Project team members held a collaborative charrette April 17 to 19, 2017 at CitySpace in downtown Charlottesville. During the event, conceptual design concepts were developed, presented to the public, and refined based on feedback received. The design process throughout the charrette was iterative, with the working studio open to the public throughout the day to encourage engagement with the project team and pin-up sessions each evening to showcase the day’s progress. The evening pin-up sessions allowed project staff to answer questions, address concerns, and help document new ideas.

Additionally, five work sessions were organized around key topics central to the bridge design. The outcomes of the topic discussions informed the design process and the selection of preferred alternatives throughout the remainder of the charrette process and the input provided during these sessions will continue to guide the design of the bridge throughout the project.

**Key Takeaways**

- **Overall corridor approach:**
  - New block structure
  - Closing Old Avon Street at Garrett Street
  - Creating new East West public street at RRD property line
- Two lane 62’ bridge section with a protected bike lane and wide sidewalks
- Modern / funky design features
- Enhanced landscape elements on approaches
- Accent lighting (not theatrical)
- Additional vertical circulation north of tracks on east side
- Interim / shared parking solutions (in cooperation with property owners)
- Minimize maintenance concerns regarding raised, planted medians

**Next Steps**

- Refine concepts and develop alternatives for various design elements
- Present concepts and alternatives to Steering Committee, Technical Committee, and Small Stakeholder Groups (May 15 & 16)
Design Charrette Summary

Belmont Bridge
## Charrette Schedule

<table>
<thead>
<tr>
<th>April 17th (Monday)</th>
<th>April 18th (Tuesday)</th>
<th>April 19th (Wednesday)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8am</td>
<td>Open Studio</td>
<td>Open Studio</td>
</tr>
<tr>
<td>9am</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10am</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11am</td>
<td>Open Studio</td>
<td>Community Space</td>
</tr>
<tr>
<td>12pm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1pm</td>
<td>Open Studio</td>
<td>Traffic</td>
</tr>
<tr>
<td>2pm</td>
<td></td>
<td>Bridge Design</td>
</tr>
<tr>
<td>3pm</td>
<td></td>
<td>Bicycle &amp; Pedestrian</td>
</tr>
<tr>
<td>4pm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5pm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6pm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7pm</td>
<td>Opening Presentation</td>
<td>Informal Pin-Up</td>
</tr>
<tr>
<td>8pm</td>
<td></td>
<td>Final Pin Up</td>
</tr>
</tbody>
</table>

### Public Activities

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Studio</td>
<td>Stop in to observe work in progress, ask questions, and offer suggestions.</td>
</tr>
<tr>
<td>Topic Discussion</td>
<td>Join a topic discussion for focused conversations about topics important to you.</td>
</tr>
<tr>
<td>Opening Presentation</td>
<td>Attend the opening presentation for an orientation to the charrette and to hear about progress to date.</td>
</tr>
<tr>
<td>Informal Pin-Up</td>
<td>Attend an evening pin-up session on Day 2 to review the day's work.</td>
</tr>
<tr>
<td>Final Pin Up</td>
<td>Attend the final pin-up session to hear a presentation on the results of the charrette and offer feedback on next steps.</td>
</tr>
</tbody>
</table>
TOPIC DISCUSSION SUMMARY

Five formal meetings were organized to discuss key topics central to the bridge design:

Traffic | Bicycle and Pedestrian | Parking | Community Space | Bridge Design

These meetings included invited stakeholders and members of the project’s steering committee and were open to the public. The meetings included a brief presentation followed by an informal conversation. The intent was to inform stakeholders and advocates on conceptual bridge design progress as well as solicit feedback and key concerns that could affect design and construction of the bridge. This section summarizes the discussion for each topic discussion.

Traffic

The traffic discussion centered on the cross section (allocation of space to various travel modes) on the bridge deck as well as the north and south approaches to the bridge. Three intersections along 9th Street were featured.

A short presentation provided background information on data collected in the study area by project engineers, including field observations, traffic conditions, and bicycle and pedestrian counts. Traffic flow on the bridge is determined not by the number of lanes on the bridge but rather the capacity (i.e. the number and length of turn lanes) at the intersections on each end (Garrett Street to the south and Market Street to the north). Likewise, the number of receiving lanes on the other side of these intersections are a critical factor, which is unlikely to change for the better in the future. Therefore, the opportunity to reduce congestion on the bridge is minimal, however appropriate design of the roadway approaches and intersections can minimize future worsening of delay.

Several intersection design concepts and roadway cross-sections were offered for feedback, and the group spent the balance of the time in a productive discussion about what the overall goals of the project’s traffic improvements should be. Four performance measures were created to communicate performance of the intersection improvements at the final pin-up: vehicle delay, vehicle stacking, bicycle and pedestrian performance (explained at right.) These measures speak to the need for a balanced multimodal corridor design.

Intersection Performance Measures

Vehicle Delay: This measure reflects intersection performance based on how long it takes an approaching vehicle to enter and pass through the intersection or turn onto another route.

Vehicle Stacking: This measure reflects intersection performance based on the length of vehicle queues as vehicles wait to enter and exit an intersection.

Bicycle: This measure accounts for the comfort, safety, and efficiency of entering and passing through the intersection or turning onto another route by an average bicyclist.

Pedestrian: This measure accounts for the comfort, safety, and efficiency of entering and passing through the intersection or turning onto another route as a pedestrian, regardless of physical ability.

KEY TAKEAWAYS – Traffic

- Focus on the three project intersections and how vehicles, bicycles, and pedestrians all work together at these points.
- Balance the amount of space devoted to bicycles, pedestrians and vehicles.
- The Market Street and Avon Street intersections determine how much traffic can flow through the corridor. Improvements should focus on operations at these intersections.
Bicycle and Pedestrian

The Charlottesville community places an importance on safe and convenient bicycle and pedestrian facilities throughout the city. The same importance has been stated for the Belmont Bridge Replacement Project. This topic discussion brought together advocates, community members, and technical staff to identify ways to accommodate the community’s needs given the various constraints at play.

Two main cross-sections were discussed at length: a bicycle lane protected from traffic with a vertical separation feature and a tiered section that separates vehicles, bicycles, and pedestrians with a series of vertical curbs. After considering the pros and cons or the two main options, the group ultimately agreed on a preferred cross section that featured a bike lane protected from traffic by a raised (but mountable) concrete median.

Other topics of discussion included making it safer to cross 9th Street as part of a larger plan to create a more connected network throughout the study area. Several ideas to improve the vertical access from the bridge to the street level were discussed, each of which will be considered more closely as the design progresses.

KEY TAKEAWAYS – Bicycle and Pedestrian

- Two options for the preferred bridge cross section: tiered and protected. Both have advantages and disadvantages. A combined mountable curb option will be moved forward into the design phase.
- The beacon crossing on the bridge is appreciated, but problematic. Other options to improve crossing safety (or eliminate the need to cross the bridge altogether) should be explored.
- Currently, 9th street serves as a barrier for bike riders and pedestrians. Options to address this problem include a pedestrian tunnel at South Street, vertical access at Water Street, and improved signalized intersections at either end of the bridge.
Parking

Though parking along 9th Street is not provided, a public parking lot with a combination of marked and unmarked spaces beneath the bridge provides approximately 53 parking spaces. Based on direction from City Council and the Steering Committee for a short bridge span, a portion of the parking may not be replaceable depending on the final bridge configuration. Additionally, the parking impacts of the construction phase may be significant on the surrounding neighborhood if not carefully managed. The conversation at the parking topic discussion included city staff and downtown business owners and focused on these topics.

Since the short bridge span will eliminate the under-bridge parking lot, the project team was directed by the Steering Committee at its March 29, 2017 meeting to identify potential interim and long-term parking strategies. Ultimately, participants in the parking topic discussion concluded that parking is a systematic issue and any solution will require a diversified strategy that includes changing city policy, locating additional parking space, and coordinating with private property owners.

Interim Parking Strategies

- Manage parking demand through organized incentive programs
- Advance the development of an off-site park-and-ride lot
- Leverage existing City parking properties to their full extent
- Leverage existing private surface lots through cooperative agreements
- Identify temporary off-site parking sites during construction phase
- Coordinate communication campaign to ensure city employees and downtown visitors are aware of all options

Long-term Parking Strategies

- Increase the size of the future Market Street Deck to accommodate increasing demand
- Maximize the downtown area’s on-street parking supply
- Monitor parking in the Belmont Neighborhood to ensure residents maintain priority
- Fully enforce parking requirements, including requiring new developments to include adequate vehicle and bike parking

KEY TAKEAWAYS – Parking

- Two main considerations: construction impacts and recapturing lost parking spaces
- Options for parking during construction existing in the immediate area. Utilizing them will require working with the city and private landowners
- Parking is a citywide problem, and addressing it will require a diversified strategy with defined actions
**Community Space**

The Community Space discussion focused on public art, urban design, and landscaping as well as ways to include additional public space in the final bridge design. The Charlottesville community values public art and aesthetics, and the Belmont Bridge connects downtown and vibrant neighborhoods. The community has said that while foremost the bridge is a functional part of the transportation system, it still should represent the community in an appealing way. Therefore, many members of the community have expressed interest in the study area’s urban design, landscaping, and the preservation of unique elements such as the graffiti wall.

Participants in the community space discussion agreed that the bridge should first focus on transportation. However, they also noted the need for welcoming green along the corridor as well as comfortable opportunities to gather and view the sunset or watch the trains below. This area of Charlottesville is likely to develop rapidly in the next few years, and this corridor will ultimately set the tone for major projects to come, so great thought should be given to setting the aesthetic for the entire neighborhood.

**A rendering that shows how the corridor with new developments, landscaping, and dedicated bicycle lanes.**

**Plans for the bridge may include more an expanded space at the top of the Pavilion ramp to provide a scenic outlook and gathering space.**

**KEY TAKEAWAYS – Community Space**

- The bridge should first focus on connectivity, but provide opportunities for welcoming green spaces along the corridor
- Public art is a priority wherever space is available. The graffiti wall should be preserved
- This corridor should set the tone for future development in this area. We should prioritize thoughtful urban design
**Bridge Design**

The community has said the bridge design should be integrated with surrounding neighborhoods rather than serving as an iconic landmark. However, this does not mean that the bridge cannot be creative and unique to this area of Charlottesville.

At the bridge design topic discussion and during the final pin-up, participants were presented with several design choices for feedback. The design elements were organized around four themes: vintage, traditional, modern and funky. Participants were asked to raise their hand and vote for which theme they would like to see used as the design inspiration for each element. Almost universally, modern and funky received the most votes. In the next few weeks, project architects will be moving forward under that direction to refine the design of the bridge with a “modern and funky” feel that still integrates with the surrounding historic neighborhoods.

![Four design themes were presented as possible inspirations for the overall design of the bridge elements. Community members present tended to prefer “modern” and “funky” designs, although the community has also said they prefer a bridge that integrates with its surroundings.](image)

Vertical access points were another major topic of concern for many participants. The stairways and ramps that currently connect pedestrians from the bridge deck to the street grid below will be redesigned during the process. However, these new elements must maintain American Disabilities Act-compliant access in addition to providing functional, attractive access for multiple modes of travel. Options include stairways, ramps, and elevators, or a combination of these options. The ultimate solution will likely depend largely on feasibility and cost.

**KEY TAKEAWAYS – Bridge Design**

- Key objective: simplify access to the downtown mall when the Pavilion is closed for events
- The bridge doesn’t need to be “iconic, but should still be created and represent Charlottesville
- Design the bridge to celebrate and preserve views of the sunset and railroad tracks