



Penn Avenue Corridor Phasing Plan

Paving the Way for Community Revitalization

THE SITUATION

Penn Avenue stretches from downtown Pittsburgh through the City's East End and beyond. It includes the Penn Avenue Corridor, two miles of busy roadway that extends through the city's increasingly gentrified communities of Lawrenceville, Bloomfield, Garfield, Friendship and East Liberty.

In 2008, Pennsylvania Department of Transportation (PennDOT) identified the Corridor as a high priority improvement project and the City of Pittsburgh selected L.R. Kimball to move the project forward. Recognized for its collaborative project planning abilities, the firm was charged with developing a comprehensive Corridor Phasing Plan to analyze a broad range of transportation and community issues, from congestion, delays and safety considerations to parking and project costs. The proposed Phase I Improvement plan was endorsed and adopted by a broad range of constituents in 2009; preliminary engineering began in 2010.

- High accident intersections
- Minimal transit and cycling accommodations
- Poor wayfinding signage
- Empty tree pits and diseased trees
- Insufficient water and storm water systems
- Traffic delay and congestion

The new 10-acre Children's Hospital of Pittsburgh, that would open in Lawrenceville in 2009, would add to the congestion by attracting hundreds of thousands of visitors to the neighborhood. Adequate and appropriate infrastructure improvements beyond those included in the hospital construction plan would be essential if the Corridor was to safely absorb the additional influx of pedestrian, bicycle, automobile and bus traffic.

Finally, a limited project budget would require innovative thinking, open communication and ongoing collaboration among partners to ensure that project objectives were met in a timely, cost-effective manner.

THE CHALLENGE

Like many urban thoroughfares, the Penn Avenue Corridor is in serious disrepair. As the major artery for a gentrifying residential community and business district, it was also becoming increasingly congested and creating an array of community safety issues, including:

- Deteriorating pavement, sidewalks and curbs
- Deficient pavement markings
- Outdated and antiquated traffic signals
- Inadequate lighting that impacted safety

Project Overview

CLIENT

City of Pittsburgh, Department of Public Works, Bureau of Transportation and Engineering

Client Contact: Patrick Hassett, Assistant Director of Public Works, Bureau of Transportation and Engineering

GOAL

Develop a comprehensive plan to assist the City of Pittsburgh in its efforts to revitalize the Penn Avenue Corridor through targeted transportation improvements

L.R. KIMBALL SERVICES

- Transportation planning
- Multimodal planning
- Traffic engineering
- Highway engineering
- Smart transportation and sustainability design
- Complete streets
- Urban design and streetscaping

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All reports and analyses pertaining to the Penn Avenue Corridor Phasing Plan are available for public viewing on <http://www.lrkimball.com/070661>, a web site specially designed for this project.

THE SOLUTION

Backed by more than 50 years of experience and the in-house expertise of trained engineers, transportation planners, architects, surveyors, analysts and designers, L.R. Kimball developed and carried out a comprehensive needs analysis to identify the sections of Penn Avenue that demanded the most attention. The assessment of the Corridor's physical conditions and performance included extensive quantifiable data pertaining to:

- Pavement, sidewalk and curb conditions
- Street lighting
- Accidents
- Signal equipment condition
- Signing, pavement markings and parking
- Streetscape design
- Street trees
- Level of service and intersection delay from a traffic engineering perspective

The all-inclusive needs analysis also included:

- Detailed qualitative assessments developed in partnership with community groups, businesses, and state and local government entities that measured the impact of transportation issues on safety, community development, emergency services and other quality of life markers
- Community input, gathered at several public meetings, and with organizations such as Bike Pgh! to discuss cycling conditions and opportunities, the Port Authority of Allegheny County to assess public transit operations in the Corridor, and the Southwestern PA Commission to incorporate future regional traffic growth
- Exhaustive cost-by-block-and-intersection analyses, which resulted in budget-sensitive recommendations to carry out improvements geographically, by city blocks and intersections, based on need and affordability

To ensure the long-term sustainability of the project, the team also incorporated Smart Transportation and Complete Streets guidelines, sustainability concepts and context solution principles into the recommended design.

THE RESULTS

L.R. Kimball's attention to detail, commitment to quality engineering and ability to work well with diverse constituencies resulted in a meticulous planning document that earned the respect and support of community groups, state, federal and local agencies, and elected officials.

The plan included below-budget technical recommendations for Phase I improvements to renovate five intersections, three of which are signalized. Expected Phase I and II improvements range from total pavement reconstruction to the installation of bicycle racks, and address the physical and operational deficiencies identified above as project challenges.

L.R. Kimball remains actively involved in the project and will be providing extensive preliminary engineering and final design services throughout Phases I and II, including:

- Environmental assessments
- Surveying and mapping
- Traffic signal design
- Signing and pavement marking plans
- Traffic control
- Right-of-way investigation
- Geotechnical engineering
- Street lighting
- Sidewalk and curb design
- Utility investigation
- Vault inspection
- Streetscaping and urban design
- Public and agency participation
- Roadway design
- Roadside and intersection safety
- Drainage and storm water management

Phase I preliminary engineering begins in 2010. Construction is scheduled for 2012. Phase II design is anticipated to begin in early 2012 and conclude by 2013.



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Established in 1953, L.R. Kimball is among the nation's leading professional service companies offering its clients architectural and structural, mechanical and electrical design services, security systems designs, civil, environmental and transportation engineering expertise, communications technology solutions and consulting. With a focus on targeted results, expertly managed, L.R. Kimball is committed to offering its diverse public and private-sector clients a tailored approach designed to meet their needs and budget requirements. Headquartered in Ebensburg, Pa., the company employs more than 550 people at 10 locations in Pennsylvania, New Jersey, Texas, West Virginia, and Virginia.

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