



Bethlehem Transportation Center

Pedestrian, Streetscape & ADA Improvements

Prepared for consideration by:

Lehigh Valley Transportation Study for the FutureLV / Long Range Transportation Plan

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Executive Summary

Bethlehem, Pennsylvania, is a centrally located small city boasting major colleges, multi-facility hospitals, several museums, concert and sports facilities, and numerous industrial parks. These institutions employ thousands of workers, many of whom choose to, or by necessity, use public transportation. Situated between Allentown and Easton, cities with newer intermodal/transportation centers, Bethlehem’s LANta Transportation Center is due for amenity improvements, which can support also the recent addition of Trans-Bridge and Bieber buses to New York City and Philadelphia.

This proposal is divided into two phases. Phase 1 aims to make the optimize use of existing Bethlehem Transportation Center (BTC) facilities by upgrading sidewalk amenities, providing: ADA improvements, additional bus shelters, seating, and electronic information kiosks. Phase 2 looks to 20 year forecasted future growth and proposes a feasibility study to seek an alternate location for a permanent city transportation center that best serves the many constituencies of this city.

Introduction

With thousands of workers at colleges, hospitals, and industrial parks, Bethlehem needs a full-service transportation center. Students from all over the world arrive at the city colleges from New York, Philadelphia, or the Lehigh Valley International Airport. These students need to find their way to their colleges by public transportation. In fact, a demographic change that should be considered is that many college students are intentionally not bringing their cars because they choose not to own a car. Public transportation is as important to these students as it is for the people who work in Bethlehem but live in other areas of the Lehigh Valley. An upgrade to the overall experience at the Bethlehem Transportation Center (BTC) in downtown Bethlehem can benefit everyone who resides in this busy, growing city.

Phase 1 of this project implements cost-effective transportation improvements that will benefit thousands of people daily, including public transit passengers, local businesses, residents, and visitors. Upgrades proposed are improved shelters and benches for waiting passengers, ADA & crosswalk improvements, and electronic information kiosks displaying approaching buses. The proposed changes in Phase 1 will also provide a more open, community plaza-type feel to the bus waiting and loading areas. This will improve the appeal of the area for local businesses who desire aesthetics, comfort, and security.

Serving a Wide Demographic

Having the Bethlehem Transportation Center (BTC) at Broad & Guetter has many positive aspects. It promotes a connected downtown community where public transit is encouraged through proximity and convenience. The BTC is in direct line with major east-west LANta Bus routes that connect Allentown and Easton, including upcoming Bus Rapid Transit (BRT) routes. The BTC also connects intermediate municipalities (Bethlehem Township, Freemansburg, Palmer Township, and Hanover Township), and municipalities to the north and south (Hellertown, Lower/Upper Saucon, Nazareth, and Wind Gap). The BTC provides transit access from nearby public housing for seniors and Moravian College. Lehigh University and southside residents are a 10-minute bus ride away, served by five LANta bus routes from the BTC.

The BTC is truly Bethlehem's intermodal center, serving many diverse demographic groups daily:

- 2,000 LANta trips per weekday on 17 routes
- 150 Trans-Bridge Lines & Bieber bus riders per weekday in 24 & 8 trips respectively
- North Street parking garage users
- Lehigh University and Moravian College students
- Hospital patients and employees
- Nearby residents
- Hyatt Place hotel visitors
- Many other local businesses within two blocks
- Downtown visitors for fests and events

All bus patrons are pedestrians when they pass through the BTC. Some use the facility as they embark for New York City, Newark Airport, and Philadelphia. Observing the flow of people on the sidewalk, one can see the need and opportunity to improve the experience and interactions on this landscape.

Existing challenges include:

- Insufficient sidewalk width for actual pedestrian volume. A current width of 6' meets ADA minimums, but is cramped during peak times, which happens hourly.
- Inadequate seating and minimal shelter for passengers waiting for their buses.
- Lack of warmth in the winter and shade in the summer.
- ADA access limitations. Sidewalk gaps of 1" are common, making it difficult for wheelchair users. Crosswalk wheelchair curb ramps are lacking in some places.
- Trash and debris, especially cigarette butts accumulate quickly on the sidewalk.
- The only *de facto* shelter for the south platform is the awning of a private salon business. Additional shelter provided in proximity will lessen the demand for people to stand in the doorway to stay dry when raining or to stay cool during summer heat.
- The indoor Trans-Bridge ticket office and waiting room has only about a dozen seats, so most people waiting for buses must stand outside.
- Windows in the Trans-Bridge waiting room are so high that no one can see when a bus arrives.
- The only indication of which bus to take and when it will arrive are CAT part-time volunteers on the platforms who help when asked. There is no large system map to understand which bus to take where. Printed route schedules are provided if one knows which route they need.
- An informal survey of LANta Bus riders was taken during January 2019. Feedback was received from 20+ riders.

Phase 1 – Immediate Amenity Improvements

Project Location

The project will be located at the Bethlehem Transportation Center, also known as “Broad & Guetter”, Bethlehem’s transit hub for LANta bus, and more recently, a key downtown stop for Trans-Bridge Lines and Bieber Bus. The project will include improvements along sidewalks, crosswalks, LANta bus passenger waiting area, and the Guetter Street public right-of-way.

The project is located entirely in the City of Bethlehem, Northampton County.

1. Primary project scope is located along Guetter Street between West Broad Street and West North Street, including the sidewalks and public right-of-way crossing West Raspberry Street. Scope area also includes the LANta-leased space in the North Street parking garage.
2. Secondary project scope is along West North Street between Main Street and North New Street.

Bethlehem Transportation Center - Existing Layout

The Bethlehem Transportation Center (BTC) is the primary hub for LANta in the City of Bethlehem. The BTC runs along the western sidewalk of Guetter street, a two-way, low traffic volume street that runs north and south. The BTC is one city block long from West Broad Street to West North Street, intersected only by West Raspberry Street, an alley that runs one way from east to west.

South Platform (Platform 1). BTC’s south platform is alongside the property of 60 West Broad Street, a 3 ½ story office building. At the south platform, there are two uncovered benches and no shelter, providing seating for a total of four people.

North Platform (Platform 2). BTC’s north platform is alongside the Bethlehem Parking Authority’s North Street Garage. At the north platform, there are four uncovered benches along the sidewalk, a covered waiting area for LANta passengers with three benches, a public restroom, and a ticket office operated by Trans-Bridge Lines. CAT coordinates three Adopt-a-Bus Stop volunteers who open the public restroom at 9am and lock it at 7pm, as well as cleaning up litter and helping as-needed.

Description of Planned Improvements

1. Enhanced Bus Loading Plaza

Figure 1 shows the streetscape of the Bethlehem Transportation Center and some of the planned improvements for Phase 1. Elimination of parking on the east side of Guetter Street allows the sidewalk on the west side of Guetter to be widened by 6 to 8 ft. Widening the sidewalk will create a more comfortable and spacious pedestrian area along Guetter Street. Since this is where bus passengers wait and load, this space can be very useful. Expanding the sidewalk allows more space to install benches and shelters for waiting passengers. Locating the new bus shelters (Figure 2) close to the curb will draw pedestrian traffic away from the side of the 60 West Broad Street building.

In order to accommodate the widened sidewalk, and removal of on-street parking, the existing traffic signals and street centerline will be realigned, and one storm sewer inlet will be relocated to the new curb edge.

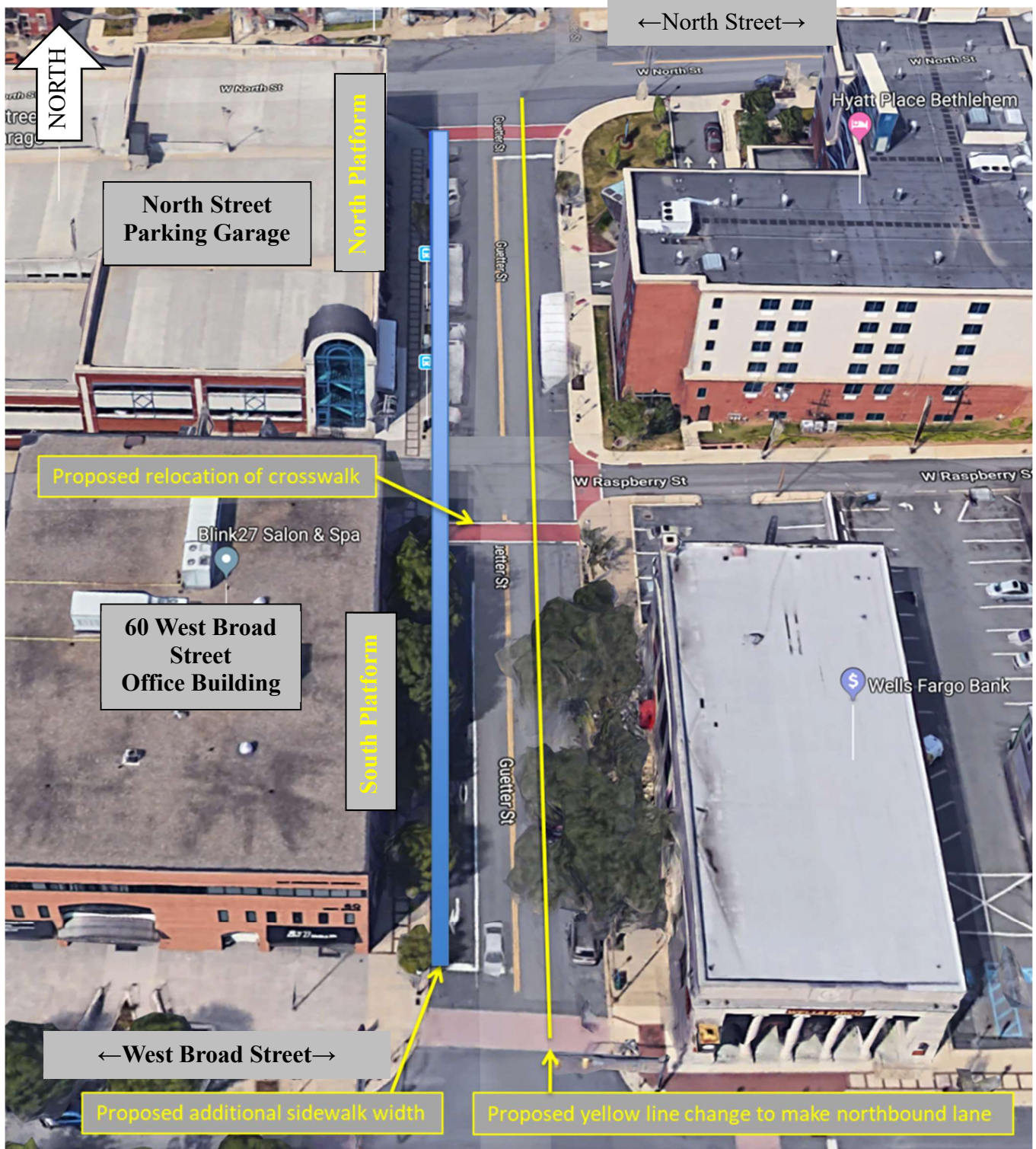


Figure 1. Location of the Bethlehem Transportation Center on the west side of Guetter Street (shown on the left). The waiting room is at the top left within the North Street Parking Garage. With the removal of parking on the east side on Guetter, the yellow centerline marking the northbound lane on the right can be moved. The space saved may be used to widen the sidewalk on the west side of Guetter about 6 to 8 ft, which will also shorten pedestrian crossing distance across Guetter Street. Figure also shows that the crosswalk at W. Raspberry Street should be move to the southern side of W. Raspberry St.

2. Upgraded Bus Shelters

South Platform (Platform 1). Since the 60 West Broad St building has numerous windows and landscaped plantings, the best opportunity to install new bus shelters is on the sidewalk near the curb if the sidewalk is widened. This part of the project includes three (3) shelters along the south platform.

Shelters will be of upgraded style and construction to tie them into the iconography of downtown Bethlehem, while providing functionality and security for bus passengers.

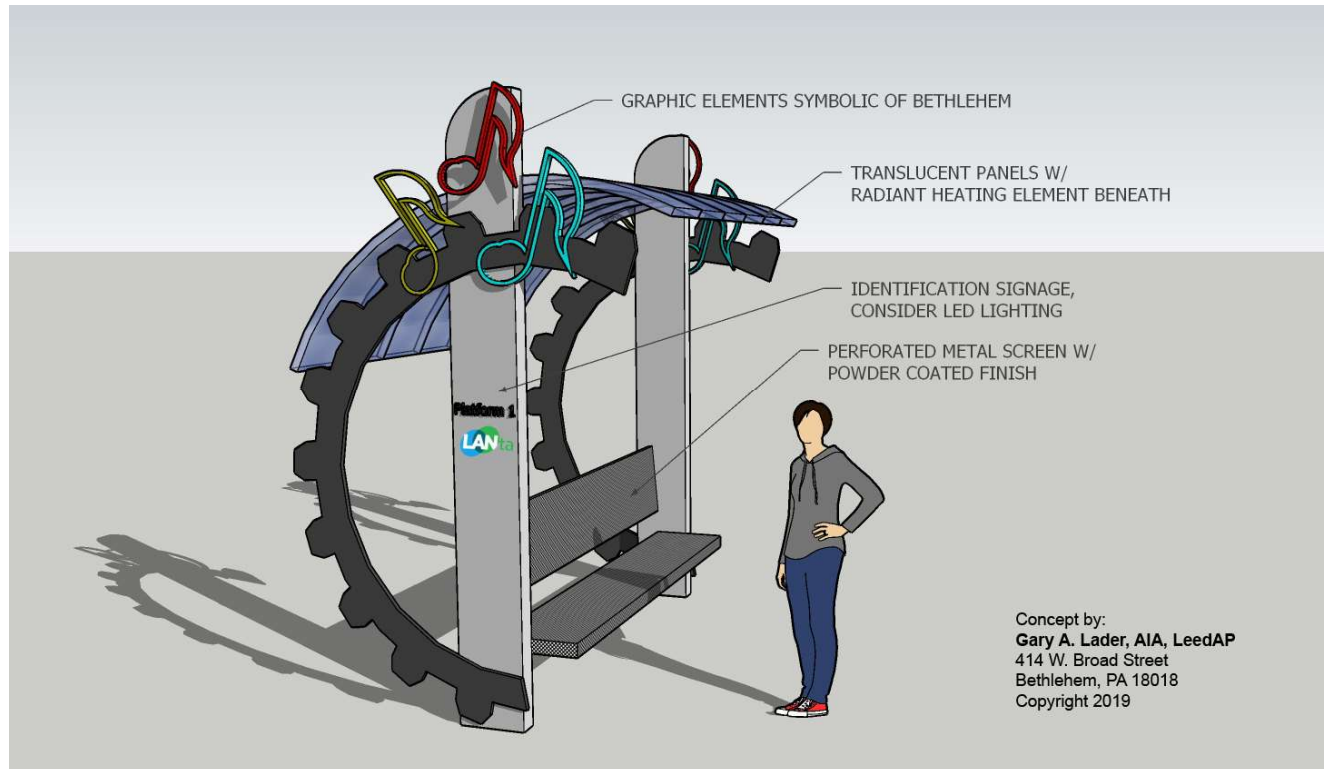


Figure 2. Concept diagram showing the major features of the upgraded bus shelters to be installed along the curb area of the widened sidewalk at Platform 1 and Platform 2. Although not shown here, there will be a place under the canopy for a wheelchair next to the bench.

Shelters will have benches, space for wheelchairs, translucent roof panels, lighting, and infrared radiant heaters (with motion sensors) in their ceilings that will run during bus operating hours (Figure 2). Shelters will meet ADA requirements for those who are visually-impaired and will include a center armrest.

North Platform (Platform 2). Three (3) upgraded bus shelters (see Figure 2) will be installed on the north platform matching those proposed for the south platform.

The existing cantilevered, utilitarian steel canopy covering the ADA access ramp will be replaced with an upgraded design and lighting to match the proposed new shelters (Figure 2).

One additional cantilevered canopy of quality style and construction will be hung from the outside wall of the parking garage next to the canopy being replaced. This canopies will also have lighting in their ceilings. For best use of space, existing shrubbery along the edge of the building will be removed.

3. ADA Upgrades

To better meet current standards for the Americans with Disabilities Act (ADA), the following upgrades are proposed:

- Smooth entire existing sidewalk surface to eliminate all gaps
- Provide curb ramps at crosswalks
 - Repair to have flush transitions
 - Correct transition angles to be less steep (Guetter & W. North St., SW corner)
 - Add curb ramps where none currently (Guetter & W. Raspberry St, SW corner)
 - Add detectable warning surface across W. Raspberry St.
- Smooth transition at the top of the existing ramp leading into LANta covered waiting area

4. Crosswalks

- Mark crosswalks where not currently marked (Guetter St. crossing W. Raspberry St., west side)
- Relocate the marked crosswalk at W. Raspberry Street to the southern corners and provide proper ADA curb ramps (W. Raspberry St. crossing Guetter St., west side and east side)

5. Electronic Information Kiosks and Waiting Area System Map

This project budgets for four (4) video screens that will display a schedule for all buses that are departing over the next two hours. Video screens will be placed where they are visible from each of six new bus shelters (Figure 2), in the LANta covered waiting area, and in the Trans-Bridge Lines ticket office.

These electronic signs also display popular destinations served by LANta bus routes, i.e. Lehigh University, Lehigh Valley International Airport, Moravian College South/North Campus, etc.

Also, a large LANta system map board (non-electronic) showing all LANta routes, will be provided in the waiting area outside the ticket office to help passengers understand which routes serve their intended destinations.

6. New Windows for the Ticket Office/Waiting Room

The Trans-Bridge Lines waiting room currently has no visibility of the North Platform where buses arrive and depart. Thus, waiting passengers have no way to know when their bus has arrived. To see buses arriving just outside the waiting room wall, new, larger windows will be installed across the eastern wall of the ticket office waiting room.

7. Roadway Improvements for Bus Traffic

Improving the asphalt quality and profile for buses turning right from Main Street onto West North Street will help prevent tour buses (Trans-Bridge and Bieber) from scraping their tales. These buses are 5' longer than LANta buses and are routed from North New Street to avoid this conflict point.

8. Overnight Parking for Buses Visiting Hyatt Place Hotel

A consideration of removing on-street parking on the east side of Guetter Street is that buses visiting the Hyatt Place hotel will lose their parking proximity. A solution, if accepted by City traffic department would be to allow overnight parking for a single bus on W. North Street between the parking garage entrance and the corner of Guetter Street (80' curb length available). This parking location would not be used for transit buses.

Phase 2 – Planning for the Future

Phase 1 of this project provides only the necessary cost-effective upgrades to make the present facility pleasant and easy to use. However, considering the importance of a transportation hub for the City of Bethlehem, a feasibility study (Phase 2) should be prepared to plan for an expanded purpose-built transportation center that would serve the City and its environs. This is likely to become especially important if in the future commuters in private cars are limited in New York City and Philadelphia by those cities charging an entrance fee or by some other means. Add to this the recent trend of young adults choosing to live without the cost of owning and maintaining a car. There also a growth potential in Bethlehem colleges, hospitals, and industrial parks. For example, Lehigh University has announced it plans to increase its student population by 1,000 students in the near future.

Project Costs

Phase 1

Total project costs include budgetary estimates for Preliminary Engineering, Final Design, Right-of-way Acquisition, and Utility Relocation:

Construction:

- | | |
|---|-----------|
| 1. Widening existing sidewalk..... | \$44,000 |
| 2. Traffic signal realignment..... | \$30,000 |
| 3. Roadway striping..... | \$10,000 |
| 4. Reinforced asphalt..... | \$30,000 |
| 5. Relocating storm sewer inlet (1)..... | \$8,000 |
| 6. ADA curb ramps (3)..... | \$18,000 |
| 7. Decorative crosswalk markings..... | \$80,000 |
| 8. Resurfacing existing sidewalk..... | \$20,000 |
| 9. Bus shelters w/lighting (6)..... | \$120,000 |
| 10. Radiant heaters for shelters (6)..... | \$18,000 |
| 11. Canopies w/lighting (2)..... | \$40,000 |
| 12. Electronic information kiosks (5)..... | \$100,000 |
| 13. Windows for ticket office/waiting room..... | \$30,000 |

Total for Construction.....\$548,000

Preliminary and Detailed Engineering.....\$110,000

Total Phase 1 Project Cost.....\$658,000

Phase 2

The Phase 2 feasibility study is likely to cost about \$50,000.

Acknowledgements

This report was prepared by CAT-Coalition for Appropriate Transportation, a 501(c)(3) non-profit, based in Bethlehem, serving the Lehigh Valley for 25 years.

CAT improves mobility, celebrates our community and the environment, through education about safe pedestrian access, bicycling, public transportation, and trail systems.

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