 to 30 year olds and the bus gather college students from Slippery Rock, Grove City, Oakland. There is a youth group that meets once a month that uses buses to gather teens

Number	Type of Group	Importance of Transit	Comment
9	Educational	Is important	 The school district takes students to after school programs at the Cranberry Township Municipal Building. Seneca Valley does bus students to after school programs. There would be high student interest for local and regional transit service. Students need transportation from home to school and to and from work and shopping in the Cranberry area. The YMCA offers a program at different school buildings and the District transports children between school properties for the programs. Local service should cover Seven Fields area, Rowan Road, Freedom Road, Rochester Road, Thorn Hill Industrial Park and Cranberry. Bus service from downtown Pittsburgh or Thorn Hill Industrial Park might be helpful. People using the center, persons in training programs, college students, may need transit access. The school district does transport students to and from day care facilities within the attendance boundary of the elementary school.
5	Major employer	Is important	 Many places cannot fill jobs - transportation is undoubtedly an issues. This facility has no intensive care unit or pediatrics, so is adult oriented – older folks. Older patients need access to transit. They indicated a strong need for Para transit services using medical funding such as BCTA, DART and ACCESS. (Door-to-door and on demand.) Employees in the prominent low to moderate wage scale are difficult to find and recruit for UPMC. Transit would likely help this group. They are very interested in providing a connection to the future town center and main street project as identified by Cranberry Township.
10	Municipal Government	Is important	 Mercer Road will be upscale townhouses with a clubhouse and pool. Residents will probably commute into Pittsburgh. Public transportation is a good idea. The major problem may be finding sufficient land for parking adjacent to a station or park-n-ride facility location. There is a bigger need for park-n-ride service to Pittsburgh. Senior citizens would probably like transportation to Cranberry. Mike believes that residents (the seniors) would be very interested in a transit system with regional service. The 2000 census indicates that the residents of Middlesex travel an average 60-90 minutes to work. There are other senior citizen residences that would welcome public transportation. The need for transit and park-n-ride facilities will grow with

Number	Type of Group	Importance of Transit	Comment
3	Residents	Is important	 development. Senior citizens would like transit access to Cranberry and Pittsburgh. Middlesex Township is on the brink of major growth. Sewer access is being expanded and there is lots of build able land. Transit service to the airport is desirable.
			 Transit to downtown Pittsburgh has had its problems although it is desirable. Like to see buses go to and from schools for kids after school.
11	Senior citizens	Is important	 Service hours should be from 8:30 AM to midnight. Service should allow for transfers, buses should be convenient, reliable and comfortable, and there should be ample parking. Would like to go to Zelienople, Evans City, Butler, Clearview Mall, Passavant North Hills to visit the nursing home, Grove City outlets, New Wilmington for shopping and restaurants. Would like to use transit for shopping, doctor visits, dentist appointments. Would like to go to Pittsburgh to shop and for evening entertainment Want better accessibility to buses. On' demand at \$1.25 per hour or special requested services to places like the airport for \$12.00 per hour plus some mileage fee. Want to go to malls like Ross Park, churches and bingo Transit should travel through the plans just like school buses and deliver to a central station. Would like to see transit to Downtown Pittsburgh, Station Square, Zelienople, Baden in Beaver County, Butler City They provide daily service to residents to a variety of destinations on a no fee and a fee basis. Their fleet includes 6 small vehicles from 22 passengers to a station wagon and they are considering adding a car soon.
1	Transit agency	Is important	 Would like to see service to Zelienople.
3	Church	Not important	 Don't recall hearing a member of the congregation ask about transit. The church had volunteers who would pick someone up for a service or activity. If there are requested for transportation they can generally find a parishioner that can take care of it.
4	Educational	Not important	 The purpose of the center is to fill a vacuum for major employers in the Cranberry area. This is a lifelong learning center for employed people, whether they are coming for job training or completing a degree. They will likely drive themselves. Many parents drive their children or high school students drive themselves to school. Mars School District has not received requests for additional transportation services besides what is offered in the District. Very few students come from Allegheny and Beaver

Number	Type of Group	Importance of Transit	Comment
			Counties because they have to pay double the tuition.
3	Major employer	Not important	 Everyone either drives or car pools. Transit does not appear to be an issue with current employees. There is no real need to connect with North Hills and Oakland hospitals. Patients would use ambulances or medical transport. Employees that attend meetings etc. use their own cars.
3	Municipal Government	Not important	 Don't see people taking transit to Cranberry to work. Economy and 3 adjacent boroughs did a combined comprehensive plan. Randy thinks the survey indicated that there was not a high interest in transit. Park-n-ride facilities might have an appeal however the community most interested is 3-5 miles from Route 19.
1	Senior citizens	Not important	• Not a lot of interest in new service.
1	Transit agency	Not important	• Do not interfere with the Evans City park-n-ride service.

PLACES TRANSIT COULD SERVE

Transit could provide local access in Cranberry, Regional access to Butler, Beaver or Allegheny Counties, and commuter service to Pittsburgh.

- Local Cranberry (3); Route 228, Cranberry Municipal Building, Cranberry Woods, Freedom Road, Rochester Road, Proposed Cranberry Town Center, Rowan Road, and Thorn Hill Industrial Park all mentioned.
- Regional connections Cranberry (4); Pittsburgh (3); Zelienople (3); Butler City (2); Beaver County (2); with mentions for Clearview Mall, Grove City outlets, New Wilmington, Passavant North Hills, Pittsburgh International Airport and Station Square.
- Commuting To downtown Pittsburgh (12) from southern Butler County; and, to Cranberry from Beaver County (7) and Butler County (5).
| | | | | Type of Con | | L | |
|----------------------------------|-------|-------------|-------------------|-------------------------|-----------|----|-------------------|
| Place | Total | Educational | Major
employer | Municipal
government | Residents | | Transit
agency |
| Pittsburgh | 15 | | 1 | 8 | 2 | 4 | |
| Cranberry | 10 | 3 | | 3 | 1 | 2 | 1 |
| Beaver County | 9 | 1 | 5 | 1 | | 1 | 1 |
| Butler County | 6 | 2 | 3 | | | 1 | |
| Zelienople | 6 | 1 | 1 | 1 | | 2 | 1 |
| Butler | 4 | 1 | 1 | | | 2 | |
| Evans City | 4 | 1 | 1 | | | 1 | 1 |
| Seven Fields area | 4 | 2 | | 2 | | | |
| Cranberry Municipal Building | 2 | 1 | | | | 1 | |
| Cranberry Woods | 2 | 2 | | | | | |
| Freedom Road | 2 | 2 | | | | | |
| Rochester Road | 2 | 2 | | | | | |
| Clearview Mall | 1 | | | | | 1 | |
| Grove City outlets | 1 | | | | | 1 | |
| New Wilmington | 1 | | | | | 1 | |
| Passavant North Hills | 1 | | | | | 1 | |
| Pittsburgh International Airport | 1 | | | | 1 | | |
| Proposed Cranberry Town Center | 1 | | 1 | | | | |
| Ross Park Mall | 1 | | | | | 1 | |
| Route 228 | 1 | 1 | | | | | |
| Rowan Road | 1 | 1 | | | | | |
| Station Square | 1 | | | | | 1 | |
| Thorn Hill Industrial Park | 1 | 1 | | | | | |
| Grand Total | 77 | 21 | 13 | 15 | 4 | 20 | 4 |

Where to Go Based on Type of Contact Group

		Type of Service					
Place	Not Specified	Commuting	Local	Regional			
Pittsburgh	4	8		3			
Cranberry	2	1	3	4			
Beaver County	7			2			
Butler County	5			1			
Zelienople	2	1		3			
Butler	2			2			
Evans City	2	1		1			
Seven Fields area	1	2	1				
Cranberry Municipal Building	2						
Cranberry Woods	2						
Freedom Road	1		1				
Rochester Road	1		1				
Clearview Mall				1			
Grove City outlets				1			
New Wilmington				1			
Passavant North Hills				1			
Pittsburgh International Airport				1			
Proposed Cranberry Town Center			1				
Ross Park Mall			1				
Route 228	1						
Rowan Road			1				
Station Square				1			
Thorn Hill Industrial Park			1				
Grand Total	32	13	10	22			

Where to Go Based on Type of Service

MODES

Recommended modes include large and small buses, taxies and Para transit (door-to-door and on demand service). Seniors mentioned the need for low floor buses.

Number	Mode	Type of Group	Comment
1	Large bus	Senior citizens	• The buses must have steps that are low enough for seniors – low floor buses.
2	Small bus	Senior citizens	 Some seniors use on demand transit from the Agency on Aging and through BART There should be 28 seat buses, with seat belts and kneeling buses.
1	Taxi	Senior citizens	• What about cabs - 3 or 4 people to downtown Pittsburgh?
4	Current mode	Major employer	 Everyone either drives or car pools. Their firm has an informal car pool program, nothing that TRACO directly sponsors.
		Medical Services	• They indicated a strong need for Para transit services using medical funding such as BCTA, DART and ACCESS. (Door-to-door and on demand.)
		Senior citizens	Most seniors came by car.

STATION LOCATIONS / FEATURES

Possible station locations in Cranberry included the Cranberry Mall, Cranberry Township Municipal Building, and Burger King. Service features should include convenience, reliability, comfort and ample parking.

Number	Station	Type of Group	Comment
3	Features	Educational	• Transit service should be inexpensive, local, dependable and with bus shelters.
		Senior citizens	• Service hours should be from 8:30 AM to midnight. Service should allow for transfers, buses should be convenient, reliable and comfortable, and there should be ample parking.
		Transit agency	 Any operating scenario should adequately consider the placement of rider amenities.
4	Location	Educational	• Biggest issue will be where the stop is located. Carole said the students would like it to stop right in front of the door.
		Municipal Government	 A good park-n-ride location would be along S.R. 68 between Zelienople and Jackson Township. There is a park-n-ride lot at the corner of I-79 and S.R. 528. There is never enough parking.
		Senior citizens	 Good station locations include Cranberry Mall near King's, Cranberry Township Municipal Building, Burger King

MAJOR EMPLOYERS

Major employers in Cranberry were interviewed to determine if and how transit might play a role in recruitment.

- The majority of employees come from western Beaver County and Butler County.
- While many employers require shift work, the majority of workers appear to work daylight.
- Lack of transit appears to be a recruitment impediment for low to moderate wage scale employees.

Number	Workforce	Type of Group	Comment
10	Origins – where do people come from?	Educational	 Very few students come from Allegheny and Beaver Counties because they have to pay double the tuition. About 20% of students live in Butler. The largest source of students comes from Mars, Seven Fields, Zelienople, Harmony and Evans City.
		Major employer	 Employees come largely from the west in Beaver County and small towns north in Butler County. The majority of employees are from Beaver, Butler and even Lawrence Counties, much less from Northern Allegheny County. Recruiting area is limited. 50% of employees come from Beaver County and the remainder predominately from Butler County. Other sources of employees come from City of Pittsburgh, Butler, Evans City, Ellwood City and Zelienople. Approximately 1/3 of employees come from Beaver County. Employees come from a wide area, including Beaver Falls, Ambridge, Economy, New Brighton and Baden.
		Municipal Government	 New plan, Whispering Pines along Conway Wallrose Road, is adding more subdivisions. Area of borough closest to Cranberry is growing the fastest. It is really just a part of Economy. Economy is growing. People live in Economy but work in Cranberry and northern Allegheny County.
6	Daily	Educational	• Classes run all day from 9:00 AM to 9:00 PM.

Number	Workforce	Type of Group	Comment
	schedules	Major employer	 The largest shifts are 7:00 AM - 3:30 PM and 8:00 AM - 4:30 PM. Facility is open 7:00 AM to 6:00 PM with flex-time available. TRACO has 1200 employees working in shifts around the clock, likely more than 500 on the 7:00 AM to 3:30 PM shift. There is a 3-shift, 24-hour, 365-day a year operation with 250 employees. They have approximately 190 employees with another 100 in an adjacent nursing center. Employees work around the clock in 3 shifts, but 140 of the 190 are on the daylight shift.
2	Transportation barriers	Major employer	 Moved from downtown Pittsburgh to Cranberry in 1999 and lost 75% of the staff. Employees in the prominent low to moderate wage scale are difficult to find and recruit for UPMC. Transit would likely help this group.

OTHER ISSUES

- Other issues mentioned included funding (5) and transit problems (16).
 People are concerned about where the funding for a transit service plan will come from.
 - Transit problems range from a lack of existing service to lack of parking at • available park-n-ride facilities.

Number	Other	Type of Group	Comment
5	Funding	Residents	Will the funding come from taxpayers?Where is the funding coming from?
		Senior citizens	• Will this be tied to the Pennsylvania Lottery?
		Transit agency	 BCTA had access to Job Access Reverse Commute (JARC) funds to startup services to both the Cranberry area and the airport area. Mary Jo noted that the state association is making progress in Harrisburg on a new funding bill. This will need to be monitored for the implementation plan for the study
16	Transit problem	Educational	 The school district stopped transporting students to work after school about three years ago due to safety issues and liability exposure. The school district requires that transportation plans be set and not flexible. Students must be picked up at the same location each day and dropped off after school to the same location each day.

Number	Other	Type of Group	Comment
		Municipal Government	 There is a park-n-ride lot at the corner of I-79 and S.R. 528. There is never enough parking. Public transportation is a good idea. The major problem may be finding sufficient land for parking adjacent to a station or park-n-ride facility location.
		Major employer	 Many places cannot fill jobs - transportation is undoubtedly an issue. They are familiar with BART but they are difficult to work with due to membership requirements. No use of vanpools noted. There are no cab companies in the area.
		Residents	 Park-n-ride spaces are full to capacity. You can't find parking. The schedule doesn't accommodate a late start or a late departure. Hope buses stay on main roads. Don't want them on local streets. Transit to downtown Pittsburgh has had its problems although it is desirable. Problems plague transit in western Pennsylvania. Don't want to wait behind a bus.
		Transit agency	 They operated fixed route service into Cranberry with trip termini at the Thorn Hill Industrial Park and the area where Starbucks is located with approximately 5 trips per day. Headways were a problem and inadequate frequency. Also, once riders got there, there was no circulation system and couldn't get around. BCTA also implemented two subscription services to Mailing Services and Promark. Ridership was not sustainable at either and Mary Jo noted the absence of any rider amenities such as sidewalks or shelters as problematic. Their JARC service operates only into the airport area now. Cranberry service was terminated. If this plan can achieve a working schedule at no less than 1 hour headways and provide for adequate internal circulation, BCTA would reconsider service to Cranberry. BCTA operates no Para transit service to the area.

Appendix D

CRANBERRY AREA TRANSIT STUDY

Warrendale and Blade Runner's Park-n-Ride Facility Survey



Report prepared by: Olszak Management Consulting, Inc.

Appendix D Cranberry Area Transit Study Warrendale and Blade Runners' Park-n-Ride Facility Survey

SUMMARY

- Number of surveys returned: 59 E-mail comments submitted: 4 Total: 63
- Residence of respondents: Cranberry (19); Other (16); Unknown (28)
- Identified Needs: More parking (19); transit is needed (12); schedule changes (10); Cranberry is growing (7); service to downtown Pittsburgh (7)
- Important Places to Serve:
 - Local Shopping (7); Route 228 (5); within Cranberry (5); other locations (22)
 - Commuting Downtown Pittsburgh (39); Park-n-Ride lots (2)
 - Regional connections Airport (4); Zelienople (3); Evans City (2); Butler City (3); Mars (2)
- Potential Routes Route 228 (18); Route 19 (17); I-79/I-279 (16); Cranberry/Downtown (6)
- Preferred Modes Large buses (39); small shuttle buses (15); mixed (6)
- Suggested Stations:
 - Local shopping centers (20) including Target/Lowes (7); Cranberry Mall (4)
 - Church parking lots (4)
 - Other: Office/industrial parks (4); municipal building (4).
 - Regional Evans City (2) Butler, Clearview Mall, 910/79, St. John's Nursing Home, Mars; Mars area; Zelienople
- Suggested improvements to Park-n-Ride lots: Expand (46); reduce carpooling (4)
- Suggestions for additional park-n-ride lots: Local shopping centers (27); other local areas (32); Regional (6) Butler, Clearview Mall, Evans City, 910/79, St. John's Nursing Home, Mars

Detailed findings from the surveys follow. The last section, Additional Comments, includes open-ended comments from the surveys as well as comments submitted by e-mail.

Zip	Commer	nt Forms
zip	Number	Percent
16066 (Cranberry)	19	30%
16046 (Mars)	3	5%
15005 (Baden)	2	4%
15044 (Gibsonia)	1	2%
15042 (Freedom)	2	3%
16037 (Harmony)	1	2%
16038	1	2%
16063	1	2%
16059 (Valencia)	1	2%
16117 (Ellwood City)	1	2%
15222 (Office-Downtown)	1	2%
16033	1	2%
16024	1	2%
Unknown	28	44%
Total	63	100%

Park-n-Ride Respondents by Zip Code

Findings

1. How do you feel about current transit needs in your community?

Number	Category	Responses
Number 19	Category Need - Parking	 More parking needed for 13K - Service is B+ to A- Park-n-Ride lots are too small and not enough lots are available. Love the bus, hate the parking (lack of) I used to love it, but the parking spaces are so few, it makes it hard to even ride the bus now. There are not enough parking spaces in the 2 locations serving the bus riders in Cranberry Township. Bigger and better parking. Good to Pittsburgh. However, RIDC Park in Cranberry needs more room to park. If you are an early rider, the service is fine. If you ride after 6:45am - no parking. For the most part, the commute is great. Not enough parking spaces. Need more Park-n-Rides. Cranberry to Pittsburgh transit is very underserved. With adequate Park-n-Ride facilities, the number of buses could be doubled easily. Inadequate - parking is a big issue. It is sorely lacking. A lot of people, not just from the Cranberry area (Freedom, Wexford, Warrendale, Marshall, Zelienople, Mars, etc.) take the Cranberry Express. We need more parking. Park-n-Ride is inadequate.

Number	Category	Responses
		• Service to and from Pittsburgh in inadequate. Although there is bus seating space the park-n-ride lots are too small.
12	Need - General	 I feel the bus transit is really needed in the Cranberry area. I think it needs to be expanded. Needs improvement. Inadequate. (Need) connecting buses or shuttles from buses coming from Pittsburgh to the shopping areas in Cranberry. Currently, some buses are not staff(ed) adequately. If OT is not taken bus doesn't show up. Service was terrible this past winter. Not being met by a long shot. Somewhat inadequate. What transit? Very limited and inadequate. Service to the airport would be helpful as well. Increasing demand cannot be met with the current system. Adequate - however, more stops throughout Cranberry are desperately needed.
10	Need - Schedule	 Late night, between 5:00 and 6:10, bus service is unreliable. Not enough options through the day. Need more bus runs. Inadequate. Need for an earlier 13K leaving Pittsburgh in the afternoon Buses not reliable. Need bused later in PM Variety of times - early afternoon and 10am or 11am Happy with current service. The only way to improve it is to add a stop somewhere on Route 228 and start buses earlier in pm, 2:30ish. There are not enough late buses that run into Cranberry. Buses should run until 8:00pm M-F. Increase the number of morning & evening rush hour buses. Additional runs could be added (13K) to accommodate half-days or emergencies.
7	Need - Downtown	 Current service is inadequate. I live in Harrisville and drive to Cranberry to use PAT bus for commuting. There is a definite demand for public transportation between Cranberry and Downtown Pittsburgh. Local service for elderly, etc. is nice but the biggest need is to get people to work around Pittsburgh. I really can't see a heavy usage for routes to Butler County towns. Obviously, the need (interest) exists for Pittsburgh routes and these need expanded. I live in Economy Boro, so I am lucky I can travel easily to Warrendale to get the Cranberry bus to get to downtown to work daily. I think there should be additional transportation to Pittsburgh Currently it's poor. Little or no transportation to Pittsburgh Lacks transit to Pittsburgh, local public transit is not needed.
7	Need - Growing	 They are inadequate for the growing community. They will greatly increase due to expansion in Cranberry and surrounding communities. Ridership continues to increase. Cranberry has grown because of its location to Pittsburgh and will continue to grow if we have good transportation available. Transit is inadequate. The community has grown, however little has been done to improve/implement transit. They are many! We are a growing, thriving community, but there are many of us who have no cars, or no drivers' licenses. Cranberry and surrounding communities in Allegheny, Beaver and Butler counties continue to grow significantly, increasing traffic tremendously. Transit within these communities as well as between them and city of

Number	Category	Responses
		Pittsburgh needs to be increased/further developed to help alleviate congestion.
1	Need - Zelienople	• Live in Zelienople - about 16 miles from my home to Cranberry. I don't mind the drive but something closer to Zelie would be good.
5	Other	 Good. Works well for us working Downtown/Oakland with regular hours. Bus service is good - always enough seats and price is reasonable They are satisfactory but could be much better. They are fine the way it is now. I would like to privatize (the Port Authority) to improve competition and service. Unionized transit only benefits employees, not customers. Bus stop too far away at Bladerunners.

2. Where are the most important places you feel transit should serve?

Local Circulator Services

Number	Category	Responses
7	Local - Shopping	Route 19 north shopping areas from Cranberry Mall. Between malls. Shuttles from neighborhoods to parks and shopping. Shopping districts. Major shopping centers. Malls. Grocery stores.
5	Local – Route 228	Route 228 (3). Along Route 228 where there are so many new plans. Route 228 shopping area.
5	Local - Cranberry	Cranberry (4). Service within Cranberry.
22	Local - Other	 Route 19 (2) Central location for Cranberry-Mars-Warrendale residents. Cranberry and Wexford areas. Freedom Road Glen Eden Road Local service for seniors and teens Malls if they want to be part of a park-n-ride. Mars on the outskirts of 228. North Boundary Road Rochester Road Rowan Road Shopping-hotels-parks-recreation-particularly for children and teens in summer and colleges. Warrendale Doctors offices near churches with large congregations near major residential developments perhaps certain hotels public parks Office/manufacturing parks Hospitals

Commuting

Number	Category	Responses
39	Downtown Pittsburgh	 Cranberry to Downtown Pittsburgh (26) Butler County To Pittsburgh and back (4) Butler County - Cranberry Township, Butler, Seven Fields, Mars, etc. Beaver County - New Sewickley Township .City of Pittsburgh - to and from Cranberry Township (with Mars, Adams, Zelie, etc.). Cranberry/Butler/Beaver to Pittsburgh. Butler County to Pittsburgh. Zelienople - Cranberry to Downtown Pittsburgh. Pittsburgh (4). Pittsburgh - the City and Northside. For commuters - better service between Butler and Pittsburgh Downtown Pittsburgh. Local would serve select few with many empty buses, etc and is a waste of money. (Pittsburgh) sporting events Needs to stop at both ends of Pittsburgh (Blvd of Allies)
2	Park-n-Ride	Park-n-rides. Park-n-rides to and from town.

Regional Connections

Number	Category	Responses
4	Regional - Airport	Airport (4)
24	Regional - Other	 Zelienople (3) Evans City (2) Mars (2) Butler (city) (3) Downtown and suburbs Oakland (2) Robinson Ellwood City New Brighton All of Butler including the many riders and would-be riders of Cranberry Township. Outside of Cranberry to reduce congestion in Cranberry. Route 8 New Castle Beaver Adams Township Freedom Marshall Wexford (2)

Number	Route
18	Route 228 (13). Route 228 east. Route 228 N. Route 228 Park-n-Ride. Route 228-Mars to Pittsburgh. In Cranberry, Route 228.
17	I-79/279 (12). I-79 (2). I-79 express to Pittsburgh. To Downtown Pittsburgh via I-79. Campbell Run Road/I-279.
16	Route 19 (9). Route 19 North (3). Route 19 north to Zelienople (2). Route 19 through Zelienople-Cranberry then express to Pittsburgh. Cranberry to Pittsburgh (route 19) Along Route 19 where the most housing plans are located. Further north on Route 19
6	Cranberry to Downtown. Cranberry to Pittsburgh. Downtown to Cranberry. Just the ones that are used today. Service to downtown continues. Downtown rush hour trips daily/weekdays; occasional mid-day trips.
4	Cranberry to the Airport. I-79/Route60 for Airport. I-79 to Airport. Possible service to the airport but I don't know if usage would support it
2	All of Cranberry Township. All.
2	McKnight Road
2	Residential to Cranberry shopping. Local transit within Cranberry
2	Route 60 (2)
1	Bradford Woods should have shuttle to the park-n-ride; not 1 bus each way that takes too long to arrive at the destination.
1	Butler to Pittsburgh. Possible to use the rail line for commuter train?
1	More of Route 19 or Route 228.
1	North Cranberry
1	Perhaps Freedom Road or Rochester Road. Freedom Road Freedom Road. Freedom-Crider Road
1	Rochester Road - near Route 19
1	Route 65 to Evans City.
1	Route 8
1	Route 910
1	Warrendale to Pittsburgh, South Side, Strip District.

3. What potential corridors and routes should be served?

4. What modes (large buses, small shuttle buses) do you feel should be considered?

Number	Category	Mode
39	Large buses	• Large buses (12).
		 Large buses for express Pittsburgh service at rush hours. Large buses between Cranberry and Downtown. Large buses for Pittsburgh service. Large buses for Pittsburgh. Large buses for the ones going downtown. Large buses for direct routes (to Downtown) Large buses to City of Pittsburgh. The large buses to Downtown are great. Large buses (existing). Current 13K bus is great. Large buses we currently ride on 13K
		 Large buses (existing): Current 15K bus is great. Large buses we currently fide on 15K are wonderful. What we have now is okay. Large buses for long distance
		• Large buses, touring bus. Large coach buses. Large buses (tour-like buses).
		Large buses for highly populated areas.
		Large buses during rush hours, monitor stops and hours.
		Large buses - geared for highway.
		Large buses for work areas.
		Large buses to Pittsburgh
		• Large buses am/pm rush. Large buses, am and pm rush hours only. Large for morning

Number	Category	Mode
		and afternoon rush.Large Port Authority buses making a larger sweep through Cranberry.
15	Small buses	 Small shuttle buses from key areas (parking lots, hotels) to park-n-ride on Warrendale-Bayne Road during am and pm rush hour due to lack of parking spots. Shuttles within township limits. Airport with shuttle. Small shuttles to Airport Smaller shuttle buses (for) McKnight Road during the day. Shuttle buses may be adequate. Small buses for short distance. Shuttles within smaller areas to a park-n-ride would increase ridership if done correctly. Shuttle buses for local/elderly transportation. Small shuttle buses for the ones going to the airport and within the (local) area. Small buses might be the most feasible, depending on how often they ran; otherwise they may not seat enough. Small during the day. Smaller for down times. Small (buses) during off peak times/days. Smaller shuttles for kids and seniors to area.
6	Mixed	 Large bus or rail for commuters. Smaller shuttles to serve teens and seniors for shopping and activities. Large buses into Pittsburgh. Smaller buses for community. Any that will get the job done - moving as many people safely and comfortably in and out of Pittsburgh All modes. As needed for (service to) Airport All modes should be considered. All and as many of the above to accommodate the riders.
1	Other	Not weekends or after 7pm; we like it quiet here.

5. What locations would make good station options?

Number	Category	Locations
20	Local - Shopping	 Cranberry Mall (4). Cranberry Mall and Freedom. Cranberry Mall lot where Panera is. Cranberry Mall (upper or lower). Parking lot at the Cranberry Mall. Area around Toys R Us Cranberry Cinemas. There is so much space at Showcase Cinemas North; it would be nice if this could be used. Former K-Mart in Cranberry Lowes parking lot. Lowes parking lot in Cranberry. Lowes/Target on 228. Mall at Route 228 (the one with Target) - as long as they will provide a park-n-ride service. Mall on Route 228. Shopping centers along 228. Route 228 shopping area. The Target lot always seems to have available spaces at the end of their lot. Malls if they want to be part of a park-n-ride. Shopping center lots. Major shopping centers. Wal-Mart (2) Market House lot (Rtes. 19 and Rowan Road)
4	Local - Churches	Good Samaritan and Hope Lutheran Church @ Rowan Road. Northway church lots? St. Ferd's at Rochester. St. Ferdinand's Church.
6	Local - Parking	Anything that can double the current sizes of (existing) park-n-rides. Expanding current park-n-rides, more park-n-rides in the industrial park. Not sure we need a station, just park-n-ride lots. The locations used now are good; they just need to be expanded. Present stops are fine, just need more parking. Park-n-ride locations.

Number	Category	Locations
19	Local - Other	 (4) Across from municipal building on Rochester Road. Across from municipal building. Township municipal building. Municipal building. 228/19/79 (3) Along Route 19. Route 19 around Goehring Road area. Route 19 at Reed's Trailer Park entrance. Along Route 228 (2). Route 228 - it is zoned commercial! Route 228 corridor. Cranberry locations. Freedom Road near Cranberry Mall. Freedom Road/Warrendale/Glen Burnie Need to consider a North Cranberry option. Office parks. Somewhere in the industrial park. Anywhere in the Cranberry Industrial Park, including both Allegheny and Butler counties. Various locations within office/manufacturing parks. Oxford Athletic Club Perhaps some spaces from the new Marriott could be used for another park-n-ride. Route 228 near 1-79 entrance (Marriott hotel parking lot?) Exchanges such as I-79 & Warrendale exit. North-central-south is needed. This is the major problem. No place wants several hundred cars. Should be near I-79 & 19 if possible. Major roads at entrances to developments. Keeping buses out of the neighborhoods is preferable. UPMC Passavant/Cranberry
8	Regional	 Butler downtown Clearview Mall Should add the shopping center and Evans City park-n-ride to all 13K runs. Something at Route 910 and 79 - decent park-n-ride. St. Johns nursing home in Mars. They have a large parking lot, good for Park-n-Ride. Main Street of Evans City Main Street of Zelienople Mars area.
1	Other	Not sure what you mean by a station.

6. Suggestions to improve park-n-rides

Number	Category	Improvement Idea
<u>46</u>	Category Expand	Improvement Idea • We definitely need more parking spaces. More people would take the bus if there were more parking. • They need to be expanded or a few new ones added. • There needs to be more parking and it is needed now. • There rate of to be expanded or a few new ones added. • There rate ob expanded or a few new ones added. • There are to be more parking and it is needed now. • There are to few spaces available. More locations would be helpful. • There are only two park-n-rides and they don't provide enough parking spaces. The only way to improve them is to increase the number of parking spaces available! • The Warrendale-Bayne Road Park-n-Ride could be very much enlarged. • Route 528 Park-n-Ride could be expanded and serviced by PAT • Possibly multi-level parking. • Open new park-n-rides. Parking is inadequate at Warrendale. • Need more spaces. • NEED MORE SPACES (north on 19 would be key). • More spaces period! If necessary, I would consider paying \$1 or so to park daily to be able to be sure I could secure parking • More parking spaces!!! I'm sure we'd even be willing to pay a nominal parking fee if necessary • More parking (park-n-rides are full by 7:00am) • More and larger lots. Present 2 fill up quickly for downtown service. • Make more of them or make existing areas larger.
		 By providing more parking spaces to accommodate your riders.
4	Carpool problem	 Stop the car pooling - the already inadequate parking should be for the bus riders only - there are spaces at the malls for car pooling. Police the lots so that carpoolers who do not ride the bus are not taking bus patron parking. This happens daily. Limit carpooler(s) from using park-n-ride lots. Eliminate car-poolers.

Number	Category	Improvement Idea
9	Other	Schedule should begin 2:15pm to Cranberry.
		• Patience at the Cranberry Park-n-Ride works fine.
		Home bound buses.
		• Do we really need so many handicapped (spaces)? I don't disagree with some, but most of them stay empty all day.
		• Allow a privatized option to compete with (Port Authority)'s union slugs.
		• With more parking, perhaps more express service on the 13K or additional bus route running later in the evening out of Pittsburgh to Cranberry area, and later express service into the city, too.
		• To ease traffic flow, do not block entrance when loading or unloading
		Ticket violators that make the lots nearly impossible.
		• Plow the snow in the winter

7. Suggestions for additional park-n-ride facilities

Number	Category	Location
27	Local - Shopping	 Route 228 may Target/Kohl's shopping center. Mall at Route 228 - the one with Target. Route 228 shopping area. Route 228 Mall. Route 228 east @ mall (Target) The Route 228 shopping area. Lowes parking lot in Cranberry. Target. Target shopping center on 228. Cranberry Mall (3). Former K-Mart in Cranberry. Lower Cranberry Mall along retaining wall, if service could be brought there. At one of the shopping centers, Giant Eagle, Michaels Areas by Toys R Us The malls - if allowed. Shopping centers. Shopping center in Cranberry. Somewhere along Route 19 (Maybe Cranberry Mall). Patrons have been using a vacant lot across from Bladerunners but this has now been marked off-limits. Can a lease be arranged? Land beside 7-Eleven on Hwy 19. Center lots Cranberry Mall In or near any of the major shopping centers Parking lot at Cranberry Mall.
2	Local – Park-n- Ride	 Expansion near current park-n-rides Park-n-ride lot at 19/228.

Number	Category	Location
32	Local - Other	 If property is not available in Cranberry area, consider using more of the spaces at the North Cinemas. If a truly express bus was run from that lot more people would consider using it. Local churches are looking for funds and would make good parking facilities. St. Ferdinand Church lot. Vacant property along Freedom Road. There is a small lot on Haines School Road and Freedom Road, can this be used? Freedom Road. Vacant land on 228 across from I-79S entrance ramps. Turnpike and 79 exits to Cranberry Somewhere in the industrial park. More at Thorn Hill Industrial Park. Thorn Hill Industrial Park. Industrial Park. Is there anywhere in the Industrial Park? Bladerunners is there now. Routes 228 and 19. Route 19 and 228 that would be available for sale. Route 228 & I-79. Route 228 and any open land around. Anywhere on 228 Right next to the Warrendale Park-n-Ride. A parking garage can be built, and one can be charged around \$1-\$2/day to park there. North Cranberry North Boundary Park Area behind already-existing Warrendale parking - maybe somewhere on 19. Anywhere in the Cranberry Industrial Park Another facility along US19 south of the turnpike but north of Warrendale. 228 between 19 and Freedom Road 13K route - Warrendale and Bladerunner lots. These lots fill by 7:00 am. Hotel and motel parking lots, like the Sheraton Hotel. Gravel Pit north of Glen Eden on Hwy 19 Cranberry Cinames Build a new one in Cranberry. Anywhere in Cranberry. Anywhere in Granberry. Anywhere in Granberry. Anywhere in Cranberry. Anywhere in Granberry. Anywhere in Cranberry. Anywhere in Cranberry. Anywhere in Cranberry that would still be considered a zone 2 fare. Anywhere along Brush Creek Road
6	Regional	 Zelienople St. John's Lutheran Home in Mars Route 910 and 79. Evans City exit on 79 at park-n-ride lot. Evans City (2) City of Butler Brandt School Road
1	Other	 The new Thorn Hill Road extension Well, you could probably buy most of Warrendale and flatten it for one.

Additional Comments:

	Added Comment
•	Before Mr. Onorato was elected, he mentioned combining the funding assets of the region to improve mass transit. An intriguing idea - I don't know how many people commute from Butler to Pittsburgh - but it seems to me there are many. I believe it would be profitable for Butler County to support a cooperative plan with Allegheny County for commuters - using either rail (arrangement with B&LE line?) or park-n-ride from Butler to Pittsburgh.
•	With low parking spaces available, ridership will decrease - if you build it, we will park! Help!
•	I already commute daily via Port Authority bus to Pittsburgh city. I am grateful there is that. But it is so limited in times and parking spaces. I leave at 5:30am daily to be sure I get a space and seat! I do not need to be at work until 8:00am. There could be at least 1 bus back to Cranberry before 3:15 and a few after 6:00. It is counter-productive. I understand the financing issues but there would be more riders if there were more buses and more parking!
•	Are there more people riding the bus now or just fewer parking spaces? The parking situation is getting (one should say, already is) way bad. Can there be a park-n-ride just for bus riders? I notice many spaces are used for car pools. Thank you!
•	There are very many people (now more than ever due to Pittsburgh parking increases) that want to ride the buses but they cannot get a parking spot so they car ride, and take many potential customers to Pittsburgh. There are also so many of Cranberry bus riders that go to Pittsburgh 1 hour to 2 hours early just to get a parking space. Their family life - getting children to school, etc is so disruptive because they need to leave extra early to get a space. The lots are usually filled after the 6:40am bus leaves and all the potential bus riders then drive to Pittsburgh. What a waste! Cranberry is a golden opportunity.
•	Additional parking for bus travel downtown is needed. In-township transit is probably useless unless the routes go to each major housing plan. Getting to Route 19 from the plans would require driving and defeat the purpose.
•	Since Cranberry is basically a large strip mall, there seems to be plenty of parking spots that could be used for a park-n-ride (movie theatre lot; Giant Eagle/Shop-n-Save lots; Lowes, Target, etc.) It also may be possible to turn the current Warrendale park-n-ride into a multi-level facility, depending on zoning regulations and funding.
•	It is a great idea to make this study a multi-agency initiative to pool resources, equipment and funds - possibly even share park and ride locations!
•	Cranberry needs mass transit within Cranberry itself!
•	The ridership is there but we have to fight for a parking space. The Warrendale park-n-ride lot was supposed to be for 600 spaces but only 106 got created; finish the job. What happened to the lot by Haines School Road and Freedom Road? That was supposed to be done at least a year or more ago. Nothing has been done.
•	We are happy with the bus service we have. Although we need a lot on this side of 228 Cranberry/Mars area.
•	My suspicion is that the majority of Cranberry commuters travel to Pittsburgh and so this should be the primary focus for transport service. I do not believe expanding service to other areas like the Butler Mall is of benefit since you won't change people's shopping habits and shopping is not the primary driver for the issue anyway.
•	I have been told that Cranberry politicians do nothing to help Port Authority find parking for commuters, because many of us are not Cranberry residents. WHERE DO THEY THINK WE SHOP??!! If I find out that this is true, I will never spend another dollar in Cranberry.
•	Why doesn't the Pittsburgh area have a "Greater Pittsburgh Area Transit Authority" like other cities have?
•	Obviously the 13K route has a parking problem. The Port Authority needs to let riders park where they can without packing in other drivers and not issue tickets. Also, no-parking signage should be removed to allow additional parking, to prevent tickets from local law enforcement, until additional parking is secured.
•	The park-n-ride lot on the corner of Freedom and Haines School Road was to be started by now. Is that still an option? Or is that no longer being done. This has been talked about for several years but was put on hold because of a shopping center development. We keep waiting and hoping, but never hear anything more about it.
•	Thanks for taking the time to do this survey! A good transit system is vital to maintaining a vibrant community.
•	I don't care if some "poor" or "elderly" person gets service.

	Added Comment
•	I've lived here 4 years. The area has grown. The Port Authority has upgraded to larger buses to accommodate increased number of riders. However, parking is inadequate. Bladerunners and Park-n-ride space is inadequate. They just shut down space across from Citizens Bank. Cranberry should assist the Port Authority in securing additional Park-n-Ride space. Thanks for your consideration.
•	PS. The lack of (parking) space does not really impact me too much because I take an early bus - 6:20am. However, anyone taking a bus after 7:00am is stuck unless they are dropped off.
•	I think that there are a good number of people that use the park-n-ride lot at Warrendale who do not even take the bus. They are people who leave their car there and catch a ride with someone else. There are the same 4-5 pickup trucks in the same spots everyday - perhaps they are construction workers carpooling to a site. There are also people who leave their car there for weeks on end with a "for sale" sign on it. Not sure how this can be monitored/corrected, but it is a part of the problem.
•	This is in regards to parking availability for (Port Authority) riders who commute form Cranberry to downtown Pittsburgh, especially for employment. I work in downtown Pittsburgh and drive to either the Bladerunners or Warrendale-Bayne Road park-and-rides in order to ride a Port Authority bus into town. As you may know, parking space does not meet the needs of the amount of riders who depend on the bus for transportation. This creates a battle every morning as people race to get a spot just to be able to ride the bus in order to save on fuel and parking fees downtown. Is anyone in the township working with the Port Authority to find more parking spaces to solve this situation for residents of Cranberry and others who patronize local businesses in route to and from the Cranberry park-and-rides?
•	I live in Cranberry and work in Pittsburgh, as many do. Two years ago, I contacted the Township concerning bus service to Pittsburgh and the lack of options. I was told that related options were being investigated. From November to April 2, 2004, many of Cranberry's residents were parking their cars in a vacant business lot across from Bladerunners. As of April 2, that was no longer an option and again, I am asking about plans to resolve this issue. Can you please tell me if there are any plans to identify parking options for those who want to take the Port Authority buses from Cranberry to Pittsburgh? Are there any plans for the development of a Cranberry bus system or at least a commuter shuttle? I would greatly appreciate any information that you might have available on this issue.
•	I was talking to my neighbor re public transit the other night (don't ask) - but he had a valid point when I mentioned Cranberry's need. This is long range, but innovative. Model after a city such as Washington D.C. where in suburban areas, light rail is used to feed people to the bus routes which remain closer to the city. He mentioned the Port Authority's North Shore Connector project and a possible future tie in extending north along I-279.
	I pulled this from the Port Authority's website: The North Shore Connector project will extend Port Authority's 25-mile Light Rail Transit system, the T, 1.2 miles from the Gateway Subway Station underneath Stanwix Street and the Allegheny River? in twin bored tunnels below the river - to the North Shore. While remaining underground along the North Shore, the alignment would travel adjacent to Bill Mazeroski Way accessing a station near PNC Park. Continuing below grade adjacent to Reedsdale Street, the alignment will transition to an elevated alignment near Art Rooney Avenue to a station along Allegheny Avenue near Heinz Field before terminating near the West End Bridge. A .3-mile light rail line from the Steel Plaza Subway Station to a subway station at the new and expanded David L. Lawrence Convention Center will also be constructed. With the FEIS and preliminary engineering work complete, Port Authority is concluding final design and preliminary on the North Shore Connector. Port Authority is expected to begin construction by the end of 2004 or early 2005. The North Shore Connector could be complete and operational in 2008.
•	I would like nothing better than to have express bus transportation to my 9 to 5 job in the city of Pittsburgh (M-F). I have tried taking the 8:15 bus at Warrendale but the park and ride lot is always full and I have had to park illegally.
	I think we have the perfect opportunity now to establish a park and ride lot on Route 228, near I-79. There is plenty of land available and a traffic signal is already in place where the closed campground sits. A park & ride lot can have exits on 228 and Mars-Crider Road behind it.
	I believe that PAT would furnish transportation to the city and the New Castle bus can easily be convinced to make a stop there. An east-west Butler County bus can use the area as a transfer point.
	The project would be expensive because of land prices but if it is going to be done, commitments must be

	Added Comment
	made soon before more retail stores pop up there.
•	The ridership is there in Cranberry and Evans City. What seems to be the problem to service these areas adequately? Port Authority is collecting the revenues. So why not accommodate your patrons. Also, how many more surveys must be completed before a decision is made. Please contact me if you wish to discuss this in more detail. My cell number is 724-816-4909.
•	Although a transit study is fine and needed to address transportation needs and problems in the growing Cranberry, the park-n-ride situation is critical now and cannot wait for a 1-year-or-more study to be completed. The Cranberry area has been in a strong growth pattern for a number of years alreadyexpanded park-n-rides are long overdue.
•	I notice no representation by the Beaver County Transit Authority in the Multi-Agency Initiative. New Sewickley in Beaver County adjacent to Cranberry is beginning to experience residential and commercial spill-over growth from Cranberry. Along Freedom-Crider Road (at Lovi Road) the Tri-County Commerce Park may be a good location for a park-n-ride. The Beaver County Transit Authority currently concentrates on the Route 60/Parkway West and Route 65 corridors, but they and/or the Port Authority should be examining New Sewickley as an extended part of Cranberry. BCTA should be part of the Initiative team.
•	I began taking the bus 2 years ago. After the large buses began servicing Cranberry I now have 6 other coworkers who live in Mars taking the bus. Fortunately, I ride the 5:56am and 3:15pm bus and don't have to deal with the parking problems at Bladerunners. Any stops on Route 228 would vastly improve these problems.
•	Overall, I like the bus service from Cranberry to Pittsburgh (13K). It works well logistically for my schedule and the EXPRESS is perfect. However, most evenings it is standing room only. With the parking rates higher, more commuters are using public transportation. I know as I am one of those.
•	Would appreciate a "constant" driver on the 6:30am 13K, better reliability of drivers in evening.
•	What about building a parking lot and charging \$1 to park there, except that Port Authority riders would park free if they have a current bus pass or tickets?
•	For me, I use Port Authority to get to work downtown. I like the current route and the buses they provide but I wish there were more parking available, less crowding on the buses (people standing, etc.) better service (buses show up and are on time) and I would also like to see an early afternoon express bus leave from downtown.
•	The only cost-effective transit route is to downtown Pittsburgh. Transit to airport and Butler would serve limited number of persons. I have seen Butler County bus and it is always empty.
•	Biggest problems are providing enough parking. Blade Runners overflows to empty buildings nearby. Warrendale has people parking in aisles.
•	Cost should be held to \$2.50 or less one way.

Appendix E

CRANBERRY AREA TRANSIT STUDY

Public Meeting and All Other Comment Forms



Report prepared by: Olszak Management Consulting, Inc.

Appendix E Cranberry Area Transit Study Public Meeting and All Other Comment Forms

SUMMARY

- Number of comment forms completed: 31
- Residence of respondents: Cranberry (15); Other (7); Unknown (9)
- Identified Needs: Transit is needed (13); reduce traffic (4); Cranberry is growing (4); more Park-n-Ride lots (3)
- Important Places to Serve:
 - Local Shopping (18); recreation facilities (7); municipal building (6); schools and colleges (5); senior centers and housing (5)
 - Commuting Downtown Pittsburgh (14); Park-n-Ride lots (3)
 - Regional connections Points north (13); Pittsburgh-non-commuting (7); Airport (7)
- Potential Routes Route 19 (17); Freedom Road (11); Route 228 (10); I-79/I-279 (6); Route 8 (6); Rochester Road (5)
- Preferred Modes Small shuttle buses (16); large buses (7); rail (6)
- Suggested Stations:
 - Local shopping centers (15) including Wal-Mart (2); Cranberry Mall (2)
 - Cranberry municipal building (5)
 - Locations near parking areas (3)
 - o Regional Airport, Pittsburgh, Butler, Erie, New Castle, Zelienople
- Was the information understandable? 19 yes, 12 no answer.

Detailed findings from the comment forms follow. Because a large number of participants did not complete comment forms, this report ends with a section containing verbal comments captured by Lynn Colosi and Max Heckman.

Comment Form Respondents

Meeting Date	Meeting	Number
2/16/04	Homeowners Associations	5
3/16/04*	Community Open House	26
	Total	31

* Additional meeting held 3/17 due to weather.

Zip	Comment Forms	
Zīp	Number	Percent
16066 (Cranberry)	15	48%
15044 (Gibsonia)	2	6%
16037 (Harmony)	2	6%
16063 (Zelienople)	2	6%
15005 (Baden)	1	3%
Unknown	9	29%
Total	31	100%

Findings

1. How do you feel about current transit needs in your community?

Number	Category	Responses
13	Need - general	A need certainly exists. Definitely needed. Enthusiastic. I believe there certainly exists a need for a more comprehensive and efficient transit system. It is needed. It would be great. Lacking in community-residential areas to commuter transit, more frequent commuter buses to city. Needed. Parking is too expensive in Pittsburgh. Room for much improvement - I think there is a great need for efficient, easily accessible public transportation that is now extremely limited. The needs are great in size. There is no current transit in my community, so I think it would be a great asset. Very limited. We need some plan to expedite not using a car.
4	Need - traffic problems	At this point it would be an added convenience. It might (alleviate) traffic during the week. Less traffic, reduce air pollution. Too much traffic in Cranberry Township. Yes, it would limit the amount of vehicle usage on the road.
4	Need - growing	Cranberry's growth warrants additional transit options. I am not aware of what is offered since I am still able to drive; however, for the future, bus service would be a great help. I think if you build it they will come; with all the expansion in and around Zelienople planned and around Cranberry it is going to be needed desperately. With all the growth and development, the time is right to consider some type of transit system both bus and taxi.
3	Need - parking	Needs are met but lack parking spaces or multiple locations (only 2 exist today). Parking at the Park-n-Ride areas are entirely too small. By 7:30 the parking places are taken. We need more Park-n-Rides with express service into Pittsburgh.
1	Need - Butler	We also need transit into downtown Butler.
1	Need - Downtown	Need improvement to Downtown Pittsburgh.
1	Need - Zelienople	Public transit is needed in the Zelienople area to points south.

Number	Category	Responses
1	No need	We do not need buses, etc. People have car or do not move out here. We have very clean air and do not need any public transportation.
4	Other	I do not know of any local transit. The transit needs to Pittsburgh seem to be working. If one is developed - it should be self-funded and not need subsidized. I'm open to suggestions, however I oppose regional activity. Not an urgent need but would be an enhancement if it is done without raising taxes - would love to be without burden to township budget.

2. Where are the most important places you feel transit should serve?

Number	Category	Responses
18	Shopping	Cranberry Mall (2). Locally for shopping purposes. Malls (5). Movies. Restaurants. Shopping. Shopping areas (5). Shopping centers (3). Shopping strips.
7	Recreation	All parks. Community parks. Evening activities for children. Local parks. Parks. Pool in summer. Cranberry Pool.
6	Municipal Building	Community building. Municipal building (2). Municipal center. Municipal center - Cranberry Township. Should come here.
5	Educational	Colleges. Elementary, middle and senior schools in Zelie From main arteries to schools. High schools. Schools.
5	Senior	Retirement housing on Rochester Road. Senior center. Senior citizen housing plans. Senior/assisted living homes. Seniors.
3	Medical	Being retired and growing older, it would be nice to have transit to various hospitals, medical facilities. Hospital. Medical offices
6	Other	All large housing plans. Churches. Costco. Industrial parks. Local businesses. Residential to communities.

Local Circulator Services

Commuting

Number	Category	Responses
14	Downtown Pittsburgh	Downtown (10). Cranberry to Pittsburgh (2). Pittsburgh/Oakland. T-Stations.
3	Park & Ride	Commuter lots. Park & Ride. Park & Ride to Pittsburgh

Regional Connections

Number	Category	Responses
13	Points north	Ross Park Mall (2). Zelienople (2). Cranberry and Harmony north. Cranberry to Butler. Erie and other points north. Grove City. Meadville. New Castle. Slippery Rock.
7	Pittsburgh (except commuting)	City events. Downtown theaters. Downtown sporting events (Pirates and Steelers games). Train station. Oakland. Station Square. Strip District stores.
7	Airport	Airport (5). Greater Pittsburgh Airport. Pittsburgh and Airport south.

Number	Category	Responses
4	Points south	Allegheny County. UPMC Passavant. Wexford. McKnight Road.
6		Route 19. Route 228. Route 8. Seven Fields. Up and down Route 19. Beaver County.

3. What potential corridors and routes should be served?

Number	Route	
17	Route 19 (16). Route 19 to Ross Park Mall	
11	Freedom Road (10). Freedom Road - Cranberry Mall - Haines School Road	
10 Route 228 (9). Route 228 shopping.		
6	I-279/I-79-Downtown Pittsburgh. I-79 (3). I-79/279 (2).	
6	Route 8 (5). Route 8 corridor.	
5	Rochester Road	
3	Powell Road (3)	
2	North Boundary Road (2)	
2	North to Zelienople (2).	
1	Babcock Blvd.	
1	Bowan Road	
1	Commonwealth	
1	Cranberry Twp to Pittsburgh-Downtown and Oakland	
1	East-West, Wheeling, Steubenville, Youngstown	
1	Economy Borough (Bradford Park area)	
1	Franklin Road and Route 228	
1	Glen Eder Road - Powell Road	
1	Pearce Mill Road	
1 Pittsburgh-Erie		
1	Put in a sort of beltway circle	
1	Red Belt	
1	Rock Road	
1	Rolling Road	
1	Roven Road	
1	South to Passavant Hospital and Ross Park Mall	
1	The 2 parks in Cranberry	
1	Thomson Road	
1	Wallace Road	
1	West to Beaver Valley	
1	Zelienople-Cranberry-Pittsburgh	
1	Zelienople-Wexford-Beaver	

Number	Category	Mode										
16	Small	Shuttle buses. Shuttle buses to the Park-n-Ride might lighten the overcrowded parking at Blade Runners. Small buses. Small shuttle buses (5). Small shuttle buses at appropriate times for lunch, theater matinees, store hours. Small shuttle would be less expensive to operate and maintain plus easier access to/in various housing developments. Small shuttles (2) Smaller (buses) to Butler. Smaller buses to Airport. Smaller buses to local shopping. Use mini buses to bring (people) into station - then get on suspended rail cars to get on the mini beltway to all the stops.										
7	Large	Large buses (2). Large buses for local services. Large buses to Pittsburgh. Large buses to Zelie. Larger buses to Downtown - rush hours. Same large buses a used today.										
6	Rail	Consider rail from Mars to Pittsburgh via existing rail lines. I like light rail for larger commutes but need buses to get to these hubs. Light rail. Light rail with it's own right of way. Suspended electric rail cars above the existing roads would use less ground space and not interfere with existing roads. "T".										
4	Mixed	All, depending on traffic flows. Both - depending on need. I believe in a combination approach in order to truly meet demand. Medium to large, depending on the passenger participation.										
6	Other	Whatever is appropriate. Electric buses or trolley. Fewer buses - they add to traffic congestion. Park-n-ride - increase spaces and schedule (more options needed). Vans. Whatever works for the greater majority.										

4. What modes (large buses, small shuttle buses) do you feel should be considered?

5. What locations would make good station options?

Number	Category	Locations
15	Local - Shopping	Wal-Mart (2). Cranberry Mall (2). Cranberry Mall, if parking is available to Park-n-Ride going into downtown Pittsburgh. All malls. All shopping centers. Grocery stores. Giant Eagle. Kohl's. Lowes. Mall on 228. On 228 near current shopping area. Maybe spaces in the Target/Kohl's/Lowes shopping center can be made available. Williamsburg Cleaners
5		Cranberry Township. Cranberry Township municipal building. Freedom and Haine. Muncipal center. Municipal building.
3	Local - Parking	Locations near parking areas. Somewhere with ample parking. Where there is adequate parking or accessibility.

Number	Category	Locations
23	Local - Other	Ashford Manor condo entrance. Community center. Community parks. Cranberry Library. Dance centers. Gas stations. High schools. Hospital. Housing plan entrances. Indoor soccer. Industrial parks. Locations accessible on Route 228 (to 79). May need numerous and varied locations to accommodate elderly passengers who may not be able to walk long distances or up and down hills within township. Office buildings. Pool. Possibly other parking areas located in Thorn Hill Industrial Park (where Blade Runners is located) can be used for parking. Rochester and Haine. Route 19 corridor. School bus stops. Selected locations on Route 19. Senior center. Senior housing parking lots. Subdivisions on the bus line.
9	Regional	Airport. Butler. Cranberry (2). Erie. New Castle. Pittsburgh (2). Zelienople.
2	Other	In Pine our new town center which will be located at Route 19 and Wallace Road - across from Northway Christian. Stay away from anywhere along Route 19 due to traffic congestion.

6. How did you hear about today's meeting?

Number	Category
10	Just Walking By
6	Mail
2	Newspaper Ad
1	Township meeting
1	Word of Mouth
11	Not specified

8. Was the information presented understandable?

Number	Category
19	Yes
12	No answer

Comments about the presentation

Well done for exploratory introduction

The walk-thru was very informative

She did an excellent job

Need more specifics for flows and directions

Didn't have time to stay - bad snowstorm

Additional comments from completed forms:

Comment

The study should include a comprehensive approach to moving people out of their single-occupant vehicles (i.e., target large employers to provide incentives for those traveling in HOVs, flex-time for employees to move out of peak hours.

Additional transportation options are needed. Getting into and out of Pittsburgh easier could help both area economies.

Heading north, although Erie is farther away, is a viable option to be considered.

Bus stops would have to be safe areas to wait and also not require too much walking since most non-drivers would be senior citizens or youth.

We need rapid transit along the 279-79 corridor from Cranberry to downtown Pittsburgh. This should consist of a high-speed light rail system or something similar. This seems to work on the South Side.

Additional (unwritten) comments from meeting attendees:

From a resident, Bruce

Locally he'd like to see service to Cranberry Park/swimming pool. Also service to the park off of Mashuda, which has the baseball and football fields and is the location where all of the holiday celebrations are held.

Bruce envisions smaller buses only doing local routing from plan to plan. Wants the route to connect with Port Authority park and ride and to Evans City park and ride for commutes to town.

He also wants bike trails connecting all of the parks.

From Brian, another resident

He's all for transit service locally and to Pittsburgh. He wants "Special Event" service to Pirates and Steelers games and to Grove City Shops.

Marlene, resident

She said that Simon is building a new mall near 79 and that integrating a transit facility and park and ride would make sense.

Some Guy who stopped by

He wants to see high-speed rail utilizing the HOV lane with stations in Zelienople and Cranberry to Downtown Pittsburgh.

Notes from Maps:

- Seven Fields Borough will be adding a restaurant and Giant Eagle
- There should be a Park and Ride at Lowe's plaza on SR 228
- There are two abandoned rest areas on I-79 north of Rowan Road. They could be used for Park N Ride and/or transit stations if they were connected to the local road system.

- A Park and Ride lot is needed closer to Zelienople.
- There is a utility R/W along Boundary Road use for transit?
- Incorporate with SR 228 Study
- The following activity centers within the study area were mentioned as locations that should be served by public transportation:
 - Cranberry Mall
 - Cranberry Municipal Center
 - Warrendale Park and Ride Lot (mentioned 4 times) local buses could drop people off there to transfer to Pittsburgh bus lot fills up by 7 AM.
 - SR 528 Park and Ride
 - Blade Runners Park and Ride
 - Parks (Boundary, Mashuda)
 - There will be a new Y on US 19 north
 - Sherwood Oaks
 - Zelienople area and rural areas closer to Route 8 have many elderly who drive but probably shouldn't.
 - There is a retirement community next to Lutheran School in Zelienople that is not shown on the map.
 - Harmony Boro needs service to Cranberry and Pittsburgh
- The following destinations external to the study area were mentioned:
 - Downtown (4 times)
 - Airport (3 times)
 - Ross Park Mall
 - o North Hills Passavant Hospital
 - o Oakland
 - o Erie
 - o Butler
 - o Grove City Shops

Other Comments:

- Bike lanes or bike paths are needed.
- Cranberry, Seven Fields, Adams have many early teens who can't drive yet, totally dependent on parents local transit service needed for them. Sell monthly passes to make it affordable.
- We should talk to taxi and limo drivers in the area, find out where people go.
- Do it privately. In Boston area, large employers and retail/restaurant centers band together and pay for systems that run between office parks, nearby residential areas and businesses it's worthwhile to deliver customers and employees to where they are needed. Don't have to worry about union rules, etc.
- Bring back the buses for the old people.
- Establish service up and down Route 19. Service Cranberry Road and Marshall Road and also to Pittsburgh.

Appendix F

CRANBERRY AREA TRANSIT STUDY

Results of Service Concepts Analysis



Local Long List Service Concepts

	AlternativeAlternativeRoute NameL1L2			Alternative L3	Alternative L4	Alternative L5	
	Koule Maine	West Loop	West Loop Commonwealth	West Loop Thorn Hill	East Loop Rowan	East Loop Boundary	
	Areas Served	Cranberry Transit Center (proposed), Rochester Road, Haine School Road or Powell Road, Freedom Road, US Route 19	Cranberry Transit Center (proposed), Rochester Road, Haine School Road or Powell Road, Freedom Road, Commonwealth Drive, Thorn Hill Road, US Route 19	Cranberry Transit Center (proposed), Rochester Road, Haine School Road or Powell Road, Freedom Road, Rolling Road, Thorn Hill Road, US Route 19	Cranberry Transit Center (proposed), US Route 19, Rowan Road, Franklin Road, Seven Fields, Adams Ridge, PA Route 228, Cranberry Woods	Cranberry Transit Center (proposed), US Route 19, Boundary Road, Franklin Road, Seven Fields Adams Ridge, PA Route 228, Cranberry Woods	Notes/Comments
	Service Characteristics	Mini Bus, 15-Minute Frequency, All Day Service	Mini Bus, 15-Minute Frequency, All Day Service	Mini Bus, 15-Minute Frequency, All Day Service	Mini Bus, 15-Minute Frequency, All Day Service	Mini Bus, 15-Minute Frequency, All Day Service	
	Route 19 Route 228	X	X	X	x x	X X	
	Freedom Road	X	X		^	^	
ō	Rochester Road	×	X	X			
2	Haine School or Powell Road	X	X	x			
	Boundary Road	X	X	^	x		
	Rowan Road				X	x	
	Cranberry Mall/Walmart	X	x	x	x	x	
	Route 228 Shopping Areas	~			X	x	
ö	Shopping Areas along Route 19	X	x	x	X	x	
~	Major Employment Areas / Industrial Parks		X	x	X	x	
5	Zelienople/Harmony						
	Municipal Center/Proposed Cranberry Transit Center	X	X	x	X	X	
		1	1	1	1	L	1
	Route Length in Miles Route Trip	12.0	13.0	12.5	21.5	27.8	
	Average Speed in Miles per Hour	20	20	20	20	20	
	Round Trip Running Time in hours	0.6	0.7	0.6	1.1	1.4	
ost	Trips per hour (0.5 = 120 minute headway, 1 = 60 minute headway, etc.)) 4	4	4	4	4	
ig Co	Service hours per day	12	12	12	12	12	
ratin	Number of round trips per day	48	48	48	48	48	
ope	Annual Revenue Miles	172,800	187,200	180,000	309,600	400,320	
	Average Cost per Hour	\$65	\$65	\$65	\$65	\$65	
	Daily Cost at hours per day	\$1,872	\$2,028	\$1,950	\$3,354	\$4,337	
	Annual Cost at days per year (factor of 300)	\$561,600	\$608,400	\$585,000	\$1,006,200	\$1,301,040	Monday through Saturday except holidays.
ŝt	Shelters (\$3,000 per shelter)	7	8	7	8	8	
Cost	Mini Bus (\$75,000 per bus)	3	3	3	5	6	
pital	Route Specific Capital Cost	\$246,000	\$249,000	\$246,000	\$399,000	\$474,000	
Ca	Annualized capital cost	\$49,200	\$49,800	\$49,200	\$79,800	\$94,800	
	Total Annual Cost	\$610,800	\$658,200	\$634,200	\$1,086,000	\$1,395,840	
	Population	4,832	5,164	5,723	4,246	4,214	
	Population Score	8	8	10	6	6	Double weighted, score of 2 to 10
	Community Input	5	5	5	5	5	Score of 1 to 5
ia							
Criteria	Study Area Connectivity	7	8	7	8	8	Score of 1 to 5
0							
	Pedestrian Environment	3	3	3	2	2	Score of 1 to 5
	TOD Supportive	5	5	5	3	3	Score of 1 to 5
	Average Score	5.6	5.8	6.0	4.8	4.8	
1						1	
	Composite Relative Score	4.6	4.4	4.7	2.2	1.7	

Note: All routes begin and end at the proposed Cranberry Transit Center.

Study Area Long List Service Concepts

	Double Name	Alternative S1	Alternative S2	Alternative S3	Alternative S4	Alternative S5	Alternative S6	
	Route Name	Zelienople / Harmony	Zelienople / Harmony / Butler	Mars / Evans City	Mars / Evans City / Butler	Valencia	Mars / Route 8 / Butler]
	Areas Served	Areas Served Cranberry Transit Center (proposed), US Route 19, PA Route 68 US Route 19, PA Route 68		Cranberry Transit Center (proposed), US Route 19, PA Route 228, Mars- Evans City Road	Cranberry Transit Center (proposed), US Route 19, PA Route 228, Mars- Evans City Road, PA Route 68	Cranberry Transit Center (proposed), PA Route 228, Old State Road	Cranberry Transit Center (proposed), PA Route 228, PA Route 8	Notes/Comments
	Service Characteristics	Mini or Mid-Sized Bus, 60 to 120 Minutes Between Trips, All Day Service	Mini or Mid-Sized Bus, 60 to 120 Minutes Between Trips, All Day Service	Mini or Mid-Sized Bus, 60 to 120 Minutes Between Trips, All Day Service	Mini or Mid-Sized Bus, 60 to 120 Minutes Between Trips, All Day Service	Mini or Mid-Sized Bus, 60 to 120 Minutes Between Trips, All Day Service	Mini or Mid-Sized Bus, 60 to 120 Minutes Between Trips, All Day Service	2
Route 68 Route 19			Х					
		X	X	X	X			
Route 228				X	X	X	Х	
	Center / Proposed Cranberry Transit Center	X	X	X	X	X	X	
-	y Malls Area			X	X	X	X	
Cranberry								
Zelienople		X	X					
Evans City			X	X	X			
Harmony		X	X					
-	y / Butler Township		X		X	_	X	
Mars				X	X	X	X	
Route Ler	ngth in Miles	19.9	54.2	27.6	53.2	20.3	48.8	
	Speed in Miles per Hour	20	25	20	25	20	25	
-	Time in hours	1.0	2.2	1.4	2.1	1.0	2.0	
	hour (0.5 = 120 minute headway, 1 = 60 minute headway, etc.)	1	1	1	1	1	1	
	ours per day	12	12	12	12	12	12	
	of round trips per day	12	12	12	12	12	12	
-	evenue Miles	71,496	194,976	99,504	191,520	73,152	175,824	
-	Cost per Hour	\$65	\$65	\$65	\$65	\$65	\$65	
	st at hours per day	\$775	\$1,690	\$1,078	\$1,660	\$792	\$1,524	
	ost at days per year (factor of 300)	\$232,362	\$506,938	\$323,388	\$497,952	\$237,744	\$457,142	Monday through Saturday except holidays
		+,		**=*,***	····	····	¥ · • · , · · •	········
	(\$3,000 per shelter)	4	7	6	7	4	5	
Midi Bus ((\$200,000 per Midi Bus)	1.0	3.0	2.0	3.0	2.0	2.0	
Route Spe	ecific Capital Cost	\$212,000	\$621,000	\$418,000	\$621,000	\$412,000	\$415,000	
Annualize	ed capital cost	\$21,200	\$62,100	\$41,800	\$62,100	\$41,200	\$41,500	Annualized at 10 years.
r				Γ			Γ	1
Total Ann	ual Cost	\$253,562	\$569,038	\$365,188	\$560,052	\$278,944	\$498,642	
Population	n	3,530	5,129	4,617	4,842	3,500	3,716	
Populatior	n Score	6	10	8	8	6	6	Double weighted, score of 2 to 10
Communit	ity Input	Positive	Mixed	Positive	Positive	Mixed	Mixed	
		5	3	5	5	3	3	Score of 1 to 5
Study Are	ea Connectivity	4	7	6	7	4	5	Score of 1 to 5
Pedestriar	n Environment	4	4	3	3	3	2	Score of 1 to 5
TOD Supp	portive	4	4	4	4	4	4	Score of 1 to 5
Average S	Score	4.6	5.6	5.2	5.4	4.0	4.0	

Note: All routes begin and end at the proposed Cranberry Transit Center.

Regional Long List Service Concepts

		Alternative R0	Alternative R1	Alternative R1A	Alternative R2	Alternative R3	Alternative R4	Alternative R5	Alternative R6	Alternative R7	
	Route Name	Pittsburgh Express (LRT)	Pittsburgh Express (BRT)		Oakland Express	Zelienople Express	Butler Express	North Hills (PAAC)	Rochester	Baden	
	Areas Served	Cranberry Transit Center (proposed), US Route 19, Warrendale Park-n-Ride, I- 79, I-279, Downtown	Cranberry Transit Center (proposed), US Route 19, Warrendale Park-n-Ride, I- 79, I-279, Downtown	Seven Fields Park-n-Ride (proposed), PA Route 228, US Route 19, Warrendale Park-n-Ride, I-79, I-279, Downtown		Cranberry Transit Center (proposed), US Route 19, Warrendale Park-n-Ride, 79, I-279, Zelienople, Downtown	Cranberry Transit Center (proposed), PA Route 68, Zelienople, Harmony, US Route 19, Warrendale Park-n-Ride, I-79, I-279, Downtown	Cranberry Transit Center (proposed), US Route 19	Cranberry Transit Center (proposed), US Route 19, Freedom Road, Powell, Darlington Road, Rochester Road	Cranberry Transit Center (proposed), US Route 19, Freedom Road, Beaver County Transit Authority Park-n-Ride	Notes/Comments
	Service Characteristics		Full-Sized Buses, 10-Minute Service During Peak Times, 30-Minute Service During Off-Peak Times, All Day Service		Full-Sized Buses, 30- Minute Service During Peak Times	Full-Sized Buses, 30- Minute Service During Peak Times	Full-Sized Buses, 30- Minute Service During Peak Times	Mini or Midi Bus, 60 to 120 Minutes Between Trips, All Day Service		Mini or Midi Bus, 60 to 120 Minutes Between Trips, All Day Service	
	Pittsburgh / Oakland	X	x	Х	X	Х	X				
	Butler City / Butler Township						X				
	Municipal Center / Proposed Cranberry Transit Center	x	X		x	х	X	x	х	x	
	Cranberry Malls Area	x	X	Х	x	X	X	X			
	Cranberry West								x	x	
reas	Pittsburgh International Airport										A private shuttle could potentially provide service beginning and ending at the Proposed Cranberry Transit Center
ity A	Mars / Route 228 Corridor			х							ending at the Proposed Granberry Transit Center
ctivi	Zelienople / Harmony					x	x				
∢	Evans City										
	PAAC Regional Connector	x	x	X	x	x	x	x			
	BCTA Regional Connector			~			~	~	x	x	
	BTCJMTA Connector						x		~	~	
	Park-n-Ride Lots	x	x	x	x	x	x	x	x	x	
	r aik-i-itide Lois	X	~	^	^	~	~	^	^	^	
		Peak Off Peak	Peak Off Peak								
	Route Length in Miles, Round Trip	42.8 42.8	42.8 42.8	44.0	47.8	60.2	94.5	19.0	24.6	22.1	
	Average Speed in Miles per Hour Round Trip Running Time in Hours	30 30 1.4 1.4	35 35 1.2 1.2	35 1.3	35 1.4	35 1.7	35 2.7	25 0.8	25 1.0	25 0.9	
ost	Trips per hour (0.5 = 120 minute headway, 1 = 60 minute headway, etc.)	4 <u>3</u> 6 12	6 2	2	2	2	2	1	1	1	
ating C	Service Span per Day Number of Round Trips per Day	6 12 24 36	6 12 36 24	12	12	6 12	6 12	10 10	10 10	10 10	
erati	Annual Revenue Miles	308,160 462,240 \$232 \$232	462,240 308,160 \$65 \$65	158,400 \$65	172,080 \$65	216,576 \$65	340,056 \$65	57,000 \$65	73,920 \$65	66,180 \$65	L BT post is BA average from National Transit Database
ď	Average Cost per Hour Daily Cost at Hours per Day	\$7,944 \$11,916	\$2,861 \$1,908	\$981	\$05	\$1,341	\$05	\$494	\$641	\$574	LRT cost is PA average from National Transit Database.
	Annual Cost of Peak and Off-Peak Services	\$1,985,920 \$3,574,656	\$715,371 \$572,297								Routes R0, R1, R5, R6, & R7 Monday thru Saturday service,
	Annual Cost at Days per Year (factor of 300)	\$5,560,576	\$1,287,669	\$245,143	\$319,577	\$335,177	\$526,277	\$148,200	\$192,192		Routes R1A, R2, R3, R4 Weekday service only.
	Shelters or Stations (\$3,000 per Shelter or Station)	\$20,000,000	4	4	4	5	6	2	2	2	LRT cost includes 8 stations at \$2.5 M per station.
oital ost	40-foot Motor Coach or Rail Cars (\$350,000 per coach or car)	\$18,000,000	8.0	3.0	3.0	4.0	6.0	1.0	1.0		LRT cost includes 6 rail cars at \$3 M each.
1 # X	Poute Specific Capital Cost									1.0	
öÖ	Route Specific Capital Cost	\$642,000,000	\$2,812,000	\$1,062,000	\$1,062,000	\$1,415,000	\$2,118,000	\$356,000	\$356,000	\$356,000	LRT cost assumes \$30 M per mile.
ö	Annualized Capital Cost	\$642,000,000 \$22,666,667	\$2,812,000 \$234,333	\$1,062,000 \$88,500	\$1,062,000 \$88,500	\$1,415,000 \$117,917		\$356,000 \$29,667			
öÜ	Total Annual Cost						\$2,118,000		\$356,000	\$356,000 \$29,667 \$201,735	
ö	Annualized Capital Cost Total Annual Cost	\$22,666,667 \$28,227,243	\$234,333 \$1,522,002	\$88,500 \$333,643	\$88,500 \$408,077	\$117,917 \$453,094	\$2,118,000 \$176,500 \$702,777	\$29,667 \$177,867	\$356,000 \$29,667 \$221,859	\$356,000 \$29,667 \$201,735	LRT cost assumes \$30 M per mile. Bus capital annualized for 12 years, rail capital annualized for 30
ö	Annualized Capital Cost Total Annual Cost Study area population served	\$22,666,667 \$28,227,243 1,384	\$234,333 \$1,522,002 1,384	\$88,500 \$333,643 3,709	\$88,500 \$408,077 1,384	\$117,917 \$453,094 9,096	\$2,118,000 \$176,500 \$702,777 11,919	\$29,667 \$177,867 2,532	\$356,000 \$29,667 \$221,859 4,369	\$356,000 \$29,667 \$201,735 6,464	LRT cost assumes \$30 M per mile. Bus capital annualized for 12 years, rail capital annualized for 30
00	Annualized Capital Cost Total Annual Cost Study area population served Pop Score	\$22,666,667 \$28,227,243 1,384 2	\$234,333 \$1,522,002 1,384 2	\$88,500 \$333,643 3,709 6	\$88,500 \$408,077 1,384 2	\$117,917 \$453,094 9,096 8	\$2,118,000 \$176,500 \$702,777 11,919 10	\$29,667 \$177,867 2,532 4	\$356,000 \$29,667 \$221,859 4,369 6	\$356,000 \$29,667 \$201,735 6,464 8	LRT cost assumes \$30 M per mile. Bus capital annualized for 12 years, rail capital annualized for 30
<u></u>	Annualized Capital Cost Total Annual Cost Study area population served	\$22,666,667 \$28,227,243 1,384 2 Positive	\$234,333 \$1,522,002 1,384 2 Positive	\$88,500 \$333,643 3,709 6 Positive	\$88,500 \$408,077 1,384 2 Positive	\$117,917 \$453,094 9,096 8 Positive	\$2,118,000 \$176,500 \$702,777 11,919 10 Mixed	\$29,667 \$177,867 2,532 4 Positive	\$356,000 \$29,667 \$221,859 4,369 6 Mixed	\$356,000 \$29,667 \$201,735 6,464 8 Mixed	LRT cost assumes \$30 M per mile. Bus capital annualized for 12 years, rail capital annualized for 30
	Annualized Capital Cost Total Annual Cost Study area population served Pop Score Community Input	\$22,666,667 \$28,227,243 1,384 2 Positive 5	\$234,333 \$1,522,002 1,384 2 Positive 5	\$88,500 \$333,643 3,709 6 Positive 5	\$88,500 \$408,077 1,384 2 Positive 5	\$117,917 \$453,094 9,096 8 Positive 5	\$2,118,000 \$176,500 \$702,777 11,919 10 Mixed 3	\$29,667 \$177,867 2,532 4 Positive 5	\$356,000 \$29,667 \$221,859 4,369 6 Mixed 3	\$356,000 \$29,667 \$201,735 6,464 8 Mixed 3	LRT cost assumes \$30 M per mile. Bus capital annualized for 12 years, rail capital annualized for 30 years.
	Annualized Capital Cost Total Annual Cost Study area population served Pop Score Community Input System Integration	\$22,666,667 \$28,227,243 1,384 2 Positive 5 3	\$234,333 \$1,522,002 1,384 2 Positive 5 3	\$88,500 \$333,643 3,709 6 Positive 5 3	\$88,500 \$408,077 1,384 2 Positive 5 3	\$117,917 \$453,094 9,096 8 Positive 5 3	\$2,118,000 \$176,500 \$702,777 11,919 10 Mixed 3 4	\$29,667 \$177,867 2,532 4 Positive 5 3	\$356,000 \$29,667 \$221,859 4,369 6 6 Mixed 3 2	\$356,000 \$29,667 \$201,735 6,464 8 Mixed 3 2	LRT cost assumes \$30 M per mile. Bus capital annualized for 12 years, rail capital annualized for 30 years. 1 for each connection, 1 for park-n-ride, and 1 bonus for PAAC.
Criteria	Annualized Capital Cost Total Annual Cost Study area population served Pop Score Community Input	\$22,666,667 \$28,227,243 1,384 2 Positive 5	\$234,333 \$1,522,002 1,384 2 Positive 5	\$88,500 \$333,643 3,709 6 Positive 5	\$88,500 \$408,077 1,384 2 Positive 5	\$117,917 \$453,094 9,096 8 Positive 5	\$2,118,000 \$176,500 \$702,777 11,919 10 Mixed 3	\$29,667 \$177,867 2,532 4 Positive 5	\$356,000 \$29,667 \$221,859 4,369 6 Mixed 3	\$356,000 \$29,667 \$201,735 6,464 8 Mixed 3 2	LRT cost assumes \$30 M per mile. Bus capital annualized for 12 years, rail capital annualized for 30 years.
	Annualized Capital Cost Total Annual Cost Study area population served Pop Score Community Input System Integration	\$22,666,667 \$28,227,243 1,384 2 Positive 5 3	\$234,333 \$1,522,002 1,384 2 Positive 5 3	\$88,500 \$333,643 3,709 6 Positive 5 3	\$88,500 \$408,077 1,384 2 Positive 5 3	\$117,917 \$453,094 9,096 8 Positive 5 3	\$2,118,000 \$176,500 \$702,777 11,919 10 Mixed 3 4	\$29,667 \$177,867 2,532 4 Positive 5 3	\$356,000 \$29,667 \$221,859 4,369 6 6 Mixed 3 2	\$356,000 \$29,667 \$201,735 6,464 8 Mixed 3 2	LRT cost assumes \$30 M per mile. Bus capital annualized for 12 years, rail capital annualized for 30 years. 1 for each connection, 1 for park-n-ride, and 1 bonus for PAAC.
	Annualized Capital Cost Total Annual Cost Study area population served Pop Score Community Input System Integration Study Area Connectivity	\$22,666,667 \$28,227,243 1,384 2 Positive 5 3 4	\$234,333 \$1,522,002 1,384 2 Positive 5 3 4	\$88,500 \$333,643 3,709 6 Positive 5 3 4	\$88,500 \$408,077 1,384 2 Positive 5 3 4	\$117,917 \$453,094 9,096 8 Positive 5 3 3 5	\$2,118,000 \$176,500 \$702,777 11,919 10 Mixed 3 4 6	\$29,667 \$177,867 2,532 4 Positive 5 3 2	\$356,000 \$29,667 \$221,859 4,369 6 Mixed 3 2 2 2	\$356,000 \$29,667 \$201,735 6,464 8 Mixed 3 2 2 2 2 3	LRT cost assumes \$30 M per mile. Bus capital annualized for 12 years, rail capital annualized for 30 years. 1 for each connection, 1 for park-n-ride, and 1 bonus for PAAC. 1 for each major activity center and 2 for Pittsburgh. Combination of service to existing TOD's, future Route 19 Main
	Annualized Capital Cost Total Annual Cost Study area population served Pop Score Community Input System Integration Study Area Connectivity Pedestrian Environment TOD Supportive	\$22,666,667 \$28,227,243 1,384 2 Positive 5 3 4 5 6	\$234,333 \$1,522,002 1,384 2 Positive 5 3 4 4 3 5	\$88,500 \$333,643 3,709 6 Positive 5 3 4 2 4	\$88,500 \$408,077 1,384 2 Positive 5 3 4 4 3 4	\$117,917 \$453,094 9,096 8 Positive 5 3 3 5 4 4 5	\$2,118,000 \$176,500 \$702,777 11,919 10 Mixed 3 4 6 4 5	\$29,667 \$177,867 2,532 4 Positive 5 3 2 3 2 3 4	\$356,000 \$29,667 \$221,859 4,369 6 6 Mixed 3 2 2 2 2 3	\$356,000 \$29,667 \$201,735 6,464 8 Mixed 3 2 2 2 2 3	LRT cost assumes \$30 M per mile. Bus capital annualized for 12 years, rail capital annualized for 30 years. 1 for each connection, 1 for park-n-ride, and 1 bonus for PAAC. 1 for each major activity center and 2 for Pittsburgh.
	Annualized Capital Cost Total Annual Cost Study area population served Pop Score Community Input System Integration Study Area Connectivity Pedestrian Environment	\$22,666,667 \$28,227,243 1,384 2 Positive 5 3 4 5	\$234,333 \$1,522,002 1,384 2 Positive 5 3 4 4 3	\$88,500 \$333,643 3,709 6 Positive 5 3 4 4 2	\$88,500 \$408,077 1,384 2 Positive 5 3 4 4 3	\$117,917 \$453,094 9,096 8 Positive 5 3 3 5 4	\$2,118,000 \$176,500 \$702,777 11,919 10 Mixed 3 4 6 4 4	\$29,667 \$177,867 2,532 4 Positive 5 3 2 3 3	\$356,000 \$29,667 \$221,859 4,369 6 6 Mixed 3 2 2 2 2 2	\$356,000 \$29,667 \$201,735 6,464 8 Mixed 3 2 2 2 2 3	LRT cost assumes \$30 M per mile. Bus capital annualized for 12 years, rail capital annualized for 30 years. 1 for each connection, 1 for park-n-ride, and 1 bonus for PAAC. 1 for each major activity center and 2 for Pittsburgh. Combination of service to existing TOD's, future Route 19 Main

Note: All routes except R1A begin and end at the proposed Cranberry Transit Center.

Study Area Short List Service Concepts

	Route Name	Alternative	Alternative	Alternative	Alternative	
	Route Name	S1 Zelienople/Harmony	S2 elienople/Butler Extensio	S3 Evans City	S5 Valencia	
	Areas Served	Cranberry Transit Center (proposed), US Route 19, PA Route 68	Cranberry Transit Center (proposed), US Route 19, PA Route 68	Cranberry Transit Center (proposed), US Route 19, PA Route 228, Mars- Evans City Road	Cranberry Transit Center (proposed), PA Route 228, Old State Road	Notes/Comments
	Service Characteristics	Mini or Mid-Sized Bus, 60 to 120 Minutes Between Trips, All Day Service	Mini or Mid-Sized Bus, 60 to 120 Minutes Between Trips, All Day Service	Mini or Mid-Sized Bus, 60 to 120 Minutes Between Trips, All Day Service	Mini or Mid-Sized Bus, 60 to 120 Minutes Between Trips, All Day Service	
ors	Route 68		х			
Corridors	Route 19	х	X	x		
ပိ	Route 228			x	x	
	Municipal Center / Proposed Cranberry Transit Center	х	х	х	х	
	Cranberry Malls Area			x	X	
as	Cranberry West					
Activity Areas	Zelienople	x	x			
Į,	Evans City		х	х		
Act	Harmony	х	х			
	Butler City / Butler Township		х			
	Mars			х	x	
	Route Length in Miles	19.9	54.2	27.6	20.3	
	Average Speed in Miles per Hour	20	25	20	20	
	Running Time in hours Trips per hour (0.5 = 120 minute headway, 1 = 60 minute	1.0	2.2	1.4	1.0	
st	headway, etc.)	1	1	1	1	
ပိ	Service hours per day	12	12	12	12	
Operating Cost	Number of round trips per day	12	12	12	12	
Der	Annual Revenue Miles	71,496	194,976	99,504	73,152	
0	Average Cost per Hour	\$65	\$65	\$65	\$65	
	Daily Cost at hours per day	\$775	\$1,690	\$1,078	\$792	
	Annual Cost at days per year (factor of 300)	\$232,362	\$506,938	\$323,388	\$237,744	
	Revenue hours per day	11.9	26.0	16.6	12.2	Mon through Sat except holidays.
			1	1	1	1
ost	Shelters (\$3,000 per shelter)	0	0	0	0	
ŭ	Mid-Sized Bus (\$200,000 per bus)	1.0	3.0	2.0	2.0	
Capital Cost	Route Specific Capital Cost	\$200,000	\$600,000	\$400,000	\$400,000	
0	Annualized capital cost	\$20,000	\$60,000	\$40,000	\$40,000	
	Tatal Agencel Ocad	\$050.000	¢500.000	¢000.000	\$077.744	
	Total Annual Cost	\$252,362	\$566,938	\$363,388	\$277,744	Annualized at 10 years.
	Estimated Boardings	147	606	245	193	
	Latinated Doardings	147	000	243	195	
	Efficiency (Boarding rides per revenue hour)	12.3	23.3	14.8	15.8	
	Enciency (boarding hoes per revenue hour)	12.5	23.3	14.0	13.0	
	Community Input	4	5	4	4	
a	Elderly Population					
Criteria						
5	Low Income Population					
	· · ·					
	Economic Feasibility	5	4	4	3	
	Average Score	7.1	10.8	7.6	7.6	Average of all scores except estimated boardings, which is reflected in efficiency.
				1		1
	Composite Relative Score	14.1	9.5	10.4	13.7	

Note: All routes begin and end at the proposed Cranberry Transit Center.

Regional Short List Service Concepts

	Route Name	Alternative R1	Alternative R1A	Alternative R2	Alternative R3	Alternative R4	Alternative R5	Alternative R6	Alternative R7	
	Areas Served	Pittsburgh Express Cranberry Transit Center (proposed), US Route 19, Warrendale Park-n-Ride, I- 79, I-279, Downtown	Seven Fields Express Seven Fields Park-n-Ride (proposed), PA Route 228, Warrendale Park-n- Ride, I-79, I-279, Downtown	Oakland Express Cranberry Transit Center (proposed), US Route 19, Warrendale Park-n-Ride, I 79, I-279, I-579, East Busway	(proposed), US Route 19,	Butler Express Cranberry Transit Center (proposed), PA Route 68, PA Route 528, US Route 19, Warrendale Park		(proposed), US Route 19,	Baden Cranberry Transit Center (proposed), US Route 19 Freedom Road, Beaver County Transit Authority Park-n-Ride	,
	Service Characteristics	Full-Sized Buses, 10- Minute Service During Peak Times, 30-Minute Service During Off-Peak Times, All Day Service	Full-Sized Buses, 30- Minute Service During Peak Times	Full-Sized Buses, 30- Minute Service During Peak Times	Full-Sized Buses, 30- Minute Service During Peak Times	Full-Sized Buses, 2 Trips During Peak Times	Mini or Mid-Sized Bus, 60 to 120 Minutes Between Trips, All Day Service	Mini or Mid-Sized Bus, 60 to 120 Minutes Between Trips, All Day Service		
	Pittsburgh / Oakland	x	x	х	х	Х				
	Butler City / Township					x				
	Municipal Center / Proposed Cranberry Transit Center	Х		X	X	X	X	X	X	
	Cranberry Malls Area	Х		х	X	Х	X			
	Cranberry West									
Areas	Pittsburgh International Airport									Via private shuttle from the proposed Cranberry Transit Center.
vity	Mars / Route 228 Corridor		X							
Activity	Zelienople / Harmony				X	X				
	Evans City									
	PAAC Regional Connector	X	X	x	x	x	X			
	BCTA Regional Connector							X	X	
	BTCJMTA Connector					x				
	Park-n-Ride Lots	X	X	x	x	X	X	X	x	
		Peak Off Peak	L	1	1	I	Peak Off Peak		1	
	Route Length in Miles, Round Trip	42.8 42.8	44.0	47.8	60.2	85.5	19.0 19.0	24.6	22.1	
	Average Speed in Miles per Hour	35 35	35	35	35	35	25 25	25	25	
	Round Trip Running Time in Hours	1.2 1.2	1.3	1.4	1.7	2.4	0.8 0.8	1.0	0.9	
ost	Trips per hour (0.5 = 120 minute headway, 1 = 60 minute headway, etc.)	2 2	2	2	2	1	2 1	1	1	

		Реак	Оп Реак					Реак ОтгРеак			
	Route Length in Miles, Round Trip	42.8	42.8	44.0	47.8	60.2	85.5	19.0 19.0	24.6	22.1	
	Average Speed in Miles per Hour	35	35	35	35	35	35	25 25	25	25	
	Round Trip Running Time in Hours	1.2	1.2	1.3	1.4	1.7	2.4	0.8 0.8	1.0	0.9	
st	Trips per hour (0.5 = 120 minute headway, 1 = 60 minute headway, etc.)	2	2	2	2	2	1	2 1	1	1	
ŭ	Service Span per Day	6	10	6	6	6	4	4 6	10	10	
bu	Number of Round Trips per Day	12	20	12	12	12	4	8 6	10	10	
ati	Annual Revenue Miles	128,400	256,800	158,400	172,080	216,576	102,552	45,600 34,200	73,920	66,180	
er 1	Average Cost per Hour	\$65	\$65	\$65	\$65	\$65	\$65	\$65 \$65	\$65	\$65	
ŏ	Daily Cost at Hours per Day	\$954	\$1,590	\$981	\$1,065	\$1,341	\$635	\$395 \$296	\$641	\$574	
	Daily Revenue Hours	14.7	24.5	15.1	16.4	20.6	9.8	6.1 4.6	9.9	8.8	
	Annual Cost, Peak and Off-Peak (factor of 300)	\$238,457	\$476,914	\$294,171	\$319,577	\$402,213	\$190,454	\$98,800 \$88,920	\$192,192	\$172,068	
	Total Annual Operating Cost	\$715	5,371	\$294,171	\$319,577	\$402,213	\$190,454	\$187,720	\$192,192	\$172,068	
=	Shelters (\$3,000 per shelter)		0	0	0	0	0	0	0	0	
oita	40-foot Motor Coach (\$350,000 per coach)	-	3.0	3.0	3.0	4.0	3.0	1.0	1.0	1.0	
C a	Route Specific Capital Cost		50,000	\$1,050,000	\$1,050,000	\$1,400,000	\$1,050,000	\$350,000	\$350,000	\$350,000	
0	Annualized Capital Cost	\$87	7,500	\$87,500	\$87,500	\$116,667	\$87,500	\$29,167	\$29,167	\$29,167	Bus capital annualized at 12 years.
	Total Annual Cost	\$802	2,871	\$381,671	\$407,077	\$518,879	\$277,954	\$216,887	\$221,359	\$201,235	
	Estimated Boardings	1,0	1,042 357		526	659	140	394	467	142	
	Efficiency (Boarding Rides per Revenue Hour)	26	6.6	23.7	32.1	31.9	14.3	37.0	47.4	16.1	
	Community Input		5	4	5	4	5	3	3	3	
la.											
ite	Elderly Population										
ບັ											
	Low Income Population										
	Economic Feasibility	4	4	3	3	4	3	5	5	3	
	Average Score	11	1.9	10.2	13.4	13.3	7.4	15.0	18.5	7.4	
	Composite Relative Score	19	9.5	17.4	20.9	16.6	19.5	19.5	48.0	21.4	
	Recommendation	Peak 1 - 0	Off-peak 2	Phase 2	Phase 3	Phase 1	Phase 3	Phase 1	Phase 1	Not Recommended	

Note: All routes except R1A begin and end at the proposed Cranberry Transit Center.

Future Program Service Concepts

		Local		Stud	y Area				Region	al				
	Alternative	Alternative	Alternative	Alternative	Alternative	Alterr	native	Alternative	Alternative	Alternative		native	Alternative	
Route Name	L6	L7	L8	S1	S3	R		R1A	R3	R4	R5		R6	
	Zelienople Loop	East West North South Zelienople / Harmony Mars / Evans City (BRT)			Seven Fields Zelienople Express Express		Butler Express	North Hills (PAAC)		Rochester				
Areas Served	Seneca Park-n- Ride, Mercer Street, Spring Street, PA Route 68, US Route 19, PA Route 528, PA Route 528 Park-n- Ride	Cranberry Transit Center (proposed), Rochester Road, US Route 19, PA Route 228, Seven Fields, Adams Ridge	Center (proposed),		Cranberry Transit Center (proposed), US Route 19, PA Route 68, Mars- Evans City Road	Crophorny Tr		Seven Fields Park n-Ride (proposed), PA Route 228, US Route 19, I-79, I- 279	Cranberry Transit Center (proposed), US Route 19, I-79, I-279	Cranberry Transit Center (proposed), PA Route 68, PA Route 528, US Route 19, I-79, I- 279	, Cranber Center (p	ry Transit proposed), pute 19	Cranberry Transit Center (proposed), US Route 19, Freedom Road, Powell Road, Darlington Road, Rochester Road	Total Cost
Service Characteristics	30-Foot Mid-Sized Bus, 60-Minute Frequency, Daytime Service	30-Foot Mid-Sized Bus, 60-Minute Frequency, Daytime Service	30-Foot Mid-Sized Bus, 60-Minute Frequency, Daytime Service	30-Foot Mid-Sized Bus, 60-Minute Frequency, Daytime Service	Bus, 60-Minute		vice During s, 30-Minute ing Off-Peak	During Minute ff-Peak Timoo Full-Sized Buses, 30-Minute Service During Peak Timoo During Peak		Full-Sized Buses, 2 Trips During Peak Times	30-Foot Mid Size Bus, 30-Minute Service During Peak Times, 60- Minute Service		30-Foot Mid Sized Bus, 60-Minute Frequency, Daytime Service	
						Peak	Off Peak				Peak	Off Peak		
Route Length in Miles, Round Trip	8.2	14.4	13.6	19.9	27.6	42.8	42.8	44.0	60.2	85.5	19.0	19.0	24.6	
Average Speed in Miles per Hour	20	20	20	20	20	35	35	35	35	35	25	25	25	
Round Trip Running Time in Hours	0.4	0.7	0.7	1.0	1.4	1.2	1.2	1.3	1.7	2.4	0.8	0.8	1.0	
Trips per hour (0.5 = 120 minute headway, 1 = 60 minute headway, etc.)	1	1	1	1	1	2	2	2	2	1	2	1	1	
Service Hours per Day	10	10	12	12	12	6	10	6	6	4	4	6	10	
Number of Round Trips per Day	10	10	12	12	12	12	20	12	12	4	8	6	10	
Annual Revenue Miles	24,600	43,182	48,960	71,496	99,504	128,400	256,800	158,400	216,720	102,600	45,600	34,200	73,920	
Average Cost per Hour	\$65	\$65	\$65	\$65	\$65	\$65	\$65	\$65	\$65	\$65	\$65	\$65	\$65	
Daily Cost at Hours per Day	\$267	\$468	\$530	\$775	\$1,078	\$954	\$1,590	\$981	\$1,342	\$635	\$395	\$296	\$641	
Annual Cost (factor of 300)	\$79,950	\$140,341	\$159,120	\$232,362	\$323,388	\$238,457	\$476,914	\$294,171	\$402,480	\$190,543	\$98,800	\$88,920	\$192,192	
Total Annual Operating Cost	\$79,950	\$140,341	\$159,120	\$232,362	\$323,388	\$715	5,371	\$294,171	\$402,480	\$190,543	\$18	7,720	\$192,192	\$2,917,639

Notes: Costs shown are total operating costs. Fares have not been subtracted and will reduce the total subsidy required. Capital costs are not included.

All routes begin and end at the proposed Cranberry Transit Center with the exception of L6 and R1A.

Demonstration Program Service Concepts

	Local	Study	/ Area		Reg	gional		
Route Name	Alternative L8	Alternative S1	Alternative S3	1-279, Downtown		Alternative R4 **	Notes / Total Cost	
	North South	Zelienople / Harmony	Mars / Evans City			Butler Express **		
Areas Served	Cranberry Transit Center (proposed), Rochester Road, Powell Road, Freedom Road, Commonwealth Road	Cranberry Transit Center (proposed), US Route 19, PA Route 68	Cranberry Transit Center (proposed), US Route 19, PA Route 228, Mars-Evans City Road			Cranberry Transit Center (proposed), PA Route 68, PA Route 528, US Route 19, I-79, I- 279, Downtown		
Service Characteristics	30-Foot Bus, 60-Minute Frequency, Daytime Service	30-Foot Bus, 60-Minute Frequency, Daytime Service	30-Foot Bus, 60-Minute Frequency, Daytime Service	Service Durir 120-Minute Se Peak Times, D	ses, 30-Minute ng Peak Times, rvice During Off- Day and Evening rvice	Full-Sized Buses, 2 Trips During Peak Times		
				Peak	Off Peak			
Route Length in Miles, Round Trip	13.6	19.9	27.6	42.8	42.8	68.1		
Average Speed in Miles per Hour	20	20	20	35	35	35		
Round Trip Running Time in Hours	0.68	0.99	1.38	1.22	1.22	1.9		
Trips per hour (0.5 = 120 minute headway, 1 = 60 minute headway, etc.)	1	1	1	2	0.5	1		
Service Hours per Day	12	12	12	6	10	4	Local and Service Area routes were increased to 12 hours of service per day to provide adequate connections to and from route R1.	
Number of Round Trips per Day	12	12	12	12	5	4		
Annual Revenue Miles	48960	71496	99504	128400	64200	81,720		
Average Cost per Hour	\$65	\$65	\$65	\$65	\$65	\$65		
Daily Cost at Hours per Day	\$530	\$775	\$1,078	\$954	\$397	\$506		
Annual Cost Peak and Off-Peak (factor of 300)	\$159,120	\$232,362	\$323,388	\$238,457	\$119,229	\$151,766		
Total Annual Operating Cost	\$159,120	\$232,362	\$323,388	\$357,686		\$151,766	\$1,072,556 Without Optional R4 Service	
	ψ100,120	ψζυζ,υυζ	ψ020,000			φ101,700	\$1,224,321 With Optional R4 Service	

Notes: Costs shown are total operating costs. Fares have not been subtracted and will reduce the total subsidy required.

- Capital costs are not included.
- All routes begin and end at the proposed Cranberry Transit Center.
- ** Alternative R4 is an optional service under the Demonstration Program.

Demonstration Program Conceptual Schedule

From:			G	arage (B1)		L7(B1)	L7(B1)	L7(B1)		
Cranberry Temp TC	Leave			6:05		7:05	8:05	9:05	And	
									Every	
				0.00		7.00	0.00	0.00	Hour	
Warrendale P&R	Arrive			6:28		7:28	8:28	9:28	Until	
0 T TO	Leave			6:30		7:30	8:30	9:30	6:05 PM	
Cranberry Temp TC				6:53 L7		7:53 L7	8:53 L7	9:53 L7		
To:				L/		L/	L7	L/		
Route S1	Cranbo	rry to Harmony								
Roule 51	Cranbe	ITY to Harmony								
From:			G	arage (B2)		S3(B3)	S3(B4)	S3(B2)		
Cranberry Temp TC				6:00		7:00	8:00	9:00	And	
									Every	
									Hour	
Harmony	Arrive			6:29		7:29	8:29	9:29	Until	
	Leave			6:30		7:30	8:30	9:30	6:00 PM	
Cranberry Temp TC	Arrive			6:59		7:59	8:59	9:59		
To:				S3		S3	S3	S3		
Route S3	Cranbe	rry to Evans City								
noute oo		ing to Evalis Oity								
From:		Try to Evans only	G	arage (B3)	G	arage (B4)	S1(B2)	S1(B3)		
			G	arage (B3) 5:05	G	arage (B4) 6:05	S1(B2) 7:05	S1(B3) 8:05	And	
From:			G		G				Every	
From: Cranberry Temp TC	Leave		G	5:05	Gi	6:05	7:05	8:05	Every Hour	
From:	Leave		G	5:05	G	6:05	7:05	8:05	Every Hour Until	
From: Cranberry Temp TC Evans City	Leave Arrive Leave		G	5:05 5:47 6:10	G	6:05 6:47 7:10	7:05 7:47 8:10	8:05 8:47 9:10	Every Hour	
From: Cranberry Temp TC Evans City Cranberry Temp TC	Leave Arrive Leave Arrive		G	5:05 5:47 6:10 6:52	G	6:05 6:47 7:10 7:52	7:05 7:47 8:10 8:52	8:05 8:47 9:10 9:52	Every Hour Until	
From: Cranberry Temp TC Evans City	Leave Arrive Leave Arrive		G	5:05 5:47 6:10	G	6:05 6:47 7:10	7:05 7:47 8:10	8:05 8:47 9:10	Every Hour Until	
From: Cranberry Temp TC Evans City Cranberry Temp TC To:	Leave Arrive Leave Arrive			5:05 5:47 6:10 6:52	G	6:05 6:47 7:10 7:52	7:05 7:47 8:10 8:52	8:05 8:47 9:10 9:52	Every Hour Until	
From: Cranberry Temp TC Evans City Cranberry Temp TC	Leave Arrive Leave Arrive	rry to Pittsburgh E		5:05 5:47 6:10 6:52	G	6:05 6:47 7:10 7:52	7:05 7:47 8:10 8:52	8:05 8:47 9:10 9:52	Every Hour Until	
From: Cranberry Temp TC Evans City Cranberry Temp TC To: Route R1	Leave Arrive Leave Arrive Cranbe	rry to Pittsburgh E	Express	5:05 5:47 6:10 6:52 S1		6:05 6:47 7:10 7:52 S1	7:05 7:47 8:10 8:52 S1	8:05 8:47 9:10 9:52 S1	Every Hour Until	
From: Cranberry Temp TC Evans City Cranberry Temp TC To: Route R1 From:	Leave Arrive Leave Arrive Cranbe	rry to Pittsburgh E Garage (C1) Gara	Express age (C2) G	5:05 5:47 6:10 6:52 S1 arage (C3)	R1(C1)	6:05 6:47 7:10 7:52 S1 R1(C2)	7:05 7:47 8:10 8:52 S1 R1(C1)	8:05 8:47 9:10 9:52 S1 R1(C2)	Every Hour Until 6:05 PM	Then
From: Cranberry Temp TC Evans City Cranberry Temp TC To: Route R1	Leave Arrive Leave Arrive Cranbe	rry to Pittsburgh E	Express	5:05 5:47 6:10 6:52 S1		6:05 6:47 7:10 7:52 S1	7:05 7:47 8:10 8:52 S1	8:05 8:47 9:10 9:52 S1	Every Hour Until 6:05 PM	Then 3:05 PM
From: Cranberry Temp TC Evans City Cranberry Temp TC To: Route R1 From:	Leave Arrive Leave Arrive Cranbe	rry to Pittsburgh E Garage (C1) Gara	Express age (C2) G	5:05 5:47 6:10 6:52 S1 arage (C3)	R1(C1)	6:05 6:47 7:10 7:52 S1 R1(C2)	7:05 7:47 8:10 8:52 S1 R1(C1)	8:05 8:47 9:10 9:52 S1 R1(C2)	Every Hour Until 6:05 PM	
From: Cranberry Temp TC Evans City Cranberry Temp TC To: Route R1 From:	Leave Arrive Leave Arrive Cranbe	rry to Pittsburgh E Garage (C1) Gara	Express age (C2) G	5:05 5:47 6:10 6:52 S1 arage (C3)	R1(C1)	6:05 6:47 7:10 7:52 S1 R1(C2)	7:05 7:47 8:10 8:52 S1 R1(C1)	8:05 8:47 9:10 9:52 S1 R1(C2)	Every Hour Until 6:05 PM And Every	3:05 PM
From: Cranberry Temp TC Evans City Cranberry Temp TC To: Route R1 From: Cranberry Temp TC	Leave Arrive Leave Arrive Cranbe Leave	rry to Pittsburgh E Garage (C1) Gara 6:05	Express age (C2) G 6:35	5:05 5:47 6:10 6:52 S1 arage (C3) 7:05	R1(C1) 7:35	6:05 6:47 7:10 7:52 S1 R1(C2) 8:05	7:05 7:47 8:10 8:52 S1 R1(C1) 9:05	8:05 8:47 9:10 9:52 S1 R1(C2) 10:05	Every Hour Until 6:05 PM And Every 2 Hours	3:05 PM and every
From: Cranberry Temp TC Evans City Cranberry Temp TC To: Route R1 From: Cranberry Temp TC	Leave Arrive Arrive Cranbe Leave Arrive	rry to Pittsburgh E Garage (C1) Gara 6:05 6:47	Express age (C2) G 6:35 7:17	5:05 5:47 6:10 6:52 S1 arage (C3) 7:05 7:47	R1(C1) 7:35 8:17	6:05 6:47 7:10 7:52 S1 R1(C2) 8:05 8:47	7:05 7:47 8:10 8:52 S1 R1(C1) 9:05 9:47	8:05 8:47 9:10 9:52 S1 R1(C2) 10:05	Every Hour Until 6:05 PM And Every 2 Hours Until	3:05 PM and every 30 minutes
From: Cranberry Temp TC Evans City Cranberry Temp TC To: Route R1 From: Cranberry Temp TC	Leave Arrive Leave Arrive Leave Arrive Leave Arrive	rry to Pittsburgh E Garage (C1) Gara 6:05 6:47 6:47	Express age (C2) G 6:35 7:17 7:17	5:05 5:47 6:10 6:52 S1 arage (C3) 7:05 7:47 7:47	R1(C1) 7:35 8:17 8:17	6:05 6:47 7:10 7:52 S1 R1(C2) 8:05 8:47 8:47	7:05 7:47 8:10 8:52 S1 R1(C1) 9:05 9:47 9:47	8:05 8:47 9:10 9:52 S1 R1(C2) 10:05 10:47 10:47	Every Hour Until 6:05 PM And Every 2 Hours Until	3:05 PM and every 30 minutes Until

Route L7 Cranberry North-South Circulator

Notes: Terminals only are shown, not intermediate stops. Schedule shows morning peak service only. Afternoon would be a mirror image. B1 = Identifier showing trips made by individual buses or coaches..