

# APPENDIX A

## CITATIONS FOR THE NORTH BEACON HILL HISTORY

The following citations are the original sources for the essay cited in *3 Context*.

- Bagley, Clarence. *The History of Seattle*. (Chicago: S.J. Clarke Publishing Co., 1916). 357-363.
- Bush, James. "Prickly Holly." *The Weekly*: March 11-17, 1999. Website. [www.seattleweekly.com](http://www.seattleweekly.com).
- "Chicano activists occupy abandoned school that becomes El Centro on October 11, 1972." *Ibid.*
- "Duwamish Diary." (Seattle: Cleveland High School, 1949). 90-109.
- "Interstate 5 completed from Everett to Tacoma on January 31, 1967." *Ibid.*
- Lange, Greg. "King County's First White Settlers." Cyberpedia Library. [HistoryLink.org](http://HistoryLink.org). Website. [www.HistoryLink.org](http://www.HistoryLink.org).
- McOmber, J. Martin. "Amazon Searches for Big Office Digs." *The Seattle Times*. February 8, 2005. <http://seattletimes.nwsources.com/html/home/index.html>.
- "Pac Med: Looking Back." Pacific Medical Centers. Website. [www.pacmed.org](http://www.pacmed.org).
- Pryne, Eric. "Wright Runstad Faces Foreclosure on Former Amazon HQ." *Ibid.*, September 27, 2011.
- "Seattle's first military road is completed in 1860." *Timeline Library*. *Ibid.*
- "Seattle pesthouse shelters 27 smallpox patients on December 26, 1892." *Ibid.*
- Shapiro, Nina. "Dressing up the Projects." *Ibid.*, December 23-29, 1999.
- Sherwood, Don. "Jefferson Park Golf Course." *Interpretive Essays on Seattle Parks*, Vol. 3. (Seattle: Seattle Parks and Recreation Department, 1974).
- Stein, Alan J. "Beacon Hill Library and its Neighborhood." *Ibid.*
- Wilma, David. "Sand Point Naval Air Station: 1920-1970." Cyberpedia Library. [HistoryLink.org](http://HistoryLink.org). Website. [www.HistoryLink.org](http://www.HistoryLink.org).
- Wilma, David. "Seattle Neighborhoods: Beacon Hill — Thumbnail History." [HistoryLink.org](http://HistoryLink.org). Website. [www.historylink.org/File/3004](http://www.historylink.org/File/3004).

# APPENDIX B

## FEEDBACK FROM AGENCY PARTNERS

### Summary of Community Comments Shared with Sound Transit on Oct 23, 2019

#### Feels unsafe (security)

- Bamboo groves function like walls and make poorly lit areas where people can hide.
- Not enough lighting around the station.
- Wish there were stairs in case of emergencies.
- The platform is often deserted and there are nooks in the station for people to hide.
- Muggings occur, and women are followed home.

#### At Plaza-Level

- Orca card readers should be at the station-level as well.
- Tactile strips should lead to the elevators.
- Information re: the train schedule should be available to avoid spending time underground.
- Plaza gets crowded as people wait for elevators.

#### Elevator

- Should be allowed to press the call button for the next elevator while other door is open.
- Elevator doors are slow to stop (dangerous for disabled riders and children).
- Elevators are slow.
- The light and bell to indicate that the elevator has arrived has been broken (the elevator closest to southbound train on tunnel level).

#### At Station-Level

- Overhead signs on platforms are not well lit.
- It's cold waiting at the platform.

#### Tickets

- Instructions are only in English and not in other languages.
- The screen on the ticket machines is hard to read in the sun.
- Lighting is poor at the vending machines.
- Ticket machines instructions are not intuitive.

#### Schedule

- Trains need to run more frequently.
- Trains need to run earlier and later, but especially earlier. Light rail is not an option for those who work a 4 or 5 am shift downtown or at the airport.
- Need more cars.
- Need more trains on sporting event days and holidays.

#### Affordability

- Not affordable when making transfers from bus to light rail or doing round trip on light rail.

#### Misc.

- How about having ST ambassadors who can provide information, help with translation, and provide eyes on the plaza/station at the same time?
- Bike parking cage is not being used.

## Summary of Community Comments Shared with King County Metro Staff on May 14, 2018

### Summary of What We've Heard

Issue	Description	Design Response
Pedestrian Safety + Traffic Flow	Buses bunch at southbound stop (36, 60, 107) in front of Red Apple at Beacon Ave S and S Lander St and impede traffic across Lander into the intersection	Explore moving the bus stop further south
Pedestrian Safety	Dangerous crossings for those transferring from light rail to bus and vice versa (City implemented mountable median, but sentiment is that it is not effective)	Pedestrian activated signal at Beacon Ave and Lander St (interim solution); City exploring what the long-term solution might be
Public Safety	Muggings at bus stops along Beacon Ave	Put in more lighting
Transit Rider Safety	A concern for seniors and those with mobility issues: <ul style="list-style-type: none"> <li>Buses are leaving the bus stop before passengers who boarded have had a chance to sit down</li> <li>Buses not pulling all the way to the curb so those alighting cannot step off the bus directly on to the curb</li> </ul>	N/A  Explore to see if it's a street design issue
Affordability	Cost prohibitive for seniors and families due to two-hour limit on transfers being double charged when transferring from bus to light rail	N/A
Frequency	Buses don't run frequently enough at night between downtown and Beacon Hill to accommodate shift workers	N/A

### Outreach Audiences

Organization/Location	Target audience	Date
Lee Family Association	Mandarin speakers	3/18/18
Beacon Hill Council	General	4/3/18
Franklin High School	Youth	4/5/18
Plaza Roberto Maestas	Renters, Spanish	4/12/18
SHA Beacon Tower	Renters, Cantonese speakers	4/17/18
Walking Audit	People with mobility issues	4/30/18
Beacon Hill Library	Mandarin speakers	5/2/18
International Drop-in Center	Tagalog speakers, Seniors	5/11/18
The Station	Residents	5/19/18
Keiro Northwest	Staff	5/24/18
Beacon Hill Fest	General	6/2/18
Pop-up at Beacon Ave S (on sidewalk adjacent to Red Apple parking lot)	Transit users	10/23/18
Pop-up at Beacon Hill library entrance area	Library users	10/25/18
Online survey	English, Spanish, Simplified/Traditional Chinese, Vietnamese, Tagalog, Somali, Japanese	LIVE

# APPENDIX C

## DESCRIPTION OF EVALUATION CRITERIA AND MEASURES



### SAFETY

*Improves safety for people walking, biking, using transit, and/or driving.*

- Improves Bicycle and Pedestrian Safety Analysis (BPSA) locations or Vision Zero hot spots
- Improves delineation of space for people walking and/or biking
- Provides in-street traffic calming
- Improves safety at night



### CONNECTIVITY AND MOBILITY

*Improves movement between destinations and connects walking, biking, and/or transit networks.*

- Improves connectivity to Beacon Hill Light Rail Station within 1/8 mile
- Improves connectivity to civic or institutional destinations
- Connects missing link between two existing facilities
- Improves ADA accessibility



### HEALTH

*Enhances health by reducing pollution, adding green space and encouraging activity.*

- Promotes better air quality
- Encourages active transportation



### EQUITY

*Addresses the needs of people who are underserved (e.g. people of color, non-English speakers) and/or are vulnerable (e.g. people with disabilities, seniors, children, low-income).*

- Satisfies expressed needs of underserved populations
- Incorporates improvements specifically for vulnerable users
- Supports improvements that enhance access to, or the speed/reliability of, buses



### LIVABILITY

*Supports or promotes community connections and a sense of place, and provides space or improves experience for people walking, biking, and/or riding transit.*

- Creates or enhances spaces for community gathering and activation
- Enhances a public space to support local business
- Serves areas zoned for higher density and/or future development



### IMPLEMENTATION

*High-level feasibility for implementing the project.*

- Estimated cost
- Project complexity



### COMMUNITY SUPPORT

*General level of support within the community.*

- Addresses concerns expressed by the community
- Aligns principles and projects identified in previous community plans
- Aligns with City's modal plans

# APPENDIX D

## ADDITIONAL PROJECTS

The projects below in previous City, County, and Community reports (see page 9) are identified but did not emerge as high priorities following our outreach and project evaluation. While they are not priorities, they may be of interest to some residents.

Project Name
<b>Beacon Ave S Priority Bus Corridor</b> Recommend that bus stop improvements (lighting, ADA access, etc) are included with this project.
<b>S Spokane St mixed-use path (east of Beacon Ave S)</b> The adjacent property is the Jefferson Park Golf Course, so would be a partnership with Seattle Parks and Recreation.
<b>18th Ave Neighborhood Greenway Improvements</b> Neighborhood Greenway standards have evolved since the opening of the 18th Ave Greenway opened in 2010. Improvements could include some spot repairs of streets and sidewalks
<b>Complete streets redesign for S. Spokane St. Viaduct at grade to Beacon Hill</b> Recommend that any improvement provides multimodal access, including a safe bike and pedestrian connection.
<b>Traffic calming at 14th Ave S / S McClellan St</b> Engagement and project evaluation suggested this was a lower priority.
<b>Traffic calming at Lafayette Ave S / S Horton St</b> Engagement and project evaluation suggested this was a lower priority.
<b>Greenbelt stair connection</b> Engagement and project evaluation suggested this was a lower priority.

# APPENDIX E

## BEACON AVE CORRIDOR STUDY - RECOMMENDED NEXT STEPS AND COSTS

### 1. Data Collection and Existing Conditions

*Estimated Cost: \$10,000 – \$20,000*

The first step is an evaluation of existing data and collection of supplementary data, building on this Station Area Access and Mobility Study. This may include new and updated traffic counts for Beacon Ave S intersections, depending on how much time has passed since this study was published. Data to update or initiate may include the following:

- Existing and planned bicycle facilities
- Collision history data
- Sidewalk and crossing assessment
- Transit ridership data
- Vehicle, pedestrian, and bicycle counts
- Parking utilization data
- Roadway geometry
- Survey work

### 2. Baseline Trends and Forecasts

*Estimated Cost: \$10,000 – \$15,000*

To provide a more-detailed assessment of the corridor scenarios, a clear understanding of the range of expected vehicle and transit volumes in the future must be established. The process will involve the following elements:

- **Traffic volume trends and forecasts** – General traffic volume forecasts will need to be documented for the North Beacon Hill neighborhood (including Beacon Ave S, 15th Ave S, 16th Ave S, 17th Ave S). Potential horizon years for analysis include 2025 and 2035.

- **Future transit agency plan integration and transit volume forecasts** - Elements to be evaluated and incorporated into the transit volume estimates include planned RapidRide routes and Metro Connects service investments in addition to levy projects and the Seattle Transit Master Plan objectives.
- **Bicycle/pedestrian trends** – A conceptual review of current bicycle demand (where data is available), planned bicycle infrastructure, and pedestrian volume estimates with future land use development projects, will provide a high-level perspective on how bicycle and pedestrian volumes may increase in Beacon Hill.
- **Shared mobility trends** – Recent research on shared mobility services, including curb space management and operating conditions will provide context for how emerging transportation technology may impact the expected demand for these services.
- **Mode share estimates** – Leveraging recent commute mode surveys and integrating the above subtasks, future mode share will be forecast for travel on Beacon Ave S.
- **Site visits** - Conduct site visits as deemed necessary to investigate visible field conditions that specifically pertain to the scope of design services.

### 3. Development and Evaluation of Conceptual Scenarios

*Estimated Cost: \$30,000 – \$40,000*

- Identify and develop scenarios for evaluation. Building on the Study, scenarios may include variations of different elements such as:
  - Traffic reroute to 15th Ave S and S McClellan St as identified in the 2010 Neighborhood Plan
  - Traffic calming measures on Beacon Ave S

- Removal of two-way left turn on Beacon Ave S
  - Removal of parking on Beacon Ave S
  - Options for targeted transit priority infrastructure
  - Options or alternatives for bicycle infrastructure
  - Identify and develop quantitative measures, which may include the following metrics:
    - Travel times (all modes weighted by person-hours of travel), impacts or benefits to other corridors, safety, adaptability of the design, feasibility, agency complexity, and estimated cost
    - Level of traffic stress for bicyclists and pedestrians
    - Corridor or intersection vehicle level of service (LOS)
  - Compare options to a “no build” (do nothing) scenario to understand their trade-offs and implications and to identify one or two options to carry forward into the detailed operational analysis phase.
- **Methodology and assumptions development.** Specific assumptions and methodology will be developed and confirmed with the project team. This includes operational assumptions such as finalized traffic and transit volume forecasts, design years, light rail passenger demand, and bicycle demand and facilities.
  - **Operational evaluation.** Depending on available existing and future year VISSIM models, this task will include baseline traffic (motorized and non-motorized) data collection, and the validation and calibration necessary to develop and update a full network. Detailed operational analysis will be performed using SimTraffic or VISSIM to provide microsimulation evaluation. Specific evaluation criteria will be confirmed during the methodology development process, and may include:
    - Modal travel times and level of service (vehicle, transit, pedestrian, bicycle, and freight)
    - Impacts and benefits to other corridors
    - More detailed planning-level cost estimates
  - **Signal timing optimization.** In addition to the operational evaluation, the study should optimize signal timing along the Beacon Avenues corridor for the preferred alternative. Signal timing should be adjusted to meet identified project goals, and quantitative and qualitative metrics.

#### 4. Operational Analysis of Scenarios

*Estimated Cost: \$70,000 to \$120,000\**

Build upon the conceptual analysis to develop a detailed operational assessment of the scenarios under consideration. The significant range in budget is due to the uncertainty in the number of scenarios and horizon years, and the type of traffic simulation to be performed (SimTraffic or VISSIM). This phase includes the following steps:

- **Detailed revision of scenarios for analysis.** The scenarios carried forward from the conceptual analysis will be revised as needed to perform a more-detailed operational analysis. This may include specific transit routing pathways, pedestrian crossing treatments, signal coordination, and transit priority infrastructure. This task will provide enough detail to determine a planning-level conceptual cost estimate.

\*There are a number of factors driving the larger range in the budget estimate, including the number of scenarios for evaluation, whether there are existing VISSIM models that can be adapted for the analysis, and the level of detail required to fulfill the needs of SDOT at this stage in the project development process. The budget required may exceed this initial estimate depending on the final methodology and requirements established for the analysis.

## 5. Conceptual Design of Preferred Scenario

*Estimated Cost: \$45,000 to \$60,000*

Prepare a preliminary design based on available information, understanding of the existing conditions and project requirements, and understanding of best practice with respect to design of the project elements. The design will not address possible project conflicts with existing conditions that are outside of transportation expertise. Further detailed design and analysis would be necessary prior to implementation.

## 6. Project Management, Meetings, and Documentation

*Estimated Cost: \$15,000 to \$25,000*

Time and budget for documentation in the form of memorandums and a final report, as well as meetings throughout the process.

In addition to the items scoped, consider including budget for surveying work to inform feasibility of conceptual designs.

**Total Estimated Cost Range: \$180,000 - \$280,000**



# APPENDIX F

## COMMUNITY FEEDBACK ON THE GOLF DR S / 12TH AVE S / S CHARLES ST INTERSECTION

Beacon Hill Safe Streets hosted a June 23, 2018 event at this intersection. Comments are summarized below:

- This is a large intersection with unclear turning movements. At a minimum, improve signage and update striping to provide clarity for all modes.
- Increase pedestrian and bike visibility.
- Control speeds through signage and/or design to minimize speeding traffic up and down the hill.
- Increase safety through the intersection for bicyclists. It is a key gateway to Beacon Hill and adjacent neighborhoods.
- Improve left turns onto S Charles St which is challenging for both bikes and cars. S Charles St is adjacent to the connection to the I-90 Trail and Mountain to Sound (MTS) Greenway Trail.
- Cars use turn lanes to pass, particularly on S Charles St. Improvements should encourage traffic to stay in-lane.
- On-street parking adjacent to Lewis Park along Golf Dr S creates sightline issues at intersection. Determine how to improve.
- Slip-lane could be considered for additional pedestrian space. Further study needed.

**Seattle Department of Transportation**

700 5th Avenue, Suite 3800

PO Box 34996

Seattle, WA 98124-4996

(206) 684-ROAD (7623)

[www.seattle.gov/transportation](http://www.seattle.gov/transportation)



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September 2019