# Table of Contents

1  INTRODUCTION ..................................................................................................................1-1
   1.1  STUDY HISTORY (ECTS) .................................................................................................1-1
   1.2  STUDY PURPOSE AND FEDERAL PLANNING PROCESS ..................................................1-3
   1.3  ECTS-TA STUDY PROCESS ............................................................................................1-5

2  PUBLIC OUTREACH AND AGENCY COORDINATION .........................................................2-1
   2.1  STEERING COMMITTEE ..................................................................................................2-1
   2.2  ELECTED OFFICIALS ....................................................................................................2-1
   2.3  TARGETED/PUBLIC OUTREACH ...................................................................................2-1
   2.4  COORDINATION WITH OTHER STUDY EFFORTS .......................................................2-3
   2.5  NEWSLETTER ...............................................................................................................2-5
   2.6  WEBSITE ....................................................................................................................2-5

3  ALTERNATIVES UNDER CONSIDERATION ........................................................................3-1
   3.1  ALLEGHENY VALLEY COMMUTER RAIL .....................................................................3-3
   3.2  EAST BUSWAY EXTENSION .........................................................................................3-5
   3.3  NORFOLK SOUTHERN COMMUTER RAIL .................................................................3-7
   3.4  MON VALLEY LIGHT RAIL .............................................................................................3-9
   3.5  SPINE LINE LIGHT RAIL ................................................................................................3-11
   3.6  DOWNTOWN PITTSBURGH TO OAKLAND BUS RAPID TRANSIT ..................................3-14

4  EVALUATION OF ALTERNATIVES ....................................................................................4-1
   4.1  EVALUATION .................................................................................................................4-1
   4.2  FINAL RECOMMENDATIONS / LOCALLY PREFERRED ALTERNATIVES .......................4-10

5  NEXT STEPS ......................................................................................................................5-1
   5.1  ENTRY INTO SPC LONG RANGE PLAN .........................................................................5-1
   5.2  NEXT STUDY PHASES – ADVANCED PLANNING AND DEIS OR EA .........................5-1
   5.3  INCORPORATION OF OTHER STUDIES AND ALTERNATIVES ..................................5-3
   5.4  IDENTIFICATION OF POTENTIAL FUNDING SOURCES ............................................5-3

APPENDIX A: STUDY NEWSLETTER
1 INTRODUCTION

The Eastern Corridor Transit Study Transitional Analysis to Locally Preferred Alternatives (ECTS-TA) was sponsored by the Southwestern Pennsylvania Commission (SPC), Westmoreland County Transit Authority (WCTA), Allegheny County and the Pennsylvania Department of Transportation (PennDOT) to advance the results of the earlier Eastern Corridor Transit Study (ECTS) toward implementation of one or more transit investments.

1.1 STUDY HISTORY (ECTS)

The ECTS, sponsored by the Port Authority of Allegheny County (PAAC), the SPC and WCTA, was a multi-corridor Major Investment Study completed in December of 2003 that identified the public transportation needs and community concerns in an area bounded by Pittsburgh’s Golden Triangle in the west, Greensburg in the east, the Allegheny River to the north and the Monongahela River to the south (see Figure 1-1). As part of the effort to systematically identify transit solutions to the region’s transportation needs, an extensive public outreach campaign was conducted to allow the public, stakeholders and elected officials to participate in the definition of those needs. The result of this process was a Statement of Needs for the study area.

ECTS Statement of Needs:

1. **Improve transit choices in the Study Corridor** – Provide more rapid transit service and choices in the study area, inclusive of community circulator routes within neighborhoods and improved connections to through routes. Improve access to Oakland from the Airport and other locations in the corridor. Consider serving areas beyond the study corridor (e.g. Pittsburgh International Airport, Cranberry) and improve service and connections to developing areas such as the Waterfront (Homestead), Monroeville, RIDC and Penn Township. Provide more park-and-ride lots for convenient access to both fixed guideway transit and fixed-route bus service.

2. **Improve the quality of service and amenities at station stops and transfer points** – Provide more direct and efficient links between the suburbs, urban areas and activity centers. Lengthen transit service periods and provide more frequent service to allow more flexibility to access jobs and recreational activities during non-business hours. Upgrade transit stops with sufficient seating areas, protection from the elements and visually aesthetic designs. Provide better information about transit service routes, transfer points and intermodal connections including those between service providers.

3. **Preserve, protect and utilize existing transportation resources** – Identify a mechanism to preserve rail rights-of-way within the study corridor and region. Improve transit service and access in the Allegheny Valley through the use of an underutilized transportation facility (e.g. Allegheny Valley Railroad) to accommodate transit service to areas in Lawrenceville, Oakmont and New Kensington. Provide dedicated bus lanes and/or transit prioritization to speed up service between areas in Westmoreland and Allegheny Counties.

4. **Enhance environmental quality** – Relieve air and noise pollution by considering environmentally friendly transit vehicles and modes. Consider light rail vehicles or cleaner and quieter fuel technologies on the East Busway. Improve the appearance of station stops and shelters through landscaping and attractive design. Increase investments in pedestrian and bicycle facilities along existing and planned fixed guideway transit investments. Utilize existing transportation resources such as transit and railroad rights-of-way to avoid new disturbances to the environment from a construction and operational perspective.

5. **Reduce congestion with effective transit solutions** – Major roadways in the study area, such as I-376, Routes 28, 22, 30, 48, 286, 51 and 837, are congested and are projected to operate in the highly and severely congested range in future years. Provide viable transit alternatives to reduce reliance on single occupancy vehicles.

6. **Coordinate transit and community planning to enhance economic development and quality of life** – Improve collaboration between transit agencies, regional planning organizations, local townships/municipalities and neighborhood planning efforts to coordinate future transit investment locations/designs with community plans. Increase economic development opportunities along existing and planned transit guideways. Create partnerships between businesses and transit to coordinate development and service planning coordination that matches employee needs. Update transit facilities so that they are community assets.

7. **Develop a transit network that conveniently and continuously links people and activity centers** – Integrate a fixed guideway transit system that connects through Downtown Pittsburgh to serve various parts of the region. Improve service from the Hill District to other parts of the region to eliminate the need for a transfer. Reduce automobile and bus congestion in Downtown Pittsburgh to relieve gridlock during peak commuter periods and during special events.
To address the study area’s seven transportation needs, the ECTS developed an initial long list of 29 potential transit investments in five corridors:

- **Allegheny Valley Corridor** – Pittsburgh to Tarentum/Lower Burrell along both sides of the Allegheny River
- **East Busway Corridor** – Pittsburgh to the East End and the southeastern suburbs
- **Spine Line Corridor** – Downtown Pittsburgh to Oakland, Squirrel Hill, Wilkinsburg, Hazelwood and Homestead
- **Monongahela Valley Corridor** – Pittsburgh to Clairton, Lincoln, Versailles and Elizabeth along both sides of the Monongahela River
- **Norfolk Southern/Route 30 Corridor** – Pittsburgh to Greensburg generally following U.S. Route 30 and the Norfolk Southern right-of-way

Those transit investments encompassed three different modes:

- **Commuter Rail** – Commuter-oriented rail service concentrated in the peak periods with infrequent stops and high average speeds. Commuter Rail alternatives in the ECTS were assumed to be powered by a diesel locomotive pulling unpowered passenger coaches, although other variations, such as self-propelled Diesel Multiple Units (DMUs) like the Colorado Railcar, are possible.

- **Light Rail** – rail service designed for frequent all-day service, making frequent stops and serving many trip patterns, not just commuter travel. Vehicles can be operated
At this stage, if desired, other relevant options or alternatives to the LPA could be added to the review, including those that have been proposed since completion of the ECTS.

The long list of 29 transit investments was reviewed for their ability to address the corridor’s needs, effectiveness and constructability and thereby reduced to a short list of nine alternatives. A more detailed review of those nine short list alternatives reduced the list further to a set of six recommended alternatives.

1.2 STUDY PURPOSE AND FEDERAL PLANNING PROCESS

The ECTS was completed in a manner consistent with the federally prescribed process for development of transit investments that may seek federal funding, but did not complete the final step of selecting a Locally Preferred Alternative (LPA). The ECTS-TA updated the recommendations in the ECTS and conducted the public outreach necessary to designate LPAs for entry into the region’s Long Range Plan and advancement through the federal transit planning process.

The federal process, depicted in Figure 1-2, begins with Alternatives Analysis (AA), where transportation needs are identified, suitable solutions are developed, recommendations are made and LPAs are chosen. With concurrence from the Federal Transit Administration (FTA), one or more of the LPAs from the ECTS-TA would move into the next stages of the federal process:

- **Advanced Planning and Draft Environmental Impact Statement (DEIS)** - These two processes can be performed simultaneously. In this step, a corridor study would be performed to revisit one of the previously selected LPAs independently from the other LPAs. At the initiation of the DEIS, a public scoping process would be performed, in which it would be determined what will be reviewed in the study. At this stage, if desired, any other relevant alternatives or enhancements to the LPA could be added to the review, such as alternatives from the Oakland Transit Study, or other alternatives that have been proposed since the completion of the ECTS. A larger number of alternatives would result in a longer DEIS process. All alternatives that are added at the DEIS phase should also satisfy the purpose and needs statement developed in the AA process.

It should be noted that for select alternatives for which detailed planning analysis determines that major environmental impacts are unlikely (e.g. uses existing
rights-of-way, creates minimal displacements, no disturbance to natural resources, etc.), it might be possible to perform a less involved Environmental Assessment (EA) instead of a full DEIS. This, however, would be at the discretion of the FTA.

Advanced planning would be a more detailed study effort than AA since it would focus on one corridor, as opposed to the six corridors that were evaluated in the ECTS. Each alternative included through the DEIS scoping would be analyzed in the advanced planning study while coordinating with the environmental review in the DEIS. At the completion of this stage, an application for New Starts Funding would be completed and submitted to the FTA with a request to enter Preliminary Engineering.

**Figure 1-2: Federal Major Investment Planning and Project Development Process**

- **Preliminary Engineering (PE)** – PE would refine an LPA from the Advanced Planning stage to comply with the National Environmental Policy Act (NEPA) and to develop more detailed cost estimates. This stage is a demonstration of the sponsoring agency’s ability to design, manage and finance the construction of the transit investment.

- **Final Environmental Impact Statement (FEIS)** – The FEIS is a revision of the DEIS that accounts for any changes made to the project’s design during PE and addresses environmental issues raised during the DEIS process. It would not be required for projects that perform an EA instead of a DEIS. The FEIS would be submitted to the FTA, which would determine whether the project satisfies the environmental requirements of NEPA. If the project satisfies the requirements it would receive a Record of Decision (ROD) or a Finding of No Significant Impact.
Once the project has completed PE and received either a ROD or a FONSI it would be eligible to advance into Final Design.

- **Final Design** – The Final Design phase is defined by the FTA to include right-of-way acquisition, utility relocation, and the preparation of final construction plans (including construction management plans), detailed specifications, construction cost estimates, and bid documents. At this point the financial plan would be finalized and the FTA could enter into a Full Funding Grant Agreement (FFGA) with the project’s sponsoring agency to provide federal funds for a percentage of the project’s construction costs.

- **Construction** – Once all previous steps have been completed and an FFGA has been issued, the project can begin construction.

- **Start-up and Operation** – Start-up includes testing, training and initiation of transit service.

### 1.3 ECTS-TA STUDY PROCESS

The ECTS-TA was not a full AA, but an incremental analysis that built on the statement of needs and the recommendations from the ECTS to choose LPA corridors for advancement through the remainder of the federal project development process. The ECTS-TA did not redo or replace the work done in the ECTS, only update it and complete the public outreach necessary to identify the LPAs.

Since the next step in the federal process allows review of an LPA corridor, inclusive of any other promising alternatives that might not have been considered at this stage, the ECTS-TA did not focus on developing new alternatives. As LPA corridors advance to the next level of study, any realistic alternatives in those corridors that satisfy the purpose and needs statement can be reviewed. This allows for new alternatives in Advanced Planning, as is evident from the wide range of study corridor needs that were identified in Section 1.1.

To move toward implementation of transit investments that satisfy the needs of the ECTS corridor, the ECTS-TA followed the steps shown in Figure 1-3:

- **Update/Modify ECTS Alternatives** – Through outreach to stakeholders the assumptions made for the ECTS alternatives were updated to reflect current conditions and any developments over the past two years. A few minor changes to the alternatives were allowed to improve their performance or cost. Cost estimates were updated to current-year dollars (2006).

- **Review the updated alternatives/Select draft LPAs** – An initial review process that was approved by the Steering Committee was completed internally to determine which alternatives have the best chance of moving forward through the federal process. Based on the results of this review, four draft LPAs were designated.

- **Public outreach to confirm draft LPAs** – The ECTS-TA alternatives were presented to stakeholders, elected officials and the public through a variety of
outreach methods to confirm or revise the selections. Following the outreach, final LPAs were designated with the approval of the Steering Committee.

- **Financing strategies** – Financing strategies were reviewed for the final LPAs. This includes identification of possible funding sources and discussion of the impacts related to various funding methods, in particular the impacts of using federal funding versus state funding.

**Figure 1-3: ECTS-TA Study Process**

- **Coordination with the FTA** – Throughout the ECTS-TA the FTA was consulted to ensure that the study progressed in a manner consistent with FTA’s requirements for advancement to Advanced Planning and DEIS. The ECTS-TA was performed so that the ECTS purpose and needs statement, which was developed through an extensive and comprehensive public outreach effort, will satisfy the purpose and needs requirements of the next study phases.
2 PUBLIC OUTREACH AND AGENCY COORDINATION

Following the ECTS’s extensive public process over a large and diverse study area, the challenge facing the public involvement team during the Transitional Analysis was to re-engage a wide range of key stakeholders and constituencies in a short time period. In order to do so, the project team employed a variety of engagement strategies throughout the duration of the project.

2.1 STEERING COMMITTEE

The Steering and Regional Stakeholders Committee was organized at the outset of the Study. The Committee reconvened planning and transportation agencies along with City, County, and State representatives. The following organizations were represented on the Steering Committee:

- Port Authority of Allegheny County
- Westmoreland County Transit Authority
- Allegheny County Department of Economic Development
- Federal Transit Administration
- Pittsburgh Department of City Planning
- Pennsylvania Department of Transportation
- Southwestern Pennsylvania Commission
- Commonwealth of Pennsylvania House of Representatives

In response to widespread interest in transit improvements in the eastern corridor, other stakeholders were invited to attend the Steering Committee meetings.

2.2 ELECTED OFFICIALS

Federal, state, county, and municipal officials were invited to attend both rounds of public outreach: the targeted first round and the more broadly advertised second round. Officials received briefing packets prior to the public meetings that highlighted the information to be discussed at the meetings. In addition, a special briefing was held for public officials at the outset of the first round of public involvement. The briefing was convened in Monroeville, a location chosen for its central location in the corridor.

2.3 TARGETED/PUBLIC OUTREACH

Round One: Targeted Briefings
Three targeted briefings were convened across the study area early in the study process. The meetings were geared to those who had participated in the Eastern Corridor Transit Study. The presentation was intended to be a refresher, to review the ECTS alternatives. During the ECTS, and in deference to the diverse array of stakeholders and issues within the Study corridor, the study team had convened five geographically based working groups to represent the following areas:
Representatives of organizations and agencies which participated in the ECTS corridor working groups were invited to attend one of three ECTS-TA meetings, held in Oakmont, Irwin, and Oakland. Each of the public briefings included a 45-minute presentation followed by a 45-minute question and answer session. The same information was presented at each of the three briefings.

In addition to the public officials and 265 invited working group members, the briefings were advertised on the study website and in the following publications:

- Pittsburgh Post-Gazette
- Pittsburgh Tribune-Review
- McKeesport Daily News
- New Pittsburgh Courier
- Valley News Dispatch
- Mon Valley/North-South

Public service announcements were also distributed to local radio and television stations.

At each targeted briefing and on the study website, presentation materials, a newsletter and comment forms were available. On the comment forms, participants were asked to prioritize the study corridors (1 = highest priority and 5 = lowest priority) and describe their reasons for assigning first priority. The alternatives under consideration were:

- Downtown Pittsburgh to Arnold along the Allegheny Valley
- Downtown Pittsburgh to Greensburg along Norfolk Southern right-of-way
- Downtown to Oakland and points east along the Spine Line Corridor (including Bus Rapid Transit through Oakland)
- Swissvale to Monroeville as an extension of the East Busway
- Downtown Pittsburgh to McKeesport and Etna along the CSX right-of-way

The responses showed a preliminary prioritization, with the alternatives receiving the following combined totals of first and second priority rankings (rated “1” or “2” on the comment forms):

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Busway</td>
<td>4</td>
</tr>
<tr>
<td>Norfolk Southern</td>
<td>6</td>
</tr>
<tr>
<td>Downtown-Oakland</td>
<td>9</td>
</tr>
<tr>
<td>Allegheny Valley</td>
<td>11</td>
</tr>
<tr>
<td>Mon Valley/North-South</td>
<td>3</td>
</tr>
</tbody>
</table>

Comments were collected at the briefings, via email, fax, phone, mail and through the project website.

**Round Two: Public Input Meetings**

Near the end of the study process, five public input meetings were convened to present an opportunity for citizens to support the alternatives that they believed would be the most beneficial for the Eastern Corridor. At the meetings, comparative evaluation characteristics of the ECTS alternatives were presented and the public opinion of the
alternatives was recorded. In order to ensure broad-based participation throughout the
study area, the meetings were distributed so that one meeting was held in each of the
alternative corridors. The meetings were conducted in the following locations, agreed
upon by the project management staff and Steering Committee:

- Greensburg
- McKeesport
- Oakland
- New Kensington
- East Pittsburgh

Each of the public input meetings included a 45-minute presentation followed by a 45-
minute question and answer session. The same information was presented at each of
the meetings.

As in the targeted briefings, advertisements were placed on the study website and in the
five local newspapers. Press releases were sent to the print media and public service
announcements were distributed to radio and television stations. In addition to the
public officials and working group members, a database of about 450 organizations
received invitations to the public input meetings. The total recorded attendance at the
five meetings was 128.

Once again, at each public input meeting, comment forms were distributed. Participants
were asked to prioritize the alternatives and list their reasons for assigning first priority.
An analysis of the comment form summary shows the relative priorities of the
alternatives. The numbers below reflect those alternatives which received first or
second priority on the comment forms collected at meetings, mailed, emailed, submitted
on the web site or telephoned:

- East Busway: 27
- Norfolk Southern: 35
- Downtown - Oakland: 49
- Allegheny Valley: 126
- Mon Valley/North - South: 33

In addition to the comment forms received from interested participants throughout the
study area, the study team received petitions with 2,368 signatures from residents of the
Alle-Kiski valley supporting commuter rail service between New Kensington/Arnold and
Pittsburgh. The Allegheny Valley Commuter Rail is also actively supported by the Alle-
Kiski Coalition, a bi-partisan group of elected officials and community leaders that has
coordinated more than 40 communities in the Alle-Kiski Valley to support local
transportation projects.

2.4 COORDINATION WITH OTHER STUDY EFFORTS

Throughout the project, the Study team and Steering Committee have been committed
to planning within the context of other on-going studies. When appropriate, those
involved in other initiatives have been invited to attend the Steering and Regional
Stakeholders Committee. The Steering Committee devoted one meeting early in the
study to the presentation and discussion of other studies. Overviews of the following
studies and initiatives were presented.
Oakland Transportation Study
The area of Oakland, with its universities, hospitals, civic buildings, and neighborhoods, has continued to experience development and redevelopment. Many Oakland institutions are also expanding to new areas outside of central Oakland where additional land is available. Oakland is the second largest employment center in Southwest Pennsylvania. The Allegheny Conference on Community Development has undertaken a transportation study to address the transportation needs concomitant with the growth of Oakland. The Study, currently in its draft stage, is intended to address both issues of regional access and the trips that occur within Oakland.

Six-Point Plan
In early spring of 2006, Allegheny County Executive Dan Onorato convened a Transportation Action Team to identify previous studies and make recommendations on short, medium, and long-term transportation initiatives for Allegheny County. The Action Team will make recommendations to the County Executive in the following areas:

- Providing rapid transit from Downtown to Oakland
- Utilizing existing rail corridors for passenger service
- Exploring commercial use of busways
- Fostering transit oriented development/economic development sites
- Providing rapid transit from Downtown to the Pittsburgh International Airport
- Exploring the creation of a regional transportation authority

Mass Transit Alternatives
During the 2005 Pittsburgh Mayoral election, mayoral candidate Michael Lamb proposed a series of mass transit alternatives to improve transportation between Oakland and Downtown. The alternatives were based on three principles:

- Great cities have great transit
- Improvements need to work with existing infrastructure
- Short term solutions such as transit service by self-propelled rail vehicles on existing rights-of-way. One example of this is the Colorado Rail Car, which provided demonstration service on the Allegheny Valley Railroad and Norfolk Southern Railroad in April of 2004.

Councilman Peduto: Transportation Priorities
Pittsburgh City Councilman William Peduto represents City Council District 8 which stretches from North and West Oakland on the West through Bloomfield, Friendship, Shadyside, Squirrel Hill, and Point Breeze to the eastern border of the City. The District is the home to universities, hospitals, and other key institutions as well as some of Pittsburgh’s most vibrant neighborhoods. In outlining his “Priorities for a New Pittsburgh,” Councilman Peduto stressed the importance of “transportation priorities for sustainable growth.” He recognizes the importance of filling the gaps to connect existing infrastructure and stresses thinking both locally and regionally. On the local level, as the institutions of the east end of Pittsburgh continue to grow as job centers, it is particularly important to connect these institutions to each other. On the regional level, it is imperative to make connections across rivers, such as the North Shore Connector, and to link to neighboring communities, such as along the Allegheny Valley.

Transit Oriented Communities and the Regional Transit Vision
The Southwestern Pennsylvania Commission and Port Authority of Allegheny County, in cooperation with transit operators in Armstrong, Beaver, Butler, Fayette, Greene, Indiana, Lawrence, Washington and Westmoreland Counties, recently released the Regional Strategic Transit Visioning Study. The Transit Vision proposes a range of transit services, major transit investments and features that would connect residents to places of recreation, education, and employment across Southwestern Pennsylvania. The Study notes that successful implementation of the vision will rest on the development of transit-oriented communities and developments across the region. Transit-oriented communities have eight key characteristics:

- Walkable with pedestrian-friendly streets
- Mixed use to maximize activity near transit
- Appropriately dense to support retail needs and transit
- Pedestrian scaled
- Intermodal with connections to bicycles, pedestrians, transit, and automobiles
- Coordinated to complement uses in other communities
- Diverse, providing a range of housing options
- Designed to encourage transit usage.

**North Shore Connector**

The North Shore Connector project will extend Port Authority’s Light Rail Transit System, the T, 1.2 miles from the Gateway Subway Station in Downtown Pittsburgh underneath Stanwix Street and the Allegheny River – in twin bored tunnels below the river - to the North Shore. The Port Authority Board of Directors recently awarded the contract for the construction of the light rail transit tunnels.

The North Shore Connector is a significant regional investment intended to support residential, business, education, entertainment, and cultural uses of Downtown Pittsburgh and the North Shore.

**2.5 NEWSLETTER**

Shortly after the outset of the project, the project team prepared a newsletter to serve as a project fact sheet. The newsletter, which was distributed in hard copy as well as posted on the website, explained the Transitional Analysis process and defined the term Locally Preferred Alternative. The newsletter provided graphic and verbal explanations of the five alternatives and provided a schedule of public briefings to encourage public involvement. A copy of the newsletter is available in Appendix A. A second newsletter will be published following release of the study final report, that lists the LPAs, the criteria used for their selection and a discussion of next steps.

**2.6 WEBSITE**

Throughout the duration of the study, a website for the ECTS-TA project (www.spcregion.org/ECTS) was hosted on SPC’s website. It provided an avenue for easy access to a broad range of key documents. The general information page of the website provided the study description and background, an overview of the study process and a discussion of frequently asked questions. The public outreach section announced upcoming outreach meetings and made available materials from the round one and round two public outreach presentations. All printed materials distributed at outreach meetings also directed interested parties with internet access to view the...
website for additional information. Comment forms were also provided on the website for downloading or submission via the website. Finally, it allowed easy access to resource documents such as the ECTS Final Report and Purpose and Needs Report.

Figure 2-1: Study Website
3 ALTERNATIVES UNDER CONSIDERATION

The alternatives under consideration in the ECTS-TA are the six recommended alternatives from the ECTS (reduced to five for the ECTS-TA) plus one additional alternative that was originally a component of the Transportation Systems Management (TSM) alternative from the ECTS.

In the ECTS, the Spine Line alternative was discussed as two separate alternatives, one to Wilkinsburg and one to Homestead. For the ECTS-TA it was decided that the most critical components of those alternatives was their common section between Downtown Pittsburgh and Oakland. If both the Homestead and the Wilkinsburg services were implemented, they would share common infrastructure between Downtown Pittsburgh and Oakland, therefore it was logical to consider them as one alternative with the option of branches to Wilkinsburg and/or Homestead.

A second change in the alternatives from those presented in the ECTS is the consideration of the Downtown Pittsburgh to Oakland BRT service as an independent alternative. Since completion of the ECTS, a new transportation bill was passed by the U.S. Congress, SAFETEA-LU, which replaces the previous TEA-21 legislation. Under TEA-21, the New Starts program provided capital funding assistance for selected fixed guideway transit investments. The investment envisioned for the Downtown Pittsburgh to Oakland BRT did not include a complete transit guideway, only selected improvements to enhance the speed and reliability of bus services on the Forbes/Fifth Avenue corridor. Therefore, under TEA-21, it was not eligible for federal New Starts funding and was considered only as part of a TSM alternative that comprised all reasonable transportation improvements that do not require a major capital investment.

Under the new SAFETEA-LU legislation a new component of the New Starts program was initiated, Small Starts. The Small Starts program provides funding for smaller transit investments with capital costs below $250 million and a federal contribution below $75 million. As stated in the SAFETEA-LU legislation, these investments can include corridor-based bus capital investments for which “a substantial portion of the project operates in a separate right-of-way dedicated for public transit use during peak hour operations,” or that represent “a substantial investment in a defined corridor”. Therefore, for the ECTS-TA, the Downtown Pittsburgh to Oakland BRT was considered as a separate transit alternative, potentially eligible for federal Small Starts funding. FTA’s recently issued interim guidance for the Small Starts program and its applicability to the BRT alternative will be monitored.

The six ECTS-TA alternatives, described in Sections 3.1 through 3.6, are:

- Allegheny Valley Commuter Rail
- East Busway Extension
- Norfolk Southern Commuter Rail
- Mon Valley Light Rail
- Spine Line Light Rail to Homestead or Wilkinsburg
- Downtown Pittsburgh to Oakland Bus Rapid Transit

With the exception of the Mon Valley Light Rail, the alternatives have not been modified from the alternatives described in the ECTS, except for escalation of the cost estimates. The Mon Valley Alternative was modified to reflect recent developments of the North
Shore Connector, of which the Convention Center Line was an integral part of the Mon Valley Light Rail Alternative. Due to financial considerations, the Convention Center Line of the North Shore Connector Project has been indefinitely deferred. If the Mon Valley Light Rail were to be built prior to construction of the Convention Center Line, the additional costs for that section would have to be included in the Mon Valley Alternative. Those costs were not estimated in the ECTS-TA.

Aside from the previously described modification to the Mon Valley Light Rail Alternative, any changes to the alternatives that were discussed throughout the ECTS-TA are noted in the following descriptions only as possible options.
3.1 ALLEGHENY VALLEY COMMUTER RAIL

**General Description**
This alternative consists of an 18½ mile commuter rail service between 21st Street in Pittsburgh’s Strip District near Downtown Pittsburgh and Arnold, in Westmoreland County. The alignment would be located in the existing Allegheny Valley Railroad right-of-way, which parallels the southern shore of the Allegheny River. Service would be provided at-grade between the Strip District and Arnold, traversing Lawrenceville, Verona, Oakmont and New Kensington, as shown in Figure 3-1. Several options were also discussed for bringing the service into the Golden Triangle, including an extension of the line to 11th Street, or realigning it along the Brilliant Branch and NS right-of-way. A spur to Oakland was also discussed via the 33rd Street Bridge and CSX right-of-way. For this alternative, a standard and an enhanced version were developed to depict a range of investments and the related performance. The enhanced alternative allows more frequent service in the peak periods.

**Technology**
Locomotives capable of push-pull operation with coach and cab cars or DMUs would transport passengers on this service. The proposed commuter rail service could operate only as far west as 16th Street in the Strip District; a bus shuttle would provide access to Downtown Pittsburgh in a 24-minute loop from 16th Street to Stanwix Street, near Gateway Center. Other options for connecting the service to the Golden Triangle will be reviewed in future study phases.

**Service Provided Every:**
- Standard Alternative: 60 minutes peak
  - 90 minutes off-peak
- Enhanced Alternative: 30 minutes peak
  - 90 minutes off-peak

**Commuter Rail Travel Time:**
- (Arnold to Downtown Pittsburgh)
  - Standard Alternative: 34 minutes
  - Enhanced Alternative: 34 minutes
  
  (Times do not include 5-10 minutes for bus shuttle to Golden Triangle)

**Travel Time Reduction:**
(Time saved by riding the new service versus existing options)

<table>
<thead>
<tr>
<th>To Downtown Pittsburgh:</th>
<th>Minutes</th>
<th>Percent</th>
<th>Versus</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Kensington</td>
<td>10-15</td>
<td>15-23%</td>
<td>78A</td>
</tr>
<tr>
<td>Kensington</td>
<td>3-8</td>
<td>7-18%</td>
<td>driving</td>
</tr>
</tbody>
</table>

Bus route 78A is operated by the Port Authority of Allegheny County.

**Daily Boardings:**
- Standard Alternative: 1,900
- Enhanced Alternative: 6,700

**Capital Cost (2006 $s):**
- Standard Alternative: $140 – 170 M
- Enhanced Alternative: $270 – 330 M

**Annual Operating and Maintenance Cost (2006 $s):**
- Standard Alternative: $6.4 M
- Enhanced Alternative: $10.9 M
Figure 3-1: Allegheny Valley Commuter Rail Map
3.2 EAST BUSWAY EXTENSION

Port Authority Hybrid Bus

Service Provided Every:
Per new route: 10 minutes peak
15 minutes off-peak

Bus Travel Time:
Monroeville-Downtown Pittsburgh: 42 minutes
Monroeville-Oakland: 38 minutes
Oakland-Downtown Pittsburgh: 8 minutes

Travel Time Reduction:
(Time saved by riding the new service versus existing bus routes or driving)

<table>
<thead>
<tr>
<th>Route</th>
<th>Minutes</th>
<th>Percent</th>
<th>Versus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monroeville</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To Downtown</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pittsburgh</td>
<td>33</td>
<td>49%</td>
<td>67A</td>
</tr>
<tr>
<td></td>
<td>-4</td>
<td>-13%</td>
<td>68A</td>
</tr>
<tr>
<td></td>
<td>-6</td>
<td>-21%</td>
<td></td>
</tr>
<tr>
<td>To Oakland</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>15%</td>
<td>67A</td>
</tr>
<tr>
<td></td>
<td>-12</td>
<td>-43%</td>
<td></td>
</tr>
</tbody>
</table>

Note: Bus route s67A and 68A are operated by the Port Authority of Allegheny County. Route 67A does not travel on the Busway, Route 68A does travel on the busway. Negative time savings denotes that riding the new service would be slower than existing options.

General Description
This alternative would be a 6½-mile extension of the East Busway from Swissvale to Monroeville via Norfolk Southern (NS) and Union Railroad rights-of-way (see Figure 3-2). Currently, the East Busway parallels the NS right-of-way from Downtown Pittsburgh to Swissvale. This alternative would extend the busway from Swissvale to East Pittsburgh along NS right-of-way, then northward in the Thompson Run Valley along the Union Railroad right-of-way and on a new, elevated structure connecting to the existing parking lot at the western end of the Monroeville Mall. Three new bus routes would also be added:
- Monroeville - Downtown Pittsburgh
- Monroeville - Oakland
- Oakland - Downtown Pittsburgh

A low-cost alternative would be extended just 3 miles from Swissvale to East Pittsburgh, where buses would enter the Tri-Boro Expressway or the proposed Mon-Fayette Expressway for express service to Monroeville.

Technology
The busway would provide an exclusive right-of-way for service with standard 40-foot over-the-road coaches and 60-foot and articulated diesel buses, as are currently operated on the existing busway and throughout the study area. New vehicles required for the expanded service levels would meet future EPA diesel emission standards that are expected to reduce pollutants significantly.

Daily Boardings:
To Monroeville: 41,500
To East Pittsburgh: Not Determined

Capital Cost (2006 $s):
To Monroeville: $390 – 480 M
To East Pittsburgh: $240 – 300 M

Annual Operating and Maintenance Cost (2006 $s):
To Monroeville: $14.1 M
To East Pittsburgh: Not Determined

Bus service on the East Busway
Figure 3-2: East Busway Extension Map
3.3 NORFOLK SOUTHERN COMMUTER RAIL

**Greensburg Amtrak Station**

**Service Provided Every:**
- Standard Alternative: 60 minutes peak
- 90 minutes off-peak
- Enhanced Alternative: 30 minutes peak
- 90 minutes off-peak

**Commuter Rail Travel Time:**
- (Greensburg to Downtown Pittsburgh)
  - Standard Alternative: 64 minutes
  - Enhanced Alternative: 49 minutes

  (Travel time to Latrobe to be determined in next study phase)

**Travel Time Reduction:**
(Time saved by riding the new service versus existing options)

<table>
<thead>
<tr>
<th>To Downtown Pittsburgh:</th>
<th>Minutes</th>
<th>Percent</th>
<th>Versus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greensburg (Standard Alternative)</td>
<td>16</td>
<td>20%</td>
<td>1F</td>
</tr>
<tr>
<td>Greensburg (Enhanced Alternative)</td>
<td>31</td>
<td>39%</td>
<td>1F</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>From:</th>
<th>Minutes</th>
<th>Percent</th>
<th>Versus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greensburg</td>
<td>0</td>
<td>0%</td>
<td>driving</td>
</tr>
<tr>
<td>Latrobe</td>
<td>15</td>
<td>23%</td>
<td>driving</td>
</tr>
</tbody>
</table>

**General Description:**
This alternative would be a commuter rail line from the Amtrak Station in Downtown Pittsburgh to Greensburg in Westmoreland County, as illustrated in Figure 3-3. The 31-mile alignment, which would be within existing NS right-of-way, would extend from Pittsburgh to Wilkinsburg, Swissvale, Braddock, East Pittsburgh, Wilmerding, and Trafford in Allegheny County, and Irwin, Jeannette and Greensburg in Westmoreland County. As an update to the ECTS version of this alternative, it would be extended an additional 8 to 10 miles into Latrobe. As with the Allegheny Valley Alternative, a standard and an enhanced version of this alternative were developed. The enhanced alternative allows faster and more frequent service through installation of a third track between East Pittsburgh and Greensburg.

**Technology:**
Diesel locomotives capable of push-pull operation with coach and cab cars or DMUs would transport passengers on this service.

**Daily Boardings:**
- Standard Alternative: 4,400
- Enhanced Alternative: 8,800

**Capital Cost (2006 $s):**
- Standard Alternative: $190 – 230 M
- Enhanced Alternative: $250 – 300 M

**Annual Operating and Maintenance Cost (2006$s):**
- Standard Alternative: $15.8 M
- Enhanced Alternative: $20.0 M

Bus route 1F is operated by the Westmoreland County Transit Authority.
Figure 3-3: Norfolk Southern Commuter Rail Map
3.4 MON VALLEY LIGHT RAIL

Service Provided Every:
Per Route: 10 minutes peak
20 minutes off-peak

Light Rail Travel Time:
(to Downtown Pittsburgh)
Etna Branch: 14 minutes
McKeesport Branch: 36 minutes

Travel Time Reduction:
(Time saved by riding the new service versus existing options)

<table>
<thead>
<tr>
<th>To Downtown Pittsburgh:</th>
<th>Minutes</th>
<th>Percent</th>
<th>Versus</th>
</tr>
</thead>
<tbody>
<tr>
<td>McKeesport</td>
<td>14</td>
<td>28%</td>
<td>56C</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>8%</td>
<td>driving</td>
</tr>
<tr>
<td>Etna</td>
<td>6</td>
<td>30%</td>
<td>1A</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>22%</td>
<td>driving</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>To Oakland:</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>McKeesport</td>
<td>31</td>
<td>50%</td>
<td>61C</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>34%</td>
<td>driving</td>
</tr>
</tbody>
</table>

Bus routes 56C, 1A and 61C are operated by the Port Authority of Allegheny County.

General Description:
This alternative would be two light rail routes from Downtown Pittsburgh’s Steel Plaza to McKeesport and Etna, as illustrated in Figure 3-4. The routes would be in a tunnel between Steel Plaza and the Convention Center, then at-grade on the AVR right-of-way to 31st Street. They would ascend to CSX’s 33rd Street Bridge, where one route would continue north to Etna and the other south to McKeesport.

From 33rd Street, the southern route would extend along CSX right-of-way to McKeesport through the Schenley Tunnel, then at-grade through Oakland, Panther Hollow and along the northern/eastern shore of the Monongahela River. The Pittsburgh-McKeesport route would be 17½ miles in length.

The northern route, to Etna, would turn north at 33rd Street and cross to the northern shore of the Allegheny River. It would turn northeast at-grade on CSX right-of-way to Etna. The total length of this route would be 5½ miles. The 2 miles between Downtown and 33rd Street would be shared by both routes.

Technology:
Service would be provided with electric light rail vehicles, propelled by an overhead power supply, similar to the existing PAAC “T” operation in the South Hills and Downtown. The vehicles would be capable of operating individually or as multi-vehicle trains with a single operator.

Daily Boardings:
Total Alternative: 34,700
Etna Branch: 14,900
McKeesport Branch: 19,800

Capital Cost (2006 $s):
Total Alternative: $1,200 – 1,400 M
Etna Branch: $ 400 – 490 M
McKeesport Branch: $ 930 – 1,100 M

Annual Operating and Maintenance Cost (2006$):
Total Alternative: $24.4 M
Etna Branch: $ 4.7 M
McKeesport Branch: $19.5 M
Figure 3-4: Mon Valley Light Rail Map
3.5 **SPINE LINE LIGHT RAIL**

**Oakland**

*Service Provided Every:*  
5 minutes peak  
7½ minutes off-peak

*Light Rail Travel Time:*  
(to Downtown Pittsburgh)  
From Oakland: 12 minutes  
From Wilkinsburg: 23 minutes  
From Homestead: 24 minutes

*Travel Time Reduction:*  
(Time saved by riding the new service versus existing options)

<table>
<thead>
<tr>
<th>To Downtown Pittsburgh:</th>
<th>From:</th>
<th>Minutes</th>
<th>Percent</th>
<th>Versus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homestead</td>
<td>0</td>
<td>0%</td>
<td>53F/H</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-4</td>
<td>-20%</td>
<td>Driving</td>
<td></td>
</tr>
<tr>
<td>Wilkinsburg</td>
<td>17</td>
<td>43%</td>
<td>61A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-4</td>
<td>-21%</td>
<td>Driving</td>
<td></td>
</tr>
<tr>
<td>Oakland</td>
<td>3-4</td>
<td>20-25%</td>
<td>61A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>14%</td>
<td>Driving</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>To Oakland:</th>
<th>From:</th>
<th>Minutes</th>
<th>Percent</th>
<th>Versus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homestead</td>
<td>10</td>
<td>45%</td>
<td>61C</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>29%</td>
<td>driving</td>
<td></td>
</tr>
<tr>
<td>Wilkinsburg</td>
<td>9</td>
<td>45%</td>
<td>61A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>39%</td>
<td>driving</td>
<td></td>
</tr>
</tbody>
</table>

*Bus routes 53F, 53H, 61C and 61A are operated by the Port Authority of Allegheny County. Negative time savings denotes that riding the new service would be slower than existing options.*

**General Description:**  
This alternative would consist of a light rail service from Steel Plaza in Downtown Pittsburgh to Oakland with the option of a branch to either Wilkinsburg (Figure 3-5) or Homestead (Figure 3-6). The downtown to Oakland segment would be in a tunnel underneath Centre Avenue from Steel Plaza to Kirkpatrick Street. At Kirkpatrick Street it would turn southeast to Forbes and Fifth Avenues, and continue underground through Oakland. For service to Wilkinsburg, the light rail line would continue east beneath Forbes and Braddock Avenues. For service to Homestead the light rail line would turn south near Carnegie Melon University and emerge at-grade on the CSX right-of-way, which it would follow to Homestead via Panther Hollow, Greenfield and Hazelwood.

For this alternative a fully at-grade option was also considered between Downtown Pittsburgh and Oakland as a lower cost alternative. Ridership, travel times and O&M costs were not developed for the at-grade option.

**Technology:**  
Service would be provided with electric light rail vehicles, propelled by an overhead power supply, similar to the existing PAAC “T” operation in the South Hills and Downtown. The vehicles would be capable of operating individually or as multi-vehicle trains with a single operator.

**Daily Boardings:**  
Wilkinsburg: 39,400  
Homestead: 35,700  
To Oakland Only:  
Not determined

**Capital Cost (2006 $s):**  
Wilkinsburg: $2,700 – 3,200 M  
Homestead: $2,000 – 2,400 M  
To Oakland Only:  
Underground: $ 1,500 – 1,900 M  
At-Grade: $ 650 – 800 M

**Annual Operating and Maintenance Cost (2006$s):**  
Wilkinsburg: $14.5 M  
Homestead: $27.9 M  
To Oakland Only:  
Not determined

*PAAC Light Rail Vehicles.*
Figure 3-5: Spine Line (Wilkinsburg) Light Rail Map
Figure 3-6: Spine Line (Homestead) Light Rail Map
3.6 DOWNTOWN PITTSBURGH TO OAKLAND BUS RAPID TRANSIT

General Description:
This alternative would be an enhancement of the existing PAAC bus routes that operate on the Forbes/Fifth Avenue Corridor. Improvements could include traffic signal priority for transit services, faster fare collection and boarding procedures or other measures to improve the speed and reliability of these routes. The routes most benefiting from these improvements would be PAAC Routes 28X, 54C, 59U, 61A, 61B, 61C, 67A, 67C, 67E, 67F, 67G, 67H, 67J, 71C, 71D, 84A, 100, 500 and EBO as well as WCTA Route 4. It was estimated that the previously described improvements would reduce travel times on these routes by a minimum of 5 percent.

Technology:
Service would be provided with the standard 40-foot and articulated diesel buses that currently operate on the Forbes/Fifth Avenue corridor.

Service Provided Every:
No change to existing service frequencies

Bus Rapid Transit Travel Time:
(Oakland to Downtown Pittsburgh)
5% faster than current schedules

Travel Time Reduction:
(Time saved by riding the new service versus existing options)

<table>
<thead>
<tr>
<th>To Downtown Pittsburgh:</th>
<th>Minutes</th>
<th>Percent</th>
<th>Versus</th>
</tr>
</thead>
<tbody>
<tr>
<td>From:</td>
<td></td>
<td></td>
<td>PAAC bus routes</td>
</tr>
<tr>
<td>Oakland</td>
<td>varies</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>not determined</td>
<td></td>
<td>Driving</td>
</tr>
</tbody>
</table>

Daily Boardings:
Not determined

Capital Cost (2006 $s):
Not determined

Annual Operation and Maintenance Cost (2006$):
Not determined

Port Authority Hybrid Bus
4 EVALUATION OF ALTERNATIVES

4.1 EVALUATION

Evaluation of the six alternatives was performed with a combination of qualitative and quantitative measures. An evaluation matrix, similar in format to the sample shown in Table 4-1, was used to describe the performance of each alternative related to each of the evaluation measures. Within each column the alternatives were compared and assigned a high, medium or low performance rating relative to the other alternatives.

This is demonstrated in the sample matrix in Table 4-1, which shows descriptive text for each alternative (rows) related to its performance in each of several evaluation measures (columns). In the gray area beneath the descriptive text there is a performance rating for each box. A high performance is designated by a full (dark) circle, medium performance by a half circle and low performance by an empty (white) circle.

Note that adding up the total number of high, medium and low performance ratings received by each alternative will only provide an overview of the alternatives. It will not identify the LPAs. The final selection of the LPAs depends on which characteristics are felt to be the most important and how each alternative helps to address the most pressing needs of the region. Public feedback played a large role in the selection of LPAs.

Table 4-1: Sample Evaluation Matrix

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternative 1</td>
<td>1 minute saved by using this alternative instead of other existing options</td>
<td>Duplicates existing service</td>
<td>Does not provide good opportunities to other services</td>
<td>Descriptive text</td>
<td>Description text</td>
<td>Description text</td>
<td>Description text</td>
<td>Description text</td>
</tr>
<tr>
<td>Rating</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Alternative 2</td>
<td>2 minutes saved by using this alternative instead of other existing options</td>
<td>Partially duplicates existing service</td>
<td>Provides good opportunities to other services</td>
<td>Descriptive text</td>
<td>Description text</td>
<td>Description text</td>
<td>Description text</td>
<td>Description text</td>
</tr>
<tr>
<td>Rating</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Alternative 3</td>
<td>3 minutes saved by using this alternative instead of other existing options</td>
<td>Provides good opportunities to other services</td>
<td>Connects to all existing destinations</td>
<td>Descriptive text</td>
<td>Description text</td>
<td>Description text</td>
<td>Description text</td>
<td>Description text</td>
</tr>
<tr>
<td>Rating</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

The evaluation of the six alternatives used twelve evaluation categories:

- **Travel Time Savings on New Transit Services versus Existing Transit Services (in year 2025 traffic conditions)** – This category assesses how well each alternative helps to improve transit service quality, one of the needs identified in the ECTS. It identifies the time that would
be saved by traveling from end to end on each new service rather than traveling between the same locations on the existing transit services. This includes only in-vehicle time, not wait time or access time. Travel times assumed the projected traffic conditions in the year 2025. Since the new services are almost entirely on exclusive rights-of-way, they would not be significantly affected by traffic congestion, whereas most of the existing services would be affected.

- **Travel Time Savings on New Transit Services versus Driving (in year 2025 traffic conditions)** – This category assesses how well each alternative helps to improve transit choices and provide alternatives to driving, one of the needs identified in the ECTS. It identifies the time that would be saved by traveling from end to end on each new service rather than traveling between the same locations by driving a private automobile. This includes only in-vehicle time, not wait time or access time. Travel times assumed the projected traffic conditions in the year 2025. Since the new services are almost entirely on exclusive rights-of-way, they would not be significantly affected by traffic congestion, whereas driving a private automobile would be affected. It is important to note that in general, transit is slower than driving alone because of its need to make multiple stops, whereas someone driving alone makes no stops prior to their destination. Because of this, travel time savings of zero in this category is in fact a respectable outcome, and a service that saves time over driving is noteworthy.

- **Changes to Existing Transit Choices** – This category assesses how well each alternative helps to improve transit choices and provide alternatives to driving, one of the needs identified in the ECTS. It evaluates what improvements a rider would experience once the proposed new service is in place. Possible outcomes include more direct service, more travel options, a change in the number of transfers necessary or increased reliability of a service.

- **Major Connections to Other Transit Services** – This category assesses how well each alternative meets one of the needs identified through public outreach: Provide a Convenient, Continuously Linked Transit Network. It assesses how well the proposed transit alternative helps to form a connected transit network and allows convenient transfers with other services.

- **Exclusive Guideway Service to Oakland** – This category assesses how well each alternative helps to provide a convenient, continuously linked transit network, another need identified in the ECTS. Service to Oakland was specifically identified as a need during the ECTS, primarily because Oakland is the second largest job center in Southwestern Pennsylvania. The current transit network is configured in a hub-and-spoke arrangement, with the hub being in the Golden Triangle Area. This forces many Oakland-bound riders to travel to the Golden Triangle before transferring to Oakland. This category identifies whether the new services provide a one-seat ride to Oakland and how well they distribute passengers within Oakland.

- **Exclusive Guideway Service to Other Destinations** – This category assesses how well each alternative helps to provide a convenient, continuously linked transit network, a need identified in the ECTS. It assesses the extent to which the proposed alternatives provide service to major destinations within the study area (with the exception of Oakland, which is evaluated separately in the previous category).

- **Projected Daily Transit Boardings** – This category assesses the expected utilization of each proposed alternative to determine the effectiveness of the service and the potential benefit to the region.

- **Capital Cost (in 2006 Dollars)** – This category assesses the cost to construct each alternative. All costs are in 2006 dollars. When assessing the performance of an alternative it is important...
to take into consideration that more expensive alternatives are often more difficult to fund, but that within reason, a higher investment in a system often yields a more reliable and productive system. The balance between too little and too much investment is one that relies strongly on local preferences and local priorities.

- **Operating and Maintenance Costs (in 2006 Dollars)** – This category assesses the annual cost to operate and maintain each alternative. Costs are in 2006 dollars. Although the total dollar amounts are significantly lower than for capital costs, it is important to remember that these costs reoccur annually for the life of the system. As is the case with capital costs, more expensive systems are more difficult to fund, but if the service is well designed and efficient, a higher investment often yields greater benefits.

- **Use of Existing Facilities** – This category identifies whether each alternative makes use of existing transportation resources, which can have economic and environmental benefits. In some cases using existing transportation infrastructure can reduce the construction cost of an alternative. When existing rights-of-way or building structures are available for use by the alternative, it can reduce the amount of construction or ground preparation to be done while building the alternative. Unfortunately, the reverse can also be true if the infrastructure is available, but a price must be negotiated, as is often the case with rights-of-way that are still in use. The use of existing infrastructure can also have environmental benefits by reducing the need to build over otherwise undisturbed land.

- **Potential for Transit Oriented Development** – Transit Oriented Development (TOD) is development that is centered around transit facilities and encourages use of transit, bicycles or walking rather than focusing on the use of automobiles for mobility. This type of development is created with a human scale, not an automobile scale and includes extensive pedestrian amenities. It is also oriented so that building entrances face major pedestrian paths or transit stations, not parking lots. The existence or commitment to creating TOD is a criterion that the Federal Transit Administration also reviews when deciding which public transit projects should receive New Starts funding. This category rates the potential for the proposed transit investments to be surrounded by transit oriented-development, regardless of whether that development is spurred by the transit investment or is pre-existing.

- **Public Support** – Public Support is a critical component of the selection of an LPA. This category rates the response of the public, stakeholders and elected officials to the proposed transit investments. An alternative must have the support of the public it would serve to be selected as a Locally Preferred Alternative, as public support affects not only the potential for ridership once the system is constructed, but also the potential for funding to be made available for the construction, operating and maintenance of the service.

The evaluation of the six ECTS-TA alternatives is shown in Table 4-2 through Table 4-6 (similar to the sample shown in Table 4-1). To the right of each table is an explanation of the rankings within each category. Following the four tables is a summary (Table 4-7) which shows only the rankings without the accompanying text for an overview of the alternatives.
## Table 4-2: Evaluation of Alternatives - Improved Transit Service Quality and Alternatives to Driving

<table>
<thead>
<tr>
<th>Segment for Comparison</th>
<th>Need: Improve Transit Service Quality</th>
<th>Need: Improve Transit Choices and Provide Alternative to Driving</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Transit Travel Time Reduction vs. Existing Transit Services</td>
<td>2025 Transit Time vs. Estimated Highway Time (minutes)</td>
</tr>
<tr>
<td></td>
<td>Minutes</td>
<td>Percent</td>
</tr>
<tr>
<td><strong>Allegeny Valley Commuter Rail</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| New Ken -2, Pittsburgh | 10 - 15 | 15%     | RT. 78A | 3 - 8  | 7-18%  | • Supplements existing bus routes with exclusive guideway service – increased speed, capacity and more direct route to Pittsburgh.  
• Introduces a transfer (to bus shuttle) not required of riders on the existing PAAC Route 78A.  
• Will have feeder bus service to stations |
|                        |         |         |        |        |         |                  |
| **East Busway Extension** |        |         |        |        |         |                  |
| Monroeville - Pittsburgh (skip-stop): Monroeville - Oakland: | 33 | 49% | RT. 67A | -9 | -21% | • Additional Connectivity to Monroeville – new bus routes  
• New exclusive transit guideway – faster access for 5 PAAC routes and some WCTA routes to East Busway, Oakland and Downtown Pittsburgh from Monroeville, East Pittsburgh and Braddock  
• Reduces route lengths in mixed traffic  
• Currently the exclusive guideway can be accessed in Swissvale, Wilkinsburg or Oakland for Downtown Pittsburgh trips |
|                        |         |         |        |        |         |                  |
| **NS Commuter Rail** |        |         |        |        |         |                  |
| Greensburg - Pittsburgh: | 16 | 20% | RT. 1F (WCTA) | 0 | 0% | • Replaces WCTA route 1F with exclusive guideway service – increased speed and capacity, more direct route to Pittsburgh.  
• Introduces a transfer not required of riders on the existing WCTA Route 4 to reach Oakland.  
• Will have feeder bus service to stations |
|                        |         |         |        |        |         |                  |
| **Mon Valley Light Rail** |        |         |        |        |         |                  |
| McKeesport - Pittsburgh: McKeesport - Oakland: Elms - Pittsburgh: | 14 | 28% | RT. 56C | 3 | 8% | • Supplements existing bus routes with fixed guideway service – increased speed and capacity  
• More direct service from Mon Valley to Downtown Pittsburgh, Oakland and the northern Allegheny Valley shore. |
|                        |         |         |        |        |         |                  |
| **Spine Line Light Rail** |        |         |        |        |         |                  |
| Pittsburgh - Wilkinsburg: Pittsburgh - Homestead: | 17 | 43% | RT. 61A | 4 | -21% | • Replaces most existing bus routes between Oakland and Downtown Pittsburgh, a highly congested area  
• New exclusive guideway service within Oakland  
• Supplements existing bus routes to Downtown Pittsburgh and Oakland from Squirrel Hill or Hazelwood and Homestead. |
| Oakland - Wilkinsburg: Oakland - Homestead: | 9 | 45% | RT. 61A | 7 | 39% | • New exclusive guideway service within Oakland  
• Supplements existing bus routes to Downtown Pittsburgh and Oakland from Squirrel Hill or Hazelwood and Homestead. |
| Oakland - Pittsburgh: | 3-4 | 20-25% | RT. 61A | 3 | 14% | • New exclusive guideway service within Oakland  
• Supplements existing bus routes to Downtown Pittsburgh and Oakland from Squirrel Hill or Hazelwood and Homestead. |
|                        |         |         |        |        |         |                  |
| **Oakland BRT** |        |         |        |        |         |                  |
| Oakland - Pittsburgh: | 5% | various | Current bus route travel times | Not determined | • Increased travel speed and reliability through transit signal priority, improved fare collection or other methods.  

Notes:
1. Allegheny Valley Commuter Rail travel time is shown only as far east as New Kensington, rather than the alternative’s terminus of Arnold, for consistency between highway and transit travel times. Existing PAAC Route 78A does not travel to Arnold.  
2. Pittsburgh refers to Downtown Pittsburgh, in or near the Golden Triangle.
3. Route 67A does not travel on a busway.  
4. Route 68A travels on a busway for part of its route.  
5. RT. 67A does not travel on a busway.  
6. Route 68A travels on a busway for part of its route.  
7. This assumes 4-5 minutes of the 20 minute travel time shown in the Route 61A schedule between timepoints Forbes/Craig and Forbes/Stanwix would be traveling into Downtown Pittsburgh beyond the terminus of the light rail alternative at Steel Place.
All of the six alternatives are reasonably well integrated with the remainder of the region’s public transportation network. All have been designed with modifications to local bus routes to provide transfer opportunities where reasonable. Additionally, connections to East Busway routes are available from the East Busway Extension, the Norfolk Southern Commuter Rail and the Spine Line Light Rail alternatives. Similarly, service to the North Shore and the South Hills is available on the Mon Valley Light Rail and Spine Line alternatives. All alternatives received a rating of medium, except for the Spine Line, which was the only alternative to provide transfer or through service opportunities to the East Busway, the North Shore and the South Hills combined. It therefore received a high rating.

### Exclusive Guideway Service to Oakland:

Since service to Oakland in particular was mentioned as a priority for the region during public outreach meetings, it was assessed separately from access to other regional destinations. High performance alternatives in this category were those that serve Oakland at multiple stops in both the east and west ends of the area. The three alternatives that received a high rating in this category were the East Busway Extension, the Spine Line Light Rail and the Downtown Pittsburgh to Oakland BRT.

One level lower was the Mon Valley Light Rail Alternative, which serves only the eastern end of Oakland. Low performing alternatives were the two commuter rail alternatives, which do not provide direct service to Oakland.

### Exclusive Guideway Service to Other Destinations:

All six alternatives extended exclusive guideway service to new areas and therefore rated as at least medium performance in this category. The Allegheny Valley Commuter Rail was not rated as high performance because it does not reach the heart of the Golden Triangle. The East Busway Extension only extends exclusive guideway a short distance and therefore remained a medium-performance alternative. Additionally, it is uncertain how much, if any exclusive guideway the Downtown Pittsburgh to Oakland BRT will include, therefore it remained a medium-performance alternative. The remaining three alternatives all reach the heart of the Golden Triangle and very congested areas like Oakland, the Route 30 corridor and the northern Allegheny shore. They all received a high performance rating.
Table 4-4: Evaluation of Alternatives - Cost Effectiveness

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Allegheny Valley Commuter Rail</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,900</td>
<td>$140 - 170 M</td>
<td>$ 6.4 M</td>
</tr>
<tr>
<td>(Regular)</td>
<td>(Enhanced)</td>
<td></td>
</tr>
<tr>
<td>East Busway Extension</td>
<td></td>
<td></td>
</tr>
<tr>
<td>41,500 (on entire Busway)</td>
<td>To Monroeville: $390 - 480 M</td>
<td>To Monroeville: $14.1 M</td>
</tr>
<tr>
<td></td>
<td>To East Pittsburgh: $240 - 300 M</td>
<td>To East Pittsburgh: Costs not determined</td>
</tr>
<tr>
<td>NS Commuter Rail</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(to Monroeville) (to East Pittsburgh)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mon Valley Light Rail</td>
<td></td>
<td></td>
</tr>
<tr>
<td>34,700 Total</td>
<td>Single branch from Pittsburgh: $400 - 490 M to Etna $930 - 1,100 M to McKeesport</td>
<td>Single branch from Pittsburgh: $ 4.7 M to Etna $19.5 M to McKeesport</td>
</tr>
<tr>
<td>(Etna)</td>
<td>(McKeesport)</td>
<td></td>
</tr>
<tr>
<td>14,900 – Etna 19,800 – McKeesport</td>
<td>Continued deferment of the North Shore Connector’s Convention Center Branch would increase the cost of this alternative by the amount of that connection.</td>
<td></td>
</tr>
<tr>
<td>(Etna)</td>
<td>(McKeesport)</td>
<td></td>
</tr>
<tr>
<td>Spine Line Light Rail</td>
<td></td>
<td></td>
</tr>
<tr>
<td>39,400 (Wilkinsburg) 35,700 (Homestead)</td>
<td>Underground to Oakland: $2,700 - 3,200 M (Wilkinsburg) $2,000 - 2,400 M (Homestead)</td>
<td>$ 14.5 M (Wilkinsburg) $27.9 M (Homestead)</td>
</tr>
<tr>
<td>(Etna) (McKeesport)</td>
<td>(Etna) (McKeesport)</td>
<td></td>
</tr>
<tr>
<td>Only: Has not been evaluated Al-Grade to Oakland Only: Has not been evaluated</td>
<td>$1,500 - 1,900 M (underground) $650 - 800 M (at-grade)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oakland BRT</td>
<td>5,900 above current ridership levels (total for all routes)</td>
<td>Costs not evaluated</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Costs not evaluated</td>
</tr>
</tbody>
</table>

**Daily Transit Boardings:** With the exception of the Allegheny Valley Commuter Rail’s standard alternative, all alternatives seemed to produce reasonable ridership estimates for the type of service they would provide and therefore received at least a medium performance rating in this category. Although the commuter rail alternatives show overall lower ridership than the light rail alternatives, this does not indicate poor performance; it is merely indicative of the different service types. The commuter rail services make fewer stops and concentrate their service in the peak periods with limited off-peak service. In contrast, the light rail alternatives make many stops and operate much more frequently throughout the day. Accordingly, the standard Allegheny Valley commuter rail alternative seemed to have only a low performance.

The East Busway Extension and the Spine Line Light Rail, both seemed to have high ridership levels. The Spine Line Light Rail alternative was elevated to a high performance rating. The East Busway Extension, however, retained a medium performance rating because much of that ridership would be on trips that would only use the existing portion of busway between the Golden Triangle and Swissvale.

**Capital Cost (2006 dollars):**

As was stated previously, a high-cost alternative increases the difficulty of obtaining funding, but within limits, sometimes provides a greater return on the investment. Therefore, although for the purposes of this analysis, a high-cost alternative would receive a low performance rating and a low-cost alternative would receive a high performance rating, these ratings should be viewed with an understanding of what benefits would result from each investment. However, given the limited funding available for these projects, it was considered appropriate to give a low rating to a high-cost alternative for which the cost might limit the region’s ability to construct it.

The alternatives that received a low performance rating are those whose capital costs are in excess of one billion dollars. This includes the McKeesport Branch of the Mon Valley Light Rail alternative and all Spine Line alternatives that travel underground (the full alternatives to Wilkinsburg and Homestead, plus the shortened subway alternative between the Golden Triangle and Oakland).

The low-cost alternatives, which received a high performance rating, are the two commuter rail alternatives in both regular and enhanced form and the East Busway Extension Alternative only as far as East Pittsburgh. Each of these had costs of approximately $300 million or less.

Aside from the Downtown Pittsburgh to Oakland BRT, for which costs were not evaluated, the remaining alternatives had capital costs that were between the high and low extremes and therefore received a medium performance rating. Those alternatives are the East Busway Extension to Monroeville, the Etna branch of the Mon Valley Light Rail and the at-grade version of the Spine Line Light Rail alternative to Oakland.

**Operating and Maintenance Costs (2006 dollars):**

As was the case with capital costs, the operating and maintenance costs were rated assuming that a higher dollar amount would be more difficult to obtain and would therefore receive a low performance rating. These, like capital costs, should be reviewed with an understanding of the benefits that would result from that investment.

Aside from the Downtown Pittsburgh to Oakland BRT, for which costs were not evaluated, most alternatives seemed to generate operating and maintenance costs that were reasonable for the service provided. Therefore, with the exception of the Allegheny Valley Commuter Rail and the Etna branch of the Mon Valley Light Rail, all alternatives received a medium performance rating. The Allegheny Valley Commuter rail and the Etna branch would generate very low operating and maintenance costs and therefore received a high performance rating.
## Use of Existing Facilities:

All of the alternatives are currently expected to use existing rights-of-way and existing stations where available. With the exception of the Allegheny Valley Commuter Rail Alternative, the owners of those facilities have not reacted to proposals to use their rights-of-way for transit. The Allegheny Valley Railroad, in contrast, while not yet having made an agreement for the use of its right-of-way, has conveyed a distinct interest in reaching an agreement for operation of the commuter rail service along the AVR right-of-way. For this reason, the Allegheny Valley Commuter Rail alternative was the only alternative to receive a high performance rating in this category.

## Potential for Transit Oriented Development at Stations:

The Downtown Pittsburgh to Oakland BRT would serve two areas that are already extremely transit-oriented: Downtown Pittsburgh and Oakland. It received a high rating performance rating in this category. All versions of the Spine Line Light Rail alternative as well as the Norfolk Southern Commuter Rail alternative also received a high performance rating because they would all serve several areas that are already transit oriented as well as several others that have potential for new TOD.

The Allegheny Valley Commuter Rail alternative received a medium performance rating because it would serve some currently transit oriented areas and some with much potential for TOD, but would also have a few stations where the topography would severely limit how well any developments could be oriented to transit riders and pedestrians. Similarly, all three stations on the East Busway Extension alternative have a good potential for TOD, but would be somewhat limited by topography and/or other transportation infrastructure such as adjacent railroads and highways. Therefore the East Busway Extension received a medium performance rating.

The only alternative to receive a low performance rating in this category is the Etna branch of the Mon Valley Light Rail. The station areas for this alternative are severely limited in their development potential by topography and the presence of railroad and highway facilities.

### Table 4-5: Evaluation of Alternatives - Existing Resources and Community Coordination

<table>
<thead>
<tr>
<th>Existing Facilities</th>
<th>Potential for Transit Oriented Development at Stations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Allegheny Valley Commuter Rail</strong></td>
<td></td>
</tr>
<tr>
<td>- AVR ROW is intact, with space for extra track</td>
<td>Arnold – Good</td>
</tr>
<tr>
<td>- ROW owner interested in CR/freight agreement</td>
<td>New Kensington – Excellent</td>
</tr>
<tr>
<td>- Brilliant Branch may be available for alternate routing</td>
<td>Oakmont – Excellent (already TOD)</td>
</tr>
<tr>
<td>- Could use existing platform and gazebo in Oakmont.</td>
<td>Verona – Good</td>
</tr>
<tr>
<td>- Option to use Amtrak/Penn Station, but requires agreement with Norfolk Southern</td>
<td>Sandy Creek Road – Poor</td>
</tr>
<tr>
<td>- Original freight station in New Kensington may be owned by city</td>
<td></td>
</tr>
<tr>
<td>- Would require new maintenance facility</td>
<td></td>
</tr>
<tr>
<td><strong>East Busway Extension</strong></td>
<td></td>
</tr>
<tr>
<td>- NS ROW intact, but requires agreement with NS and Union RR</td>
<td>Braddock – Good</td>
</tr>
<tr>
<td>- NS not opposed, but no commitment or terms of agreement</td>
<td>East Pittsburgh – Good</td>
</tr>
<tr>
<td>- Potential to connect to the Mon-Fayette or Tri-Boro Expressways. Discussed begun with PA Turnpike Commission, but further coordination required.</td>
<td>Monroeville – Good</td>
</tr>
<tr>
<td>- Adds roadway next to tracks, does not use existing tracks</td>
<td></td>
</tr>
<tr>
<td>- Monroeville Mall - possibility of joint use of parking lot</td>
<td></td>
</tr>
<tr>
<td><strong>NS Commuter Rail</strong></td>
<td></td>
</tr>
<tr>
<td>- NS ROW intact, but requires agreement with railroad</td>
<td>Greensburg – Excellent (already TOD)</td>
</tr>
<tr>
<td>- RR not opposed, but no commitment or terms of agreement</td>
<td>Jeannette – Good</td>
</tr>
<tr>
<td>- Would use Greensburg and Pittsburgh Amtrak Stations, possibly Wilkinsburg Station.</td>
<td>Irvin – Fair/Good</td>
</tr>
<tr>
<td>- Need to analyze whether additional tracks would be needed to accommodate passenger trains</td>
<td>Trafford – Fair/Good</td>
</tr>
<tr>
<td>- Extension option would use Latrobe Station</td>
<td>East Pittsburgh – Good</td>
</tr>
<tr>
<td>- Would require new maintenance facility</td>
<td>Wilkinsburg – Excellent (already TOD)</td>
</tr>
<tr>
<td><strong>Mon Valley Light Rail</strong></td>
<td></td>
</tr>
<tr>
<td>- CSX ROW intact but requires agreement with CSX and AVR (AVR leases the line from CSX)</td>
<td>Trunk: 24th Street – Good</td>
</tr>
<tr>
<td>- AVR ROW intact, with space for extra track</td>
<td>21st Street – Fair/Good</td>
</tr>
<tr>
<td>- Trunk: 31st Street – Poor</td>
<td>31st Street – Poor</td>
</tr>
<tr>
<td>- Trunk: Craig Street – Excellent (already TOD)</td>
<td>Etna Branch: Millvale – Poor</td>
</tr>
<tr>
<td></td>
<td>Etna – Fair</td>
</tr>
<tr>
<td></td>
<td>McKeesport Branch: Centre Avenue – Excellent (already TOD)</td>
</tr>
<tr>
<td><strong>Spine Line Light Rail</strong></td>
<td></td>
</tr>
<tr>
<td>- CSX ROW intact, but requires agreement with CSX (Homestead option) and AVR (AVR leases the line from CSX)</td>
<td>Craig Street – Excellent (already TOD)</td>
</tr>
<tr>
<td>- At grade-option would use city streets</td>
<td>Greenfield Avenue – Poor</td>
</tr>
<tr>
<td></td>
<td>Tecumseh Street – Good</td>
</tr>
<tr>
<td></td>
<td>Forbes/Craft – Excellent (already TOD)</td>
</tr>
<tr>
<td></td>
<td>Forbes/Atwood – Excellent (already TOD)</td>
</tr>
<tr>
<td></td>
<td>Homestead Branch: Monessen – Poor</td>
</tr>
<tr>
<td></td>
<td>Forbes/Morewood – Good</td>
</tr>
<tr>
<td></td>
<td>Homestead – Excellent (already TOD)</td>
</tr>
<tr>
<td></td>
<td>Forbes/Murray – Excellent (already TOD)</td>
</tr>
<tr>
<td></td>
<td>Forbes/Braddock – Good</td>
</tr>
<tr>
<td><strong>Oakland BRT</strong></td>
<td></td>
</tr>
<tr>
<td>- Would use city streets</td>
<td>Downtown Pittsburgh and Oakland are both already transit-oriented communities</td>
</tr>
<tr>
<td>- It is still undetermined whether a new BRT lane would be created</td>
<td></td>
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</tbody>
</table>

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*STV Incorporated*
### Table 4-6: Evaluation of Alternatives - Public Support

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Public Support</th>
</tr>
</thead>
</table>
| Allegheny Valley Commuter Rail    | • Rated first or second choice by 126 comment form respondents  
• Received petitions with 2,368 signatures from residents of Alle-Kiski valley supporting commuter rail service between New Kensington/Arnold and Pittsburgh  
• Gives transportation options to north Westmorland County and northeast Allegheny County  
• Fosters economic development  
• Relatively low cost and time to be up and running  
• Available train station and parking |
| East Busway Extension             | • Rated first or second choice by 27 comment form respondents  
• Monroeville is the second biggest economic center in Southwestern Pennsylvania  
• Alleviate traffic congestion on Parkway East |
| NS Commuter Rail                  | • Rated first or second choice by 35 comment form respondents  
• Improves economic opportunities for Westmoreland County  
• Alleviates congestion in historically congested corridor  
• Relatively quick to implement  
• Terminus at Pennsylvania Station is big benefit |
| Mon Valley Light Rail             | • Rated first or second choice by 33 comment form respondents  
• Mon Valley and Millvale/Etna have concentrated population and development potential  
• Address current passenger overload on buses between McKeesport and Squirrel Hill/Oakland  
• Create access to emerging job centers such as Hazelwood |
| Spine Line Light Rail             | • Rated first or second choice by 49 comment form respondents  
• Oakland is the third largest trip generator in the State  
• Addresses double hub system of Oakland and Downtown  
• Important to reduce traffic in Oakland |
| Oakland BRT                       | • Rated first or second choice by 49 comment form respondents  
• Oakland is the third largest trip generator in the State  
• Addresses double hub system of Oakland and Downtown  
• Important to reduce traffic in Oakland |

### Public Support:

All of the alternatives received at least a moderate amount of public support and minimal opposition. The Allegheny Valley Commuter Rail alternative, however, received a tremendous outpouring of support in the form of several petitions and numerous comment forms, submitted by mail, internet and in person at the public input meetings. The Allegheny Valley Commuter Rail alternative therefore received a high performance rating in this category, while the other alternatives all received a medium performance rating.
The performance ratings from Table 4-2 through Table 4-6 have been summarized in Table 4-7.

### Table 4-7: Summary of Evaluation Characteristics

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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Allegheny Valley Commuter Rail</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○ (Regular)</td>
<td>○ (Enhanced)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>East Busway Extension</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○ (Monroeville)</td>
<td>(E. Pittsburgh)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>NS Commuter Rail</td>
<td>●</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○ (Etna)</td>
<td>○ (McKeesport)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Mon Valley Light Rail</td>
<td>●</td>
<td>●</td>
<td>○</td>
<td>○</td>
<td>○ (Etna)</td>
<td>○ (McKeesport)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Spine Line Light Rail</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○ (Underground)</td>
<td>(At-Grade)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
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<td>○</td>
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<tr>
<td>Oakland BRT</td>
<td>○</td>
<td>TBD</td>
<td>○</td>
<td>○</td>
<td>TBD</td>
<td>TBD</td>
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</table>
4.2 FINAL RECOMMENDATIONS / LOCALLY PREFERRED ALTERNATIVES

The performance of the six alternatives reveals that most of the alternatives are well suited to addressing the study area’s transportation and community needs. Since all of the alternatives performed well overall, the main factors in the selection of LPAs was the public support for each alternative and the costs relative to the public support.

There was overwhelming support for the Allegheny Valley Commuter Rail alternative, which over 126 comment forms from Round 2 ranked as a first or second priority. Petitions with 2,368 signatures were also received in support of this alternative. Although this alternative does have some shortcomings – in particular the lack of direct service to the Golden Triangle and Oakland – there are options available to remedy them, all of which can be addressed in the next phase of study. In addition to the public support, the relatively low costs of this alternative make it more financially feasible than some others.

The East Busway Extension received 27 Round 2 comment forms that ranked it as either a first or second priority. PAAC has already been in discussion with PennDOT and the Pennsylvania Turnpike Authority about the potential for connecting to the Mon-Fayette or Tri-Boro Expressways to the east of East Pittsburgh. Funding also seems likely to be available for the next study phase of this project in the near future.

Significant public support was also received for the Norfolk Southern Commuter Rail alternative, which 35 of the Round 2 comment forms rated as a first or second priority. There are also plans underway for transit oriented development around some of the potential station sites along this alignment and estimated capital costs are in line with similar projects in other cities that recently received funding commitments from the FTA.

The Mon Valley Light Rail alternative performed well in the evaluation, and received a similar amount of public support to that received by the East Busway Extension and the Norfolk Southern Commuter Rail. However, the land use in the Mon Valley is different from that in the other corridors, with many areas still recovering from the loss of industry and population. If implemented at the appropriate time, this project has the potential to improve transportation for residents of the Mon Valley and support revitalization of the area, but only with considerable public support and the collaboration of an array of public and private investors. While it is believed that this project has merit, it appears to be a more appropriate investment when redevelopment efforts have progressed further. Nonetheless, the Etna branch can be considered for review sooner, in conjunction with further analysis of the Allegheny Valley Commuter Rail alternative.

Both the Spine Line and the BRT alternative between Downtown Pittsburgh and Oakland received strong public support. Since these two alternatives serve similar corridors, it will be necessary to determine whether it would be beneficial to implement both or just one of them. Also, because of the high cost of the Spine Line alternative, it will be important to refine the alternative so that it provides the service performance necessary for the congested Oakland area at a cost that the region can afford.

Based on this information, the Locally Preferred Alternatives are:
- Allegheny Valley and Norfolk Southern Commuter Rail – to move ahead in joint study
- East Busway Extension
- Downtown Pittsburgh-Oakland Transit Investment (includes Spine Line and/or BRT)
5 NEXT STEPS

The following sections assume that the LPAs will be pursued as federally funded New Starts projects. The New Starts program, which is funded as part of the federal transportation bill (SAFETEA-LU), provides capital assistance to select transit investments throughout the country. To be eligible for this assistance, a project must follow the federal planning and project development process that was discussed in Section 1.2 and meet certain performance measures defined by the FTA in competition with similar projects from throughout the country. Additionally, whether the New Starts funds are sought or not, since the Federal Railroad Administration (FRA) regulates freight railroads, any of the transit alternatives that assume use of a freight railroad right-of-way would also require close coordination with the FRA.

While it is not necessary to develop transit capital investment projects through the federal New Starts program, it is advisable for all projects that have not yet identified alternative funding; federal funds cannot be otherwise obtained for a new transit capital investment. If the Eastern Corridor area were to identify non-federal funds sufficient to construct the entirety of a major transit investment, the project timeline could potentially be shortened by one to two years; however, PennDOT also has a stringent review process that is closely tied to the federal process. Therefore significant time savings is not guaranteed in a non-federal process. Additionally, if the federal planning process is not followed and it is later determined that there are insufficient non-federal funds, the project would not be eligible for federal assistance without redoing the planning process as directed by the FTA. With this in mind, the next steps for any of the previously discussed transit investments to progress through the federal transit planning process are:

5.1 ENTRY INTO SPC LONG RANGE PLAN

The next step to advance any of the LPAs is to enter them into SPC’s Long Range Plan. The entry of a new item into the SPC Long Range Plan is considered a major action that requires the approval of the SPC board and solicitation of public input for a 30-day period. That process can commence with the submittal of this report, signifying the conclusion of the ECTS-TA and the selection of the region’s LPAs. Once the LPAs are included in the region’s Long Range Plan, the next study phases can be initiated for the corridors in which funding for the next studies is available. A significant local effort will be required to identify funding sources for the next studies in each LPA corridor.

5.2 NEXT STUDY PHASES – ADVANCED PLANNING AND DEIS OR EA

The next study phase will be a combination of advanced planning and environmental review. Those analyses will be completed for individual LPA corridors, independent of the other LPA corridors, to further define the alternatives and review specific options within those corridors.

The advanced planning effort will be performed in cooperation with the environmental review so that any required modifications to an alternative for environmental reasons can be properly incorporated into the alternative. This will also be an opportunity to complete
the corridor-specific evaluation that is part of a full AA and is required for an alternative to progress to subsequent study phases of Preliminary and Final Engineering.

To begin the environmental process, the FTA will be notified of the intent to pursue a transit project for which federal capital funds will be sought. Once the FTA has received sufficient information about the project concept, it will determine what level of environmental review will be necessary. For the projects reviewed in the Eastern Corridor, the most likely levels of environmental review will be Environmental Analysis (EA) or Environmental Impact Statement (EIS). Both begin with a public scoping process, in which relevant state and federal agencies, stakeholders and the public identify what range of alternatives, likely environmental, social and economic impacts should, and possible mitigations should be reviewed in the EA or EIS.

An EA or EIS typically considers potential impacts in the following areas:

- Social and Economic Impacts
  - Property Acquisition/Displacements
  - Community Impacts
  - Land Use
  - Economic Impacts
  - Safety and Security
  - Visual Impacts
- Air Quality
- Endangered Species
- Environmental Justice
- Energy
- Floodplains
- Geotechnical Resources/Soils
- Hazardous Materials and Brownfields
- Historic, Archaeological and Cultural Resources
- Navigable Waterways and Coastal Zones
- Noise and Vibrations
- Parklands
- Transportation Impacts
  - Traffic
  - Transit
  - Parking
  - Railroads
- Utilities
- Water Quality
- Wetlands

An EA is a lesser level of analysis than an EIS, and is allowable with projects for which significant environmental impacts are not anticipated. It should be noted, however, that if the EA uncovers significant environmental impacts, the project can be required to complete an entire EIS instead of an EA.

An EIS is an in-depth review of the impacts of a major transit investment to the area in which it is constructed. It is required on all projects for which similar projects have shown that there are likely to be major environmental impacts. This includes new construction or extension of fixed rail transit facilities or exclusive bus roadways. In some instances an EA can be acceptable for similar projects that are constructed entirely within an existing transportation right-of-way.

An EIS is generally performed in two phases, a Draft EIS (DEIS) and an Final EIS (FEIS). A DEIS is a collaborative process that solicits the input of relevant state and federal agencies, stakeholders and the public. During the DEIS the environmental impacts of proposed alternatives are considered. Where significant impacts are anticipated, methods of mitigation are developed, and the range of alternatives is narrowed down to finalize the LPA. Once approved by the FTA, the DEIS is circulated to elected officials, state and federal agencies, stakeholders and members of the public. A public hearing or notice of the report availability and a public comment period are
required during the circulation period. After sufficiently defining the finalized LPA, the project is eligible to be considered for entry into Preliminary Engineering (PE).

During PE along with the preliminary design of the system, the DEIS is revised to incorporate comments received, responses to those comments, a summary of the public involvement process and a description of the mitigations that will be incorporated into the LPA. This revised document is submitted as an FEIS and is required to obtain approval (called a Record of Decision, or ROD) prior to the project's entry into Final Engineering.

### 5.3 INCORPORATION OF OTHER STUDIES AND ALTERNATIVES

During the public scoping of the environmental review process, other options within the alternatives or recommended alternatives from other studies within the same corridor can be included in the list of options to review. Several such additions have been discussed throughout the ECTS-TA study and should be included, as appropriate, in the environmental scoping processes:

- **Allegheny Valley Commuter Rail Extension to Golden Triangle** — Options mentioned included: use of Allegheny Valley Railroad’s easements to 11th Street in the Strip District, and routing of the commuter rail service to Pittsburgh’s Penn Station via the Brilliant Branch (near Washington Boulevard) and NS’s Pittsburgh Line (parallel to the East Busway) which would also allow service to Oakland and East Liberty.

- **Allegheny Valley Commuter Rail Spur to Oakland** — Another option for the Allegheny Valley Commuter rail was the addition of a spur to Oakland via the 33rd Street Bridge and CSX right-of-way.

- **Allegheny Valley Commuter Rail - Service Northeast of Arnold** — Service could be extended northeast of Arnold via a rail extension, a bus connection to Armstrong County or other options. There was interest in investigating this.

- **Norfolk Southern Commuter Rail Extension to Latrobe** — This extension would continue east along the same Norfolk Southern right-of-way to Latrobe, near the historic rail station.

Other alternatives that should be considered, if applicable, are those that result from the other study efforts and transit proposals that were discussed in **Section 2.4**:  

- Oakland Transportation Study  
- County Executive Onorato’s Six-point Plan  
- Michael Lamb Transit Alternatives  
- Councilman Peduto: Transportation Priorities  
- The Regional Transit Vision

### 5.4 IDENTIFICATION OF POTENTIAL FUNDING SOURCES

As the LPAs progress through the next stages of development it will become increasingly important to begin identifying sources of funding. There are several federal funding sources that are eligible to be used for transit investments such as those...
reviewed in the ECTS and ECTS-TA, however they all require matching funds from local sources. If the Eastern Corridor area wishes to pursue a major transit investment such as those described in this study, matching state and local funds will have to be identified for both construction and ongoing operating and maintenance costs. Some potential sources of capital funds are:

- **Section 5307** - Section 5307 is a formula grant program for urbanized areas providing capital, and planning assistance for public transportation. For small systems if can also provide operating assistance. Funds are apportioned to urbanized areas utilizing a formula based on population, population density, and other factors associated with transit service and ridership. Section 5307 is funded from both General Revenues and Trust Funds and are available for transit improvements for 34 urbanized areas of over 1 million in population, 91 urbanized areas with populations of between 200,000 and 1 million, and 283 urbanized areas with populations of between 50,000 and 200,000. For urbanized areas with populations of over 200,000, funds flow directly to the designated recipient. For areas with populations of less than 200,000, the funds are apportioned to the Governor of the respective state for distribution. In 2006, $31.7 million was allocated to the Pittsburgh Urbanized Area.

- **Section 5309** - The Federal Section 5309 program, of which the New Starts program is a part, provides funding for:
  - new fixed guideway systems and extensions of existing fixed guideway systems (including real estate, rolling stock, real property)
  - capital projects to create an efficient and coordinated mass transportation system
  - coordination of mass transit with other transportation modes
  - introduction of new technology into mass transportation
  - modernization of existing fixed guideway systems (funding based on formula considering route miles and revenue vehicle miles in systems that are at least 7 years old)
  - replacement/rehabilitation of bus and bus facilities
  - mass transportation projects that meet the special needs of elderly individuals and individuals with disabilities
  - nonvehicular capital improvements that might increase mass transportation usage in the corridor (e.g. bus lanes, park-and-ride lots, preservation of rights-of-way, etc.)

Under SAFETEA-LU projects are eligible to be funded at a federal share of 80 percent; however, the amount of local matching funds that are designated for a project contribute to how well that project is rated. Therefore it is highly beneficial to secure local funds in excess of 20 percent of the total project costs. Recent experience has shown that projects that provide a local match of roughly 40 percent or greater are much more likely to receive a higher rating. Under SAFETEA-LU, a grantee will be allowed to keep a portion of the cost savings when projects are completed under budget. Additionally, a higher than requested federal share can be

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8 As directed by SAFETEA-LU, this total is reported as a combined total of funds allocated under Section 5307 and any additional funds allocated under Section 5340, an apportionment for growing states and dense states.
provided for projects that keep cost and ridership estimates within ten percent of the forecasts used for entry into PE.

The SAFETEA-LU legislation includes a new “Small Starts” Program that was created for smaller projects with a federal share of less than $75 million and total project cost under $250 million. As stated in the SAFETEA-LU legislation, these investments can include corridor-based bus capital investments for which “a substantial portion of the project operates in a separate right-of-way dedicated for public transit use during peak hour operations,” or that represent “a substantial investment in a defined corridor”. The previous legislation allowed an exemption from much of the New Starts review process for projects with a total cost of less than $25 million. This exemption has been eliminated in the SAFETEA-LU legislation.

There are currently (FY 2006) approximately 150 planning studies nationwide in the federal transit planning process. An additional 25 projects are in the Preliminary Engineering phase, five are in final design and four received new Full Funding Grant Agreements from the FTA in FY 2006.

- **Federal Highway Funding** – Certain categories of funding administered by FHWA may be transferred to transit capital projects through the State and the Metropolitan Planning Organization with the permission of both the Federal Highway Administration (FHWA) and FTA. SAFETEA-LU provides considerable flexibility in the use of FHWA and FTA funds for either highway or transit investments. The flexibility provisions of these transportation acts allow:
  - Broad highway, transit, and bicycle/pedestrian eligibility under major funding programs;
  - Transfer from one category of FHWA funds to another to capitalize on the new eligibility; and
  - Transfer of funds from FHWA to FTA and vice versa.

It is important to remember that the metropolitan and statewide transportation planning processes are the contexts for reconciling State and regional transportation needs with proposed transportation projects and activities. All projects must be included in the regional LRP, the short-term transportation improvement program (TIP), and the approved Statewide Transportation Improvement Program (STIP). The following procedures generally describe the process for flexing transportation revenues from FHWA to FTA:

- Funds that are transferred from FHWA to FTA are to be administered under the requirements of the Chapter 53 of Title 49, U.S.C. Funds transferred to or from FHWA or FTA can only be used for purposes eligible under the original program that the funds are transferred from.
- Some categories of FHWA funds that do not have transit eligible activities may be used for transit purposes if transferred to a FHWA funding category that has transit eligibilities (e.g., Interstate Maintenance transferred to the Surface Transportation Program).
- For a formal transfer from FHWA to FTA, the State Transportation Department requests the transfer of funds, with the concurrence of the MPO, in a letter to the FHWA Division Office.
Funding transfers are permitted only for projects contained in the approved TIP/STIP.

Potential highway funding sources that can be flexed to transit projects include:

- **Surface Transportation Program (STP)** – Eligible for transit capital projects, vehicles, and facilities publicly or privately held, vanpool projects, fringe and corridor parking facilities, bicycle and pedestrian facilities, bus terminals, bus facilities and transit safety improvements. STP funds provide the greatest flexibility in use of funds.
- **Congestion Mitigation and Air Quality (CMAQ)** – Eligible for transit capital and operating expenses for new services in non-attainment areas only. Projects must demonstrate that benefits to air quality and operating uses are limited to three years.
- **National Highway System (NHS)** – Eligible for transit improvements within a National Highway System Corridor (may apply depending on interpretation).
- **Interstate Maintenance** – Eligible for transit purposes identical to NHS or STP funds, after transfer to these funds then to transit.
- **Highway Bridge Replacement and Rehabilitation** – Eligible for transit purposes identical to NHS or STP funds, after transfer to these funds and then to transit.
- **National Corridor Planning and Development Program** – Eligible for transit planning, coordination, design and locations studies, environmental review, and construction.

Although possible, significant amounts of flex funding may be difficult to obtain in Southwest Pennsylvania, as the unfunded highway need included in the SPC’s Long Range Plan exceeds $4 billion.

- **State Bond Funds** – Derived from state bond proceeds where the Commonwealth matches the FTA’s allocation of Section 5307 and Section 5309 formula funds. Specifically, to match FTA funds, the Commonwealth would provide 5/6 of the non-federal amount with the remaining 1/6 provided by Allegheny County or other local sources. Although the actual allocations of these funds are determined each annually, the region’s Transportation Improvement Plan (TIP) estimates that for fiscal years 2007 through 2010, the Port Authority of Allegheny County will have a total of $61 million as matches for federal capital funding.

- **Act 3 Dedicated Sales Tax** – These are state funds derived from the Supplemental Public Transportation Assistance Account (Act 3 of 1997), which allocates revenues at a rate of 1.22% of the state sales tax (and is capped at $75 million annually statewide). Beginning in 1998, the state also committed additional funding to the account in the form of additional state bond funds ($50 million per year) and Federal Flexible Highway funding of $25 million.

- **Act 26 Capital** – These are state funds from the Public Transportation Assistance Fund (Act 26 of 1991). Act 26 generates revenue from several sources including: a flat fee of $1.00 per new highway motor vehicle tire sold, a 3.0 percent tax imposed on the total lease price of a motor vehicle in addition to the current tax imposed, a $2.00 fee per day imposed on the rental of a motor vehicle, an additional 7.6 mills
per dollar to the Utility Realty Tax levied against public utility companies, 0.18 percent of the current utilities gross receipts tax, and 0.53 percent of the current sales tax. PTAF Funds used for capital assistance have a 3⅓ percent local match requirement. In FY 2006 PAAC received a combined $42.4 million for operating and capital costs from Act 26. Approximately $24.4 million of those dollars were used for capital expenses.

The Commonwealth of Pennsylvania currently does not have a dedicated level of transit operating funds, which has led to operating shortfalls in recent years. The state legislature is currently reviewing methods for stabilizing the funding situation for Pennsylvania transit operators; a report is expected in late 2006. Since legislative action will be required before any of the report’s recommendations can be implemented, it is uncertain if or when any improvements will be made with regard to state transit funding. Currently, potential sources of funds for operations and maintenance include:

- **Act 26 Operating** – The fund is comprised of revenues derived from several different sources and is referred to as the Public Transportation Assistance Fund (PTAF). PTAF revenues are derived from: a $1.00 fee per tire sold; a 3% tax on motor vehicle leases; a $2.00 per day fee on car rental transactions; 0.53% of the Commonwealth’s sales and use tax and hotel tax revenue; an additional tax assessment on public utility realty; and a 0.18% gross receipts tax on electricity sales in the Commonwealth. These revenues are matched on a 1:29 basis by Allegheny and Westmoreland Counties for their respective transit authorities. PTAF operating funds can only be used for certain operating expenses relating to vehicle maintenance, non-vehicle maintenance and materials and supplies. PTAF Funds that are not used in the fiscal year in which they were received are not eligible to be used for operating expenses; they can only be used for capital assistance.

Impacts, such as the Commonwealth’s deregulation of the electrical utility industry have affected the growth rate of some of these sources. While the overall outlook is positive for these funds to grow, PAAC and WCTA have been forced at times to constrain their operating budget to adjust for a shortfall in anticipated PTAF revenues. In FY 2006 PAAC received a combined $42.4 million for operating and capital costs from Act 26. Approximately $18 million of those dollars were used for asset maintenance expenses.

- **Pennsylvania Mass Transit Assistance** – State operating assistance is subject to annual appropriation by the Legislature and concurrence by the Governor. Historically, this revenue source has escalated about 3 percent every three years. This assistance has a local match requirement of 1:3 for each dollar received. In FY 2006 PAAC received approximately $73.6 M in state operating assistance.

- **State Bond Funds, Vehicle Overhaul (VOH) and Infrastructure Renewal Program (ISRP)** – These programs are funded as part of a $30 million per year allocation to the Port Authority of Allegheny County from an annual, $125-million statewide pool for capital investment and depreciation-related rehabilitation. Although the actual allocations of these funds are determined each annually, the region’s Transportation Improvement Plan (TIP) estimates that for fiscal years 2007 through 2010, the Port Authority of Allegheny County will have a total of $9.5 million of those dollars in the VOH program, $49.5 million in the ISRP program. These funds are 100 percent state dollars and require no local match.
In addition to the previously listed sources, there are possible new funding sources that could be implemented. Although none of these sources could fully replace the traditional sources, they could be used to supplement them. Potential sources include:

- **Benefits Assessment District** – Creation of a special district that taxes commercial property owners in partial compensation for the benefits from improved accessibility resulting from the project. Such a district could be considered for dense, commercialized areas surrounding station locations to help defray localized costs for maintenance and upkeep of facilities.

- **Joint Development** – Joint development involves a partnership or joint venture between a transit agency and a private developer to develop certain assets. Joint development is seen as a method by which private funds are used to develop transit property resulting in a profit for the private developer and a developed asset for the transit agency. Risks related to the development are either shared or borne by the transit agency or the private developer.

- **Certificates of Participation** – Certificates of Participation (COPs) are securities that represent interest in a stream of payments, typically a lease or installment sales agreement. A purpose-formed State entity issues tax-exempt bonds with maturities that match the lease term of assets (typically transit vehicles) that are purchased by the State entity with the proceeds from the bond issue. Assets are then leased back to transit agencies and the use of this financing mechanism versus up front payments, allows transit agencies to make larger purchases of vehicle assets sooner, thereby enhancing service.

- **Cross Border Lease** – Cross border leasing transactions are designed to enable a foreign entity to receive in its county the tax benefits associated with ownership of an item of equipment. These transactions are attractive to many transit agencies because the foreign entity, the "lessor" of the equipment, will pay the "lessee" (the transit agency) between approximately 3 percent and 7 percent of the cost of the equipment for entering into the transaction. These revenues are then available to the transit agency for any purpose.

- **State Infrastructure Bank** – Also referred to as State Revolving Loan Funds, this mechanism allows the State to use the initial capital, provided by federal transit allocations, to make loans, provide credit enhancement, serve as a capital reserve for bond or debt financing, subsidize interest rates, issue letters of credit, finance purchase and lease agreements, provide debt financing security, or provide other forms of financial assistance for construction of qualifying projects. Among other benefits, this provides an ongoing source of local capital in support of the State’s transit operators. This program is intended to serve small projects usually costing less than $100 M. SAFETEA-LU makes all 50 states eligible for the establishment of SIBs.

- **TIFIA** – The Transportation Infrastructure Finance and Innovation Act (TIFIA) provides for a loan guarantee program through the USDOT. It enables the FTA to provide loans and loan guarantees for up to 33 percent of a major project’s construction costs. Loans are made at U.S. Treasury rates, and may be repaid over
as long as 40 years. Special eligibility requirements, selection criteria, and a favorable credit rating are used to determine projects to receive TIFIA funding. This instrument is targeted at projects generally costing more than $50 M.

- **GARVEE Bonds** – Grant Anticipation Revenue Vehicles are grant anticipation notes (GANS) under which states pledge future federal aid funds to pay debt service on bonds issued for surface transportation projects. Advance FHWA/FTA approval is required and the proceeds are restricted to the approved projects with debt service payments made directly from federal funds.

- **FRAN** – Federal Reimbursement Anticipation Notes are “indirect” GANS which do not require advance federal approval of individual projects. Debt service is paid from the state’s overall federal aid reimbursement rather than through a specifically programmed project.

- **Tax Increment Financing** – The concept here is that new or improved infrastructure will result in increased economic activity and, therefore, increased tax receipts will be collected in the area of improvement. An existing level of a certain tax (often property tax) or taxes is established at a fixed point against which future tax receipts are measured. Thereafter, any growth in those receipts (the increment) is captured and some portion of it is dedicated to service the bonds sold to construct the project. One potential downside of this strategy is that the taxes dedicated to bond repayment are tax revenues foregone that could have been used for other local uses.
Appendix A: Study Newsletter
What is the Transitional Analysis?
The Eastern Corridor Transit Study Transitional Analysis to Locally Preferred Alternatives (ECTS-TA) is an extension of the previously completed Eastern Corridor Transit Study (ECTS). The ECTS considered public transit improvements in the area from the Golden Triangle to Westmoreland County between the Allegheny and Monongahela Rivers.

The purpose of the ECTS-TA is to complete the Alternatives Analysis process that was begun in the ECTS so that the recommended alternatives can move toward implementation. The study will set the stage for the next steps of the Federal Project Development Process (shown to the right) by choosing Locally Preferred Alternatives from those recommended in the ECTS. This will allow them to be eligible for future Federal financial assistance.

What is a Locally Preferred Alternative?
A Locally Preferred Alternative, or LPA, is a reasonable transit alternative that is technically feasible and has the support and financial backing of local residents, stakeholders and elected officials. It is determined through technical evaluation and comments received through public outreach.

How can I get involved?
Join us at our first round of public outreach. You can attend any of the following three public briefings:

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<th>Date</th>
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<tr>
<td>Thursday, March 2</td>
<td>12:00 – 1:30</td>
<td>Oakmont Borough Municipal Building</td>
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<td>Fifth Street at Virginia Avenue</td>
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<td>Oakmont, PA 15139</td>
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<td>Thursday, March 2</td>
<td>6:00 – 7:30</td>
<td>Norwin Public Library</td>
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<td>Irwin, PA 15642</td>
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<tr>
<td>Friday, March 3</td>
<td>12:30 – 2:00</td>
<td>University of Pittsburgh, Alumni Hall</td>
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<tr>
<td></td>
<td>pm</td>
<td>4227 Fifth Avenue</td>
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<td></td>
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<td>Pittsburgh, PA 15260</td>
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Each of these briefings will include a 45-minute presentation followed by a 45-minute question and answer session. The same information will be presented at each of the briefings. All locations are wheelchair accessible.

For information regarding transit services to the public meetings in Allegheny County, call Port Authority Customer Service at 412-442-2000 or access the trip planner on the Port Authority’s website, at www.portauthority.org. For transit information in Westmoreland County, call Westmoreland County Transit Authority at 1-800-221-9282.

You can also stay up to date by visiting the project website at www.spcregion.org/ECTS
Allegheny Valley – Commuter Rail: Arnold to downtown Pittsburgh

This alternative would provide hourly commuter rail service in the peak and every 90 minutes in the off-peak on an 18.3-mile route between Arnold and Pittsburgh’s Strip District. The service would be entirely along the Allegheny Valley Railroad, which parallels the Allegheny River. Stops would be in Arnold, New Kensington, Oakmont, Verona, Penn Hills and Pittsburgh. A bus shuttle would bring riders from the Strip District to the Golden Triangle.

Possible Updates: This alternative could be modified to reach farther into downtown Pittsburgh in lieu of a bus shuttle. It could divert from the Allegheny Valley Railroad near Washington Boulevard/Route 8 and follow the Brilliant Branch and Norfolk Southern’s Pittsburgh Line to Penn Station, at 11th Street and Liberty Avenue.

East Busway – Extension: Swissvale to Monroeville

This alternative would be a 6.6-mile extension of the existing East Busway, which currently extends from downtown Pittsburgh to Swissvale, paralleling Norfolk Southern’s Pittsburgh Line. This extension would allow public transit buses to travel on exclusive, bus-only roads as far east as Monroeville. New stops would be at Braddock, Keystone Commons and the Monroeville Mall. Service frequency for buses on the East Busway would be unchanged.

Possible Updates: This alternative could be modified to extend only as far as East Pittsburgh, at which point buses could leave the busway and enter the planned Mon-Fayette Expressway, the existing Tri-Boro Highway or other local roads.

Norfolk Southern – Commuter Rail: Greensburg to downtown Pittsburgh

This alternative would provide hourly commuter rail service in the peak and every 90 minutes in the off-peak on a 30.9-mile route between Greensburg and downtown Pittsburgh via the Norfolk Southern Pittsburgh Line. Stops would be in Greensburg, Jeannette, Irwin, Trafford, East Pittsburgh, Wilkinsburg and Pittsburgh.

Possible Updates: This alternative could be modified to extend beyond Greensburg to Latrobe along the same Norfolk Southern right-of-way.

Mon Valley – Light Rail: McKeesport and Etna to downtown Pittsburgh

This alternative would provide light rail service every 10 minutes in the peak and every 20 minutes in the off-peak between McKeesport and Pittsburgh (17.5 miles) and Etna and Pittsburgh (5.3 miles) via Allegheny Valley Railroad and CSX rights-of-way. Stops would be in McKeesport, Braddock, Rankin, Glen Hazel, Hazelwood, Greenfield, Oakland, Etna, Millvale and downtown Pittsburgh. Connections with the South Hills light rail lines would be possible at the Steel Plaza T station.

Possible Updates: If the Convention Center Branch of the North Shore Connector remains deferred, this alternative would have to be modified to include construction of that branch for its connection from Steel Plaza to the Allegheny Valley Railroad near the Convention Center.

Spine Line – Light Rail: Homestead/Wilkinsburg to downtown Pittsburgh via Oakland

This alternative would provide light rail service every 5 minutes in the peak and every 7½ minutes off-peak from the North Shore, through downtown Pittsburgh and Oakland to either Wilkinsburg or Homestead. The route would be entirely underground, except for the possible portion between Oakland and Homestead. Stops would be at the North Shore, Pittsburgh and Oakland and either Squirrel Hill and Wilkinsburg or Glen Hazel, Hazelwood, Greenfield and Homestead. Connections with the South Hills light rail lines would be possible in downtown Pittsburgh.

Possible Updates: This alternative could be modified to be at-grade for all or a portion of its length. Other routings or modes, such as Bus Rapid Transit, could also be considered.