

# East Light Rail Transit Concept

## The Alignment

The alignment concept that emerged from the design workshops replaces the existing East Busway, using the same alignment from Penn Plaza to Wilkinsburg. The possibility of routing trains from Steel Plaza to the Convention Center and then through the Strip District to connect to the busway corridor further east was also discussed with enthusiasm.

From Wilkinsburg the potential alignment followed the historic Pennsylvania Railroad corridor through Edgewood, Swissvale, Rankin, Braddock, and North Braddock to the vicinity of the Westinghouse bridge in East Pittsburgh. At this location the alignment shifted from the Pennsylvania Railroad corridor to a rail spur controlled by the RIDC that is located between Keystone Commons and Turtle Creek. At Turtle Creek the alignment leaves the rail spur corridor and swings north to follow the proposed Mon-Fayette Expressway alignment up Thompson Run past Monroeville Mall to a terminal station at the USX Cement Plant site in Penn Hills just north of Parkway East.

Stations would be located at Penn Plaza (or the Convention Center and Strip District), Heron Avenue/Polish Hill, Negley Avenue, East Liberty,

Homewood, Wilkinsburg, Edgewood, Swissvale, Rankin, Braddock/North Braddock, Keystone Commons/East Pittsburgh, Turtle Creek, Monroeville, and Penn Hills. These station sites are described in greater detail in the pages that follow.

Significant interest was expressed in “spurs” off of this conceptual mainline. The three alignments most often suggested were an Oakland connection up Neville Avenue to the Forbes/Fifth corridor, a crossing of the Monongahela River near Braddock to serve Kennywood Park, Duquesne, and McKeesport, and an extension from Turtle Creek to Penn Township along the rail alignment controlled by RIDC. These alignment concepts should be studied later in the planning process.

## The Investment

All participants in the design workshops were informed at the beginning of each session that constructing the East Light Rail Transit project involved the investment of hundreds of millions of dollars. They were also told that planning, design, and construction would take place in a ten to twenty year time frame.

Based upon past PAT success in obtaining funding for regional projects, it appears that the East LRT line would compete favorably for transit funds. PAT’s \$44.1 million cost per mile for the East LRT alignment between Penn Plaza and Rankin is 65 percent of the South

Hills Stage I cost of \$68.1 million per mile. The East LRT to Rankin cost also compares favorably with other PAT projects on a cost per rider basis, as shown in Table 1. The East LRT to Rankin cost per annual rider is only 26 percent of the South Hills cost and 25 percent of the North Shore Connector cost.

**Table 1**  
Cost per Annual Rider of PAT LRT Projects

Facility	Capital Cost (\$M)	Opening Year	1998 Capital Cost (\$M)	Daily Riders	Riders Actual or Forecast	Annual Riders (M)**	Cost per Rider (\$)
South Hills Stage 1	520	1987	818				
South Hills Stage II*	405	2003	405				
Total South Hills LRT	925	2003	1,223	40,000	Forecast	11.79	103.76
North Shore Connector***	389	2005	389	10,105	Forecast	3.63	107.46
East Busway LRT Conversion/Extension to Rankin	401	n/a	401	50,300	Forecast	14.82	27.05

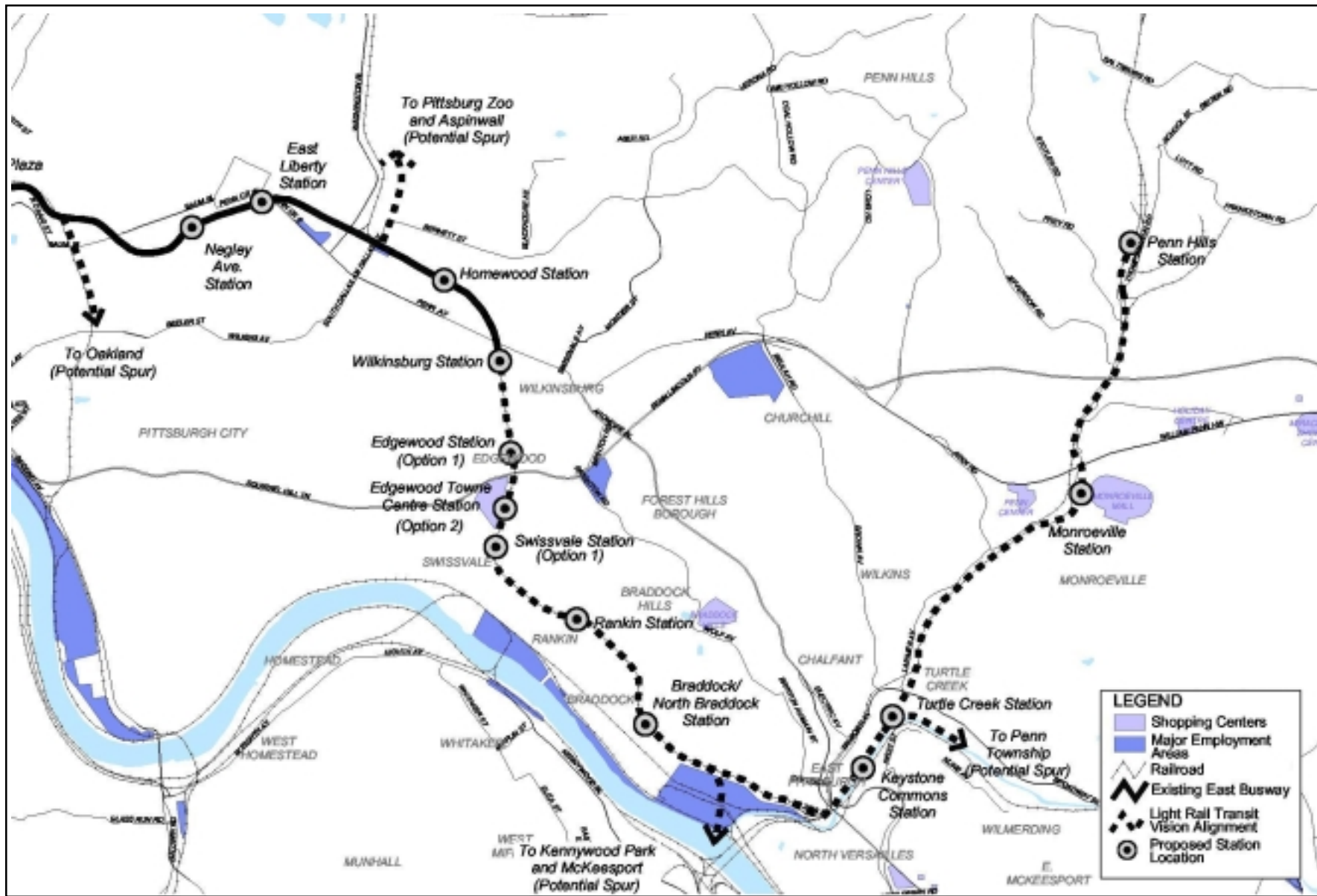
Source: Port Authority of Allegheny County

\*For Stage II priority project; no Drake and partial rebuild of Library

\*\* Assumes daily ridership on weekdays and 1/3 of daily ridership on weekends

\*\*\* Annual riders includes 640,000 annual sports event riders

Extending the East LRT beyond Rankin to Penn Hills would also compare favorably with other PAT projects. Although detailed analysis of costs and ridership between Rankin and Penn Hills has not been conducted, it appears that the 9-mile extension to Penn Hills would be less expensive on a cost per rider basis than the South Hills and North Shore lines, even in the extremely unlikely



event that the extension added no additional riders to the system.

Between 1983 and 2005 PAT has invested or plans to invest over \$1.8 billion in fixed guideway transit facilities, including the South Hills and North Shore LRT projects and the East Busway, East Busway Extension, and West Busway/Wabash HOV projects. Regional fixed guideway transit investment between 1983 and 2005 averages \$82.7 million per year. If this rate of investment can be sustained by PAT, the East LRT project to Penn Hills could be funded for construction completion within 10 to 20 years. Staging construction and/or innovative financing could open all or segments of the alignment years earlier.

## The Benefits

Community discussion to date of the conversion of the East Busway to light rail and its potential 9-mile extension to Penn Hills suggests that the investment would likely result in a public transportation system that will not only increase ridership, but also help focus development and redevelopment at light rail station areas in the communities served.

The communities of the TCVCOG understand that significant investment in transportation infrastructure takes time and rigorous study of the costs and benefits. The Major Investment Study proposed by SPC would serve as the

vehicle for a thorough discussion of the benefits of light rail transit to the East. Many potential local and regional advantages to the East Light Rail alignment have already been identified, including:

- Reduced reliance on the automobile and increased transit ridership. The potential exists for auto park-and-rides at selected rail stops, particularly at points of intersection with regional highways such as Parkway East, the Tri-boro Expressway, Routes 22 and 30, and the planned Mon-Fayette Expressway.
- Improved access to employment centers and enhanced labor force mobility. The light rail corridor would provide access to downtown Pittsburgh much as the current busway. The bi-directional nature of light rail transit and the ability to integrate a station directly into a commercial center (such as the Tech Center in Homewood, the Edgar Thomson Works in North Braddock, Keystone Commons in East Pittsburgh/Turtle Creek, the Monroeville Mall area, the “Cement Plant” site in Penn Hills, etc.) make the technology particularly well-suited for the corridor. The population density along the corridor is relatively high (8 to 20 people per acre) in comparison to the region.

- Improved access to redevelopment opportunities within walking distance of transit stations. Light rail would support the efforts of community development corporations and others in the economically depressed communities of Braddock, North Braddock, and Rankin.
- Enhanced visitor/cultural experience that helps promote unique local attractions such as the planned National Museum of Broadcasting, historic Braddock Carnegie Library, the planned Battle of the Monongahela/Braddock’s Field Museum and Visitor Center, and other existing and planned industrial heritage exhibits and interpretive sites.
- Improved access to health care facilities, senior citizen centers, public schools, facilities such as the Western Pennsylvania School for the Deaf, and recreation centers.
- Improved direct access to downtown Pittsburgh, with potential direct or transfer linkages to the South Hills, stadium developments north of the Allegheny, and the Airport.
- Enhanced operational efficiency, transit vehicle life span, handicapped and senior access compared to bus systems.
- Lower transitway noise levels and a reduction in local sources of air pollution.