



South Highland Avenue Public Realm **Study**

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Acknowledgements

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All maps and graphics were created by Studio for Spatial Practice.

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Introduction

South Highland Avenue Public Realm Study

The South Highland Avenue business district includes the Highland Avenue Bridge at its northern end and extends south to Alder Street. This section of Highland Avenue, which serves as one of three Shadyside business districts, is frequented by visitors and residents alike. The district, which includes a wide range of businesses - boutiques, restaurants, cafes and shops, office space, furniture stores and a shopping plaza - has many attractions but few pedestrian amenities.

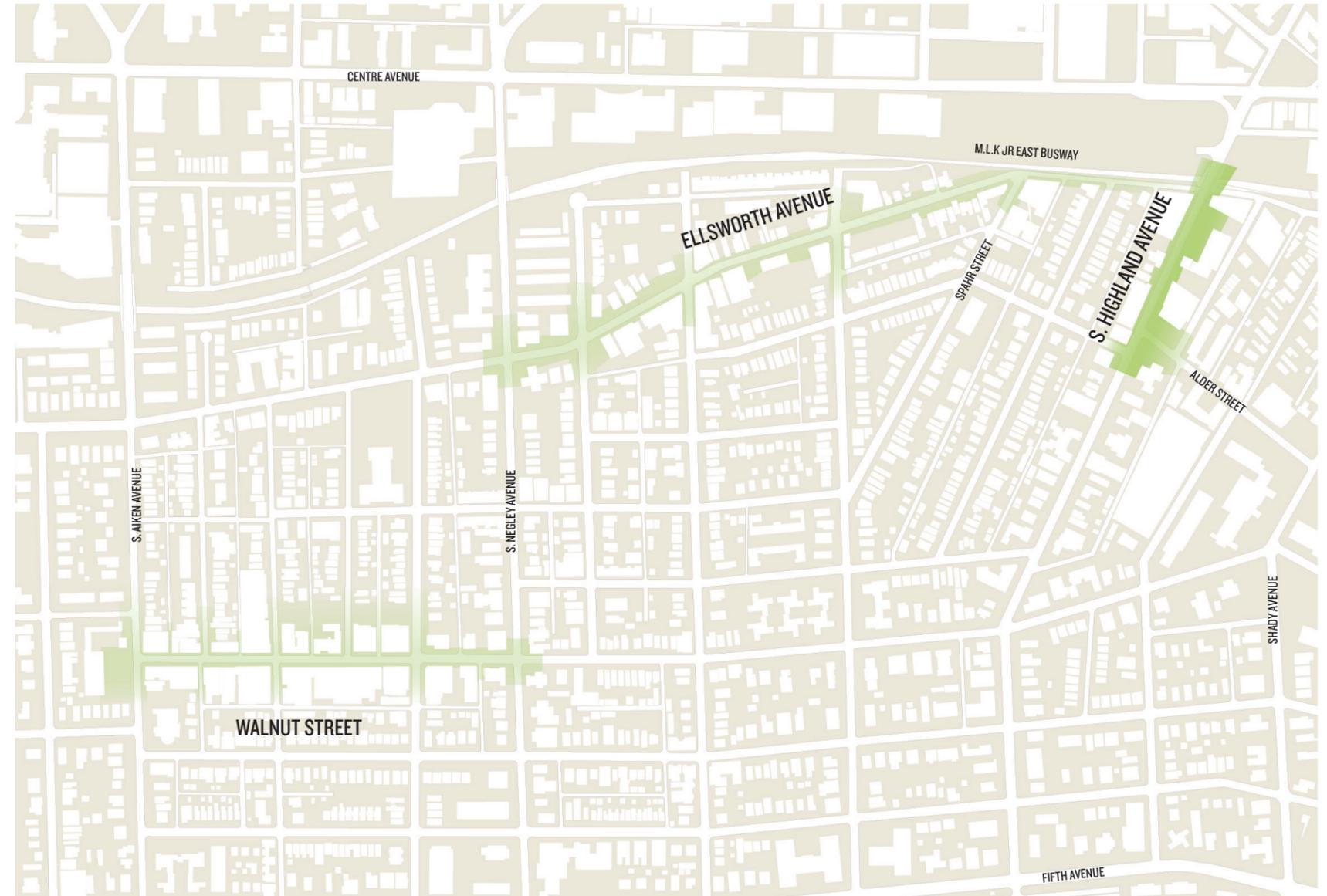
The term streetscape, or public realm, refers to the natural and built fabric of the activated street environment, including its design quality and visual experience. The street, including sidewalks, landscapes and vehicle cartways, is a public space where people are able to engage in various activities. A well-designed streetscape influences where people gather, encourages pedestrians to linger longer, and helps define a district's aesthetics.

In 2017, Studio for Spatial Practice worked with Councilman Dan Gilman's office and the Shadyside Chamber of Commerce to conduct a public realm study of the business district to identify ways of improving the pedestrian and retail shopping experience. Such improvements could include intersection improvements, new or modified street lighting, greening, street furniture, signage and public art.

This public realm study does not propose to replace the entire Highland Avenue business district environment, from building face to building face. Such projects are disruptive and many businesses do not survive the reconstruction process. Rather, this study identifies a set of prioritized enhancements to the district that could be implemented over time, as resources are secured.

The schematic-level streetscape plan, included in this report, is intended to be used as a tool for fund-raising, to help advance specific streetscape recommendations, to raise awareness about the value of our public realm and generally build interest in the South Highland Avenue Public Realm Study.

This report summarizes the planning process, highlights physical conditions along South Highland Avenue at the time the study was conducted, presents the streetscape scenarios reviewed by the stakeholder group, and provides a list of prioritized public realm improvements. Material palettes, referencing existing, already-built streetscape examples, were developed with guidance from the stakeholder group. The Appendix provided at the end of this document includes relevant streetscape and planting details, recommended plant lists, and meeting minutes from stakeholder sessions.



District map highlighting the three Shadyside business districts. This report focuses on South Highland Avenue.

Process Summary

How the South Highland Avenue Public Realm Study Planning Process Worked

The South Highland Avenue Public Realm Study presents a schematic-level streetscape plan for Shadyside’s South Highland Avenue business district. The study incorporates and reflects stakeholder input obtained at three interactive meetings, as well as a thorough inventory and analysis of the business district’s physical conditions. Participating stakeholders included local business and property owners who reviewed, discussed and worked with the design team to refine scenarios as they developed.

The final Conceptual Plan identifies priority streetscape elements and initiatives; selects and locates new landscape, street furniture, and lighting elements; and recommends key improvements to sidewalks, crosswalks, and bicycle parking. This report also highlights district-wide recommendations and suggests possible alternatives and/ or additions to the proposed streetscape design.

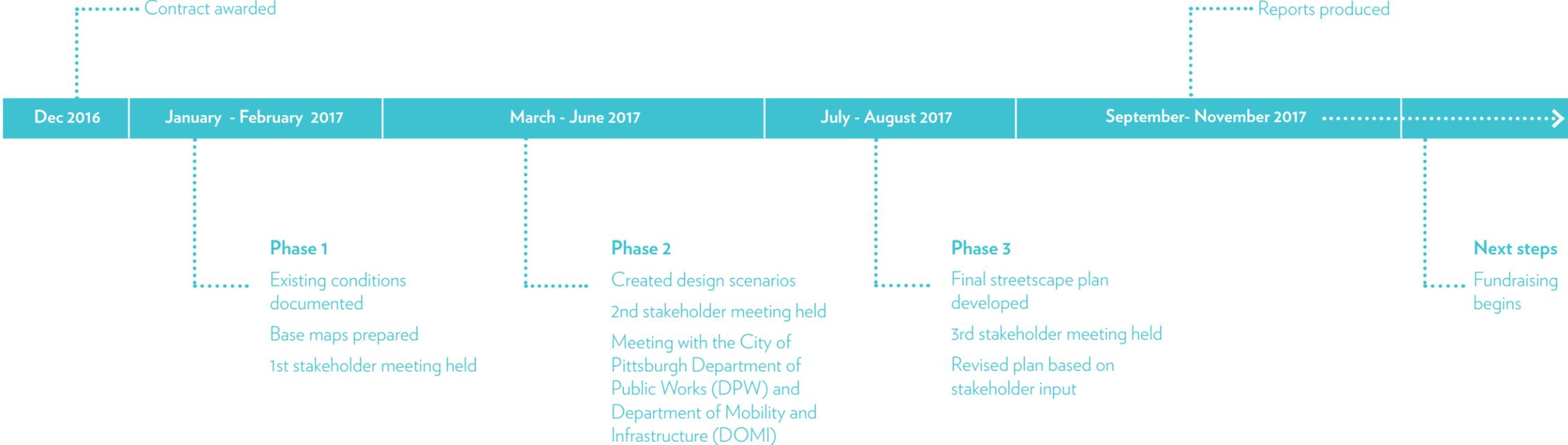
This study consisted of three phases:

Phase 1: Understanding Needs and Documenting Existing Conditions

During Phase 1, the design team documented existing Highland Avenue physical conditions, identifying and locating streetscape elements within the public right-of-way, including: sidewalks, benches, light poles, bike racks, parking pay stations, planters, tree pits and changes in sidewalk paving materials. The team compiled this data into a detailed plan of the study area, and presented the information to the stakeholder group to solicit feedback and better understand issues and opportunities relating to the corridor.

Stakeholders participants placed stickers at locations where an enhanced pedestrian experience, greenery, public art, district identity, and/or better lighting are needed. They added notes to the plan drawing and identified places where there are

Project Timeline



mobility conflicts between business operations (deliveries, dumpsters, loading and unloading), patron parking areas, and pedestrian and bike infrastructure.

Phase 2: Exploring Design Scenarios

During Phase 2, the design team processed the feedback and documentation from Phase 1 and explored a series of design options for South Highland Avenue, which incorporated alterations to landscape elements, street furniture, lighting and other improvements. Changes to traffic patterns that could be achieved by reclaiming on-street parking spaces and expanding pedestrian zones were presented and discussed. The design team also presented a strategy for creating a Spahr-Ellsworth gateway structure, which would be visible from other Shadyside business districts, to help direct pedestrians

to South Highland Avenue while also improving pedestrian connections to Ellsworth Avenue and Eastside.

Preliminary design alternatives were presented at a second stakeholder meeting where photos of streetscape elements were presented. Participants used stickers to select examples of elements that would best complement South Highland Avenue’s streetscape. The resulting, preferred material palette guided the design team in developing the style and character of the street and in selecting complementary street furnishings.

In conjunction with the second stakeholder meeting, an initial meeting with City of Pittsburgh’s Department of Public Works (DPW) and Department of Mobility and Infrastructure (DOMI) was held to discuss

the maintenance implications of physical modifications to Highland Avenue. DPW requested the use of City-approved pedestrian light standards. The Director of City Planning cautioned the design team about the effects of long-term construction projects on a business district, stating that 20% of businesses do not usually survive the transition.

Phase 3: Final Streetscape Plan

Based on input gathered during Phase 2 meetings, the design team refined the streetscape design direction for Highland Avenue. An updated schematic design was presented as a series of illustrative drawings showing how a set of discrete elements and interventions could each be implemented independently, as funding is secured. At the final stakeholder meeting, participants

selected their top three priority elements, and a lively discussion ensued. Input from the final meeting is reflected in the final streetscape plan, and meeting notes are incorporated into this report.

Next Steps

After completing the South Highland Avenue Public Realm Study, Councilman Gilman’s office will pursue funding for the prioritized elements that are defined in greater detail in the following pages. Further design, engineering and utility coordination will be required prior to any construction project along South Highland Avenue.

Phase 1 Understanding Needs & Documenting Existing Conditions

Jan Gehl's theory of public realm activity

Necessary **Optional** **Social**

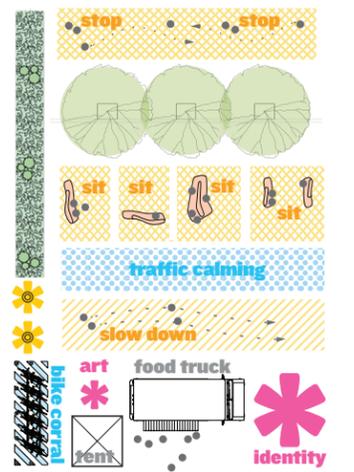
High quality physical environment

Low quality physical environment

SfSP presented Jan Gehl's theory of public realm activity which relates a high quality physical environment to the presence of social functions beyond necessary and optional streetscape elements.



Existing Conditions Board 1 from the first Stakeholder meeting.



Palette of elements (stickers) used during meeting 1 by stakeholders to identify areas requiring enhanced streetscape design.

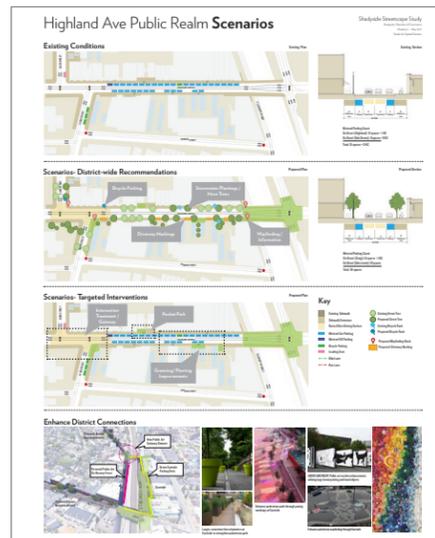
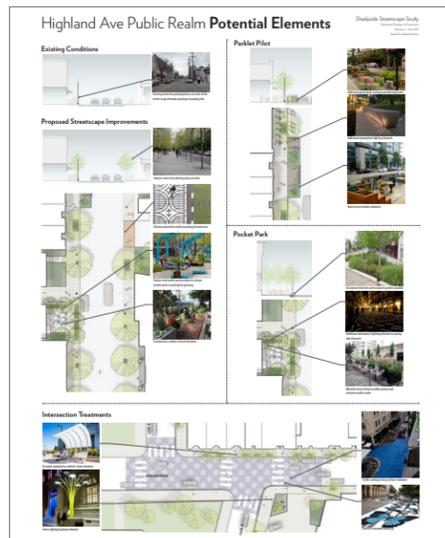


Stakeholders deliberate over the existing conditions plan at the first stakeholder meeting.

Phase 2 Exploring Design Scenarios



ABOVE: Stakeholders review scenarios for South Highland Avenue's business district.

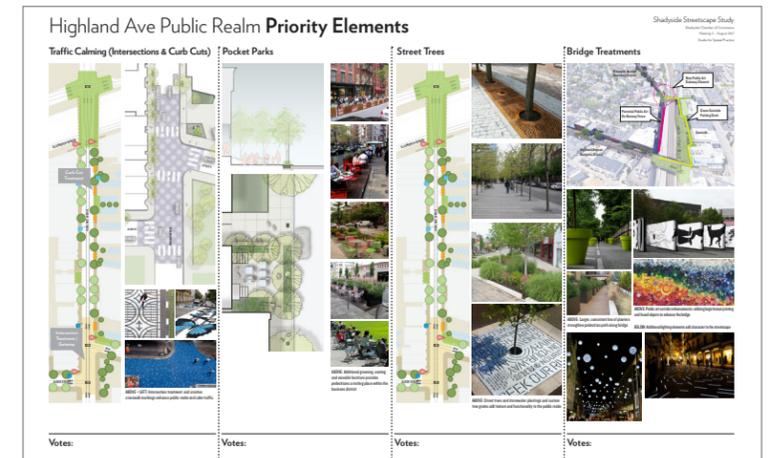


ABOVE + LEFT: Design and material boards presented at second meeting. Participants selected their favorite precedent images, exemplifying the types of elements that might appear on South Highland Avenue, and provided feedback on design scenarios and elements.

Phase 3 Final Streetscape Plan



ABOVE: At the third meeting, stakeholders debate priority initiatives for South Highland Avenue.

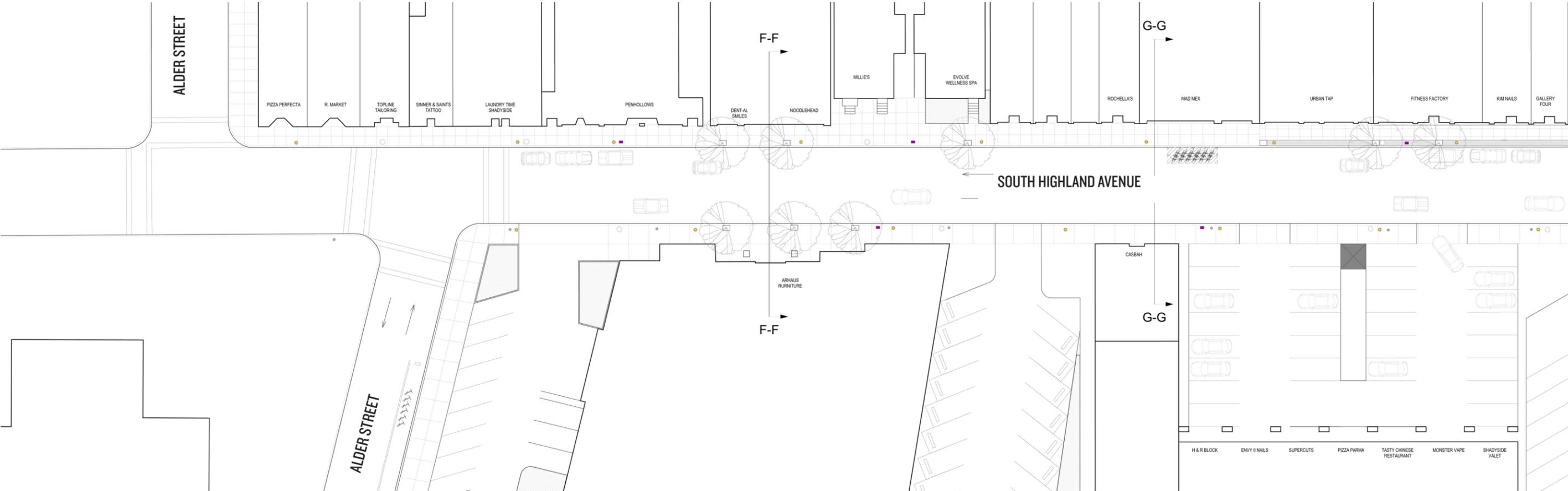


ABOVE: Final Priority Elements board presented at the third meeting. Stakeholders helped prioritize elements by voting on their top three initiatives.



ABOVE: Material boards presented show favorite precedents for South Highland Avenue's Streetscape Design.

Existing Conditions



Existing Conditions

This spread summarizes the existing conditions of South Highland Avenue’s public realm, for the area extending from Alder Street to Spirit Street. The above plan depicts the physical condition of South Highland Avenue’s streetscape elements, including: sidewalks, benches, light poles, bike racks, parking pay stations, planters, tree pits and changes in sidewalk paving materials. The design team also discussed connections to Ellsworth Avenue, a nearby Shadyside business district, to better understand the South Highland Avenue business district within its larger context. This plan was presented and reviewed at the initial stakeholder meeting to help inform future discussions surrounding streetscape design.

MOBILITY AND ACCESS

The Highland Avenue business district is comprised of long-standing, neighborhood-serving retail, restaurants and offices. With public transportation serving Highland and Centre Avenues, the district is easily accessible without a car. Bicycle racks, a bike-corral and a bikeshare station provide additional multi-modal opportunities. Private surface parking lots, nearby garages and on-street parking serve the district. There is limited pedestrian connectivity, however, to destinations on Ellsworth Avenue and within the Eastside development due to the railroad infrastructure passing below South Highland Avenue.

STREET CHARACTER

South Highland Avenue is best known for its fine dining and retail destinations. With its bustling pedestrian realm, filled with shoppers, diners and dog-walkers, little space in the public realm is available for additional amenities, such as expanded planting zones, street furniture and wayfinding signage.

PAVING AND FURNITURE

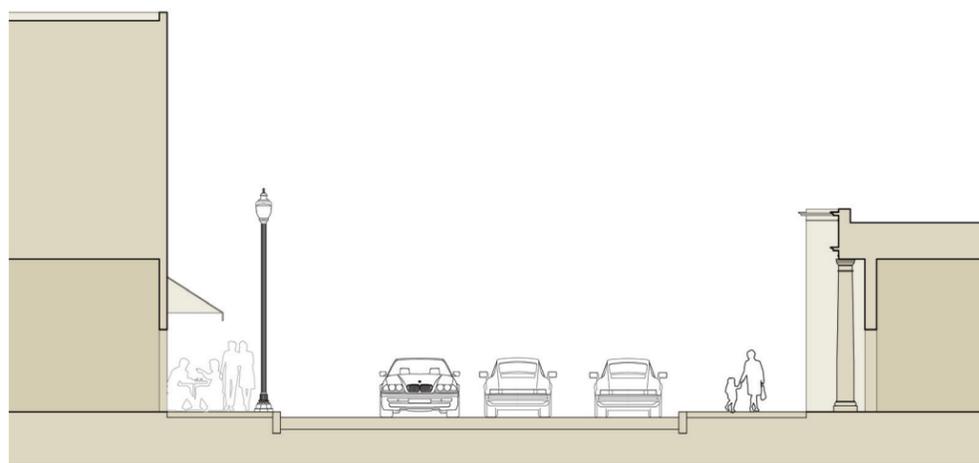
South Highland Avenue’s sidewalks are a patchwork of paving materials demonstrating the incremental changes and repairs that were made over time. In some areas, the paving has heaved due to street tree roots or freeze and thaw conditions. Other sidewalk areas are slippery, cracked or damaged and in need of repair. Some

restaurants have outdoor dining space, however, other seating options do not exist in the pedestrian realm. City-issued trash/ recycling receptacles and light poles also line the walks. The eastern side of Highland Avenue has many curb cuts, providing access into surface parking lots, which interrupts pedestrian flow and detracts from the overall streetscape appearance and experience.

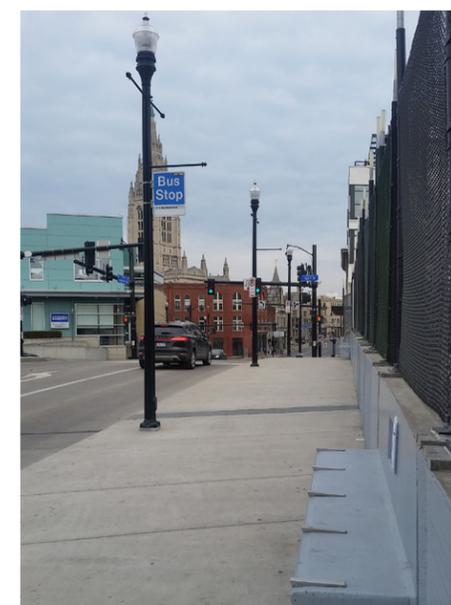
LOADING

As with any small business district, mobility issues abound. When loading zones are unavailable, on-street loading and unloading goods causes traffic congestion along Highland Avenue. The Shadyside Chamber of Commerce has begun a designated loading time program that may help to reduce traffic slow-downs along the street.

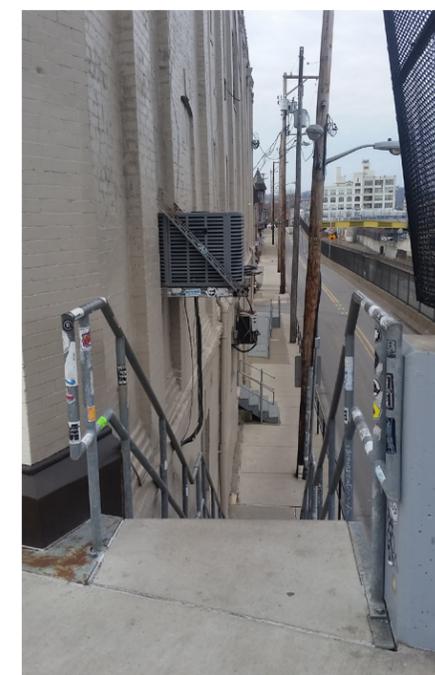
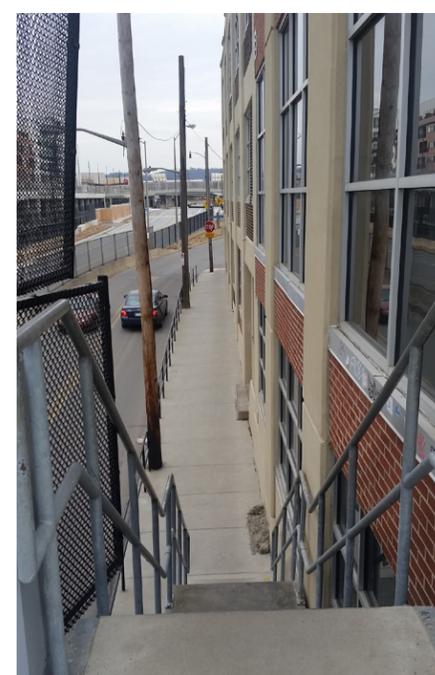
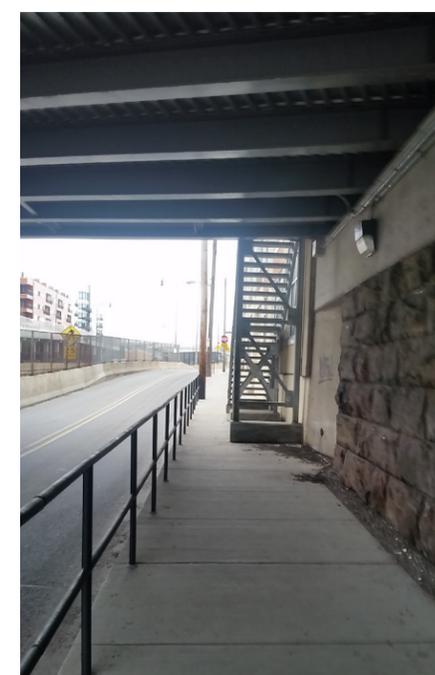




ABOVE: Existing conditions section through South Highland Avenue.



These photos illustrate existing conditions along South Highland Avenue.



ABOVE: Photos showing access from Ellsworth Avenue via an existing stairway. Currently, there is no direct, accessible path to the South Highland Avenue business district from Ellsworth Avenue.

Plan Development

Approach

The design team worked with Councilman Gilman's office to develop a multi-faceted planning approach incorporating the following Design Principles:

- Design the street as a stage for public life. Highland Avenue is more than just a cartway; it is a critical public space that animates the social and economic life of Shadyside.
- Improve the physical quality and character to draw more people to the district and encourage them to linger.
- Enhance and amplify South Highland Avenue's existing identity.
- Apply a palette of elements, contributing to a sequence of unique places, rather than establishing a generic standard.
- Integrate Pittsburgh's Complete Streets policy* into the design.

These Principles guided the design team in preparing for the first stakeholder meeting.

A Palette of Elements

At the first stakeholder meeting, the design team asked participants to consider where, along Highland Avenue, a more robust public realm would be desirable. Participants were provided with a Palette of Elements, in sticker format, to aid in the interactive streetscape design discussion.

The Palette included the following:

1. PEDESTRIAN EXPERIENCE. This category focused on pedestrian improvements that would enhance and help diversify social activity in the street. Possible improvements might include design scenarios through which sidewalk space could be expanded in permanent or temporary ways.
2. GREENING. This category includes: low plantings (decorative and performative, helping to absorb stormwater), hanging baskets, street trees in planted areas and within grates, planters, and planted pots.
3. ART, IDENTITY & LIGHTING. The following items can be combined in the public realm to help celebrate and express Highland Avenue's unique character: identity and wayfinding signage and banners, City-standard pole lights, light swags across Highland Avenue, building-mounted lights, and public art.
4. MOBILITY. These elements / actions include: calming traffic with crosswalk enhancements and bumpouts, making loading zone improvements, creating designated bike share stations and parking, and instituting a strategic parking management plan.

5. EVENTS. This category of elements includes permanent or temporary structures and / or infrastructure to support vendor festivals, food truck access and operations, film screenings, concerts, and other events in the district.

Stakeholders located these elements on a map of Highland Avenue at locations where they would make the greatest impact. The design team reviewed the feedback provided, tested element locations and design strategies, and finally produced the Conceptual Plan that follows.

After documenting existing conditions and holding the first round of stakeholder engagement meetings for Highland Avenue's Public Realm, it was clear that generic recommendations or a one-size-fits-all design for the street would not suffice. The Palette of Elements is a kit of parts that will:

- help reinforce the character and identity of the district, while also
- enhancing the pedestrian experience by creating a series of unique spaces along Highland Avenue.

For each of the Priority Initiatives listed in the following pages, relevant components from the Palette of Elements are identified.

Parking / Vehicular Movement Inventory & Early Scenarios

At the first stakeholder meeting, stakeholders identified numerous locations within the South Highland Avenue district where there are conflicts between pedestrians, moving vehicles, visitor parking areas, loading operations, and trash management, resulting in sub-optimal public realm conditions. The design team took a careful inventory of existing parking locations and capacities, loading areas and vehicle movement patterns to better understand the flow of people and cars throughout the district. This inventory, shown on the facing page, was presented at stakeholder meeting 2.

At the second stakeholder meeting, design scenarios were presented for review and discussion. The scenarios explored alterations to parking and street geometry designed to prioritize pedestrians by expanding sidewalks and slowing traffic movements. The scenarios also explored the potential of using special paving markings or a curbless environment to create a shared street to further prioritize pedestrians.

Stakeholders felt that gaining additional pedestrian realm area was important, but the loss of on-street parking was deemed too detrimental to the district. Instead, the design team proposed that interested parties should pursue the soon-to-be-enacted Parklet Program, which is detailed on the following pages, to temporarily test the impact of removing parking and gaining pedestrian space at key locations.

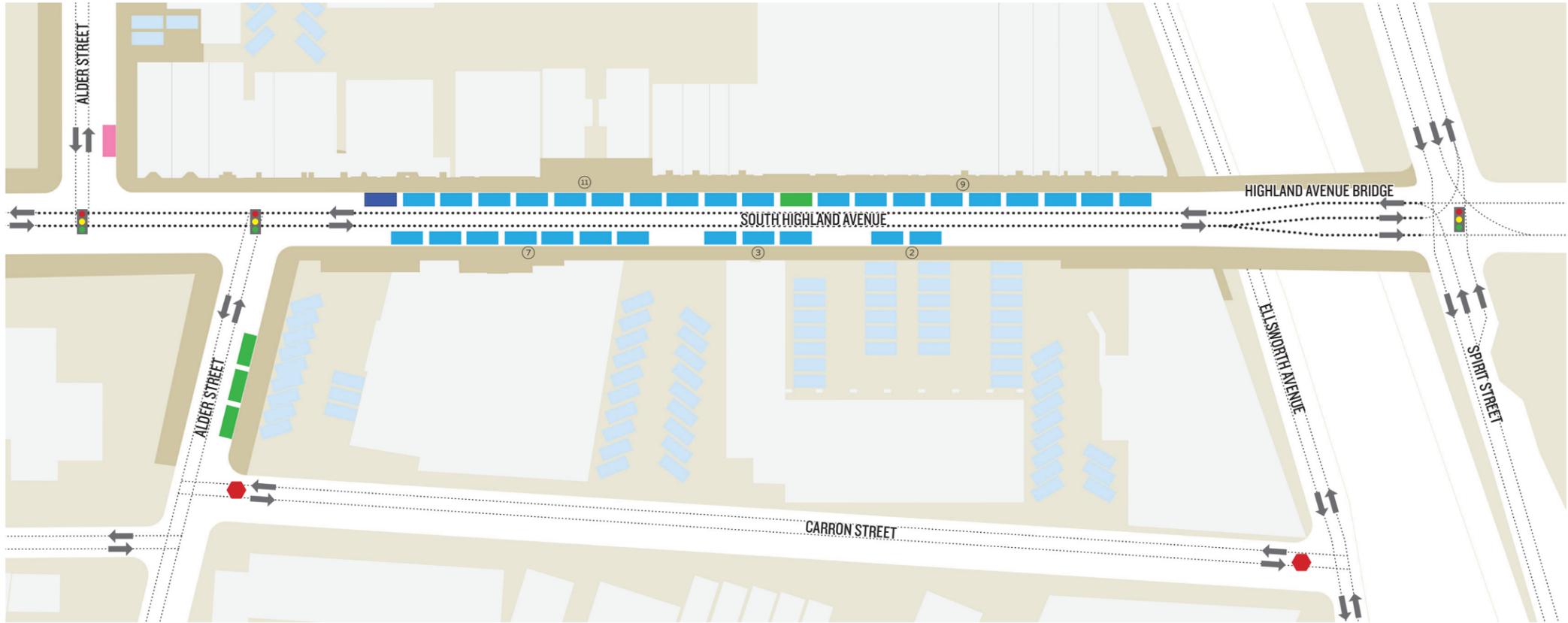
Conceptual Plan

Ultimately, a modified version of the presented design scenario was chosen for further development, with alterations to simplify bumpouts, limit geometrical changes and not remove any street parking.

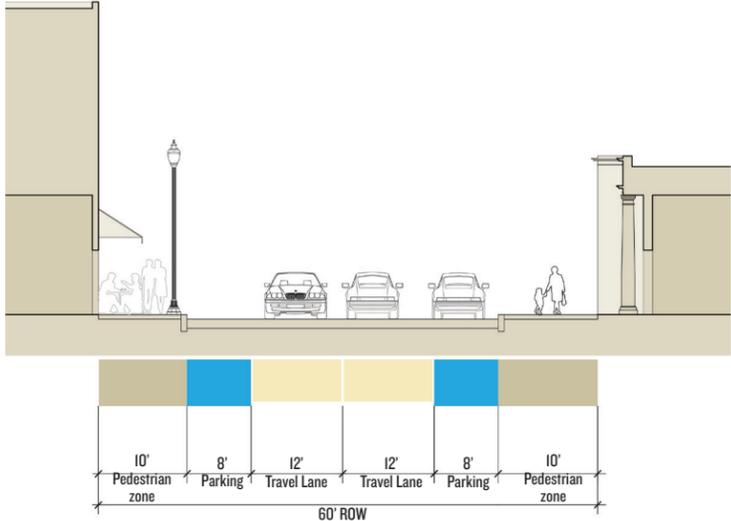
In Phase 3 of the study, the design team synthesized analysis, feedback and design scenarios from Phases 1 and 2. The team developed the Conceptual Plan and a list of Priority Initiatives for review by the stakeholder group, which ranked the proposed interventions and provided feedback.

* Pittsburgh's Complete Streets approach aims to improve the quality of life for all Pittsburghers by creating streets that are safe and comfortable for all people, activated public spaces, and connected transportation networks for everyone. This initiative will consider all modes of travel in making mobility recommendations – walking, biking, taking transit, and driving – and create a more livable public realm that encourages active lifestyles.

Parking Inventory, Loading & Vehicle Movements



South Highland Avenue diagram showing existing conditions.



Section through South Highland Avenue showing existing dimensions.

Metered Parking Count:

On-street (Highland):	31 spaces + 1 accessible space
On-street (side streets):	0 spaces + 0 accessible spaces
Total:	31 spaces + 1 accessible space

Key

- Existing Sidewalk
- Shared Driving Surface
- Metered Car Parking
- Private Parking
- Metered Accessible Parking
- Bicycle Parking
- Loading Zone

Conceptual Plan

Overview

The final Conceptual Plan for South Highland Avenue enhances the pedestrian experience with a linked palette of elements that can be phased in over time. Rather than completely reconstructing the streetscape from building-face to building-face, the plan recommends integrating a limited set of new elements into the existing environment to enhance the visual character and identity of the street, improve pedestrian comfort and safety, and help visitors navigate the district. The elements are designed to be implemented incrementally over time, as funding becomes available. This approach also helps minimize disruptions to Highland Avenue businesses.

Conceptual Plan Components

INTERSECTION & CURB CUT TREATMENTS

The intersections at Alder and Spirit Streets could have a temporary or more permanent treatment applied to the crosswalk and intersection paving, helping to improve pedestrian visibility and safety. Curb cuts leading to surface parking lots along the eastern edge of Highland Avenue will also receive paving upgrades to help slow traffic and alert pedestrians to oncoming traffic.

WAYFINDING

Information kiosks, placed at major pedestrian intersections, may contain business directories, a map of the business district, and bicycle and vehicle parking information. Additionally, vehicular gateway signage at Alder Street will identify the business district for drivers and could direct them to parking options.

STREET TREES

Street trees should be re-introduced into empty pits, and be newly-planted along South Highland Avenue in an evenly-spaced arrangement. Tree pit dimensions should follow city standards, providing enough space for healthy tree root conditions, with an opportunity to provide artful expression with the tree grates themselves.

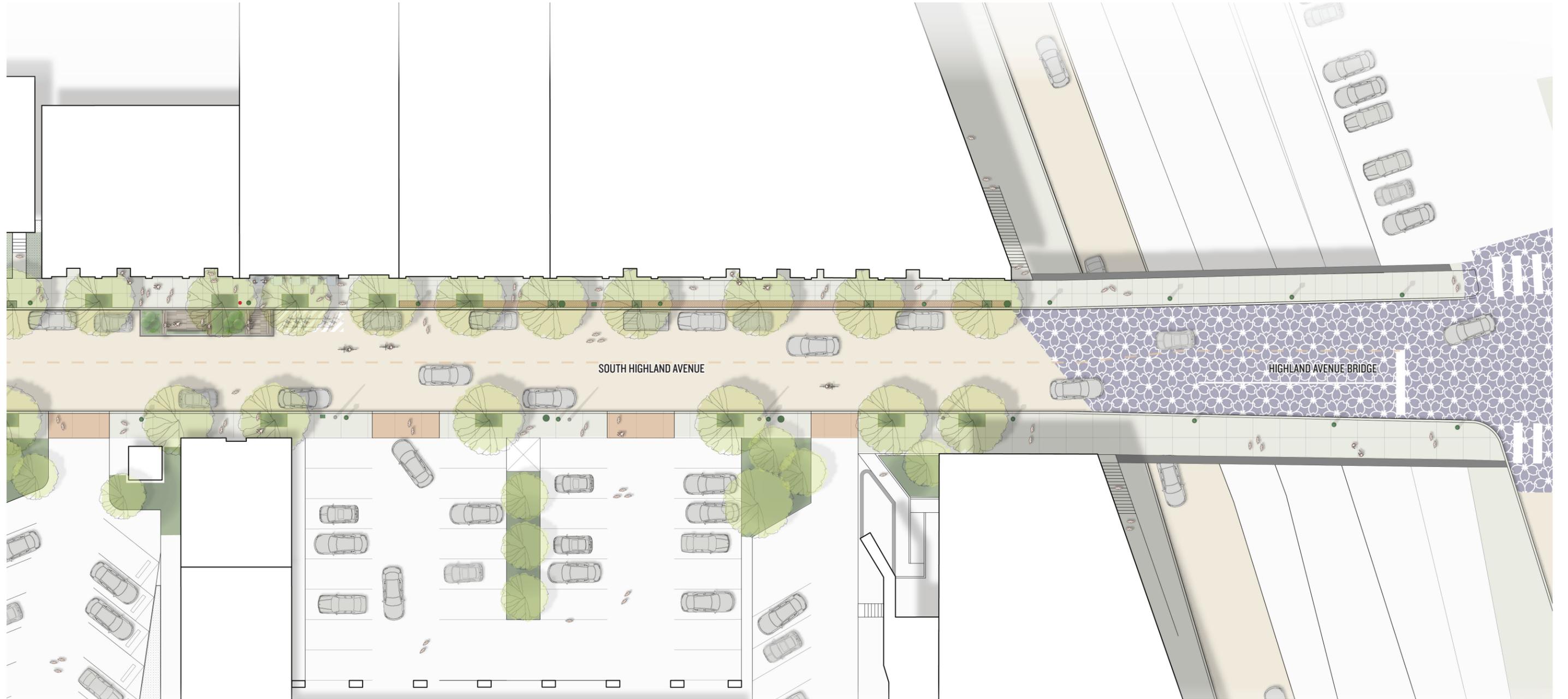


POCKET PARKS

Introducing small pocket parks in under-utilized space will enhance the public realm and encourage visitors to linger longer in the district. These spaces may also enliven adjacent uses.

PARKLET

In working with the city and the business district, a temporary parklet could be introduced along the South Highland Avenue corridor in place of one or two on-street parking spaces. The parklet would allow for outdoor seating, art installations and planting at strategic locations.



Proposed Conceptual Plan for South Highland Avenue.

Priority Initiatives | Overview

Stakeholders were asked to prioritize Conceptual Plan elements to help inform future fund-raising activities.

The resulting Priority Initiatives include:

- Street Trees
- Intersection Treatments
- Pockets Parks
- Bridge Treatments
- Parklet Program (in development)

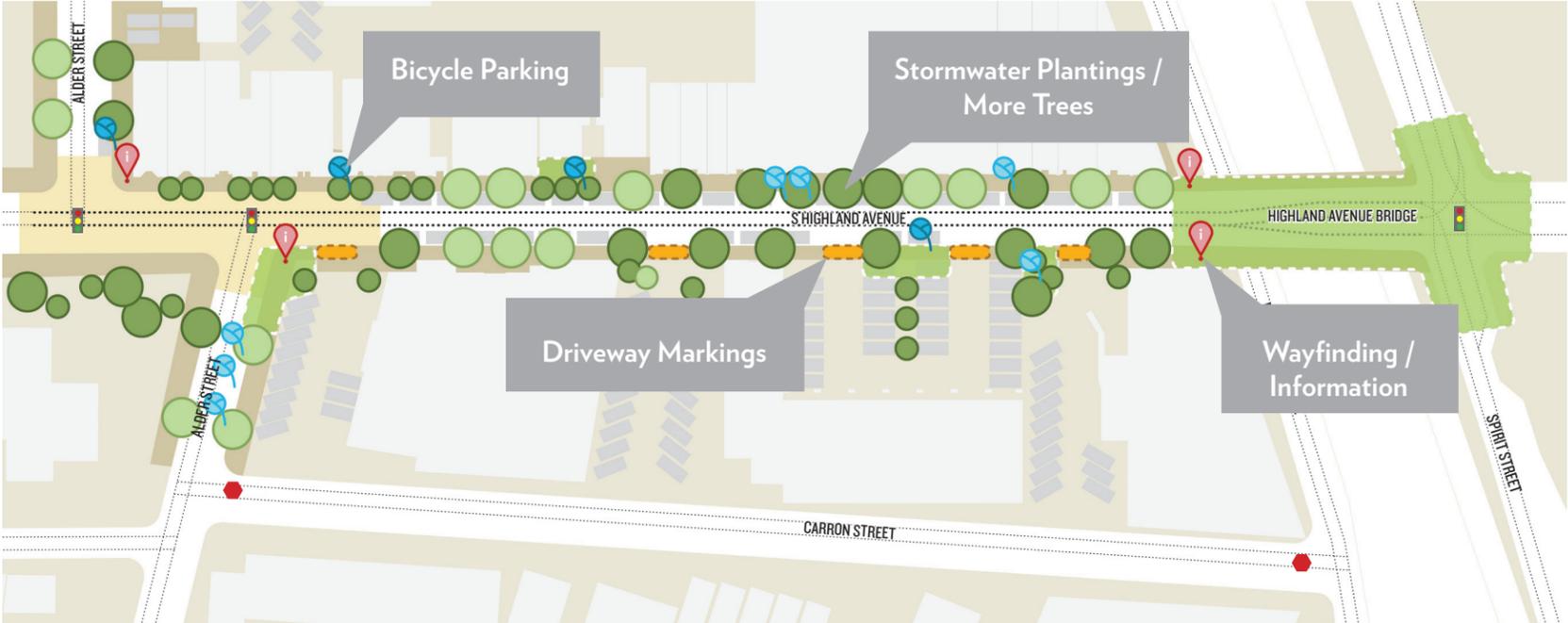
Presented together, the two diagrams on this page provide a graphic overview of the proposed recommendations that are intended to improve South Highland Avenue's public realm. These improvements can be completed in tandem or independently of each other as funding becomes available. It is important to note, however, that further design, technical expertise, and coordination with city departments may be required to optimally and legally implement the initiatives.

The diagrams on this page depict the District-Wide Recommendations and Targeted Interventions presented by the design team to the stakeholder group during Phase 2 of the planning process.

The District-Wide Interventions diagram denotes the location of proposed streetscape elements that were approved by the stakeholder group along the corridor. Elements include increased stormwater plantings and additional street trees, wayfinding information at intersections, driveway markings at curb cuts and bicycle parking.

The Targeted Interventions diagram indicates the proposed location of site-specific improvements along South Highland Avenue. Stakeholders reviewed these interventions and approved of the concepts and their distribution along South Highland Avenue.

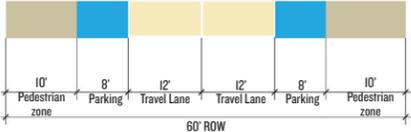
District-Wide Recommendations



Proposed Plan

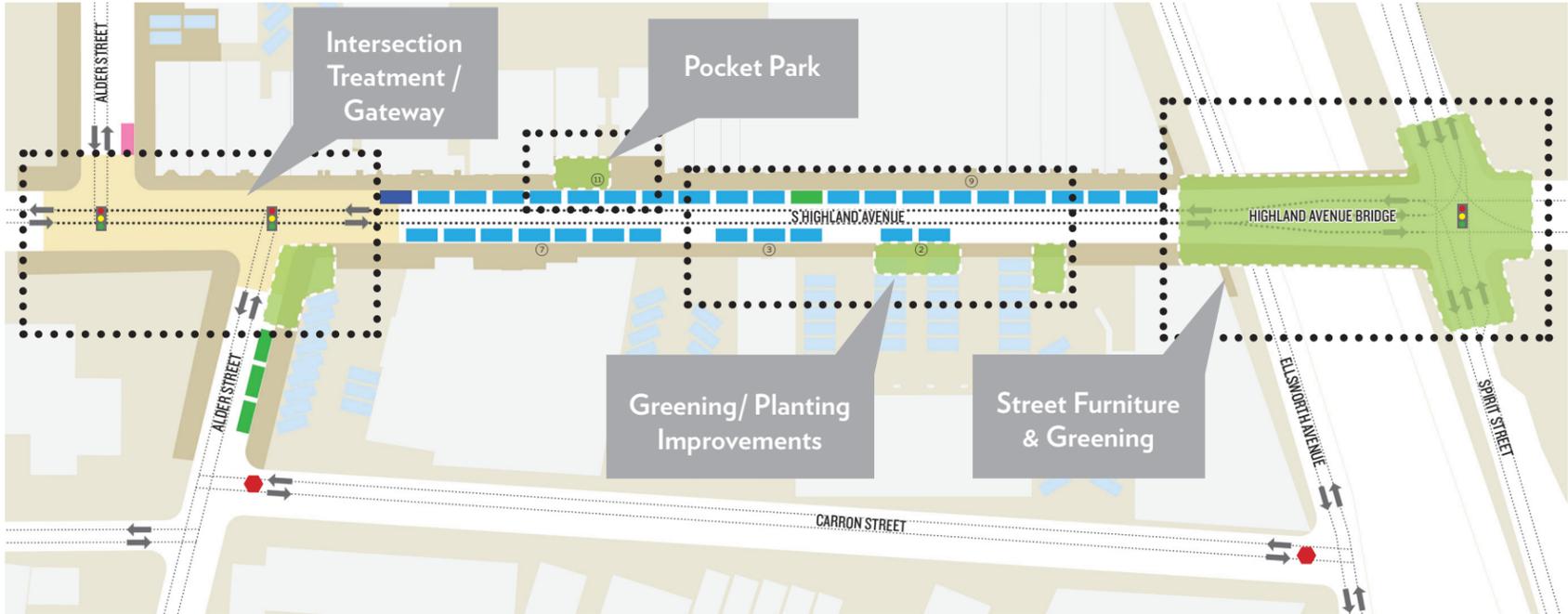


Proposed Section



Street Tree Count:	
On-street existing:	15 trees
On-street proposed:	34 trees
Private lot existing:	1 tree
Private lot proposed:	16 trees
Total:	51 trees

Targeted Interventions

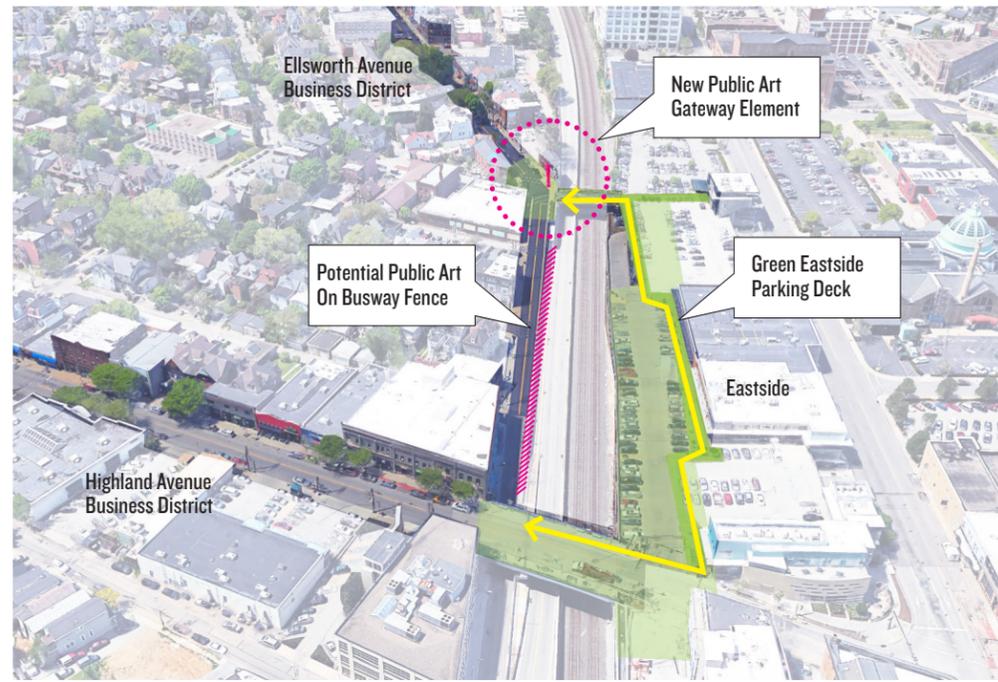


Proposed Plan

Key

- Existing Sidewalk
- Slow Driving Surface
- Metered Car Parking
- Metered Accessible Parking
- Bicycle Parking
- Loading Zone
- Private Parking
- Existing Street Tree
- Proposed Street Tree
- Existing Bicycle Rack
- Proposed Bicycle Rack
- Proposed Wayfinding Kiosk
- Proposed Driveway Marking

Enhance District Connections



Larger, consistent line of planters at Eastside to strengthen pedestrian path.



Enhance pedestrian path through paving markings at Eastside.



ABOVE + RIGHT: Public art corridor enhancements utilizing large format printing and found objects.



Artfully enhance pedestrian wayfinding through Eastside.

Targeted Interventions include the following:

- Intersection treatment at South Highland Avenue and Alder Street;
- Pocket parks adjacent to the right-of-way;
- District gateway signage at Alder and Spirit Streets; and,
- Improvements to the pedestrian realm at the Highland Avenue Bridge by introducing additional street furniture and greening.

The following pages summarize the proposed improvements, in the order deemed most-to-least critical, and describe the associated details and material palettes that would likely be used when implementing them in the future. Supporting information, including material palettes selected by the stakeholder group and technical details, may be found in the attached Appendix.

The Enhance District Connections diagram, shown at left, presents a series of possible Highland-Ellsworth district connections. The design team explored various alternative pedestrian routes. The most promising, accessible solution involves collaborating with Eastside to green the pedestrian route from Highland Avenue, across the Eastside parking deck, and then over the Shady-Liberty pedestrian bridge to Ellsworth Avenue. The second accessible route, continuing along Ellsworth Avenue, would involve changes to the staircase leading up to South Highland Avenue. This route would require additional lighting along a portion of Ellsworth and could incorporate a public art installation either along the fence or as part of the corridor lighting strategy. Since the stairs will never be accessible and the introduction of a ramp is difficult in this location, the accessible route would need to continue east along Ellsworth Avenue, turn onto Carron Street, then pass through a surface parking lot to reach the South Highland Avenue Business District.

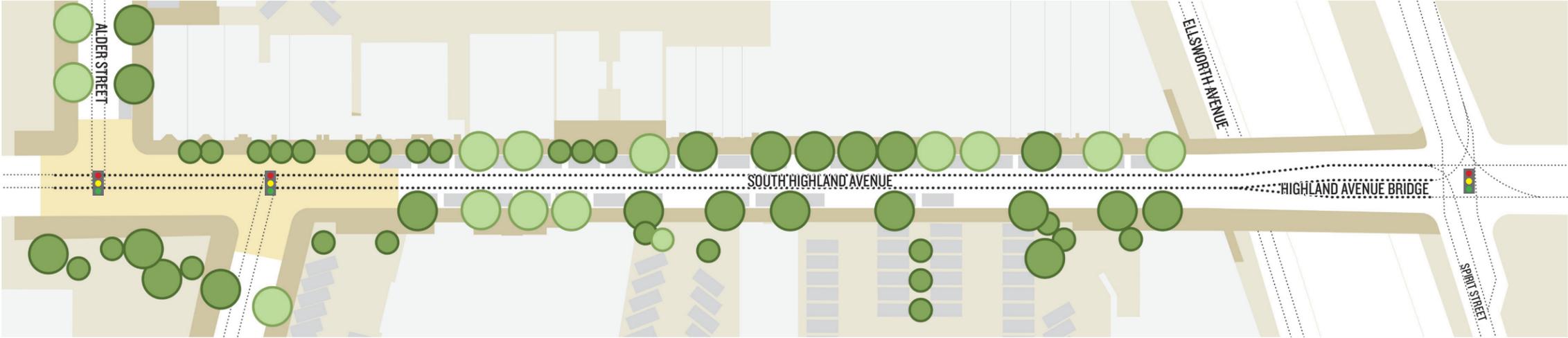
Priority Initiatives | Street Trees

The environmental, social, and economic benefits of street trees are well documented and should be incorporated into city planning efforts. A healthy, vibrant line of street trees adds economic value to adjacent properties as well as enhancing the pedestrian realm by cleaning the air and providing shade from the summer sun.

South Highland Avenue currently has a number of healthy street trees. The design team recommends filling in the missing street tree gaps as shown in the diagram above. The street trees may be accompanied by low level plantings where additional space allows.

Stormwater tree pits may also be introduced in areas where pedestrian circulation space would be further compromised by the addition of streetscape elements. These tree pits, with their increased depth and decorative grates, protect tree roots from compaction while allowing additional space for growing medium and stormwater capture.

A plant list, street tree planting details and stormwater planting pits are included in the Appendix of this document.



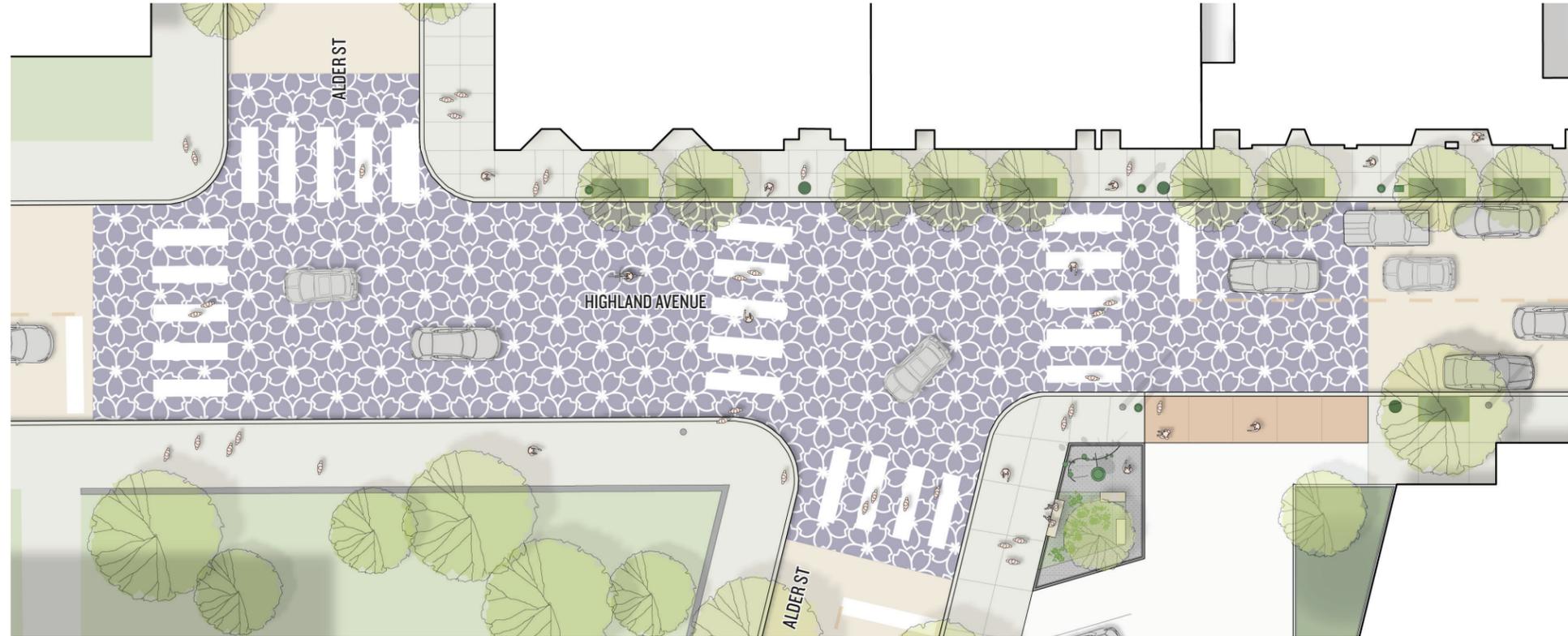
Key

- Existing Sidewalk
- Slow Driving Surface
- Existing Street Tree
- Proposed Street Tree



ABOVE: Street trees, stormwater plantings and custom tree grates add texture and functionality to the public realm.

Priority Initiatives | Traffic Calming at Intersections & Curb Cuts



- Key**
- Existing Sidewalk
 - Raised Slow Driving Surface
 - Proposed Driveway Marking

Due to the atypical street alignment at Alder Street, the established vehicular traffic patterns, and required turning radii, introducing bumpouts onto South Highland Avenue was deemed infeasible by the design team. The stakeholder group also felt removing on-street parking spaces was not an acceptable solution in order to gain additional square footage for the pedestrian realm. Instead, the design team suggested introducing an intersection treatment at Alder Street and Highland Avenue that could involve painting the cartway or tabling the intersection, raising the street surface to the sidewalk elevation as an added safety measure. The driving surface treatment proposed at the Alder Street intersection may also be applied to the Highland Avenue Bridge, approaching the Spirit Street intersection, to help calm traffic. Drivers tend to drive faster when cresting the slight hill at the bridge.

In addition to the proposed intersection treatments, creative crosswalk and/or intersection markings (patterning the space between crosswalks) may be used to enhance the district identity while also creating public art. Painted markings allow strategies to be tested temporarily and are usually cost-effective design solutions. Permanent intersection treatments, which would physically alter the built environment, are more costly and are best introduced after a period of pilot testing.

The curb cuts leading into the many surface parking lots along South Highland Avenue should also receive a special treatment to alert drivers and pedestrians to oncoming traffic. The design team recommended introducing decorative pavers or a painted surface treatment similar to the proposed crosswalks and intersection markings discussed above.



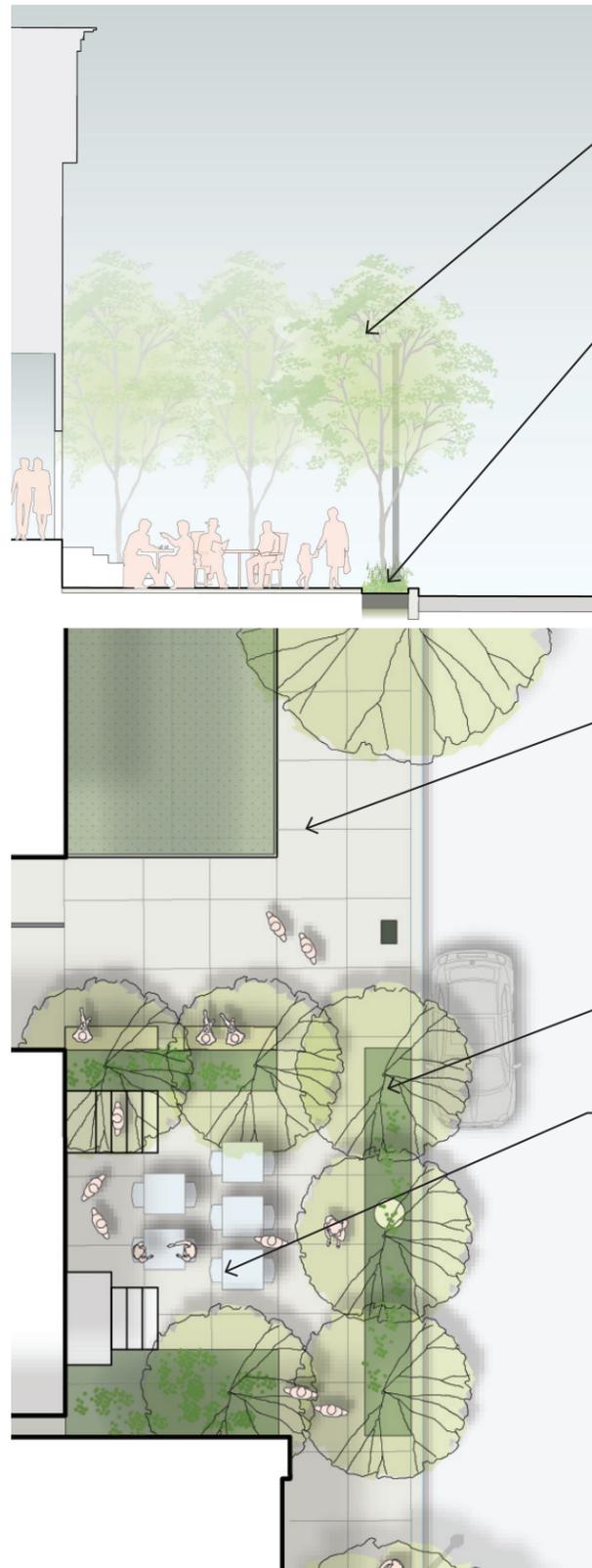
ABOVE + LEFT: Intersection treatments and creative crosswalk markings can enhance the public realm and calm traffic.

Priority Initiatives | Pocket Parks

In the South Highland Avenue business district, semi-public pocket parks could be created on privately-owned land. By enhancing under-utilized open space adjacent to the right-of-way, new spaces for relaxation, meeting friends, taking lunch breaks, reading a book, and creating play areas for children will help encourage visitors to linger longer in the business district. Created through public-private partnerships, these spaces for sitting and relaxing were strongly requested by stakeholders during project meetings.

One potential site, featured in the plan and section drawings to the right, involves reorganizing space in front of Millie's Homemade Ice Cream Shop (232 S. Highland Avenue). The building's facade is set back from the right-of-way line. Currently, large picnic tables occupy most of the open space with little to no landscape accenting the area. The design team proposed adding upright trees and low level plantings along the street side and edges to better frame the open space in a park-like setting. With the introduction of smaller cafe tables and chairs, the pocket park will feel more open, organized and inviting to visitors. If it is possible to work with the adjacent building owner, whose facade is also set back from the right-of-way line, the pocket park could double in size, creating a significant respite within the business district.

Other small sites along South Highland Avenue may serve as future pocket parks. Ideally, designers, residents and stakeholders would work together to identify a potential pocket park site, design the space and maintain it over time. Transparent communication throughout the pocket park planning and design process may help to build stewardship in the district, ultimately leading to better-maintained, more viable open space.



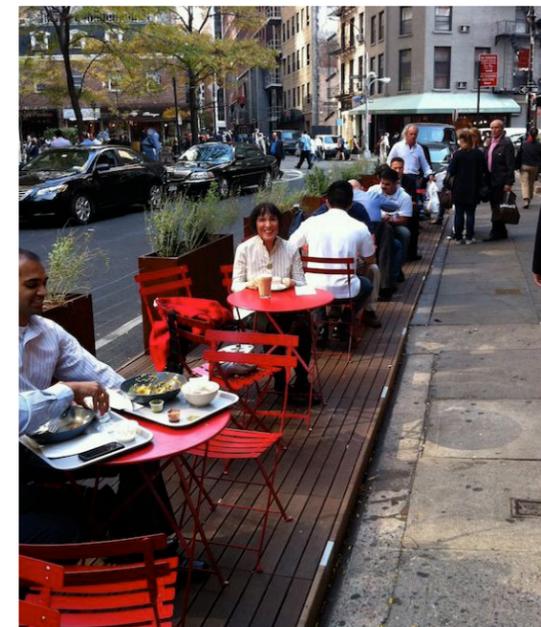
Upright trees planted at the street side and edges may be pleached to create an aerial hedge.

Low level plantings provide seasonal interest.

Work with adjacent owners to possibly double the pocket park size.

Low level plantings and upright trees define space.

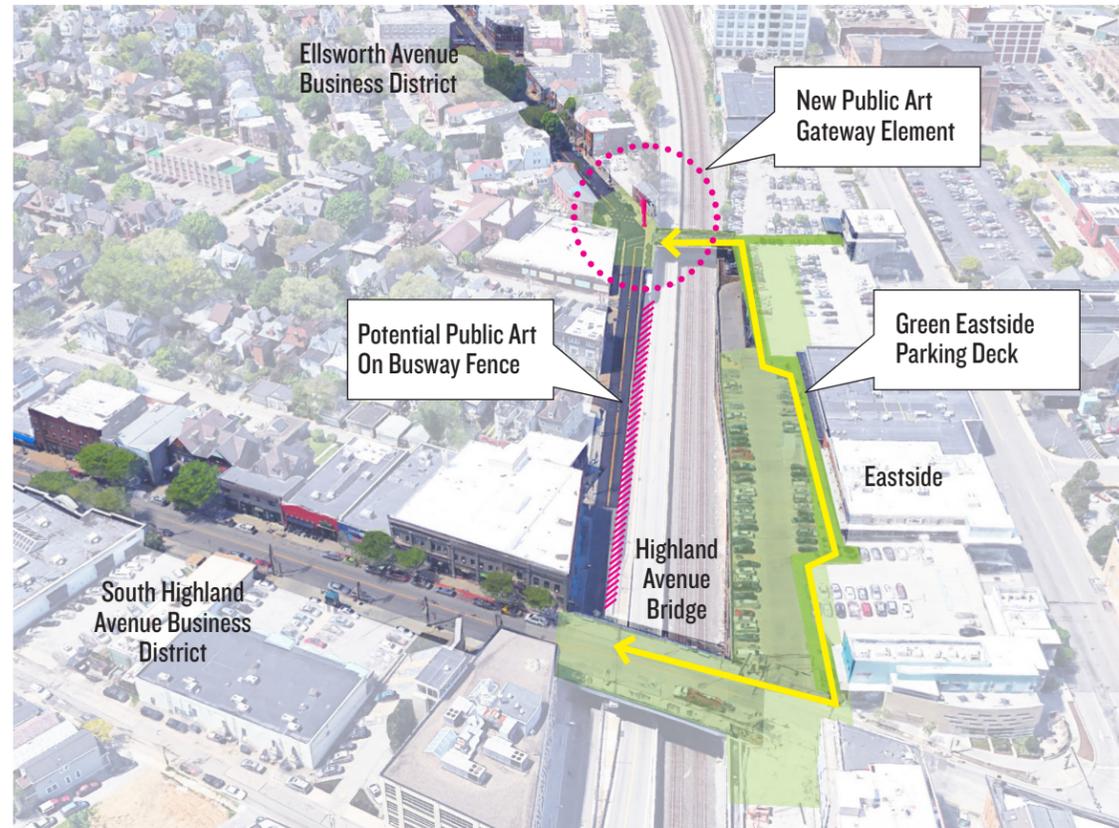
Placing a seating area adjacent to a cafe or restaurant will encourage users to sit and stay in the area longer.



ABOVE: Additional greening, seating and movable furniture provides pedestrians a resting place within the business district.



Priority Initiatives | Bridge Treatments



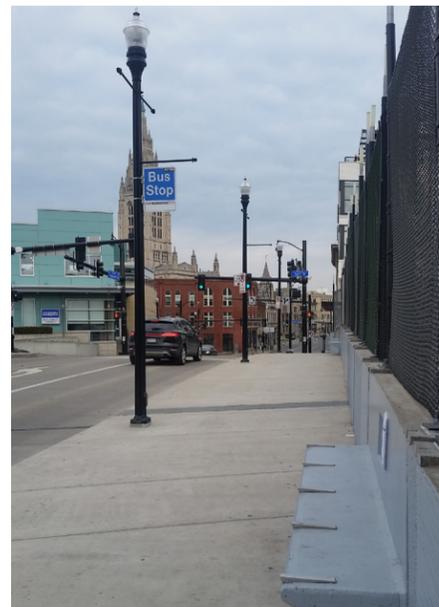
ABOVE: This diagram illustrates a series of interventions that could enhance and better connect South Highland Avenue to the Ellsworth Avenue business district.



ABOVE: Larger, consistent line of planters strengthen pedestrian path along bridge.



ABOVE: Public art corridor enhancements utilizing large format printing and found objects to enhance the bridge.



ABOVE: Existing conditions along the Highland Avenue Bridge.



ABOVE + RIGHT: Additional lighting elements could add character to the streetscape.

The diagram on this page illustrates a series of interventions that could enhance and better connect South Highland Avenue to the Ellsworth Avenue business district.

Streetscape improvements to the Highland Avenue Bridge are highly recommended. Pedestrian amenities along the recently-rebuilt bridge are limited. The design team recommended adding large, distinctive planters, artwork, and additional ambient lighting onto the bridge to enhance the pedestrian realm. Painting the surface of the street at this location would enliven the public realm while also calming traffic. Any or all of these bridge improvement recommendations could create public art opportunities.

The stakeholder group made additional recommendations at the Phase 3 meeting:

- Participants asked if a bus shelter was needed or possible to accommodate at the end of the Highland Avenue Bridge.
- They requested additional signage directing drivers to parking available at Eastside Bond.
- Finally, Stakeholders agreed that lighting should be improved on Ellsworth Avenue, at the base of the stairs leading up to the Highland Bridge and below the bridge itself, to make the pedestrian realm and stair connection more attractive and safe.

Priority Initiatives | Parklet Program (In Development)

The City of Pittsburgh is developing a pilot parklet program as part of an overall strategy for creating Complete Streets and new pedestrian open space within the existing public realm. By recapturing two on-street parking spaces, new open space with seating, plantings and public art could be placed to help enhance the pedestrian realm. The parklet model has been developed successfully in many US cities and is seen as a temporary measure that tests the impact of expanded pedestrian realms via the elimination of parking spaces.

In models around the country, parklets are funded and maintained by community organizations, local businesses, or individuals, but are open to the public as extensions to the sidewalk. Parklets foster district interaction by providing opportunities for chance encounters with places to sit and converse. Parklets also support local businesses by creating a feeling of safety with the reduction of vehicular traffic immediately adjacent and encouraging people to stay longer within the district.

While the details of the City of Pittsburgh program are as-of-yet unknown, parklet programs around the US typically require neighborhood support as well as site documentation and construction drawings. Drawings are reviewed by relevant city agencies and designs must be approved prior to installation. Typically, parklets are designed to be easily removed and possibly relocated.

The design team strongly recommends that interested stakeholders consider adopting a parklet along the South Highland Avenue business district, perhaps adjacent to a cafe or restaurant, to further activate and add to the existing pedestrian realm amenities. Stakeholders were supportive of the Parklet Program concept during Phases 2 and 3 of the planning process.



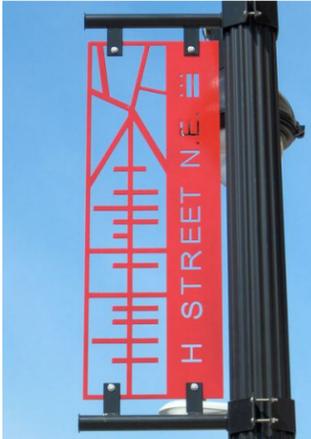
Additional greening and seating within a parklet expansion.



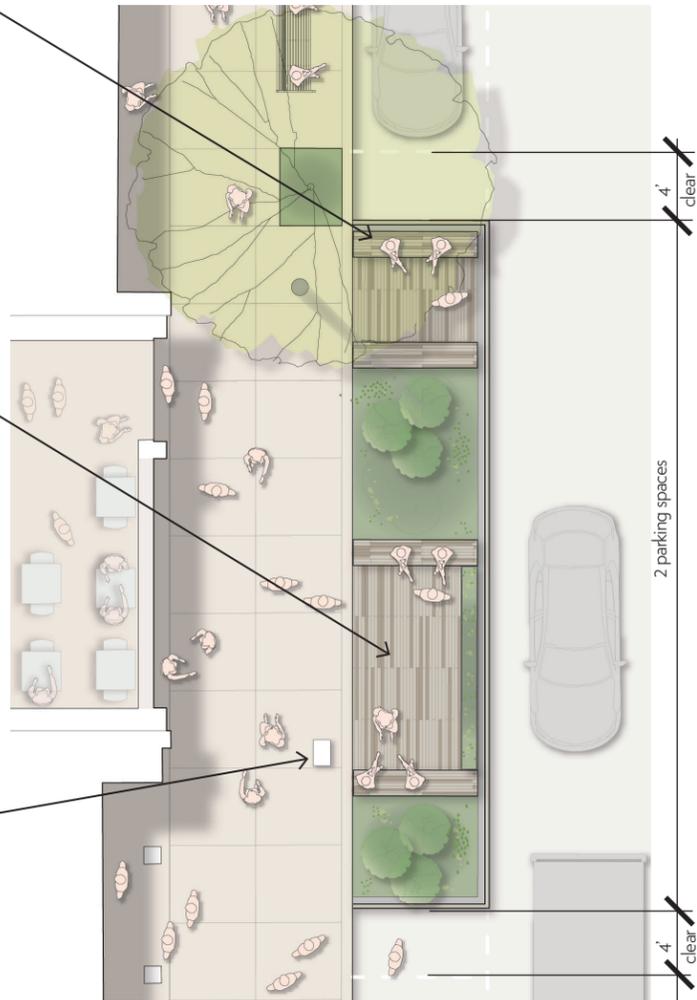
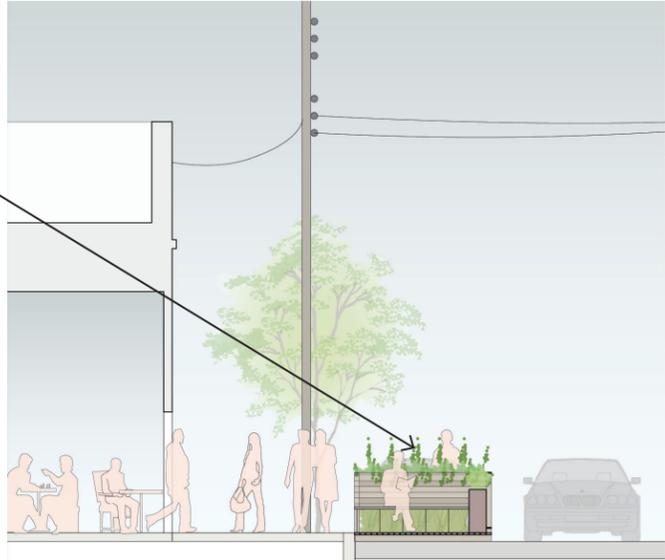
Additional atmospheric lighting elements.



New street furniture elements.



District identity signage.



Many US cities have developed thriving parklet programs.

Material Palettes

Overview

In Phase 2 and 3 of this study, the design team curated groupings of precedent photography that depicted a variety of streetscape components. The photos presented to the stakeholder group incorporated practical, durable solutions with artfully-designed, everyday site furniture and materials. The categories presented were greening, site furniture, lighting, and wayfinding. Each category contained photos highlighting a variety of materials, arrangements and possible locations within the public realm.

By selecting their favorites from a series of precedent images, stakeholders reached an unspoken consensus about the character of the material palettes proposed for Highland Avenue. The design team synthesized the visual feedback and further refined material palettes to create a vibrant streetscape and fulfill the project's design objectives.

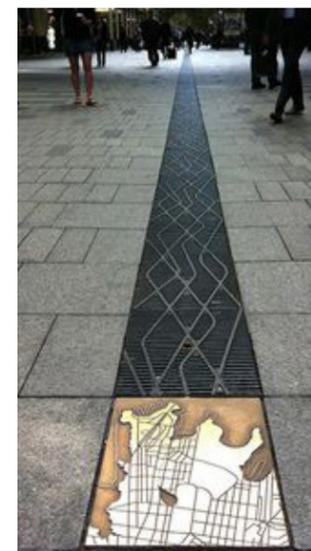
Best Practices

When furthering designs for specific improvements to South Highland Avenue's Public Realm, the design team recommends adhering to a set of best practices regarding the sustainability of materials and the quality of craftsmanship. Best practices include:

- Incorporating locally sourced or recycled materials into the design. Consider working with DPW or district vendors to find available materials.
- Selecting native, salt tolerant plant material for project plant lists.
- Considering the durability and ease of maintenance when selecting materials.

Greening + Art

Street trees with decorative tree grates and street trees in large, richly planted beds were selected most frequently by stakeholders. The planting beds depicted typically caught stormwater runoff from the street and sidewalk in artful ways. The tree pits with



Greening + Art

Tree Grates:

Tree protection with perforated surface to allow water collection. Possible artist collaboration. ADA-compliant surface. Recycled content preferred.

Manufacturer(s): Urban Accessories
www.urbanaccessories.com

Street Trees:

Refer to City of Pittsburgh's recommended tree species list in appendix. Select trees appropriate to the setting- consider final tree canopy, root zone compaction issues and fall color.

Suppliers(s):

TreeVitalize
www.waterlandlife.org/216/treevitalize

Plant Material:

Native, non-invasive plant material is highly recommended. Consider drought tolerant species that also have high salt tolerances in locations adjacent to roadways. In larger contiguous planting beds, consider selecting plants that provide seasonal color change and winter interest.

Supplier(s): See the appendix for Pittsburgh nurseries supplying native plant materials.

Wayfinding + Art

Business Directory Kiosks:

Monolithic, free standing with hinged door allowing for updated business directory, with internal lighting.

Manufacturer(s): Chameleon by Encompass Sign Systems
www.encompassign.com

Engraved Directional Pavers:

Concrete pavers may be engraved with directional markings or text.

Manufacturer(s): Artline or other approved equal by Unilock, see appendix. www.unilock.com

Material Palettes

tree grates were deeper, allowing for a larger root zone and additional stormwater capture. Integrating seating below canopy trees was favored as was the use of planters to define pedestrian zones.

Wayfinding + Art

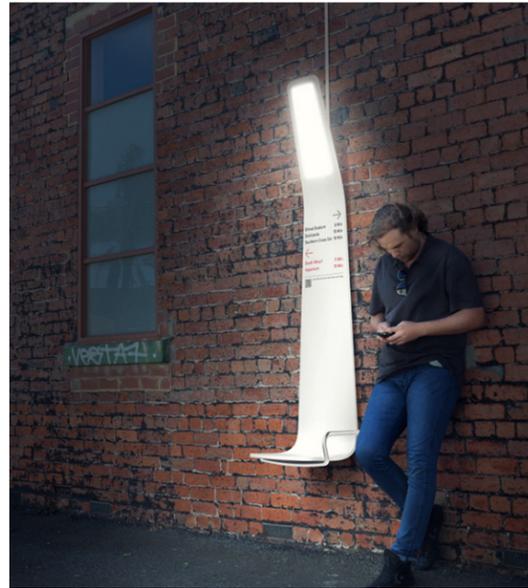
Favored precedents featured kiosk directories mapping the surrounding areas or featuring upcoming events. Directional tiles, custom stencils at crosswalks and decorative panels set in the ground plane also resonated with the stakeholder group.

Site Furniture + Art

Stakeholders selected images of cafe tables and chairs lining pedestrian walks, transit-oriented seating, custom bus stops, swinging benches, and artist-designed benches made of metal and wood. Also selected were pairings of products: the standing table integrated into a bench back, and transit lean benches alongside planters.

Intersections + Art

Selected images featured painted surfaces at crosswalks and within intersections, as well as more permanent paving material changes whose textural change would alert drivers to pedestrian crossings. A few precedent images showed a tabled intersection where the street surface was raised to meet the sidewalk, extending the pedestrian zone and slowing traffic, and even integrating embedded lights into the paving to further illuminate the crossing.



Street Furniture + Art

Benches and Seating:

Select durable, high-performance, distinctive designs with high-recycled content. Preferably locally sourced. Consider collaborations with local artists to design custom furniture.

Manufacturer(s): Landscape Forms
www.landscapeforms.com

Forms+Surfaces, www.forms-surfaces.com

Planters:

Select planters that help to frame pedestrian space, constructed of durable materials with a high-recycled content. The UrbanEdge product line from Landscape Forms contains planters and benches that can be interlocked, utilizing space more effectively.

Suppliers(s): Landscape Forms
www.landscapeforms.com

Lighting + Art

Street Lights:

City of Pittsburgh standard light fixtures and posts

Manufacturer(s): City of Pittsburgh standard
www.urbanaccessories.com

GOBO Ambient lighting:

GOBO projectors may be building mounted and added at strategic locations along the street. GOBOS may be custom designed for Walnut Street or use standard textured/ abstract designs.

Manufacturer(s): ROSCO, www.us.rosco.com

Ambient Lighting and Overhead Light Strings:

Overhead, ambient lighting should be designed in conjunction with an artist including a public process. The signage may be 2- or 3-dimensional, freestanding or building-mounted.

Detail Drawings & Material Take-Offs | Overview

Overview

The following pages contain schematic level design drawings, to scale, illustrating the priority elements proposed for South Highland Avenue. A summary table on each drawing quantifies the amount of material required for the proposed element. The summary tables may be utilized to establish preliminary opinions of probable costs as funding is pursued.

The following is a list of the materials included on the summary tables:

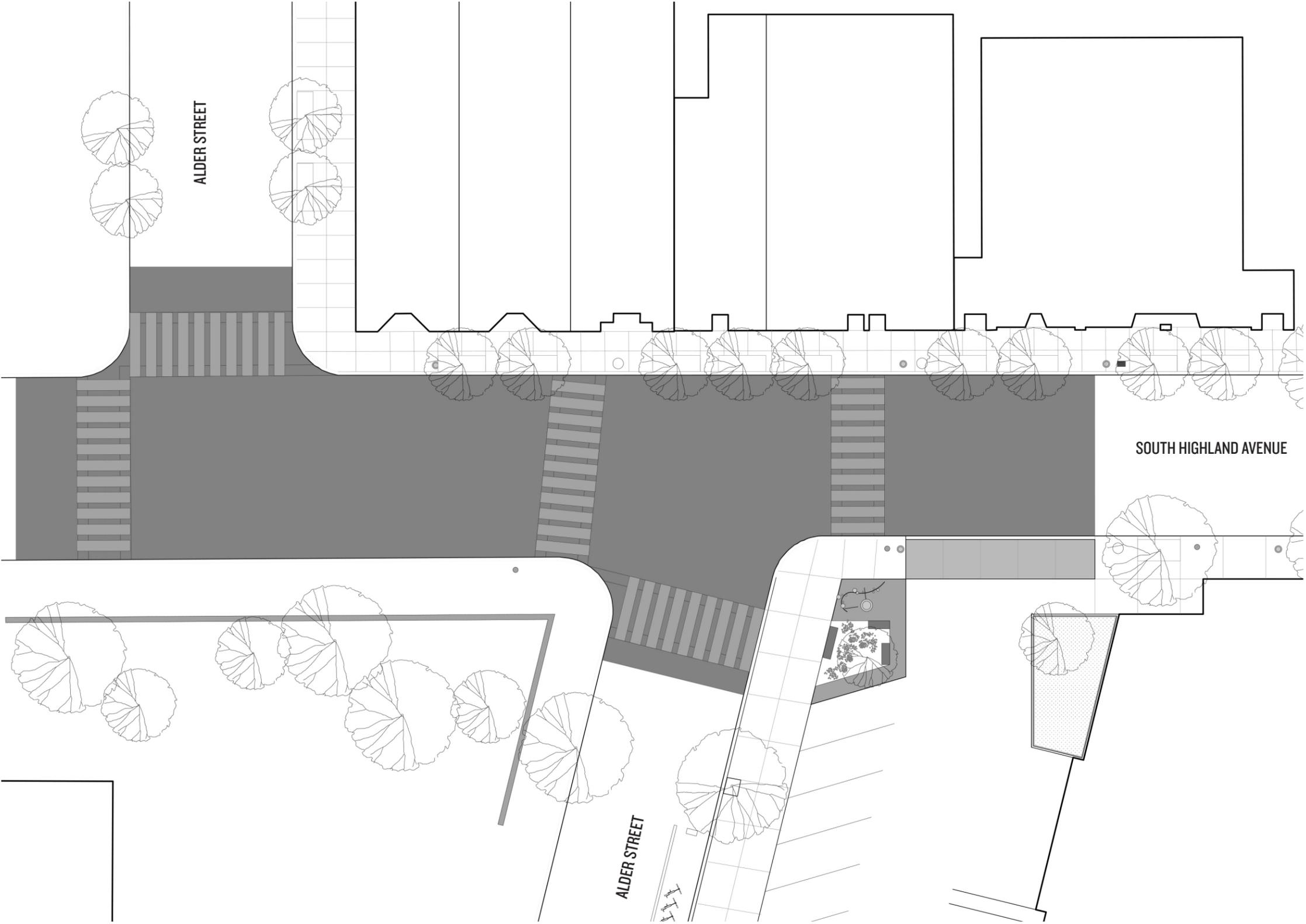
- Concrete curb (lf)
- New sidewalk (sqft)
- Planting (sqft)
- Intersection/ includes crosswalk (sqft)
- Specialty paving (sqft)
- Street trees (each)
- Understory trees (each)
- Lighting elements (each)
- Benches/ stone blocks (each)
- Receptacles (each)
- Wayfinding elements (each)
- Public art elements (each)
- Bike racks (each)



South Highland Avenue Summary Table

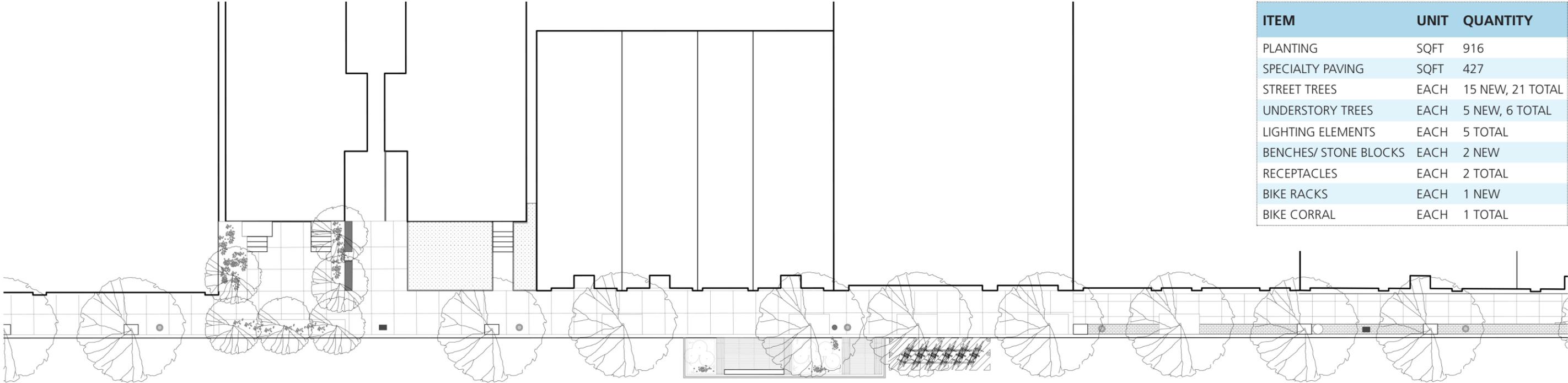
ITEM	UNIT	QUANTITY
NEW SIDEWALK	SQFT	302
PLANTING	SQFT	1,493
INTERSECTION/ INCLUDES CROSSWALK	SQFT	19,054
SPECIALTY PAVING	SQFT	689
STREET TREES	EACH	34 NEW, 49 TOTAL
UNDERSTORY TREES	EACH	5 NEW, 8 TOTAL
LIGHTING ELEMENTS	EACH	20 TOTAL
RECEPTACLES	EACH	7 TOTAL
BIKE RACK	EACH	3 NEW, 2 TOTAL
BIKE CORRAL	EACH	1 TOTAL
BIKESHARE STATION	EACH	1 TOTAL
BENCHES/ STONE BLOCKS	EACH	5 NEW
WAYFINDING ELEMENTS	EACH	4 NEW
PUBLIC ART ELEMENTS	EACH	1 NEW

Map 1 | Highland Avenue at Alder Street



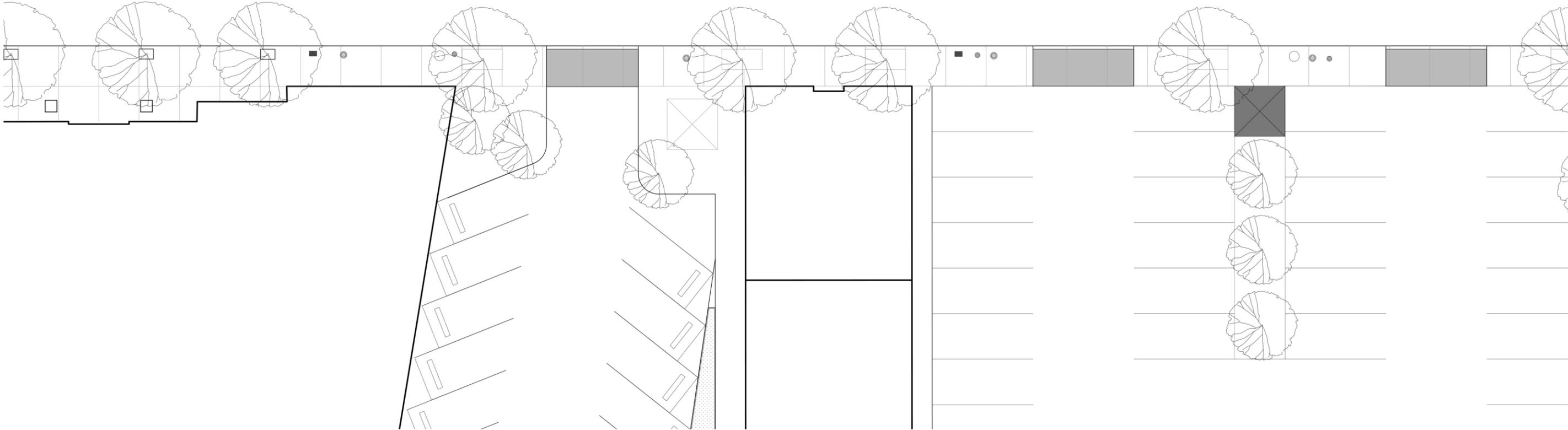
ITEM	UNIT	QUANTITY
NEW SIDEWALK	SQFT	302
PLANTING	SQFT	481
INTERSECTION/ INCLUDES CROSSWALK	SQFT	7,984
SPECIALTY PAVING	SQFT	262
STREET TREES	EACH	15 NEW, 20 TOTAL
LIGHTING ELEMENTS	EACH	5 TOTAL
BENCHES/ STONE BLOCKS	EACH	3 NEW
RECEPTACLES	EACH	3 TOTAL
WAYFINDING ELEMENTS	EACH	2 NEW
PUBLIC ART ELEMENTS	EACH	1 NEW
BIKE RACKS	EACH	2 NEW
BIKE SHARE STATION	EACH	1 TOTAL

Map 2 | Highland Avenue at Surface Lots

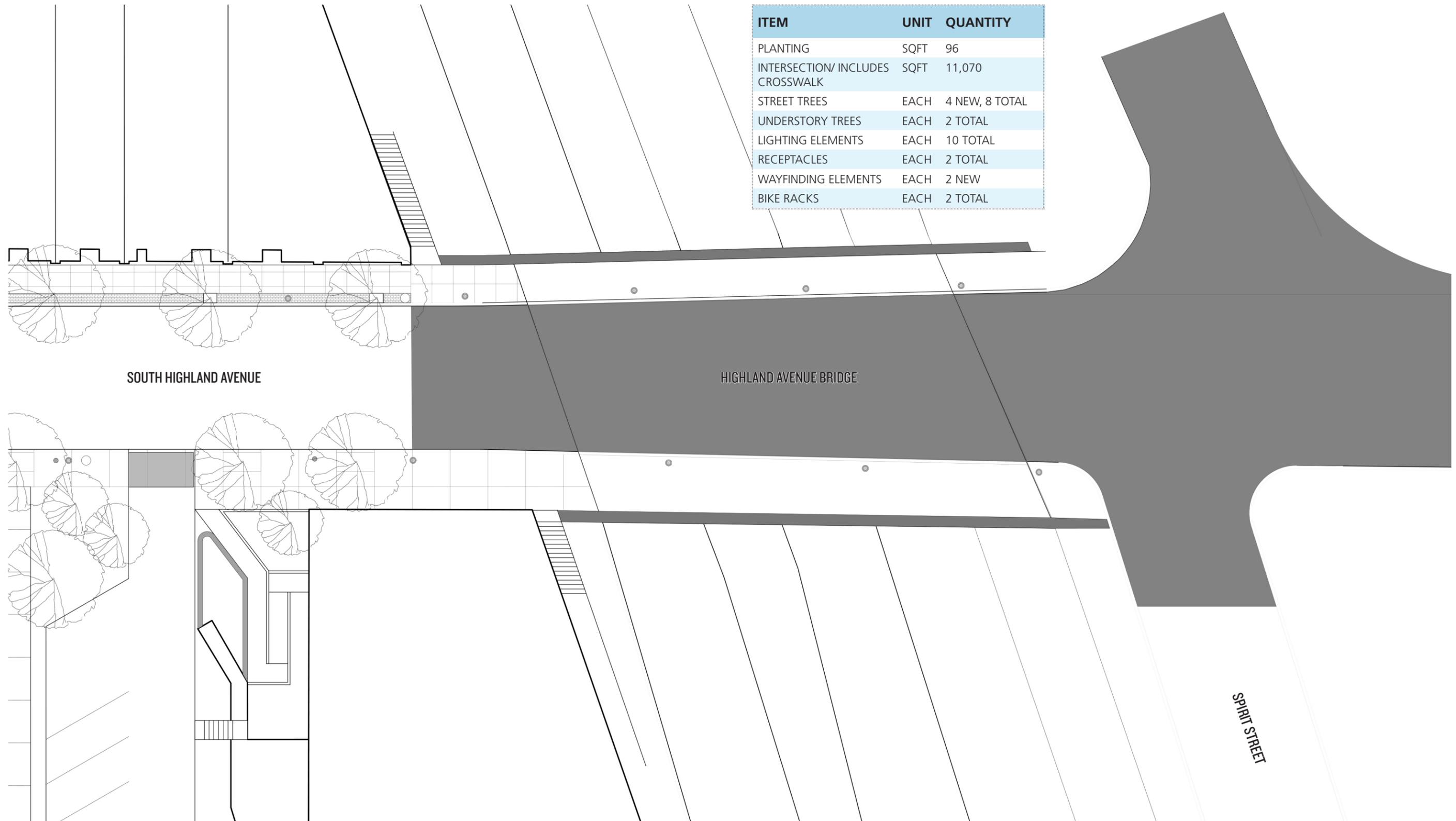


ITEM	UNIT	QUANTITY
PLANTING	SQFT	916
SPECIALTY PAVING	SQFT	427
STREET TREES	EACH	15 NEW, 21 TOTAL
UNDERSTORY TREES	EACH	5 NEW, 6 TOTAL
LIGHTING ELEMENTS	EACH	5 TOTAL
BENCHES/ STONE BLOCKS	EACH	2 NEW
RECEPTACLES	EACH	2 TOTAL
BIKE RACKS	EACH	1 NEW
BIKE CORRAL	EACH	1 TOTAL

SOUTH HIGHLAND AVENUE



Map 3 | At the Highland Avenue Bridge



Appendix

The following pages include technical details for pricing, preferred material palettes and possible sourcing information and meeting minute summaries from the Stakeholder engagement sessions.

Recommended Tree Species For Pittsburgh's Streets

There are two main categories; Shade Trees where no overhead utilities conflict with tree growth, and Utility Trees where overhead utilities call for shorter trees. The Utility Tree section has 2 parts to account for the occasional situation where wires are 25' or higher above ground.

Shade Trees

Trees in the Shade Tree category should be planted where no overhead utilities exist. Shade trees are the most desirable size of tree for planting, and should be used at all times in the absence of overhead wires.

Acer rubrum 'Franksred'- Red Sunset Red Maple (do not use within 5' of sidewalks; aggressive root system)

Acer x freemanni 'Celzam'- Celebration Freeman Maple (do not use within 5' of sidewalks; aggressive root system)

Aesculus x carnea 'Briotii'- Ruby Red Horsechestnut (less mid-summer scorch than hippocastanum)

Cercidiphyllum japonicum Tree Form-Katsura Tree (requires more water during establishment years than most other trees)

Corylus colurna (tree form)- Turkish Hazel or Turkish Filbert

Eucommia ulmoides - Hardy Rubber Tree (not pretty but can be useful)

Ginkgo biloba (any male variety) - Ginkgo (male example is Princeton Sentry)

Gleditsia triacanthos (any thornless, seedless, variety) - Honeylocust

Gymnocladus dioicus (male variety only) - Kentucky Coffeetree

Liriodendron tulipifera - Tulip Tree (open lawn or large parking island)

Metasequoia glytostroboides – Dawn Redwood (requires larger than usual pit if used as a street tree, or use in open planting areas)

Nyssa sylvatica - Blackgum

Ostrya virginiana – American Hophornbeam

Platanus x acerifolia 'Bloodgood' - Bloodgood London Planetree

Quercus bicolor - Swamp White Oak

Quercus macrocarpa – Bur Oak

Quercus rubra - Northern Red Oak

Quercus palustris - Pin Oak

Sophora japonica - Scholartree (flower issues make this an open space tree not suited to sidewalk use)

Taxodium distichum – Baldcypress

Tilia tomentosa - Silver Linden

Ulmus parvifolia – Lacebark Elm/Chinese Elm

Ulmus Hybrids – disease resistant trees like 'Homestead', 'Pioneer', 'Accolade', 'Frontier', 'Liberty' and 'Urban'.

Zelkova serrata – Zelkova ('Green Vase' is not recommended in commercial areas where it may block signage)

Utility-Compatible Trees Group A (under-wire use)

Group A applies to most plantings under utility lines. This is necessary because most wires are less than 25' above ground. Where possible, offset trees so they are not directly under the wires.

Acer ginnala – Amur Maple 15'-20'

Acer tataricum – Tatarian maple 15'-25'

Crataegus crus-galli var. 'Inermis' – Thornless cockspur hawthorn 15'-20'

Crataegus laevigata 'Superba' – Crimson Cloud hawthorn (tree form) 15'-20'

Magnolia stellata – Star Magnolia (tree form) 10'-20'

Malus cultivars – crabapple (disease resistance emphasized) all under 22' Adams, Amsalzam, Centurion, Donald Wyman, Harvest Gold, Prairifire, Professor Sprenger, Red Jewel, Robinson, Sentinel, Sugar Tyme, Strawberry Parfait (always specify tree form for crabapple selection)

Malus floribunda – Japanese flowering crabapple under 25'

Malus sieboldii x zumi 'Calocarpa' – Zumi crabapple under 25'

Malus 'Spring Snow' tree form – Spring Snow Crabapple 15-20' (fruit makes Malus undesirable in commercial areas)

Group B (use only under wires 25' and higher)

Group B applies only to utility plantings where the bottom wire is over 25' above ground. Where possible, offset trees so they are not directly under the wires.

Acer buergerianum – Trident Maple (tree form) 20-30'

Acer campestre – Hedge maple (tree form) 25'-40'

Acer campestre 'Evelyn' – Queen Elizabeth hedge maple 30'-40'

Acer griseum – Paperbark Maple 25'-35'

Amelanchier laevis 'Cumulus' or 'Majestic' – Apple Serviceberry 20'-30'

Amelanchier x grandiflora – Serviceberry (many cultivars) 20'-30'

Carpinus betulus "Fastigiata" – European Hornbeam (tree form) 30'-40'

Carpinus caroliniana – American Hornbeam (useful in full shade) 20-35'

Cercis canadensis – Eastern Redbud 25'-30'

Cornus kousa – Kousa Dogwood (esp. Rutgers hybrids) 20'-30'

Koelreuteria paniculata - Goldenrain Tree 25'-40'

Magnolia 'Galaxy' – Galaxy Magnolia (tree form) 20'-30'

Phellodendron amurense – Amur Corktree 30'-40'

Prunus sargentii – 'Columnar' – Sargent cherry 30'

Prunus serrulata 'Amanogawa', 'Kwanzan' – Japanese flowering cherry 25'-35'

Prunus virginiana 'Shubert' – Shubert Chokecherry 20'-30'

Sorbus species – Mountain Ash 15'-35' (in limited quantities)

Syringa reticulata 'Summer Snow', 'Ivory Silk' – Japanese Tree lilac 20'-25'

Trees planted on city property shall be:

- 2" caliper (minimum) measured 6" above the root ball;
- set rootball level slightly above soil grade (1-2"), finished soil grade being 2" below top of sidewalk (see Tree Planting Detail).
- mulched with 2" of shredded wood mulch for weed control;
- stake trees just below the first branch with 1"-3" wide polypropylene straps (2 per tree on opposite sides of tree, connecting from tree to stake horizontally). DO NOT use rope or wire through a hose. ArborTie is an acceptable product.

- Remove all staking materials after one (1) year, or as otherwise directed by the City Forester.
- Planting beds shall measure a minimum of 3' X 10' in order to assure space for the root zone. Where box style planting beds currently exist, the space shall be enlarged to the above dimensions. The rectilinear shape may be substituted with Forestry approval, but a minimum of 30 sq. ft. of root zone must still be observed. Trees require ample root space for optimum growth and longevity, so planting beds larger than the minimum are welcome and desirable where there is still sufficient space for pedestrian traffic.

Prepared by Forestry Division
City of Pittsburgh
412-665-3625

Appendix

Salt Tolerant Plant List

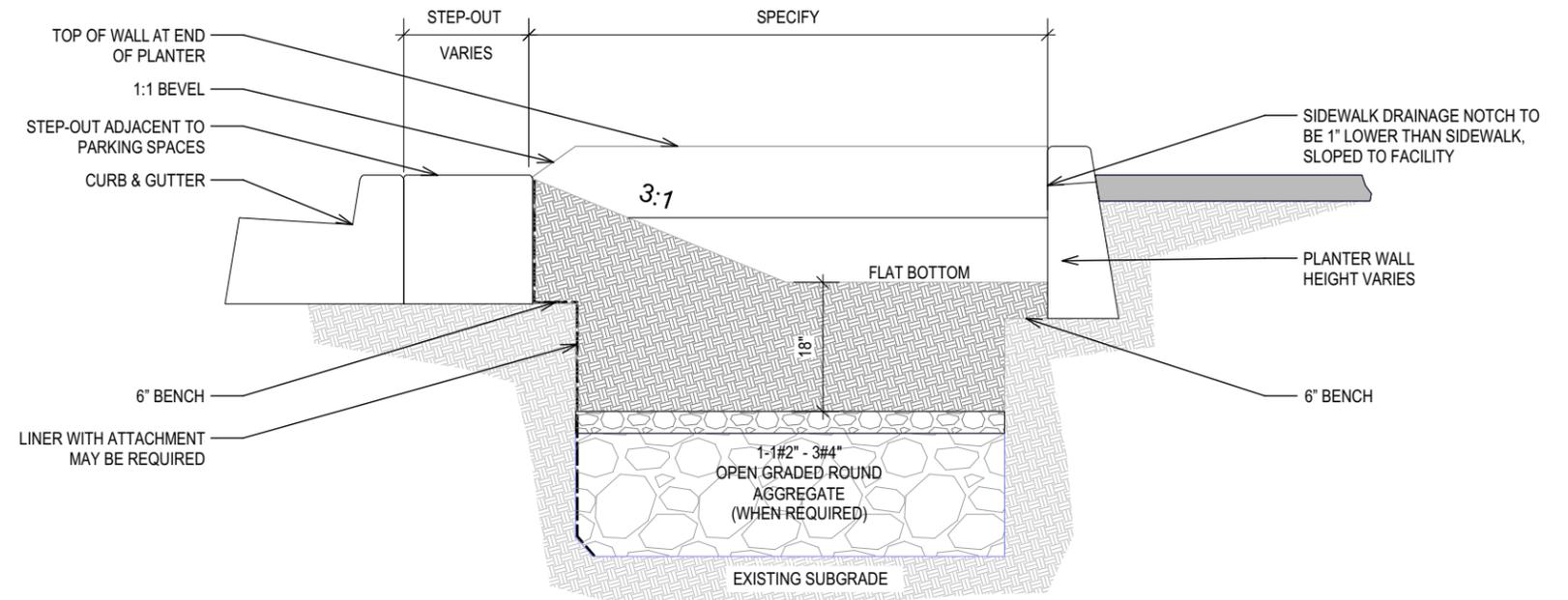
The following list contains plant species that are highly tolerant of salt. Select species with final growth size in mind. Some species below need a larger root zone to thrive. Consider this list when planting adjacent to roadways.

Shade trees

- Aesculus hippocastanum* - Horsechestnut
 - Amelanchier canadensis* - Serviceberry
 - Betula lenta* - Cherry birch
 - Crataegus crusgalli* var. *inermis* - Cockspur hawthorn
 - Ginkgo biloba* - Maidenhair
 - Gleditsia triacanthos* var. *inermis* - Honeylocust
 - Gymnocladus dioica* - Kentucky coffeetree
 - Hamamelis* spp. - Witchhazel
 - Juniperus virginiana* - Eastern redcedar
 - Magnolia* spp. - Magnolia
 - Nyssa sylvatica* - Black gum
 - Quercus alba* - White oak
 - Quercus rubra* - Red oak
 - Sophora japonica* - Japanese pagodatree
 - Taxodium distichum* - Baldcypress
- ### Shrubs/groundcovers
- Arctostaphylos uva-ursi* - Bearberry
 - Aronia* spp. - Chokeberry
 - Caragana arborescens* - Siberian pea shrub
 - Cornus racemosa* - Gray dogwood
 - Cotoneaster divaricatus* - Spreading cotoneaster
 - Cotoneaster horizontalis* - Rock cotoneaster
 - Cytisus scoparius* - Scotch broom
 - Hibiscus syriacus* - Rose-of-Sharon

- Hydrangea* spp. - Hydrangea
 - Hypericum* spp. - St. Johnswort
 - Philadelphus* spp. - Mockorange
 - Potentilla fruticosa* - Potentilla
 - Ribes alpinum* - Alpine currant
 - Rosa rugosa* - Saltspray rose
 - Rhus* spp. - Sumac
 - Syringa* spp. - Lilacs
 - Vaccinium* spp. - Blueberry/cranberry
- ### Perennials
- Armeria maritima* - Sea thrift
 - Calamagrostis acutiflora* - 'Karl Foerster' reed grass
 - Dianthus gratianopolitanus* - Cheddar pink
 - Festuca glauca* - 'Elijah Blue' Blue Fescue Grass
 - Helleborus orientalis* - Lenten rose
 - Hemerocallis* spp. - Daylily
 - Iberis sempervirens* - Candytuft
 - Limonium latifolium* - Sea lavender
 - Liriope spicata* - Lilyturf
 - Pennisetum alopecuroides* - Fountain grass
 - Sedum spectabile* - Sedum 'Autumn Joy'
 - Schizachyrium scoparium* - Little bluestem
 - Waldsteinia fragarioides* - Barren strawberry
 - Yucca filamentosa* - Adam's-needle Yucca

Stormwater Planter Detail



DESIGNER INFORMATION

1. SHOW LINER AND PERF-PIPE IN THE SECTION VIEW IF THEY ARE REQUIRED.
2. MAXIMIZE 9" OF SURFACE STORAGE.
3. MINIMUM FACILITY WIDTH IS 30" FROM BACK OF CURB TO FACE OF PLANTER WALL.
4. TOP OF CURB AND TOP OF SIDEWALK AT APPROXIMATELY SAME ELEVATION, UNLESS STORMWATER FACILITY RETROFIT.

CONSTRUCTION NOTE

IN FACILITIES THAT ARE UNLINED, FRACTURE AND LOOSEN SOIL TO A DEPTH OF 12" BELOW GRADE BEFORE INSTALLING BLENDED SOIL OR AGGREGATE. DO NOT TILL.

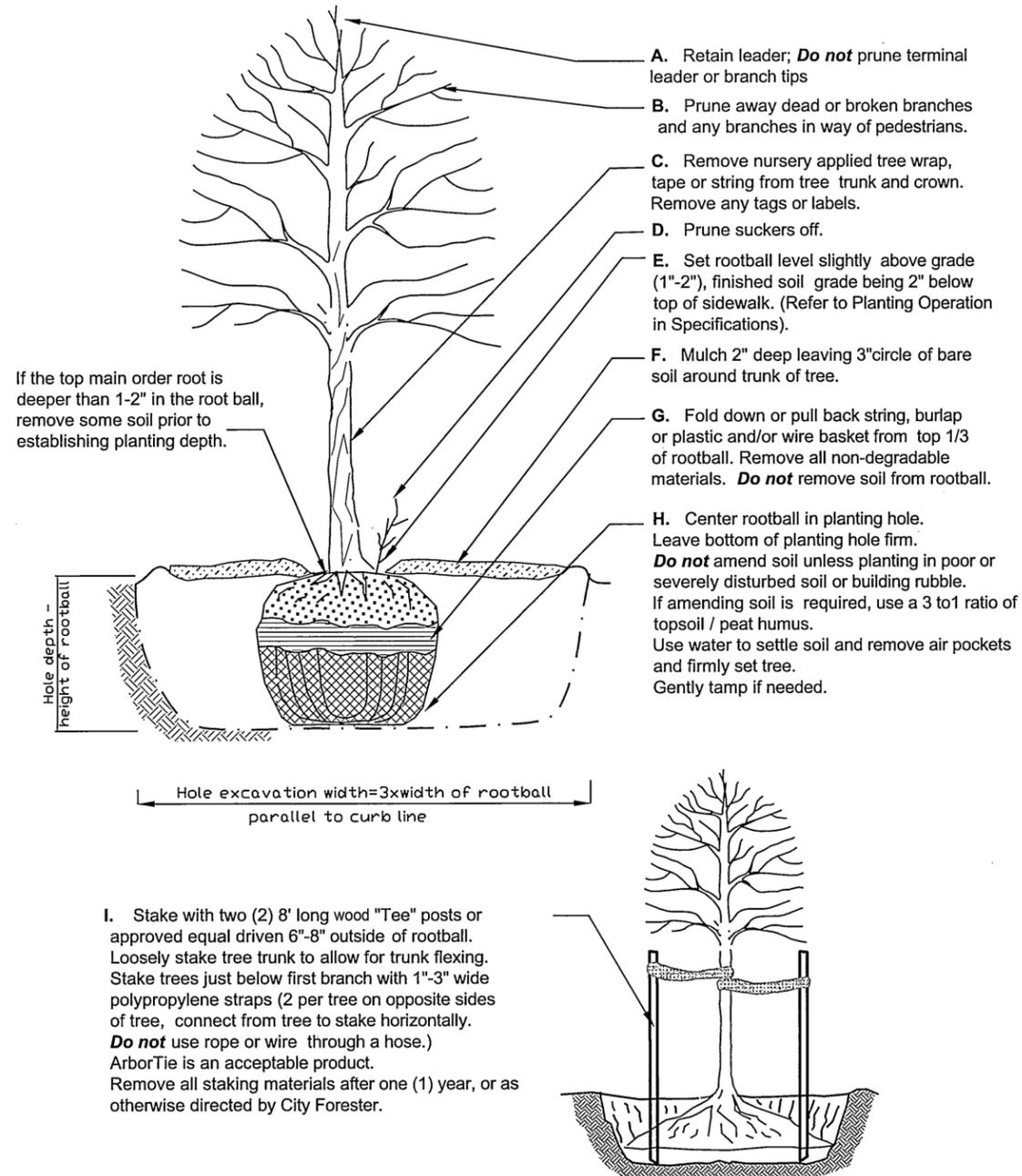
PLANTER WALL DESIGNER INFORMATION

1. SPECIAL DESIGN CONSIDERATIONS OR STRUCTURAL REVIEW MAY BE REQUIRED FOR LONGER PLANTER WALL SPANS. STEEL REINFORCEMENT OR ADDITIONAL CONCRETE CHECK DAMS MAY BE NEEDED FOR STABILITY
2. SPECIFY ONE OF THE ABOVE PLANTER WALL OPTIONS BASED ON SITE CONDITIONS.
3. MAINTAIN 1:6 BATTER FOR WALLS AND 4" MINIMUM FROM TOP OF WALL TO TOP OF SIDEWALK.

Detail adapted from the City of Portland's Green Streets Manual. For additional details, please visit: www.portlandoregon.gov/bes/64040

Appendix

City of Pittsburgh Tree Planting Detail

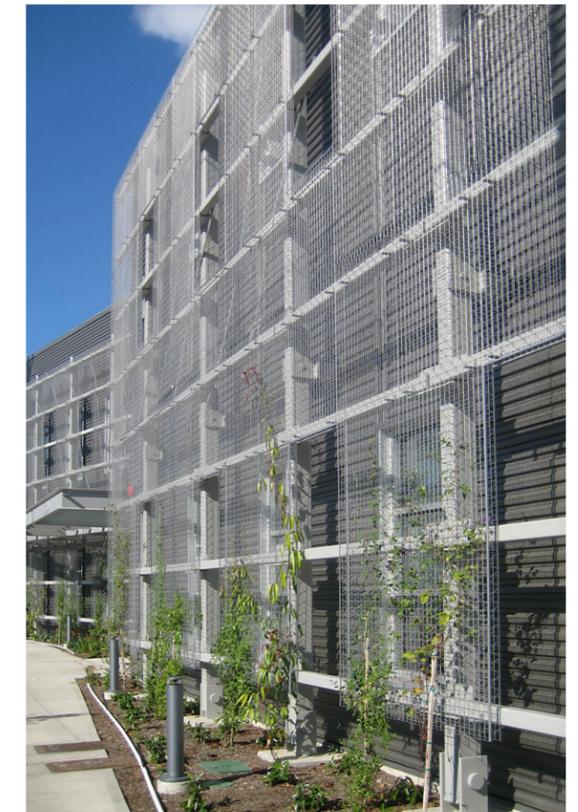


Wall Mounted Green Screens/ Planting Lattice

In tight urban streetscapes where planting space is limited, wall-mounted trellis panels can transform walls into soft-textured, vine covered, seasonally changing surfaces. The panel or cable elements are typically modular, easy to install and cost-effective. Below and to the right are some examples of wall mounted systems seen in cities around the US along with manufacturer contact information.

greenscreen®
 (p) 800.450.3494 (e) sales@greenscreen.com
 www.greenscreen.com

Jakob Inc
 casa2665 NW 1st Ave, Boca Raton, FL 33431
 (p) 866.215.1421 (e) info@jakob-usa.com
 www.jakob-usa.com/green-walls/

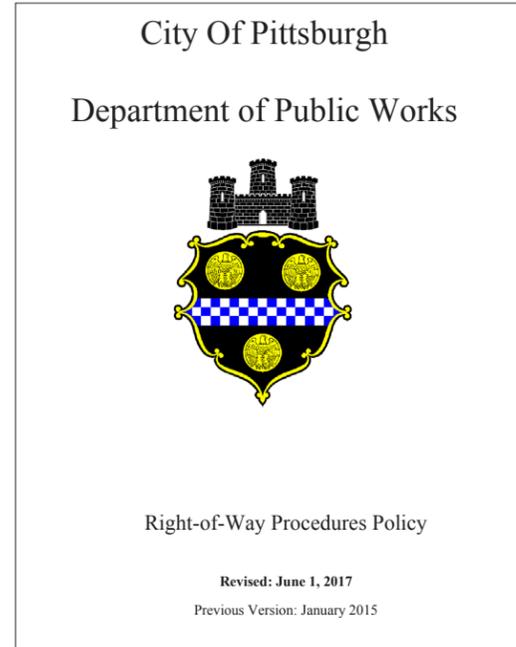


Appendix

Site Furniture: City of Pittsburgh Right-of-Way Procedures

Within Walnut Street's right-of-way, the City of Pittsburgh's policy document revised June 1, 2017, provides details and specifications regarding the installation of paving, typical site furniture, ADA ramps and more.

If non City standard site furniture is selected, a waiver and/ or adoption of the site elements may be required.

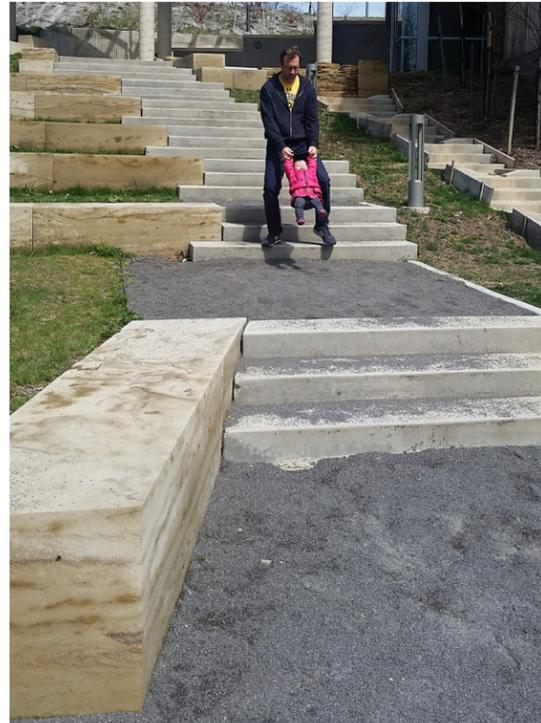


Site Furniture: Stone Plinths

Introducing stone into a streetscape palette provides a durable, tactile material that enlivens the public realm. Stone plinths sourced from local quarries may provide non-traditional seating adjacent to planting areas.

Designers should also consider reusing stockpiled bridge stones as seating plinths, depending on the availability of larger pieces.

By using locally-sourced material, the carbon footprint of a streetscape project's implementation is greatly reduced.



Smooth-sawn sandstone plinths define Frick Environmental Center's Amphitheater

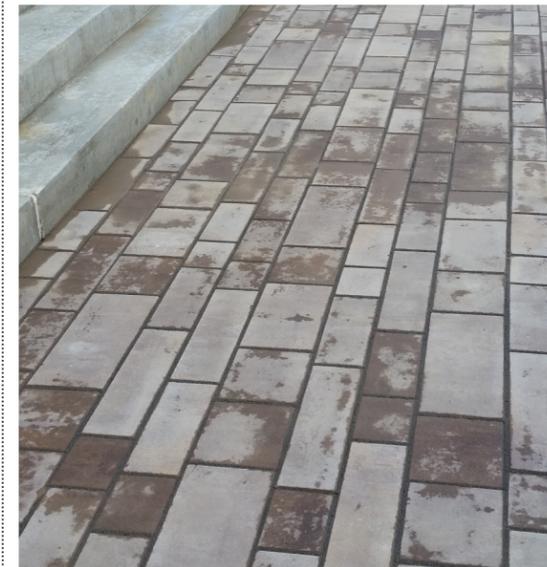


Sandstone plinths edge East Liberty Transit Center's planting beds and provide additional seating

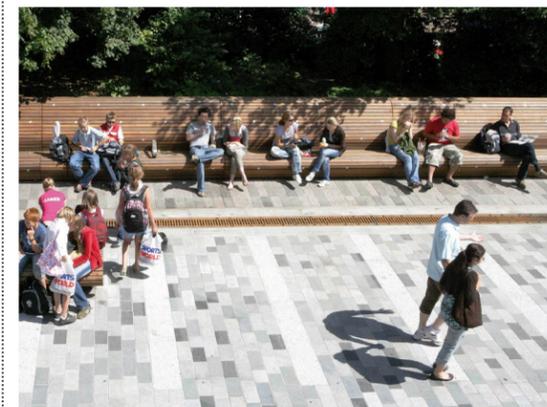
Site Furniture: Decorative Pavers

Decorative pavers introduced into portions of a streetscape help to define pedestrian spaces, break up large fields of paving by providing texture and color changes, slow traffic when placed in intersections, and provide fundraising opportunities by allowing engraved units.

Designers should select pavers that are durable, fade-proof and sturdy enough to withstand emergency vehicle traffic within the public realm.



Unilock's Artline pavers installed at Snowdon Square Park in Brownsville PA. Pavers can support emergency vehicle traffic and are fade-proof.



Pavers on a shared street in New Brighton

ADA Compliance

The Americans with Disabilities Act (ADA) became law in 1990. The ADA is a civil rights law that prohibits discrimination against individuals with disabilities in all areas of public life, including jobs, schools, transportation, and all public and private places that are open to the general public. The purpose of the law is to make sure that people with disabilities have the same rights and opportunities as everyone else. The ADA gives civil rights protections to individuals with disabilities similar to those provided to individuals on the basis of race, color, sex, national origin, age, and religion. It guarantees equal opportunity for individuals with disabilities in public accommodations, employment, transportation, state and local government services, and telecommunications.

In the public realm, the ADA requires buildings and streets to become accessible to people with disabilities, whether with automatic doors, grab bars or ramps, among other accommodations. The ADA Coordinator for the City of Pittsburgh assists architects, developers, business owners, landlords and others in designing or redesigning their facilities so that they are usable by all persons, including those with disabilities.

For additional information, contact:

Richard Meritzer
ADA Coordinator City of Pittsburgh
200 Ross Street - 4th Floor
Pittsburgh, PA 15219

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Stakeholder Meeting 1

Project: **Highland Public Realm Study**
Regarding: Stakeholder Meeting 1
Date: February 23, 2017 9:00 am
Location: Urban Tap

1. Introductions and presentation by SfSP discussing project overview, process, time line, existing conditions along Highland Ave, and explanation of break-out activities

2. BREAK OUT ACTIVITY, report out:

- PEDESTRIAN EXPERIENCE:

One side of Highland Avenue is more enjoyable to walk down because of street furniture, scale of building, and plantings. Consider how to make other side as pleasant in the pedestrian realm.

Sidewalk uneven in many areas. Need to be repaired for better accessibility.

Trash and recycling needs to be emptied more on weekends. Need more trash and recycling receptacles along the street.

Introduce greening and seating surrounding the ATM in the plaza.

Seating in front of Urban Tap about to receive permitting.

Need additional bus shelters and seating along Highland.

Is there a need for public restrooms?

Can we consider burying overhead wires to improve pedestrian realm?

- GREENING:

Create a parklet at the corner of Highland and Alder, potentially expand into parking lot if owner amenable.

Create organized low level greening in front of Milli's to better organize seating and walkway.

Introduce a row of trees in the plaza to separate parking.

Tree roots still remain in the paving in front of Urban Tap and need to be removed.

Create a parklet at the landscape zone in front of the Rubicon Building

- IDENTITY & LIGHTING:

East Liberty's new identity ends abruptly at Highland Avenue bridge. Highland's identity is dated. Some people refer to Highland Business District as Shadyside Heights.

Explore holiday lighting options.

Add banners on the light posts.

Add an art element in front of Milli's/ Evolve.

Add identity elements in front of parking lots adjacent to Casbah at the plaza.

Create wayfinding signage from East Liberty into Highland and to Ellsworth Avenue.

Add regular identity elements on both sides of the street- banners, baskets, or something new. Add street art elements on both sides as well.

More creative/better looking utility poles

More or better shelters to duck under when raining

- MOBILITY:

Pedestrian crossings are difficult. Traffic is either 50 mph or at a dead stop during peak hours along Highland. Introduce bumpouts or create a table to allow for a midblock crossing and to slow traffic. Analyze where best crossing location would be located.

The new traffic light at the end of the bridge backs up traffic along Highland.

Not enough ADA parking spaces along the street.

Relocate the bike share on Alder Street to Carnon street to allow for more on-street parking

Loading on Carnon Street is difficult. Carnon also acts as a vehicular cut through from Ellsworth Avenue.

Improve pedestrian access from Ellsworth to Highland Avenue.

Loading along Greenbriar Way is problematic. Need resolution with alley entrance and on-street parking.

Parked cars make turns from Alder onto Highland difficult.

- EVENTS:

No specific events were discussed.

3. NEXT STEPS: Meeting minutes to be distributed. Create design options to be presented at 2nd stakeholder meeting in April. Meet with Public Works to review design options.

Minutes prepared by SfSP

Stakeholder Meeting 2

Project: **Highland Public Realm Study**
 Regarding: Stakeholder Meeting 2
 Date: May 23, 2017 9:00 am
 Location: Urban Tap

1. Pre-meeting: Stakeholders were asked to review streetscape precedent images and put stickers next to examples they reacted positively to or felt were appropriate along Highland Avenue. The images (below) with the most votes will influence the materials palette selected for the corridor.

2. Introductions and presentation by SfSP discussing project overview, precedent images, and potential elements. Following the presentation, the stakeholders provided the following comments.

3. REMARKS ABOUT POTENTIAL ELEMENTS PROPOSALS:

PARKLETS:

- Curb parking is important to keep. Parklet might reduce parking.
- We can find a creative way to get more green along Highland, while still addressing parking.

PARKING:

- Include better signage to direct drivers to decked parking at new Eastside Bond @ Annie Pl & Spirit St.
- Can any parking spaces for the district be provided at new Armory proposal?
- Consider a free district trolley? ex: Alexandria's free trolley on King Street
- Some members felt parking is not the problem but that traffic is the problem.
- Eastside lot is ticketing heavily, and it will change the dynamics of parking on Highland. Can we explore pay for parking at Eastside lot?

CONNECTION TO ELLSWORTH:

- Something that indicates the connection can go under the bridge. More lighting?
- Good idea to connect. Signage needed in both districts.

INTERSECTION:

- Paint can be good idea. Milli's owner suggested ice cream cones. Audience members suggested logos of businesses as part of the crosswalk design.
- Alder intersection's geometry makes turns difficult, so bumpouts would not be good.

TREES:

- Planting in plaza shopping mall is doubtful, says owner.

BIKE PARKING:

- BikeShare station takes up parking spot, can it be moved onto private property? Councilman's office offered to move it if a private parking space could be used as a replacement location.
- Sidewalks are too narrow to allow for off-street bike parking

IDENTITY / BRANDING:

- One audience member said district is already doing pretty well and questioned if we want to overthink it?
- Any opportunities for holiday lights or banners on poles?

TRAFFIC:

- Implementing more left-turn lights to reduce backups on Highland Avenue with a light especially at Centre Avenue
- Traffic was nice when the bridge was closed. One member asked if the Highland Avenue bridge be pedestrian only?

FURNITURE:

- Good idea, warm up the street, but don't overdo it.

4. NEXT STEPS: Meeting minutes to be distributed. Create "menu" of design elements to be presented at final stakeholder meeting.

Minutes prepared by SfSP



Greening + Art Board w/ stickers on favorable selections



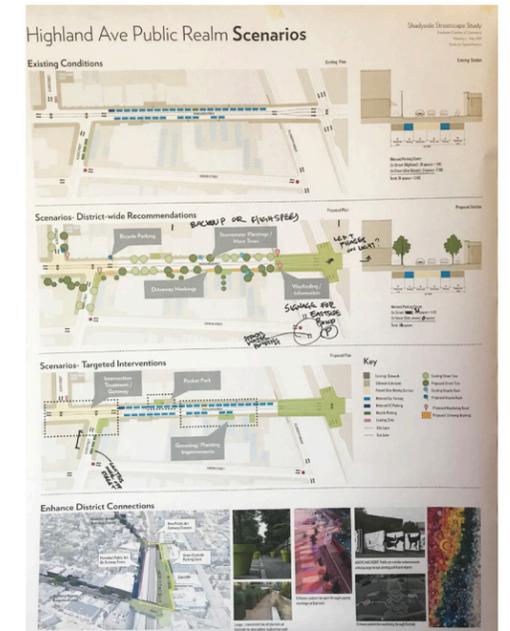
Lighting + Art Board w/ stickers on favorable selections



Wayfinding + Art Board w/ stickers on favorable selections



Street Furniture + Art Board w/ stickers on favorable selections



Scenarios Board w/ notes from comments

Stakeholder Meeting 3

Project: **Highland Public Realm Study**
 Regarding: Stakeholder Meeting 3
 Date: August 9, 2017 9:00 am
 Location: Urban Tap

- Next steps and funding sources presented by Councilman Gilman's office followed by an overview of the previous meetings by SfSP reviewing project scenarios presented and most selected potential elements for the streetscape.
- SfSP presented a Priority Elements board featuring Traffic Calming, Pocket Parks, Street Trees, and Bridge Treatments as the most important interventions for Highland Avenue. Following the presentation, the stakeholders were asked to vote on these priorities or to add to the list already compiled. The stakeholders provided the following comments and questions:

TRAFFIC CALMING:

- Mid-block pedestrian crossings with lights work on Forbes in Squirrel Hill. However, without enforcement, drivers might park too close to the crossing, blocking pedestrian views and sight lines. Mid-block crossings considered a liability by the City of Pittsburgh.
- Public art or pavement markings are good (at intersections, crosswalks and curb cuts), but need to be durable. The rainbow crosswalks on Ellsworth are good, but have already begun to fade.
- A texture as a surface treatment at parking lot driveways could be good as well, instead of paint.

STREET TREES / STREET FURNITURE / SIDEWALK REPAIRS:

- Q: Is fixing cracked sidewalks and removing tree roots part of this project's priorities, like Brookline's redone uniform sidewalks along its business district? A: At the moment, the City helps property owners repair their own sidewalks directly in front of their lots. However, if there was a district-wide standard

and plan created, the project could be included into the capital projects budget to be carried out. There is no plans for that at the moment, and could be included as part of this streetscape improvements effort.

- Q: Does the Healthy Ride station have any plans of being moved onto private property? A: Not at the moment. There would need to be a private property owner along Highland who would be willing to adopt the station, probably in place of a parking spot.
- Adding trash receptacles along Highland Ave was brought up in Meeting #1. It should be added into the priorities under Street Trees.
- Q: Do magazine stands on the sidewalk need to go through a process to be placed in front of a property without permission? A: Follow up with Erika from Gilman's office.

BRIDGE TREATMENT:

- Add parking signage leading to the Eastside Bond development along Highland Avenue into the final recommendations.
- Stakeholders agreed that the connection, or lack of, to Ellsworth should be addressed. SfSP reviewed Scenarios from Meeting 2 that proposed a connection through Eastside, Highland Avenue bridge enhancements that offered a view towards the Spahr-Ellsworth Intersection, and enhancing the lighting and/or fencing along Ellsworth from Spahr to Highland. Stakeholders agreed that these solutions were all worth exploring.
- Lighting along Ellsworth from Highland Bridge / steps to Spahr and under the bridge should be installed to make the pedestrian realm and stair connection more attractive and feel safer.
- Councilman Gilman's office is happy to start the conversation with Mosites to discuss Eastside pedestrian realm improvements and a shared parking strategy.

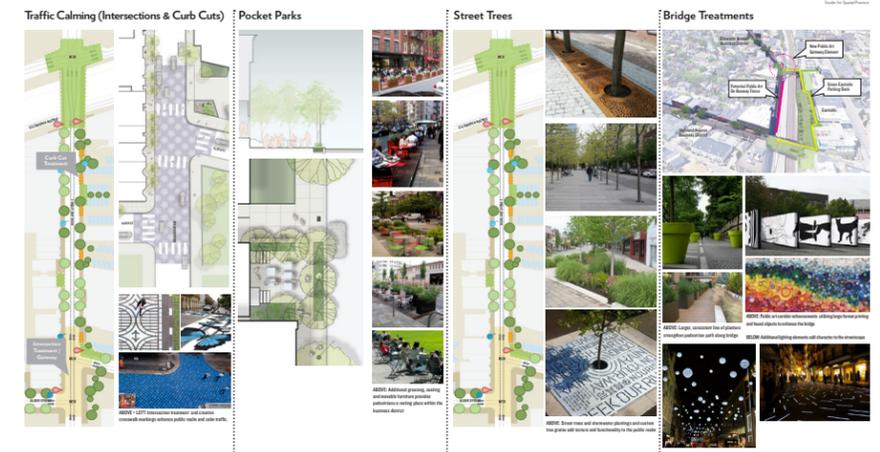
3. VOTES TABULATED:

- Traffic Calming (including painted intersections, improved parking lot driveway markings) - 4 VOTES
- Pocket Park / Parklets - 2 VOTES
- Street Trees (including street furniture, sidewalk improvements/repairs) - 6 VOTES
- Bridge Treatment (including improved pedestrian connections between Ellsworth and Highland via Eastside Bond and/or the steps down to Ellsworth) - 1 VOTE

- NEXT STEPS: Meeting minutes to be distributed. Final report created. Report shall highlight priorities established in Meeting #3.

Minutes prepared by SfSP

Highland Ave Public Realm Priority Elements



Priority Elements Board