



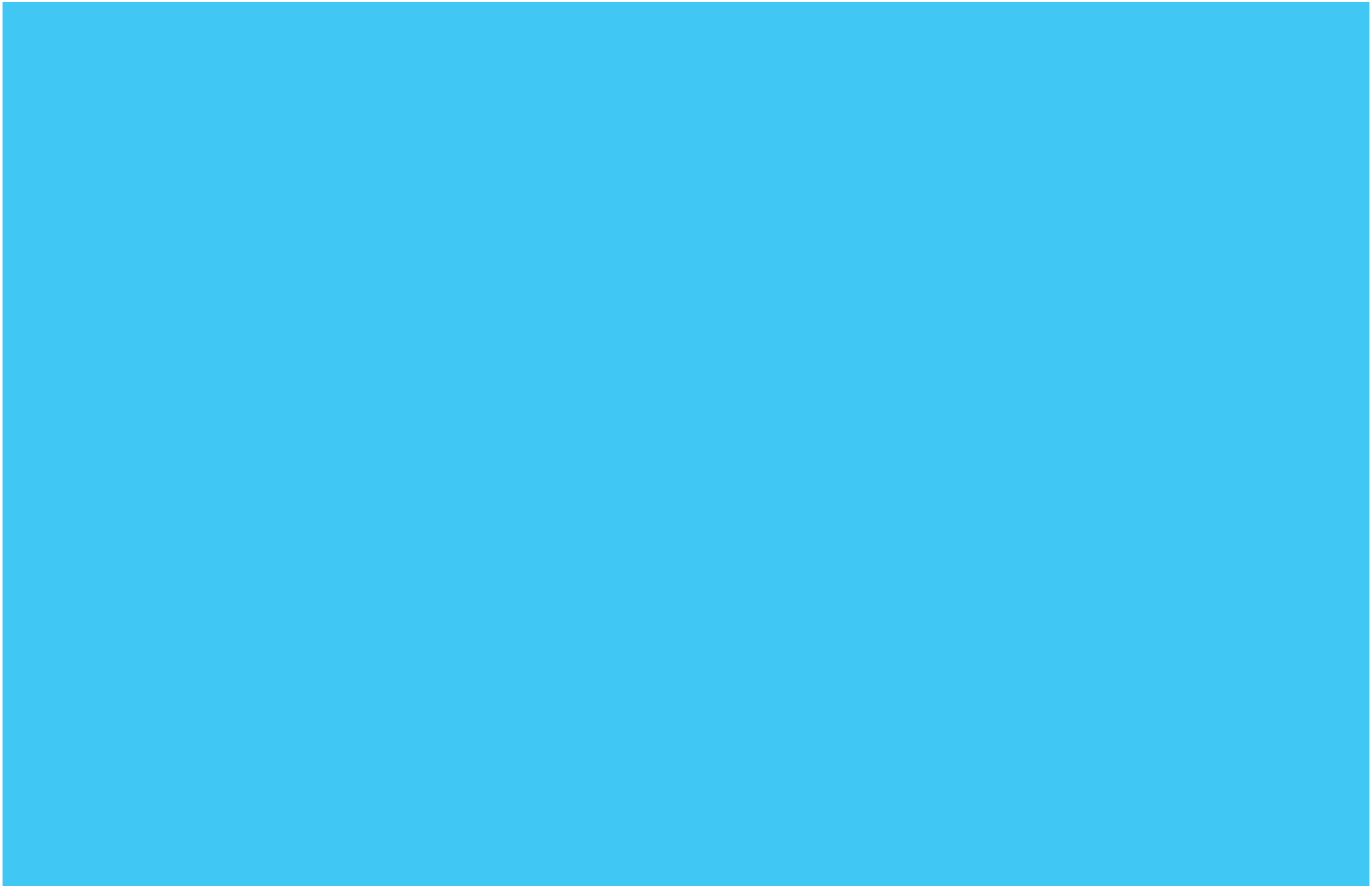
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THE ATLANTA BELTLINE: typologies



THE ATLANTA BeltLine: typologies

credits



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THE ATLANTA BELTLINE: typologies

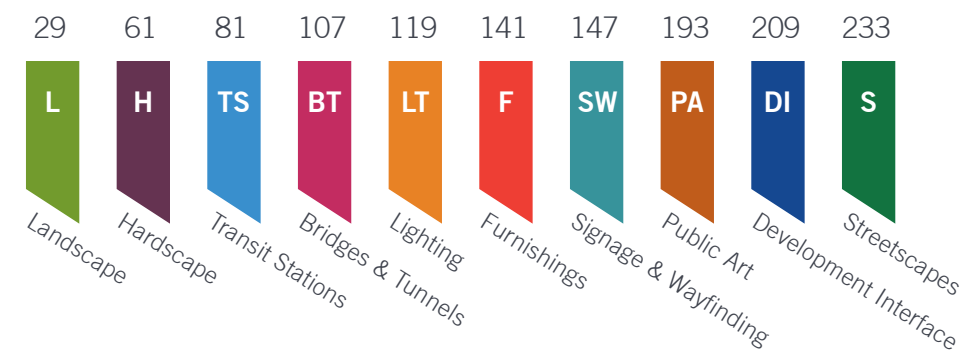
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PREFACE

The Atlanta BeltLine Corridor Design comes in the context of a great deal of other work performed by Atlanta BeltLine, Inc. and its partners, including district planning for adjacent communities through ten Sub Area Plans, environmental assessments and alignment studies through the Environmental Impact Study, and the strategic study of transit through the Transit Implementation Plan. Ongoing planning and design efforts for new, renovated and expanded parks and public spaces along the route as well as various community initiatives will also impact the design. A dozen other studies are also considered, including the Atlanta BeltLine TAD Redevelopment Plan, the Atlanta BeltLine Arboretum Plan and the Connect Atlanta Plan.

The Corridor Design builds on these efforts, refines their recommendations specific to the railroad rights-of-way, identifies projects and programming related to various components (like trails, open space or streetscapes) and provides initial concept work to support future detailed design and engineering of projects.





THE ATLANTA BeltLine:
typologies



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DESIGN FRAMEWORK

- introduction
- analysis + outcomes
- organizing strategy



THE ATLANTA BELTLINE CORRIDOR

The Atlanta BeltLine is an unprecedented opportunity to strengthen Atlanta's neighborhoods and strategically reposition over 4,000 acres of urban land in the process. Currently a circle of mostly underutilized railroad corridors, it is being transformed into a 22-mile transit greenway – a linear park with rail transit and multi-use trails that connects over 40 diverse neighborhoods as well as city schools, historic and cultural sites, shopping districts and public parks. It organizes adjacent underutilized urban land for transit-oriented development, expands transit service within the urban core, and connects various parts of an emerging regional trail system. The Atlanta BeltLine is a transformational investment in Atlanta's future.

Made up primarily of four historic freight railroads, the Atlanta BeltLine will become a new signature public space. This is Atlanta's waterfront opportunity. These railroads are deeply embedded in Atlanta's cultural identity; the city's very origin is the junction of several railroads, and its subsequent success sprang from the economy generated by this extensive network. These belt line routes have also made an important physical imprint on the city, serving first as a barrier and now as a new meeting ground between dozens of Atlanta's intown communities. Like waterfronts and other large, dramatic urban landscapes, the Atlanta BeltLine operates at many scales, changes over time, accommodates all kinds of people and activities, and is deeply engrained in the overall

life and identity of the city. It is both a corridor for movement and a destination in itself. This integration is an important part of the project's success, but successful integration requires a thoroughly-considered design.

What makes the Atlanta BeltLine strong is the breadth of its ideas. It is many things to many people and it is being asked to accomplish a lot within a very narrow space. While challenging, these ideas of inclusiveness and physical complexity are nothing to shy away from. In fact, they are some of the project's strongest assets because they reflect a complexity of public life and a sense of public ownership that is essential to such an important new public realm.

The Atlanta BeltLine Corridor Design ensures that the implementation of the project's various components over time will deliver a functional, elegant, groundbreaking and cohesive urban design. It generates experiential variety through an exciting sequence of landscapes, and also creates continuity and identity for the corridor that make it recognizable across all of its various districts.

THE CORRIDOR DESIGN

22 Miles of Variety, 22 Miles of Continuity

The Corridor Design establishes core physical relationships between transit, trail and access points and fully embeds supporting strategies like public art, an arboretum and signage into its design strategy. It ensures that the grand vision is sustainable, efficient and affordable to build and operate. Finally, the Corridor Design will make sure that the set of ideas that gave life to the Atlanta BeltLine will continue to expand, that its physical design is an open space for fresh ideas, and that a robust public life will flourish along its route.

The challenge then, for the Atlanta BeltLine Corridor Design, is to strike the right balance between the expression of various parts within a coherent whole. This balance requires a strong Design Framework that can organize the corridor functionally and aesthetically so that it will accommodate its amazing variety of purpose while maintaining a strong, clear and cohesive urban form. A strong Design Framework begins with a clear understanding of the Atlanta BeltLine's vision, purpose, physical conditions and program. It makes sense of these things through analysis and then provides a design basis for future design projects that fit within the framework – anything from transit station design to the scoping of historic research, to appropriate design interface with abutting properties, city streets and sidewalks.

If the Design Framework is strong, the parts and pieces can (and will) change over time without

blurring the Atlanta BeltLine's overarching vision. It will accommodate design superstars, local talent and emerging voices; and it will allow design competitions for key sites or components without burdening the entire corridor with that process. In short, the Design Framework must achieve 22 miles of experiential variety linked by 22 miles of design continuity.



“NO SIMPLE LINE”

The Atlanta BeltLine is no simple line on a map.

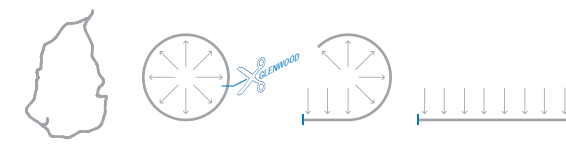
The systems analysis map, shown at right, demonstrates the hundreds of individual conditions that define the BeltLine corridor and make it interesting. There is no single pattern that defines the many ways that the community, landscape and city networks are layered onto each other across the entire length of the 22-mile corridor.

The design of the Atlanta BeltLine, therefore, must consider every scale —everything from watersheds and migratory patterns to transit networks, traffic patterns and thousands of specific site conditions. It must consider the nighttime as much as the day, and should enhance the experience of every season. It must allow for implementation of many discrete projects over time including fast-track components that will begin construction long before the design process itself concludes, and projects that will not be implemented for years to come.

Perhaps most importantly, the design should work for all people, for everything from commuting trips to romantic strolls to children's explorations. It must work for the existing communities that have brought the project to life over the last ten years, as well as for the future thousands who will call the Atlanta BeltLine home, living in greater densities within its redeveloped districts.

SYSTEMS ANALYSIS MATRIX

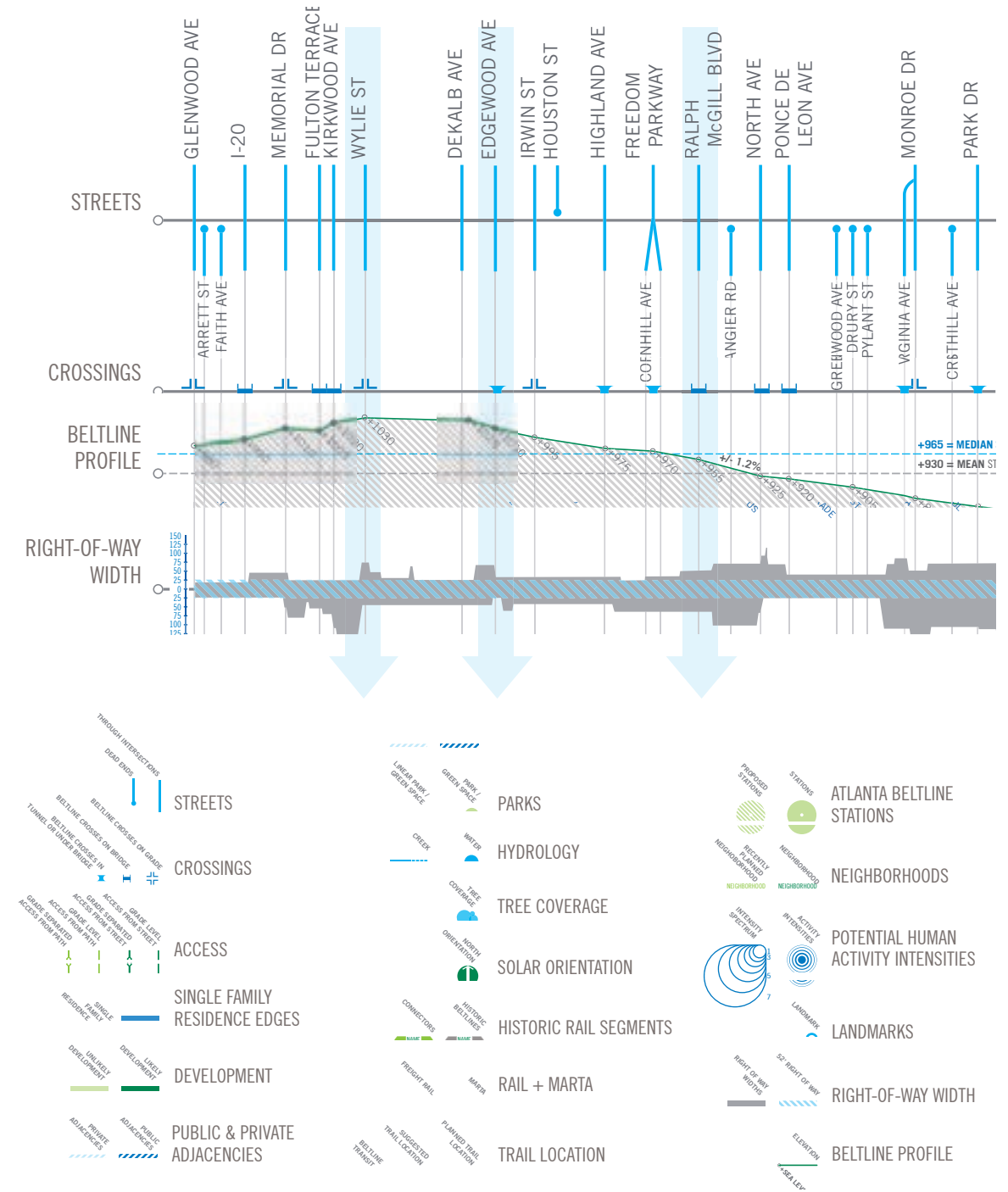
How to read this map:

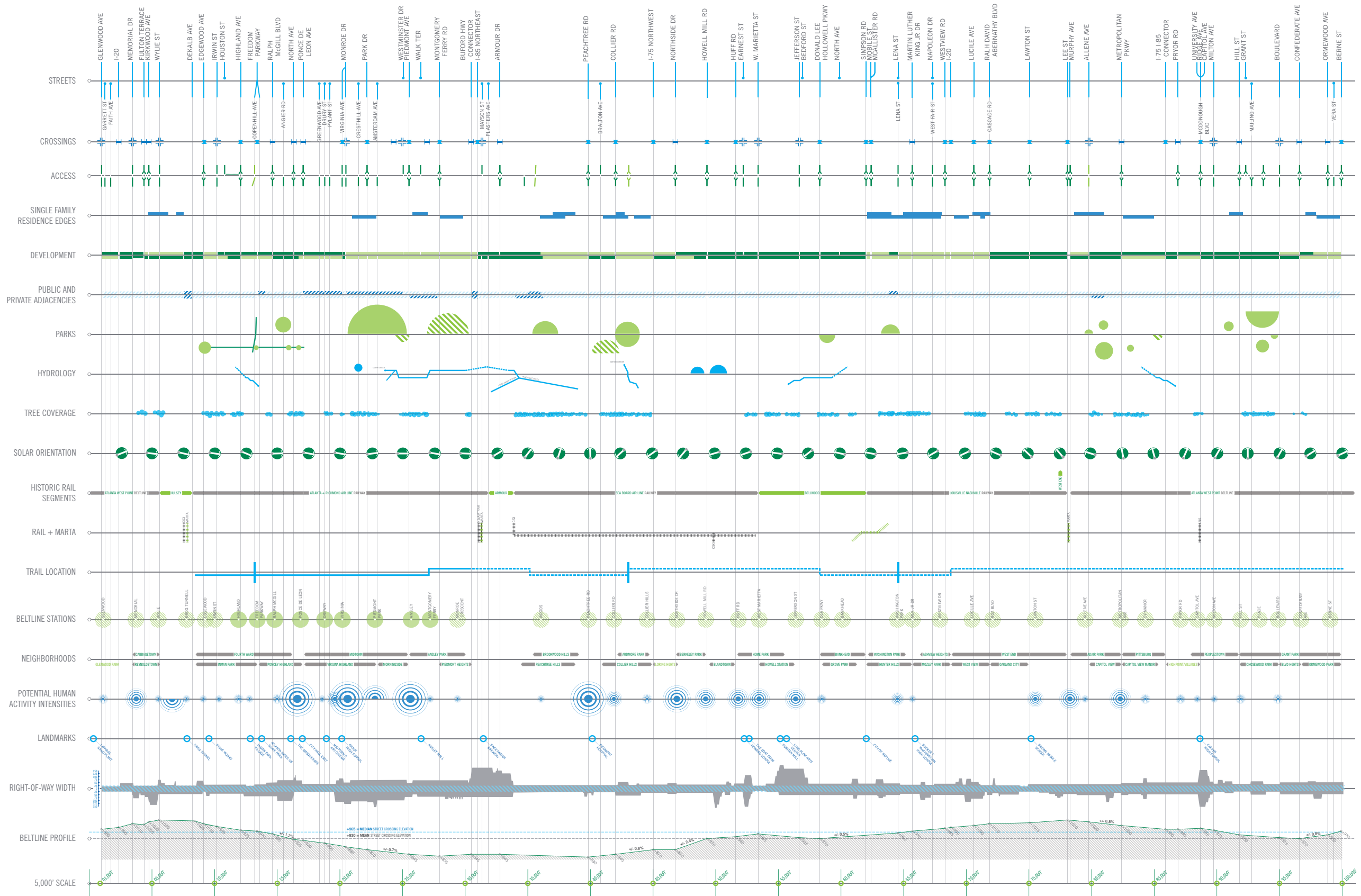


Each horizontal line in this matrix maps an existing aspect of the Atlanta BeltLine along its entire 22-mile length, such as right-of-way width, edge conditions, intersections with streets, creeks and parks.

The matrix is read vertically to identify specific conditions along the Atlanta BeltLine at any given point. This reading reveals the inherent diversity of the Atlanta BeltLine corridor.

The vignette, at right, for example, illustrates the different types of crossings, elevation profile and right-of-way widths that make up the corridor between Glenwood Ave and Park Drive. Taking a reading vertically at the three highlighted points shows that it intersects at-grade with Wylie Street while passing under Edgewood Avenue and over Ralph McGill Boulevard, varying in width at each intersection.



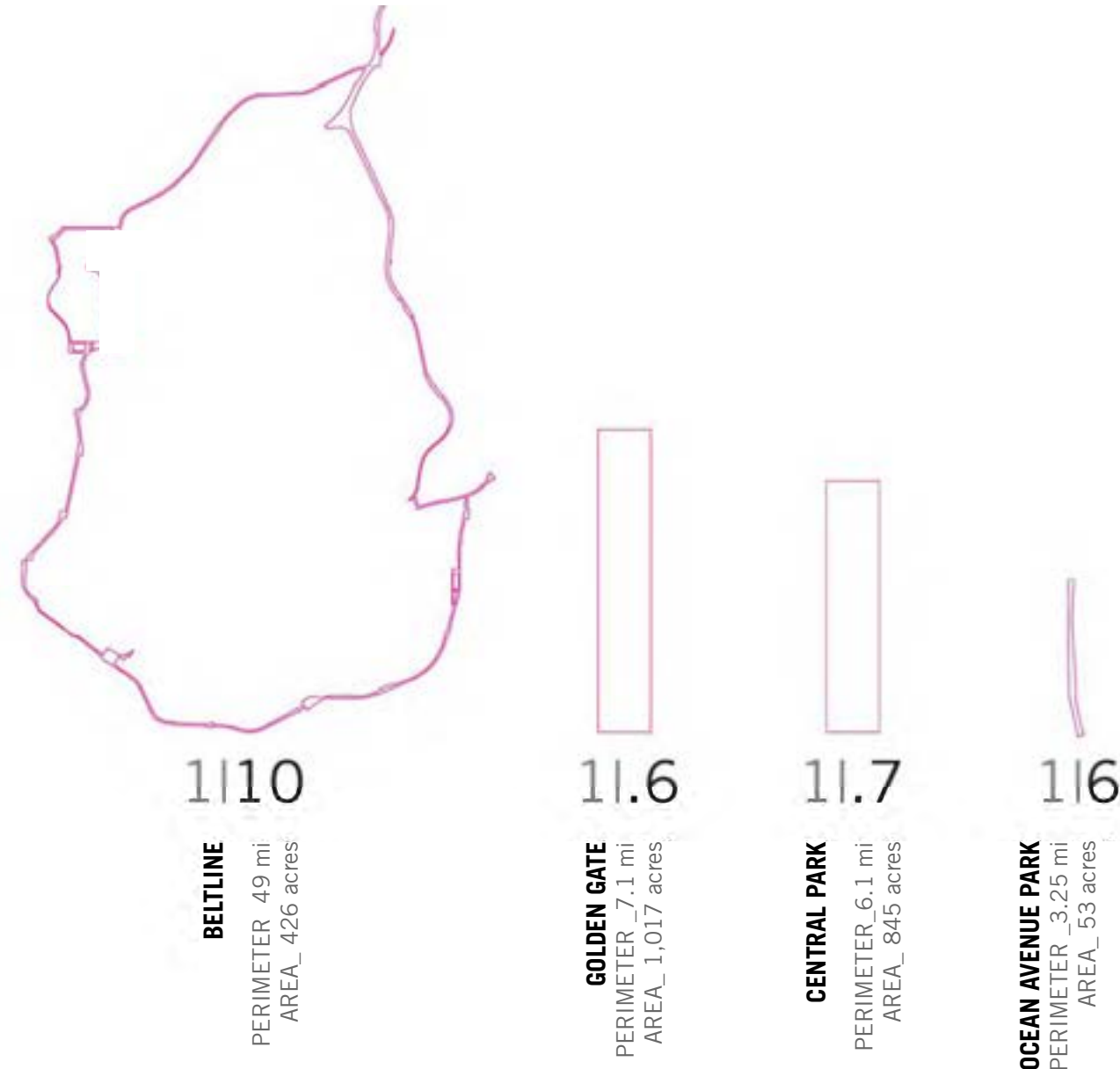


A HISTORY OF RAILROADS

Atlanta is a railroad town; it was founded in 1837 as “Terminus”, the the end of the Western & Atlantic railroad line. As more railroads converged at the heart of the growing city, four different railroad companies built railroads around its periphery: The Atlanta & Richmond Air Line Railway (1871), the Seaboard Air Line Belt Railroad (1892), the Atlanta & West Point Belt Line (1899) and the Louisville & Nashville Railroad Belt (1900). These four “belt lines” expanded the territory available for industrial development by bypassing the congested tracks that cut through the center of the city. While Atlanta’s founding main line railroads followed the ridges into downtown, the belt lines sliced across the Georgia Piedmont, creating embankments and trenches through a variety of environmental conditions.

At the time the belt lines were built, they were located at the periphery of the city. Over time, the city’s residential and commercial growth leapfrogged this perimeter, but the industrial territory remained and became a significant barrier between the neighborhoods that developed on either side. As factories moved along highways outside the city in the mid-20th century, a majority of the the belt lines were abandoned and became overgrown with kudzu.

With the Atlanta BeltLine, the old belt line railroads offer hope for pedestrian and transit-centered renewal of intown neighborhoods of Atlanta.



AREA : PERIMETER RATIOS



HISTORIC BELT LINE RAILROADS

- Seaboard Air Line Railway
- Louisville & Nashville Railroad BeltLine
- Atlanta West Point BeltLine
- Atlanta & Richmond Air Line Railway





design framework *analysis*

KEY LESSONS

After intense analysis of existing conditions, followed by continuous updates throughout the initial phases of preliminary design, key lessons were extracted as the basis for the formation of the Design Framework. They are listed here under three categories:

PEOPLE + COMMUNITIES

LANDFORMS + NATURAL SYSTEMS

STRUCTURES + CITY FRAMEWORK

In summary, the analysis makes clear that the route is physically complex and spatially rich, and that the new program of mobility and public space makes a strong presence in the corridor. Above all from a design perspective, it is clear that in order for the expanse of the Atlanta BeltLine to hold together physically as a cohesive idea, and in order to engage the exciting variety of communities and opportunities along the way, the project must have a strong Design Framework within which a lot of different things can happen, where ideas can multiply and where a robust public life can flourish.



PEOPLE + COMMUNITIES



INTRODUCTION

The Atlanta BeltLine corridor engages over forty distinct, historic communities, each of which has played a valuable role in the project story and provides a unique opportunity to engage the project physically, culturally and socially.

PRESERVE IDENTITY

Neighborhood identity is strong in Atlanta's neighborhoods, especially those intown communities that flank either side of the Atlanta BeltLine route. The Atlanta Beltline touches 45 different neighborhoods. Each has distinct place names, history, landmarks, destinations, development opportunities and culture of involvement. These communities also have a wealth of historic or culturally significant events and spaces along the route of the Atlanta BeltLine that might influence the design or interpretive content.

RECOGNIZE BOUNDARIES

Neighborhoods are almost exclusively on one side or the other of the railroad (the exception is Reynoldstown). Often the distinction of one side to the other was historically reflected not only in building stock but in socio-economic conditions. These communities still reflect the interesting diversity of Atlanta and residents take great pride in the geographic and cultural distinction of their neighborhood.

CHERISH GRASSROOTS

Communities along the Atlanta BeltLine have developed a strong grassroots movement in support of the Atlanta BeltLine, and generally have a highly engaged public forum through neighborhood associations and the Neighborhood Planning Units. There is an informal comradere between the intown neighborhoods around the Atlanta BeltLine and the project presents a unique opportunity to stitch them together – both across the tracks and down the line.

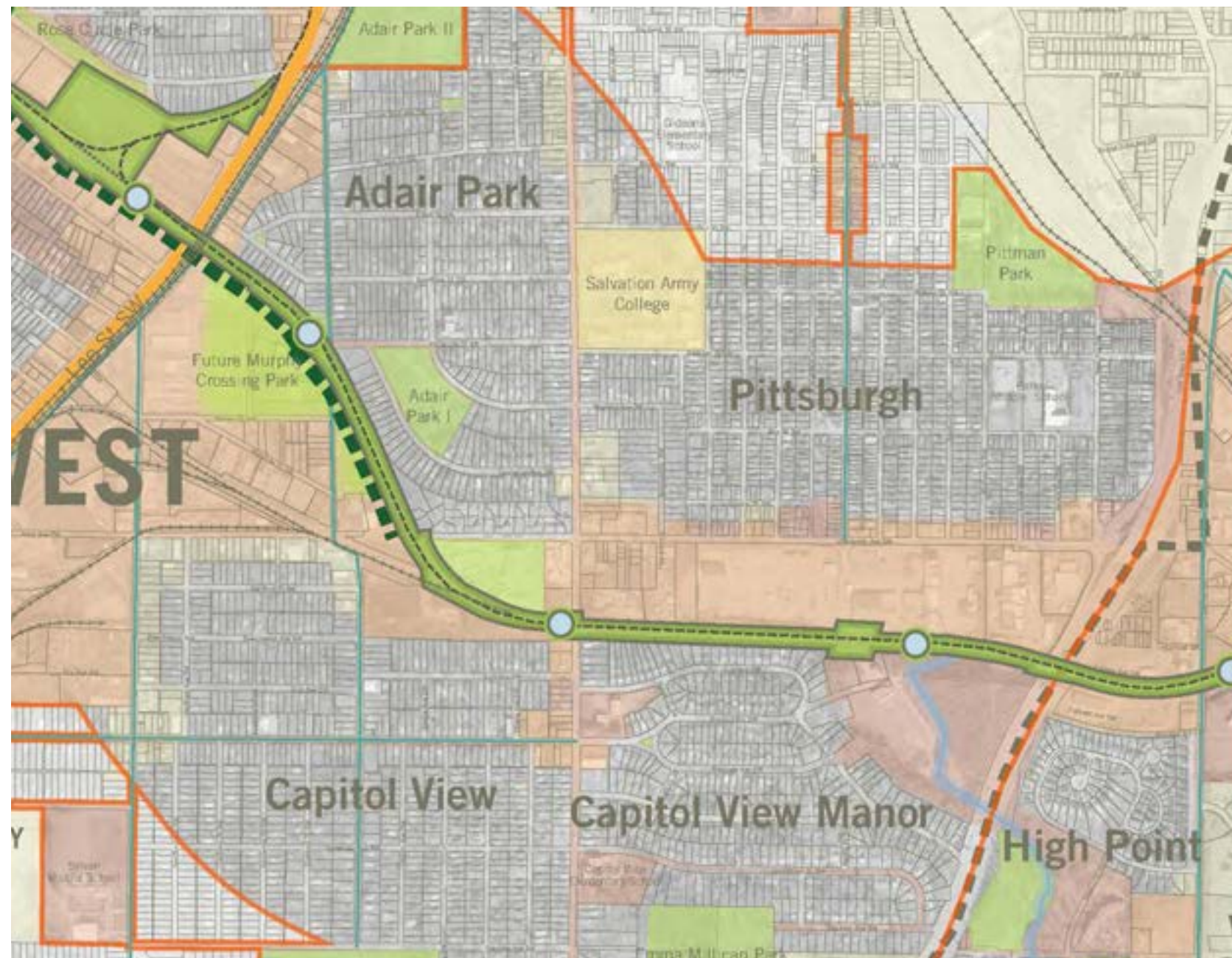
FOSTER INVOLVEMENT

The identity of each community is unique and equally ingrained. Collaborative planning, development and communication are essential to the continued success of the Atlanta BeltLine. Community awareness has been heightened around the Atlanta BeltLine, surfacing many ideas and questions such as “How will the Atlanta BeltLine shape my everyday life, my community and my city?”

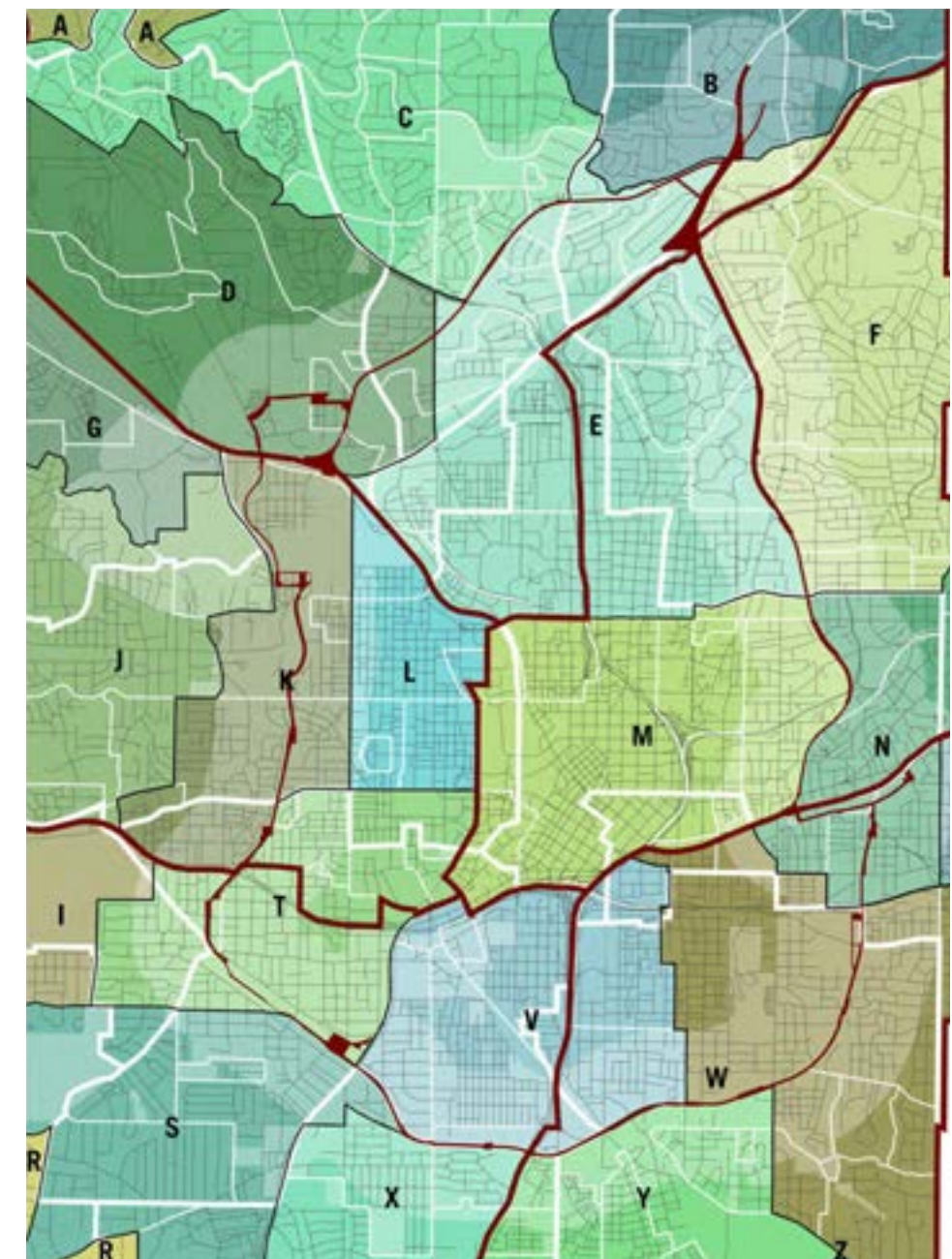


“People and communities are the heart of the Atlanta BeltLine.”

PEOPLE + COMMUNITIES



Typical relationships with neighborhoods - Atlanta BeltLine is the boundary between; adjacencies vary; access to corridor is limited.



Atlanta BeltLine shapes political boundaries.



LANDFORMS + NATURAL SYSTEMS



INTRODUCTION

Although the Atlanta BeltLine corridor runs essentially at level grade, it cuts through the greatly varied topography and natural systems that existed prior to the coming of the railroads. Remnants of the primal landscape like hills, valleys, forests and streams, can still be seen as one moves along the corridor.

SPATIAL SEQUENCE

Unlike the mainline railroads that ride the ridges into downtown, the belt line railroads cut across the Georgia Piedmont, generating a wide variety of physical relationships with adjacent land and a recognizable segmentation or sequence of the physical environment along their routes. With railroads mostly out of service, the Atlanta BeltLine offers a unique physical space for public occupation, unlike anything else in the city.

“RAILROADNESS”

The flatness, long trajectories, gentle curves and sliced landforms created by the railroad track alignments offer an interesting memory of the historic lines.

ADVENTURE

The overgrowth and abandonment of many segments of the Atlanta BeltLine and its adjacent parcels presents a sense of wildness and adventure that is exciting and unusual for an urban corridor.

DESTINATION POINTS

In addition to the sequence of spatial segments, individual sites provide an additional layer of interest and many opportunities for unique destinations within the corridor. This includes such things as historic structures or other features, interesting landforms and skyline views.

INTENSITY

The new programmatic requirements for the Atlanta BeltLine are of much greater intensity than

the railroads’ historic use for freight rail. This will necessarily create significant impacts to existing landforms, trees, sidings and other features. It will also likely require many new walls, ramps and stairs.

EDGE DEFINITION

Edge conditions for linear corridors like the Atlanta BeltLine are especially challenging. These edges need articulation so that the Atlanta BeltLine is recognized as a distinct public space separate from its neighboring parcels (many of which are encroaching on the corridor). Due to their physical proportions, linear corridors like the Atlanta BeltLine also have significantly more edge condition to deal with than even very large typical parks.

WILDLIFE

The tree canopy within and along the railroad rights-of-way presents few patches large enough to support wildlife beyond basic backyard varieties of birds and small mammals. The narrowness of the right-of-way limits the Atlanta BeltLine’s ability

to act as a wildlife corridor by itself, and adjacent neighborhood and park canopies are mostly not directly connected to the Atlanta BeltLine. ABI is actively progressing strategies to support bird habitat in the corridor.

ADJACENT CANOPY

Some larger existing tree canopy patches offer better opportunities for investment in biodiversity than areas that are already significantly degraded by industrial development, soil contamination or invasive species.

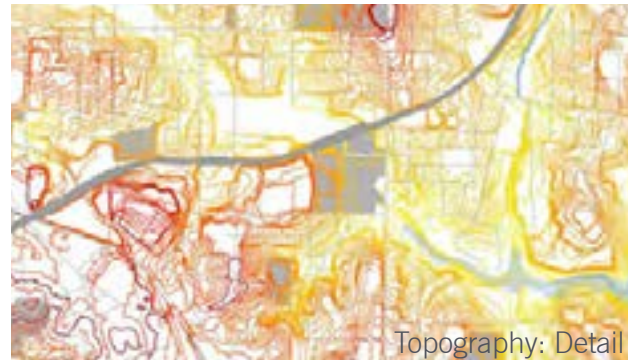
WATERWAYS.

Creek crossings support additional wildlife variety but like the railroad corridor, these waterways are also quite degraded, suffering invasive species, illegal dumping and torrential bursts of stormwater following major storm events. The creek connections across the Atlanta Beltline and through its related parks have the potential to be a magnificent physical asset for the city, and must be viewed as a powerful piece of the Beltline Vision.



“The belt line railroads slice a flat line across the rolling Georgia piedmont.”

LANDFORMS + NATURAL SYSTEMS



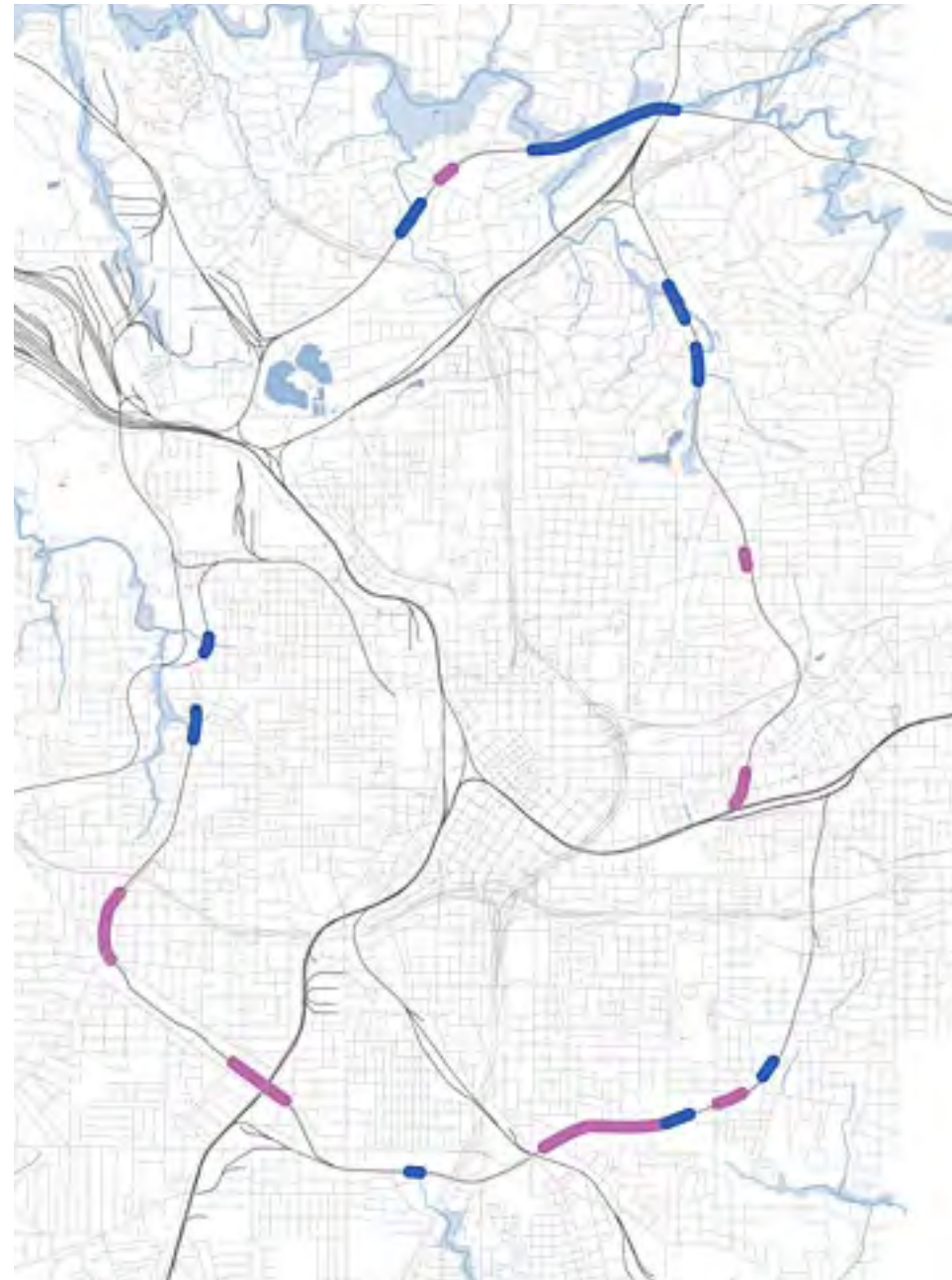
Topography: Detail

INVASIVES

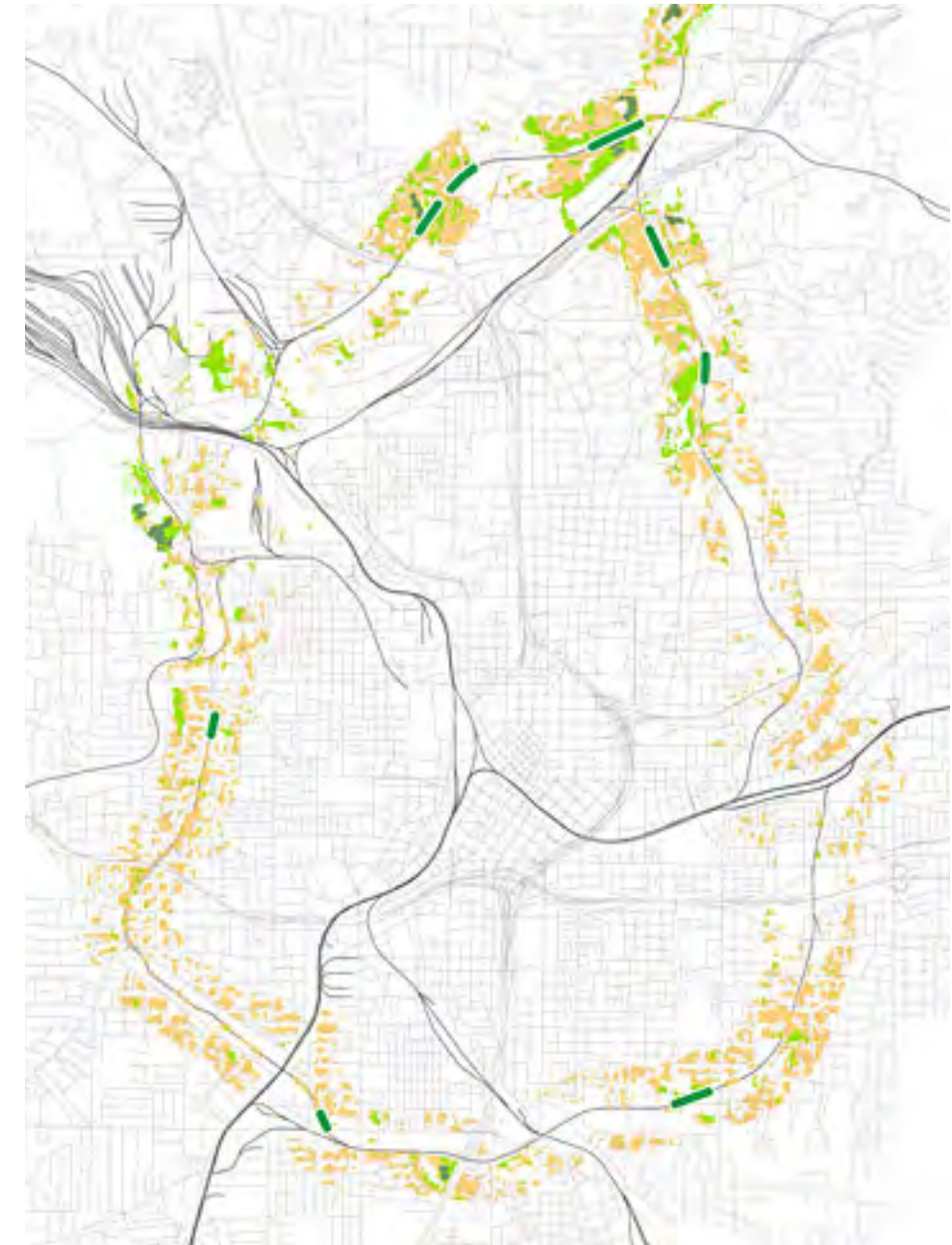
Invasive species including Kudzu (*Pueraria lobata*), Privet (*Ligustrum sinense*), English ivy (*Hedera helix*), Tree of Heaven (*Ailanthus altissima*) present challenges such as the suppression of native plants and the limitation of biodiversity. As the Atlanta Beltline build-out progresses, invasives are being systematically tackled.

STORMWATER

Because of the linear nature of these railroad corridors and the typical grading condition that historically kept the tracks from ponding, stormwater, mostly originating on adjacent properties, tends to run in a linear fashion along the tracks until it has points of escape, frequently into a city street. Where this original grading has been blocked, unnatural or intermittent wetland conditions have evolved in some places.



Approximation of waterway crossings (blue) and stormwater issues (purple)



Approximation of tree canopy quality (dark green is best)



STRUCTURES + CITY NETWORK



INTRODUCTION

Over the last 150 years the tendency has been for railroad lines to create barriers in cities, normally crossed only by bridges, tunnels, and occasionally at-grade crossings.

Atlanta, being founded as a railroad town, has a multitude of rail corridors, many of them important long distance lines, crisscrossing the center of the city. These along with major interstate and state highways running through the city, have created major barriers to urban mobility and connectivity. The Atlanta Beltline corridor presents an opportunity to convert a barrier into an avenue for connectivity, bringing together neighborhoods, parks, and other facilities formerly separated from each other. This will not always be easy. The Atlanta Beltline often runs considerably above or below street grade. This is underscored by the fact that, depending on the final alignment, the Atlanta Beltline will travel under at least 20 underpasses, over 20 bridges, through 4 or 5 tunnels, and across at least 12 at-

grade crossings. Most of the crossings are with city streets. They represent opportunities for entering the Atlanta Beltline from city streets and entering the city's streets and sidewalks from the Atlanta BeltLine.

STRUCTURES

Alignment decisions will be driven primarily by the decisions about whether transit utilizes existing bridge and tunnel structures.

LIMITED CONNECTIONS

Some areas have adequate connection to public streets and parks, but due to a limited street network, most areas require additional connections across private properties, including some new streets, as identified in the Sub Area Plans.

SIDEWALKS

Crossing streets vary widely in their dimension, design and condition, and in many cases, at the very physical moment that streets cross the Atlanta BeltLine, their sidewalks and other conditions

degrade significantly or disappear altogether. The Beltline subarea master plans, along with the corridor design provide a planning and design basis for safe and attractive sidewalk connections between the Beltline and the city street system.

VISIBLE AND PHYSICAL ACCESS

Topographic relationships at street crossings significantly determine both physical and visual accessibility at these logical public entry points. Where the Atlanta BeltLine is above a city street there is typically good visual access but poor physical access. At-grade conditions have poor visual but high physical access. Conditions where the Atlanta BeltLine is below a city street are the most challenging, typically offering both low visual and low physical access.

NIGHT LIGHT

Light conditions at night vary considerably from one area to the next depending on adjacent uses/buildings and vegetation. Generally speaking, there is not consistent or dependable ambient light in the

corridor, although this may change over time with redevelopment.

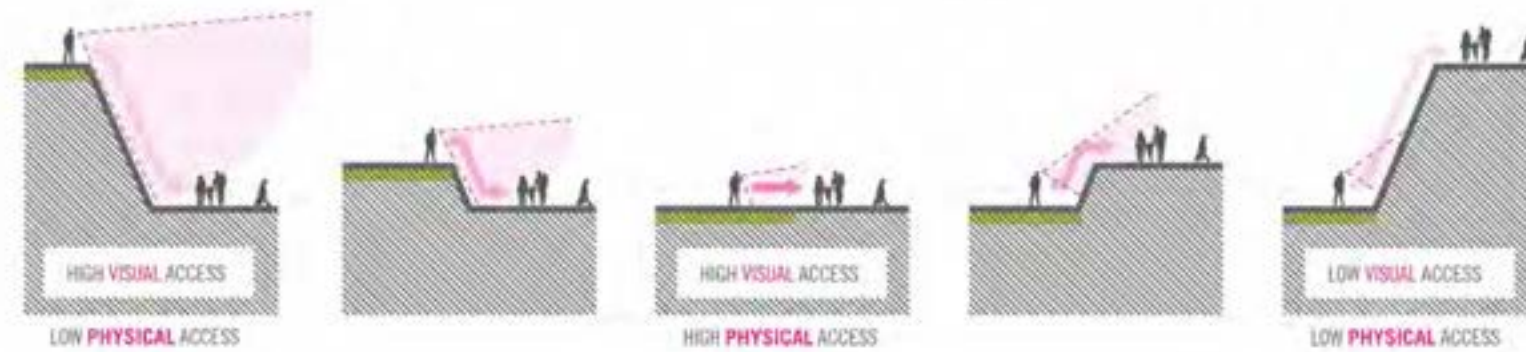
USER CONFLICTS

There are a lot of ideas for the Atlanta BeltLine, all of which are complimentary at a conceptual level, but some of which come in conflict due to constrained physical conditions. For example, the trail width required to accommodate both fast bicycle commuters and slow, inattentive pedestrians must find compromise with both the narrowness and topographic constraints of the right-of-way and the desire for intimacy and social interaction.

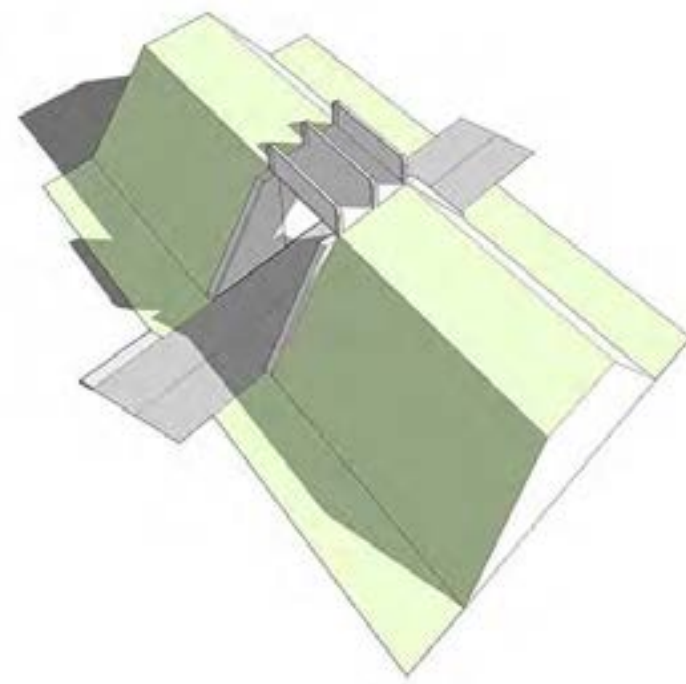


“The Atlanta BeltLine follows over one and a half centuries of urban development.”

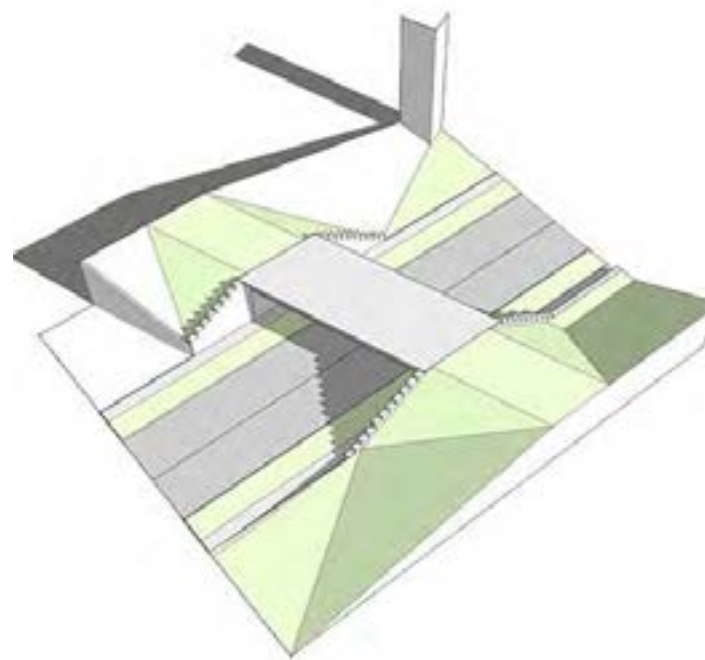
STRUCTURES + CITY NETWORK



Visibility and Access to the corridor varies.



Some crossing streets are very narrow.



Some crossing streets are very wide.



Older systems affected the shape of city growth (original streetcars in orange)



DESIGN DRIVERS

Two leading outcomes resulted from the Analysis, and together form the Design Framework. First are the Design Drivers —five general categories of design concepts that must be considered throughout the design process. Second is the Organizing Strategy, the structure of the framework itself, which draws lines around which aspects of the project support the parts, and which support the whole.

The first set of conclusions extracted from the Analysis outline five Design Drivers, interrelated but distinct ideas that are inherent to the physical and programmatic demands of the Atlanta BeltLine:

1. Character
2. Re-use
3. Threshold
4. Performance
5. Phased Buildout

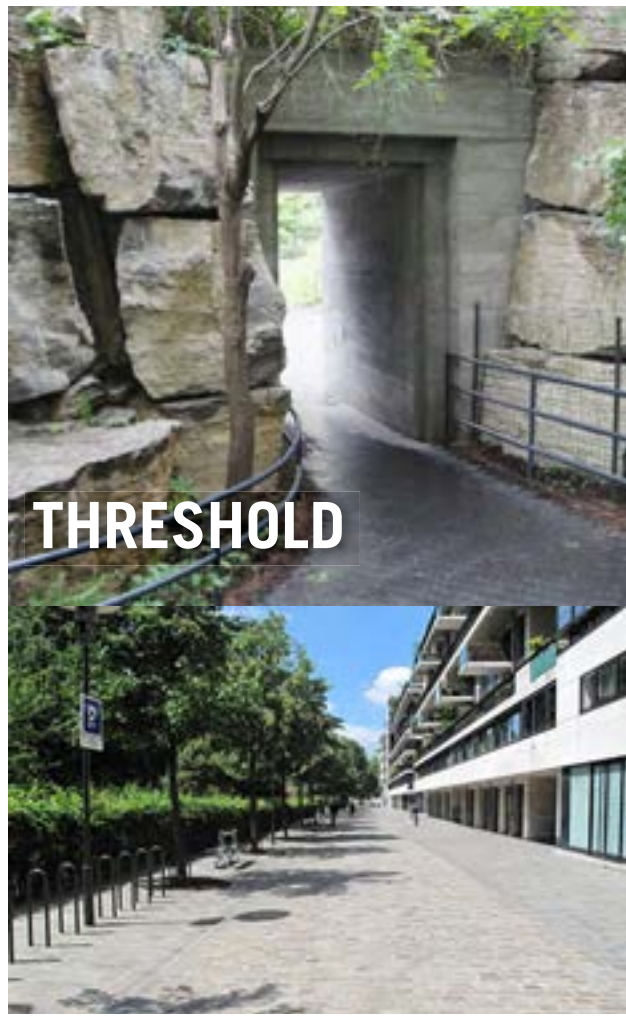
The design drivers attempt to capture the aspects of the project's vision that are specifically relevant to its physical design and integrate these into the Design Framework. These drivers interact with one another, each shifting its emphasis and adjusting its intensity relative to each design task. They apply to all scopes of work within the Design Framework, including the Typologies, Preliminary Design and all subsequent design work.



- ✓ Interpret and evoke its origin as a series of railroad corridors;
- ✓ Cultivate its sense of adventure, discovery and informality;
- ✓ Respect its unique landscape and historical features;
- ✓ Georgia granite and native/culturally symbolic species.



- ✓ Transform it from under-utilized space and a signature public realm;
- ✓ Promote both mobility and connectivity;
- ✓ Design for changing interpretation of spaces and elements over time.

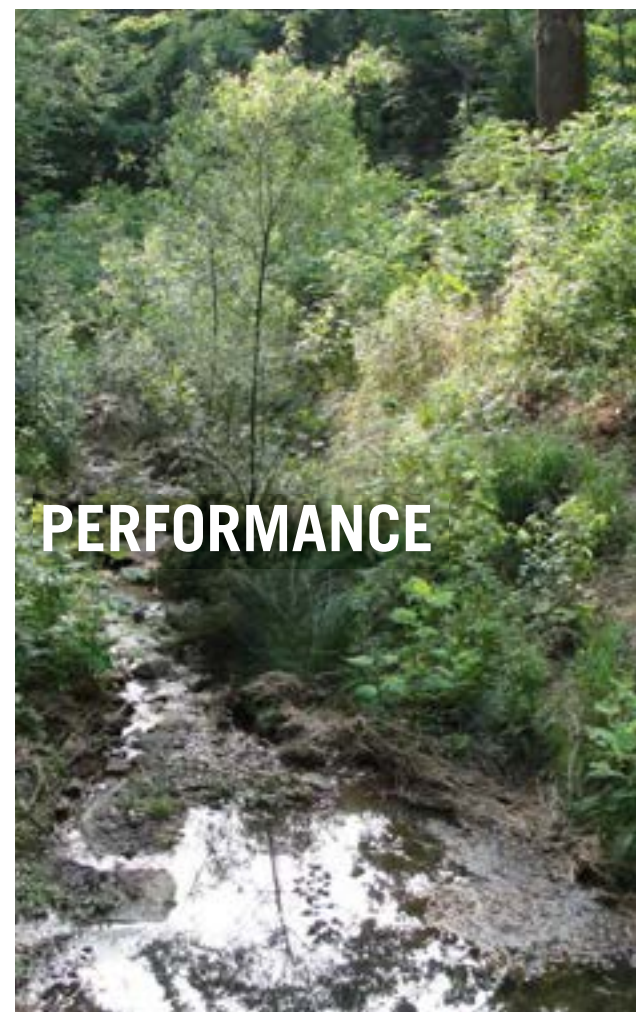


- ✓ Design a coherent public space, unchallenged by private adjacencies;
- ✓ Convert its back-door condition to be more fully accessible;
- ✓ Establish good design parameters for the Atlanta Beltline's interface with abutting private properties.
- ✓ Develop good design standards for the Atlanta Beltline's interface with city streets, sidewalks, parks, and public spaces.



ORGANIZING STRATEGY

In addition to the Design Drivers, an Organizing Strategy also developed from the Analysis and gives shape to the Design Framework. This is the structure of the framework itself, defining which design aspects support experiential variety along the corridor and which aspects tie that variety together into a recognizable concept for the whole. The following pages define an Organizing Strategy that is inspired by the conditions of the Atlanta BeltLine today.



PERFORMANCE

- ✓ Support existing habitat and the generation of biodiversity;
- ✓ Optimize its performance through a sustainable approach to energy, water, light and local materials
- ✓ Where possible, contribute to broader sustainability goals and opportunities beyond its right-of-way.



PHASED BUILDOUT

- ✓ Design for incremental buildout of segments and features;
- ✓ Define ecologically strategic investments;
- ✓ Ensure that its amenities are equitably distributed and that it will meet future demands.



22 miles of
variety



22 miles of
continuity



EXISTING VARIETY

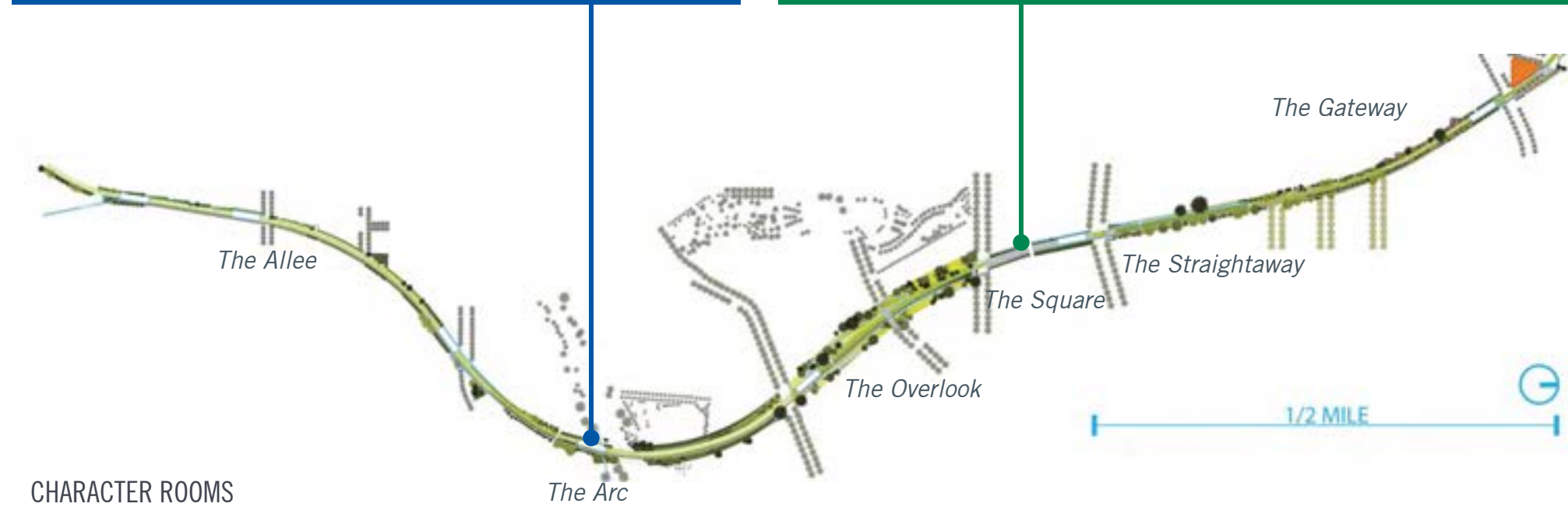
Unlike Atlanta's mainline railroads that have a relatively uniform experience following the ridge routes into downtown, the belt lines slice across the Georgia Piedmont, engaging a rich variety of spatial environments. They cut across hills and valleys, generating embankments and other modified landforms, engaging natural systems and contributing to degraded environmental conditions. They are segmented by waterways, mainline railroads and major thoroughfares, and have changing relationships with the neighborhoods that grew up along their routes. These varying conditions define a recognizable sequence of spatial segments that offer a sound basis for design variety.

In addition to the spatial sequence, unique points of interest in the corridor offer an additional layer of variety. These include specimen trees, skyline views, interesting landforms, historic structures and other features. Variety is further informed by the corridor's interface with adjacent communities, parks and development sites, connecting over forty diverse communities both across the tracks and down the line. With all of this together, the existing variety of the Atlanta BeltLine is what makes the corridor exciting and profound as a new public space.



PROPOSED VARIETY

By beginning with the corridor's rich variety of physical environments and cultural histories and by responding to the multitude of specific site conditions required to make the project work, the Design Framework ensures that the Atlanta BeltLine is composed of relevant physical forms and authentic urban spaces. The sequence of spatial segments inherent to the historic railroads as they slice across the natural piedmont are drawn into a series of distinct "character rooms," that together with larger concepts about reforestation and smaller destination points, define the range of design moves that inform proposed variety. This leverages the landscape, landforms, communities and adjacencies to generate experiential variety, which is then amplified through design by new plantings, lighting and public art.

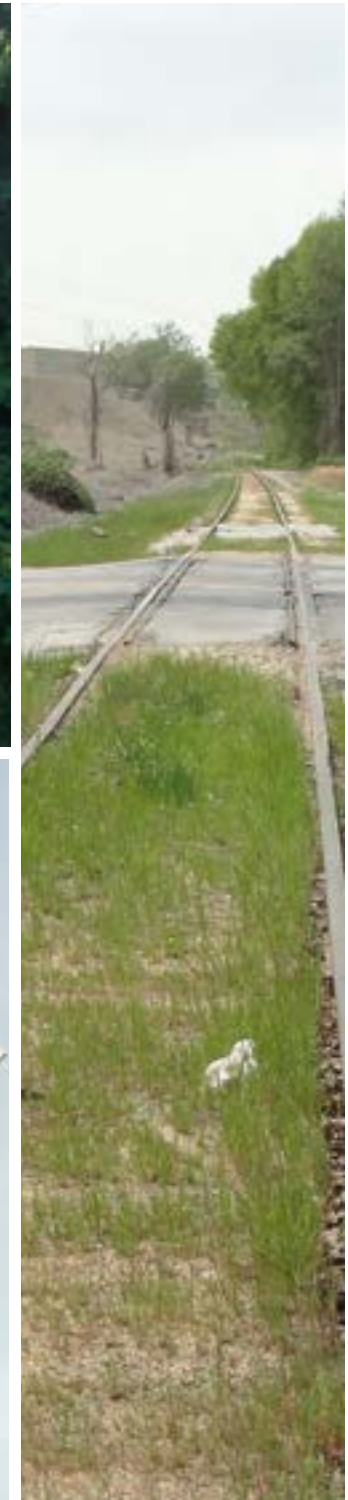
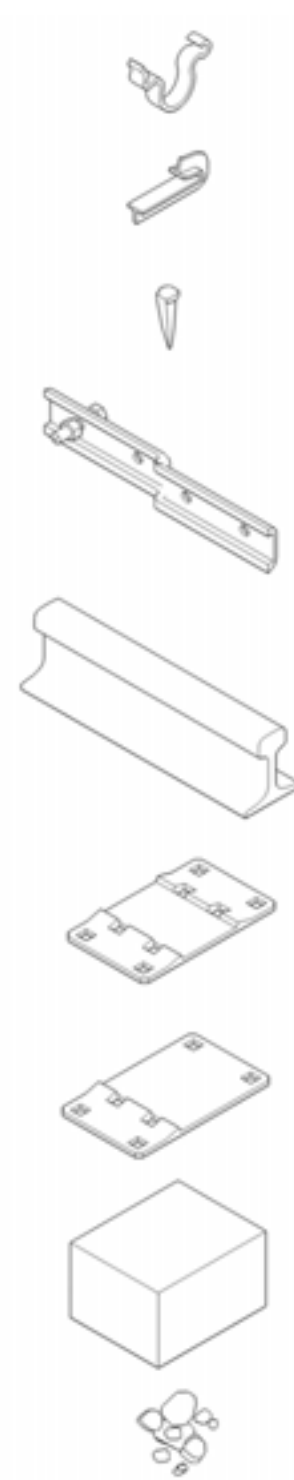


CHARACTER ROOMS



EXISTING CONTINUITY

Contrasting with spatial variety, the historic belt line railroads are a recognizable and utilitarian set of elements designed to make the railroads work. Composed of a handful of parts repeated over and over for miles across the city, the rhythm of this original railroad infrastructure – the rails, ties, spikes, ballast and other elements; the linear movement, long curves and flatness – all together generate a recognizable consistency and functionality along and between the four historic belt line railroads. This fundamental sense of identity is not only appealing visually for historic reference, but also useful in terms of organizing and understanding the landscape of the city.





PROPOSED CONTINUITY

Maintaining this kind of continuity is essential as the Atlanta BeltLine is transformed for its new public purpose, creating a coherent overarching identity and helping users navigate through the city and along the route. Taking cues from its historic identity, design continuity is revealed in the small set of design elements that physically tie it all together. This includes the transit guideway and stations, the multi-use trail, and the elements required for this infrastructure to function – the ramps, stairs, signs, railings, walls and furniture. Design continuity will define an overall physical identity so that the Atlanta BeltLine becomes a recognizable public space and a coherent urban form that it is legible within the surrounding city.

Variety is guided by the Typologies but because it is unique to each individual space, it is designed largely during subsequent design phases. In contrast, Continuity elements are pre-defined significantly by the Typology scope of work in order to provide a common aesthetic language that ties the corridor together as a whole. This includes a large family of elements that are required to accommodate the Atlanta BeltLine's rich program. Together, they also create its overall design identity.

As a general design premise, the continuity elements defer to the experiential variety, allowing the landscape and cityscape to exhibit change and diversity and the excitement of the corridor. With an elegant but restrained design, continuity elements tie this variety together, offering a cohesive range of materials and forms that are common across the city so that the Atlanta BeltLine is recognizable

from one community to the next. By taking on multiple functions where possible, continuity elements aim to reduce clutter in the corridor, so their designs are often flexible and adaptable. They are designed with honest, local materials and rather than introducing a lot of different materials, they utilize a smaller palette, articulating difference through subtle changes to finish. Finally, continuity elements are lightweight and contemporary, offering a fresh new identity for Atlanta's signature public space.



ORGANIZING STRATEGY MATRIX

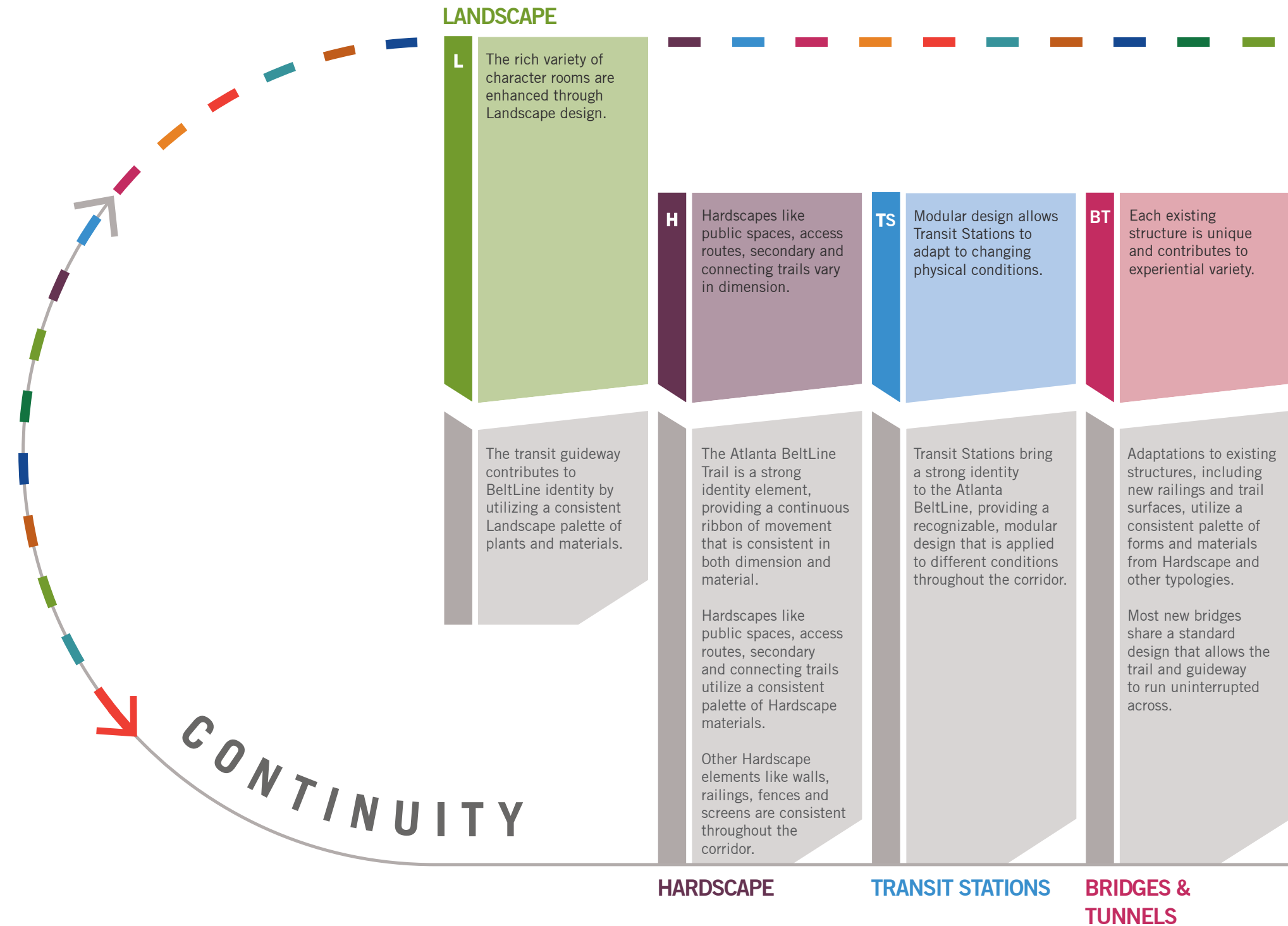
The Organizing Strategy plays out significantly in the Typologies of the Atlanta BeltLine Corridor Design. This matrix outlines how each Typology contributes to both experiential variety —led primarily by Landscape, Lighting and Public Art— and design continuity, which is defined by Hardscape, Transit Stations, Bridges & Tunnels, Furnishings, Signage, Development Interface and Streetscape elements.

VARIETY ELEMENTS

- Landscape
- Lighting
- Public Art

CONTINUITY ELEMENTS

- Hardscape
- Transit Stations
- Bridges & Tunnels
- Furnishings
- Signage
- Development Interface
- Streetscapes



LIGHTING

LT Lighting design supports the changing landscape of each character room.

Lighting utilizes a consistent family of fixtures to perform its varied tasks.

F

Variations on standard furniture designs allow integration into local conditions - seating integrated into site walls, etc.

Furnishings provide a strong identity element to the Atlanta BeltLine, offering a family of components to accommodate needs throughout the corridor.

SW

Signage varies only in content.

A consistent family of signs, (including wayfinding strategies, graphics, colors and fonts), compliments a larger family of built elements, like railings, furniture and lighting.

PUBLIC ART

PA Public Art enhances variety at large and small scales, and over time through permanent, temporary and performative works.

Public Art takes a deliberate and consistent approach to the equitable distribution of art and art infrastructure.

DI

Interface designs meet varying site conditions.

Interface material palettes, lighting and landscape strategies contribute to continuity in the corridor.

ST

Streetscapes beyond the Atlanta BeltLine crossing are upgraded to provide better conditions, but are designed to match varying streetscape conditions in terms of materials, lighting and furniture.

Streetscapes at the Atlanta BeltLine crossing bring identity through a consistent palette of materials, furnishings, signage and lighting.

FURNISHINGS

SIGNAGE & WAYFINDING

DEVELOPMENT INTERFACE

STREETSCAPES

VARIETY





THE ATLANTA BeltLine:
typologies



PERKINS
+ WILL



- L Landscape
- H Hardscape
- TS Transit Stations
- BT Bridges & Tunnels
- LT Lighting
- F Furnishings
- SW Signage & Wayfinding
- PA Public Art
- DI Development Interface
- S Streetscapes

TYPOLOGIES



LANDSCAPE

THE ATLANTA BeltLine:
typologies



PERKINS
+ WILL



- L Landscape
- H Hardscape
- TS Transit Stations
- BT Bridges & Tunnels
- LT Lighting
- F Furnishings
- SW Signage & Wayfinding
- PA Public Art
- DI Development Interface
- S Streetscapes

TPOLOGIES

LANDSCAPE
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The landscape of the Atlanta BeltLine leads the design of the corridor, leveraging its complex set of existing conditions to ensure experiential variety throughout its 22 miles. At its most elemental, the landscape is shaped through the design of a freshly engineered landform designed to accommodate the new program of the corridor, a softly vegetated “floor,” or ground plane, and an ecologically rich and place-defining tree canopy. These layers are highly site specific and pragmatic, yet work together to create a landscape that is impressively rich in experience and character. While there are additional components contributing to the variety of the corridor, including lighting and public art, it is these primary layers of landscape that will most define the experience of the Atlanta BeltLine as a signature public space for the city.

landscape

► INTEGRATED SUSTAINABILITY: LANDSCAPE

Energy & Climate: The reforestation of the Atlanta BeltLine corridor will serve to sequester carbon and improve Atlanta’s climate outlook by lowering surface and air temperatures along the corridor and in surrounding areas by providing shade and evapotranspiration. Trees will also help shade existing and new buildings along the Atlanta BeltLine, reducing cooling loads.



Water Efficiency & Quality: The plant palette is native or native-adapted and does not require irrigation past the period of establishment. Sustainable technologies such as geowebbs are recommended for engineered-side slopes of sufficient width to allow stormwater infiltration. Stormwater runoff from land embankments will be collected and filtered on-site in conformance with best applicable sustainable practices such as bio-filtration swales.



Soil & Habitat Quality: The plant palette specified for the Atlanta BeltLine corridor is site-specific and ecologically rich. When mature, the Atlanta BeltLine urban forest will provide year-long or seasonal habitat for resident and migrating species and serve as an ecological corridor between habitats. The landscaping efforts will establish and maintain a living, healthy soil along the entire Atlanta BeltLine corridor.



Sustainability Materials, Design & Construction: Plantings and landscape materials will be locally sourced and managed with organic land care methods. Construction of the Atlanta BeltLine landforms will be managed to minimize waste, emissions and pollution.



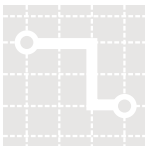
Sustainability Operations & Maintenance: The plantings specified for the Atlanta BeltLine are native, or native-adapted and require little or no maintenance. The Atlanta BeltLine Maintenance Guidelines specify sustainable and cost-effective methods and establishes protocols for soil / plant management, pest management, and disease control. All organic waste generated from landscape maintenance must be composted at a local facility.



Community Health, Access & Equity: The thousands of trees planted for the Atlanta BeltLine corridor will clean the air by removing dust, particulates and absorbing ozone, carbon monoxide, sulfur dioxide and other pollutants. They will provide shaded zones for passive and active recreation and encourage healthy activities such as walking. Portions of the landscape will be dedicated to community gardens and edible landscapes to promote food security and community involvement. The ABI Community Benefit Guiding Principles outlines requirements for the equitable distribution of community benefits throughout the Atlanta BeltLine Tax-Allocation District.



Connectivity & Smart Growth: *Not applicable.*



landscape design

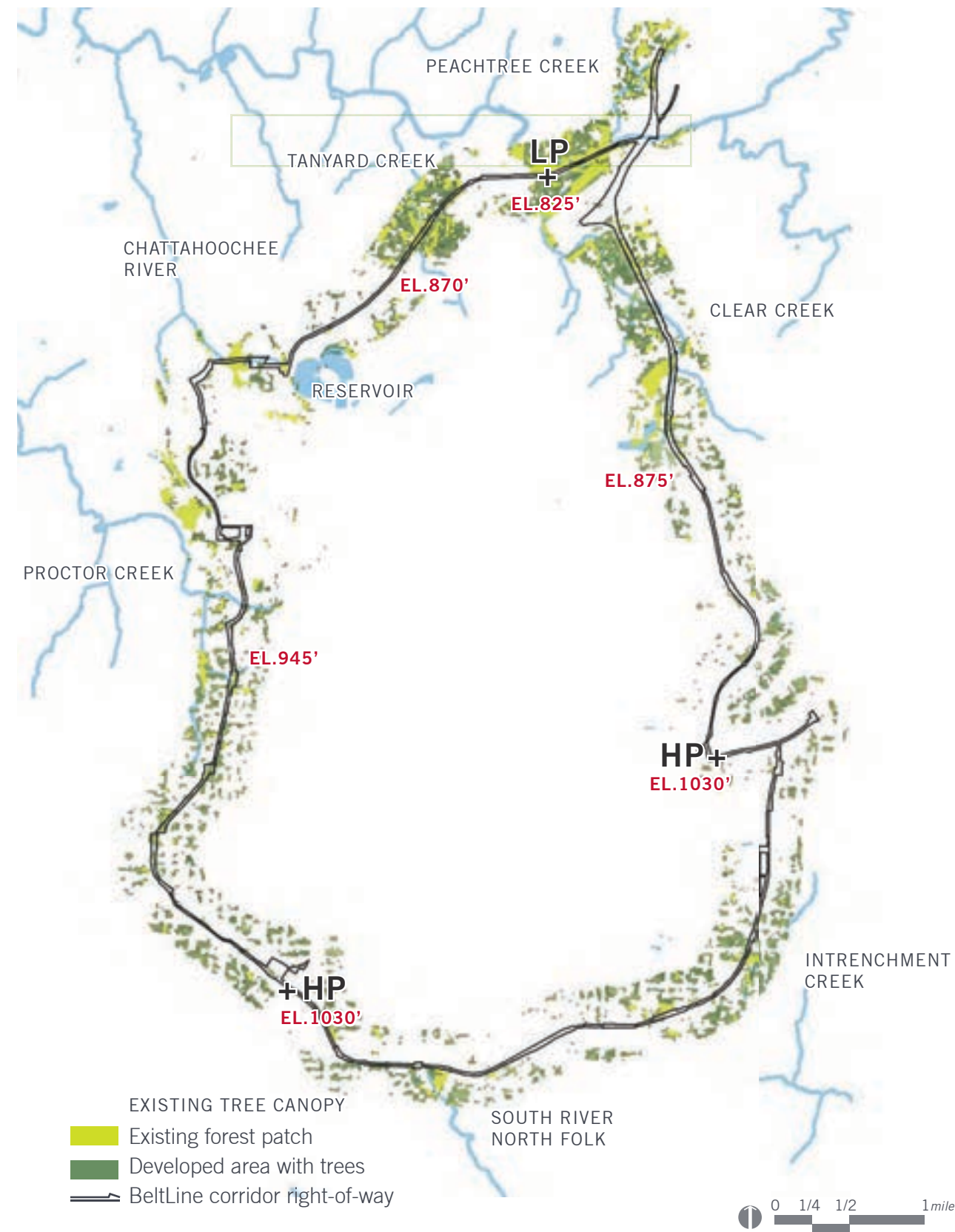
A SITE-SPECIFIC, LAYERED FRAMEWORK

The existing landscape of the Atlanta BeltLine is dramatically intimate - its average width is 100'. At the same time it is impressively big - its 22-mile length offers a large-scale, fully immersive experience. At all scales, the physical space must accommodate an aggressive new program. To do this, landscape design is considered in three layers:

CANOPY. The existing and future tree canopy should capture Atlanta's uniquely-green character.

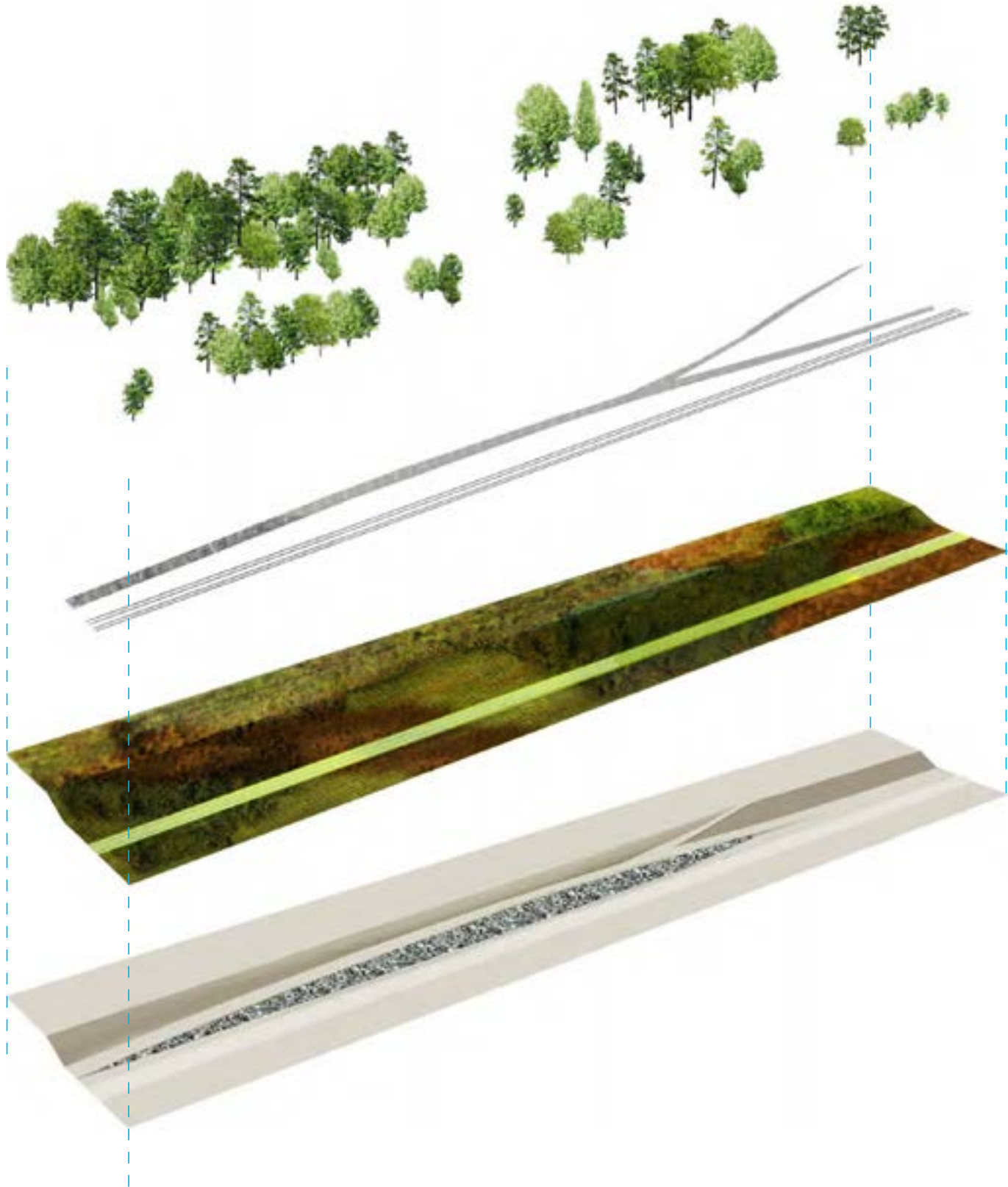
FLOOR. The ground treatment throughout the corridor should be safe and sustainable.

LANDFORM. The adaptation of the corridor's unique landforms should transform it for use by people.



A SITE-SPECIFIC,
LAYERED FRAMEWORK

The three landscape layers are joined by hardscape and other continuity elements to create a cumulative experience of the Atlanta BeltLine that is at once comprehensible as a landscape at the scale of the city and as rich and diverse as the many neighborhoods that define Atlanta. The design strategy for each layer - canopy, floor and landform - operates at three scales. At the scale of the full corridor, the primary grading is gentle and consistent, and the floor and canopy layers reinforce a large reforestation concept. At a community scale, signature earthworks and distinctive planting organizations and species are utilized to create a legible sequence of distinct segments that have a specific character for the neighborhoods in which they are located. At a more human scale, individual spaces perform both functional and passive roles, offering people an exciting series of public spaces. Only by operating at all scales can the Atlanta BeltLine fulfill its promise to transform Atlanta and our individual lives for the better.



CANOPY

+

CONTINUITY ELEMENTS

(SEE HARDSCAPE, TRANSIT STATIONS, SIGNAGE, ETC.)

+

FLOOR

+

LANDFORM



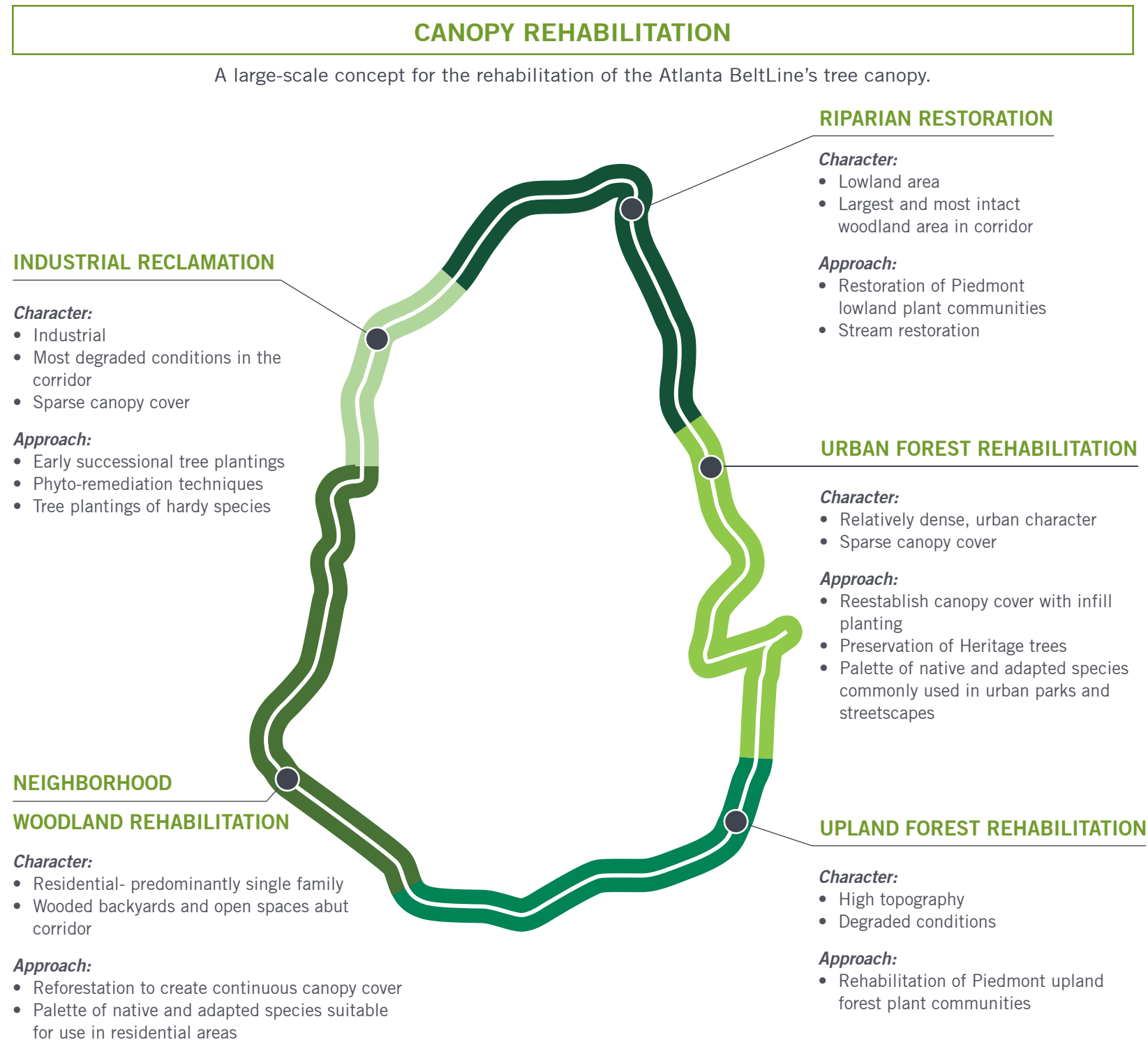
ATLANTA BELTLINE ARBORETUM: A BIG-SCALE, LAYERED CANOPY

The Atlanta BeltLine Arboretum will be a defining characteristic of the Atlanta BeltLine project. Within the design framework of the Atlanta BeltLine, the Arboretum is understood to operate at three scales.

CANOPY REHABILITATION. At the scale of the City, it attempts to preserve, restore or create a continuous large-scale forest canopy with ecological significance. This is outlined in L1.

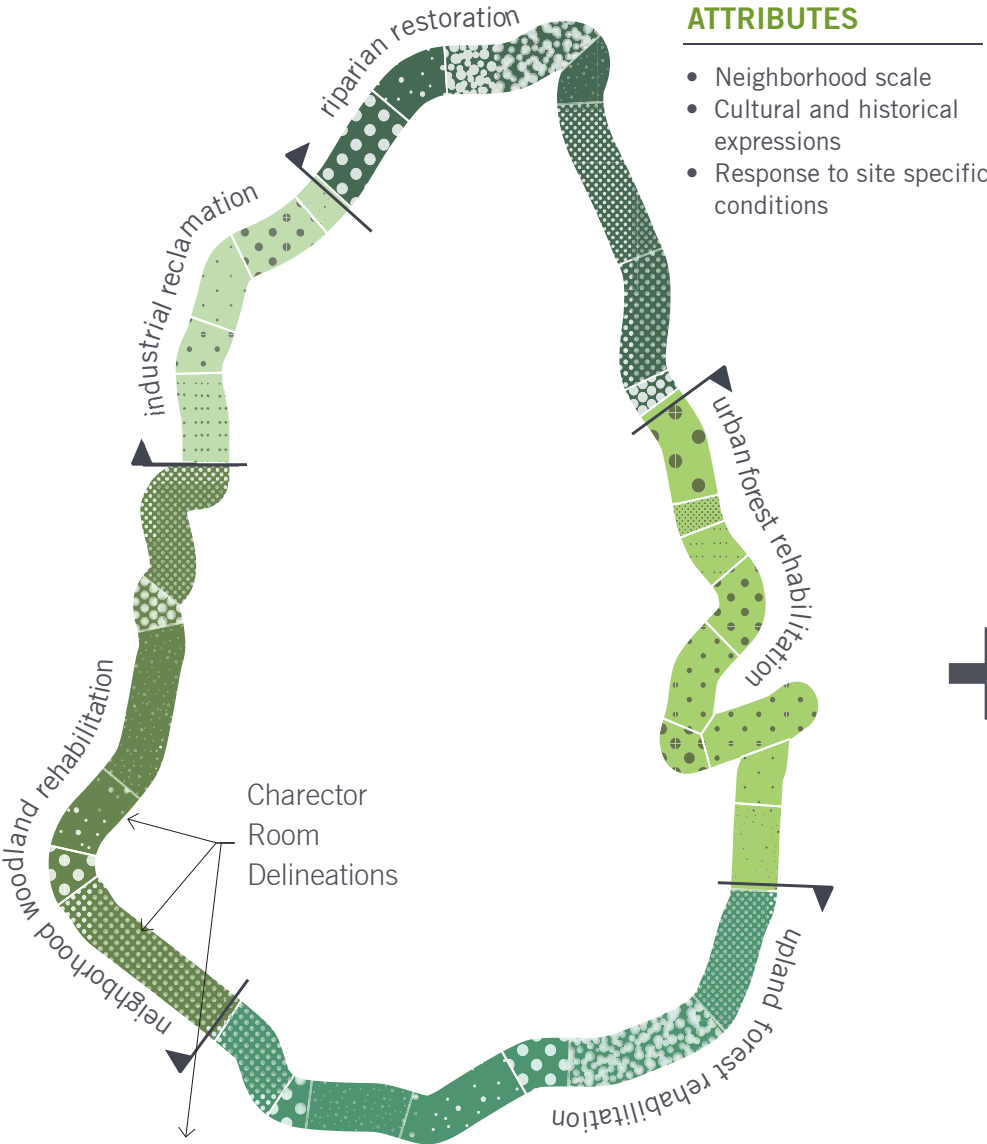
CHARACTER ROOMS. At the scale of Atlanta's neighborhoods, it creates site-specific settings or environments within which symbolic and culturally significant tree species might be curated to the Atlanta BeltLine experience. This is outlined in L2.

BELTLINE SPACES. At a more human scale, individual sites are identified and proposed as special places for various programs, often enlivened by public art. They may utilize other Typologies for hardscapes and signage, but themselves have no typological rules for their formation.



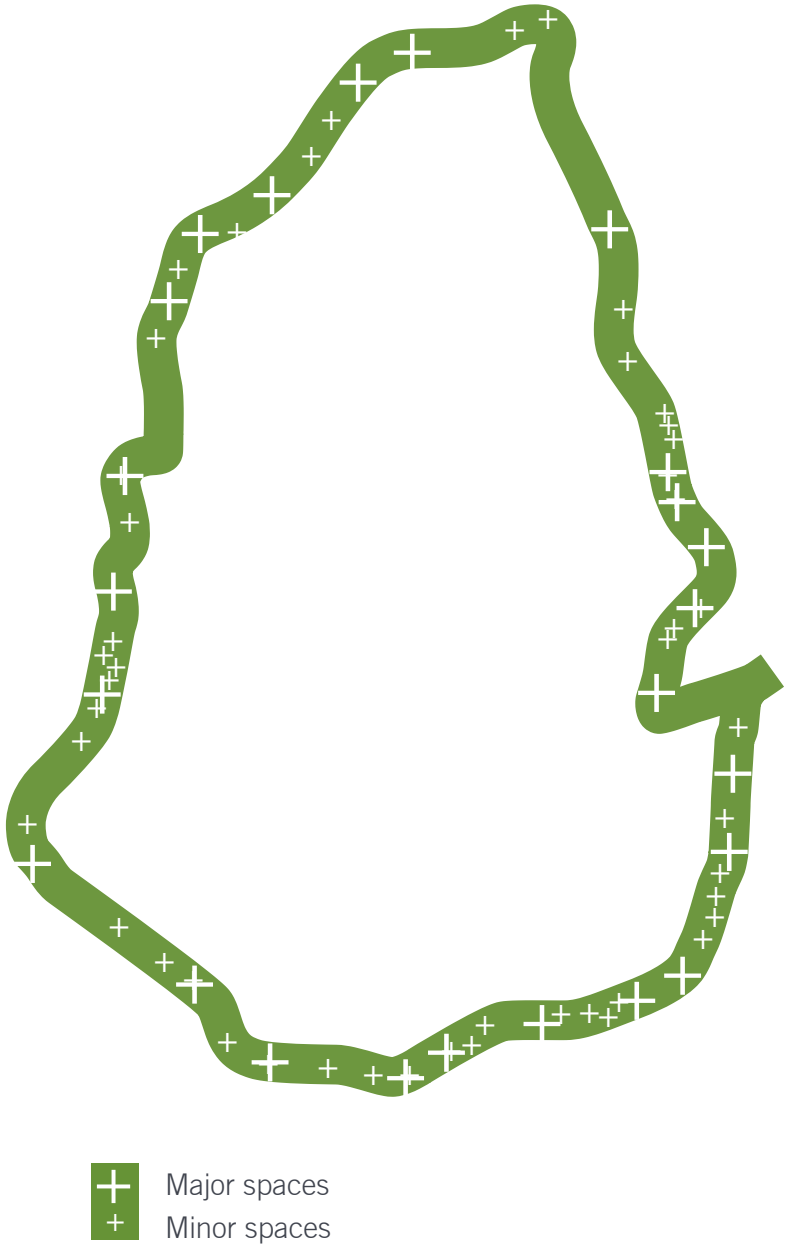
CHARACTER ROOMS

A community-scale concept to ensure experiential variety.



BELTLINE SPACES

An individual site-scale concept that takes advantage of local opportunities.



ATLANTA BELTLINE ARBORETUM: A BIG-SCALE, LAYERED CANOPY

When fully realized, the Atlanta BeltLine will be an unprecedented 22-mile “arboretum” —a thoughtfully assembled, city-scale mix of existing and cultivated tree species that is at once an urban forest, an ecological connector, a corridor for scientific research, a collection of remarkable public space “settings” and a plant-based cultural narrative of the City’s rich history and diverse communities.



L1 CANOPY REHABILITATION

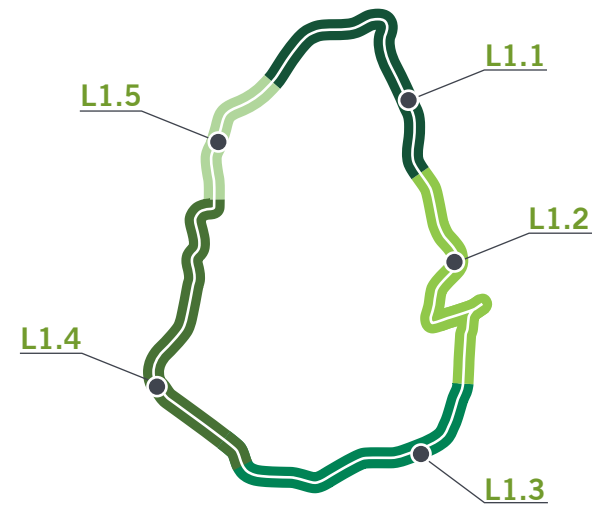
As a large-scale concept to ensure a variety of tree species, the Atlanta BeltLine is divided into five canopy reforestation segments based on overall character:

- L1.1 Riparian Restoration
- L1.2 Urban Forest Rehabilitation
- L1.3 Upland Forest Rehabilitation
- L1.4 Neighborhood Woodland Rehabilitation
- L1.5 Industrial Reclamation

RESTORATION represents the most advanced approach whereby the full structure and function of a plant community is restored.

REHABILITATION aims to repair ecosystem processes, productivity and services, but not recreate a full plant community.

RECLAMATION involves the re-vegetation of degraded areas to begin the healing process for the land, but with lower biodiversity than the other two approaches.



L1.1



L1.2



L1.3



L1.4



L1.5



CANOPY REHABILITATION

L1.2 Urban Forest Rehabilitation

A diverse palette of native and adapted trees that thrive in urban areas reestablish the canopy cover in this section.

CHARACTER:

- Relatively dense, urban character
- Sparse canopy cover

APPROACH:

- Reestablish canopy cover with infill planting
- Preservation of Heritage trees
- Palette of native and adapted species commonly used in urban parks and streetscapes



L1.2 Urban Forest Rehabilitation

TALL CANOPY			MID - CANOPY		UNDERSTORY		
DRY	Darlington Oak	<i>Quercus hemisphaerica</i>	Live Oak	<i>Quercus virginiana</i>	Persian Ironwood	<i>Parrotia persica</i>	
	Southern Red Oak	<i>Quercus falcata</i>			Chinese Pistache	<i>Pistacia chinensis</i>	
MOISTURE	Yellow-Poplar	<i>Liriodendron tulipifera</i>					
	Southern Magnolia	<i>Magnolia grandiflora</i>	Sweetbay Magnolia	<i>Magnolia virginiana</i>	Sassafras	<i>Sassafras albidum</i>	
			Trident Maple	<i>Acer buergeranum</i>	Star Magnolia	<i>Magnolia stellata</i>	
	Japanese Zelkova	<i>Zelkova serrata</i>	Chinese Flame Tree	<i>Koelreuteria bipinnata</i>	Crape Myrtle Hybrid	<i>Lagerstroemia hybrid</i>	
	Ginkgo	<i>Ginkgo biloba</i>			Japanese Persimmon	<i>Diospyros kaki</i>	
	Water Hickory	<i>Carya aquatica</i>			Chinese Fringe Tree	<i>Chionanthus retusus</i>	
	Planetree	<i>Platanus x acerfolia</i>			American Fringe Tree	<i>Chionanthus virginicus</i>	
	+ Nuttall Oak	<i>Quercus nuttalli</i>			European Hornbeam	<i>Carpinus betulus</i>	
	Shumard Oak	<i>Quercus shumardii</i>					
					American Hornbeam	<i>Carpinus caroliniana</i>	
	Cherrybark Oak	<i>Quercus pagoda</i>	Green Ash	<i>Fraxinus pennsylvanica</i>			
	Willow Oak	<i>Quercus phellos</i>	Swamp White Oak	<i>Quercus bicolor</i>			
	+ American Elm	<i>Ulmus americana</i>	+ Overcup Oak	<i>Quercus lyrata</i>			
	Bald Cypress	<i>Taxodium distichum</i>	Lacebark Elm	<i>Ulmus parviflora</i>			
			Sweetgum	<i>Liquidambar styraciflua</i>			
WET			Red Maple	<i>Acer rubrum</i>			

CANOPY REHABILITATION

Upland Forest Rehabilitation L1.3

Plants found in upland Piedmont forest communities are reintroduced to the slopes and ridges in this segment.

CHARACTER:

- High topography

- Degraded conditions

APPROACH:

- Rehabilitation of Piedmont upland forest plant

- ### Renovation of Piedmont upland forest plant communities

+ Symbolic Tree



L1.3 Upland Forest Rehabilitation

	TALL CANOPY	MID - CANOPY	UNDERSTORY
DRY	Pignut Hickory <i>Carya glabra</i> Shortleaf Pine <i>Pinus echinata</i> Loblolly Pine <i>Pinus taeda</i> Scarlet Oak <i>Quercus coccinea</i> + White Oak <i>Quercus alba</i> Black Oak <i>Quercus velutina</i> Northern Red Oak <i>Quercus rubra</i>	Mockernut Hickory <i>Carya alba</i> + Eastern Redcedar <i>Juniperus virginiana</i> Chestnut Oak <i>Quercus prinus</i> Post Oak <i>Quercus stellata</i> Chinkapin Oak <i>Quercus muhlenbergii</i> Georgia Oak <i>Quercus georgiana</i>	Eastern Redbud <i>Cercis canadensis</i> American Smoketree <i>Cotinus obovatus</i> Sourwood <i>Oxydendrum arboreum</i> Shining Sumac <i>Rhus copallina</i> Smooth Sumac <i>Rhus glabra</i> Sparkleberry <i>Vaccinium arboreum</i> Winged Elm <i>Ulmus alata</i> Hop Tree <i>Ptelea trifoliata</i> Hophornbeam <i>Ostrya virginiana</i>
MOISTURE	Longleaf Pine <i>Pinus palustris</i> Shumard Oak <i>Quercus shumardii</i> American Linden <i>Tilia americana</i> + American Beech <i>Fagus grandifolia</i> Tulip Poplar <i>Liriodendron tulipifera</i>	Persimmon <i>Diospyros virginiana</i> American Holly <i>Ilex opaca</i> Cucumber Magnolia <i>Magnolia acuminata</i> Umbrella Magnolia <i>Magnolia tripetala</i> Bigleaf Magnolia <i>Magnolia macrophylla</i> Carolina Buckthorn <i>Rhamnus caroliniana</i> Black Gum <i>Nyssa sylvatica</i> Red Mulberry <i>Morus rubra</i> Southern Shagbark Hickory <i>Carya caroliniae-septentrionalis</i>	Sassafras <i>Sassafras albidum</i> Flowering Dogwood <i>Cornus florida</i> Pagoda Dogwood <i>Cornus alternifolia</i> Serviceberry <i>Amelanchier arborea</i> Chalkbark Maple <i>Acer leucoderme</i> Piedmont Buckeye <i>Aesculus sylvatica</i> Allegheny Chinkapin <i>Castanea pumila</i> American Fringe Tree <i>Chionanthus virginicus</i> Washington Hawthorn <i>Crataegus phaenopyrum</i>
WET		Red Maple <i>Acer rubrum</i> Sweetgum <i>Liquidambar styraciflua</i>	Bigleaf Snowbell <i>Styrax grandifolius</i> Littlehip Hawthorn <i>Crataegus spathulata</i> Witch-Hazel <i>Hamamelis virginiana</i>

CANOPY REHABILITATION

L1.4 Neighborhood Woodland Rehabilitation

A swath of new tree plantings connects with existing tree cover to create a more continuous woodland area. This section showcases a palette of trees that are well suited to residential areas.

CHARACTER:

- Residential- predominantly single family
- Wooded backyards and open spaces abut corridor

APPROACH:

- Reforestation to create continuous canopy cover
- Palette of native and adapted species suitable for use in residential areas

+ Symbolic Tree



L1.4 Neighborhood Woodland Rehabilitation

	TALL CANOPY	MID - CANOPY	UNDERSTORY
DRY	Pignut Hickory <i>Carya glabra</i> Pin Oak <i>Quercus palustris</i> Northern Red Oak <i>Quercus rubra</i>	Mockernut Hickory <i>Carya alba</i> Deodar Cedar <i>Cedrus deodara</i> Cedar of Lebanon <i>Cedrus libani</i> Post Oak <i>Quercus stellata</i>	
MOISTURE	Yellow-Poplar <i>Liriodendron tulipifera</i> Dawn Redwood <i>Metasequoia glyptostroboides</i> Yellow Buckeye <i>Aesculus flava</i> Horsechestnut <i>Aesculus hippocastnum</i> Pecan <i>Carya illinoensis</i> Ginkgo <i>Ginkgo biloba</i> Southern Linden <i>Tilia heterophylla</i> Nuttall Oak <i>Quercus nuttalli</i> Shumard Oak <i>Quercus shumardii</i>	+ American Holly <i>Ilex opaca</i> Yellowwood <i>Cladrastis kentukea</i> Bigleaf Magnolia <i>Magnolia macrophylla</i> Black Gum <i>Nyssa sylvatica</i> Walnut <i>Juglans nigra</i> American Beech <i>Fagus grandifolia</i>	Red Buckeye <i>Aesculus pavia</i> Flowering Dogwood <i>Cornus florida</i> Kousa Dogwood <i>Cornus kousa</i> + Serviceberry <i>Amelanchier arborea</i>
WET	+ Willow Oak <i>Quercus phellos</i> Sugar Maple <i>Acer saccharum</i> American Elm <i>Ulmus americana</i>		Overcup Oak <i>Quercus lyrata</i> Witch-Hazel <i>Hamamelis virginiana</i> Japanese Maple <i>Acer palmatum</i>



L2 CHARACTER ROOMS

Proposed canopy forms, planting techniques and tree organizations for the Atlanta BeltLine respond to the existing site character, conditions and features to shape variety of new landscapes. These “character rooms” are imagined, therefore, as site-specific settings where the quality, character and arrangement of plantings play a defining role in creating a diversity of experiences.

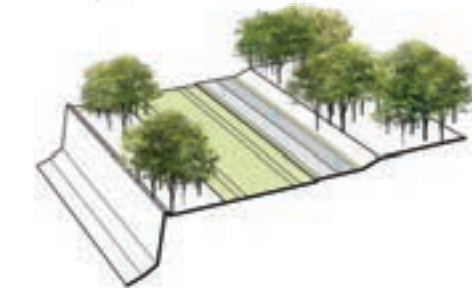
The following six organizational concepts for tree plantings are identified for their spatial variety and difference in shape, form, and character. For each type of canopy form, the canopy palette includes a rich selection of tree species. The design intent is to draw out as much spatial difference as possible, leveraging each species’ silhouette, growing height and branching structure - all of which support different expressions when planted individually or in groupings. Other considerations include color, flower and fragrance.

Most importantly, these six techniques are intended only as a starting place. Designers should develop a unique strategy for each defined character room, including careful selection of tree specimens, mixing of trees with varied canopy size, and adjusting typical tree spacing dimensions..

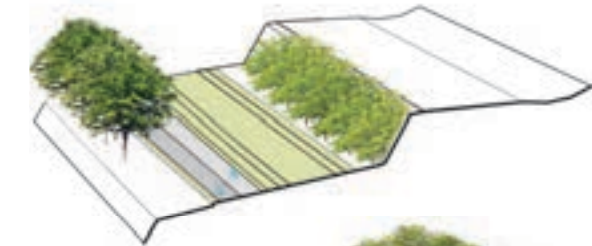
L2.1 SPECIMENS + CLEARINGS



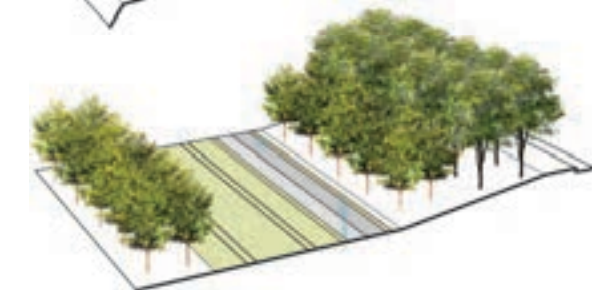
L2.2 FOREST CLUMPS



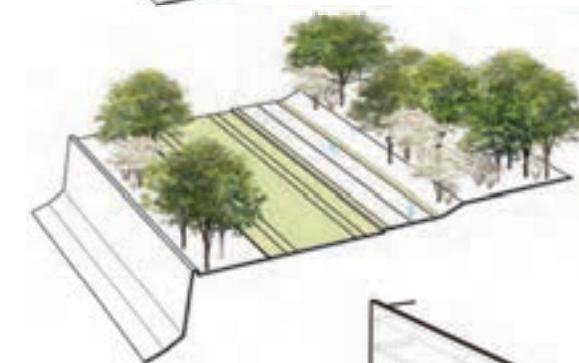
L2.3 SLIP-ROWS



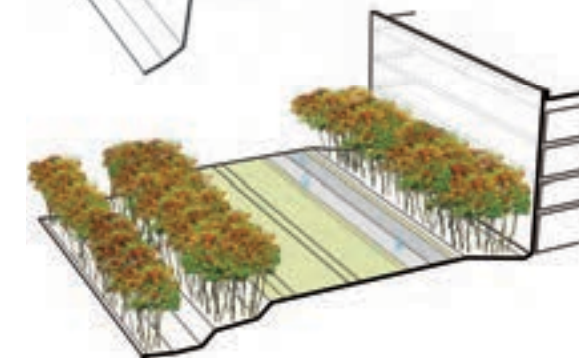
L2.4 ORCHARDS + GROVES + BOSQUES



L2.5 FLOWERING UNDERSTORY



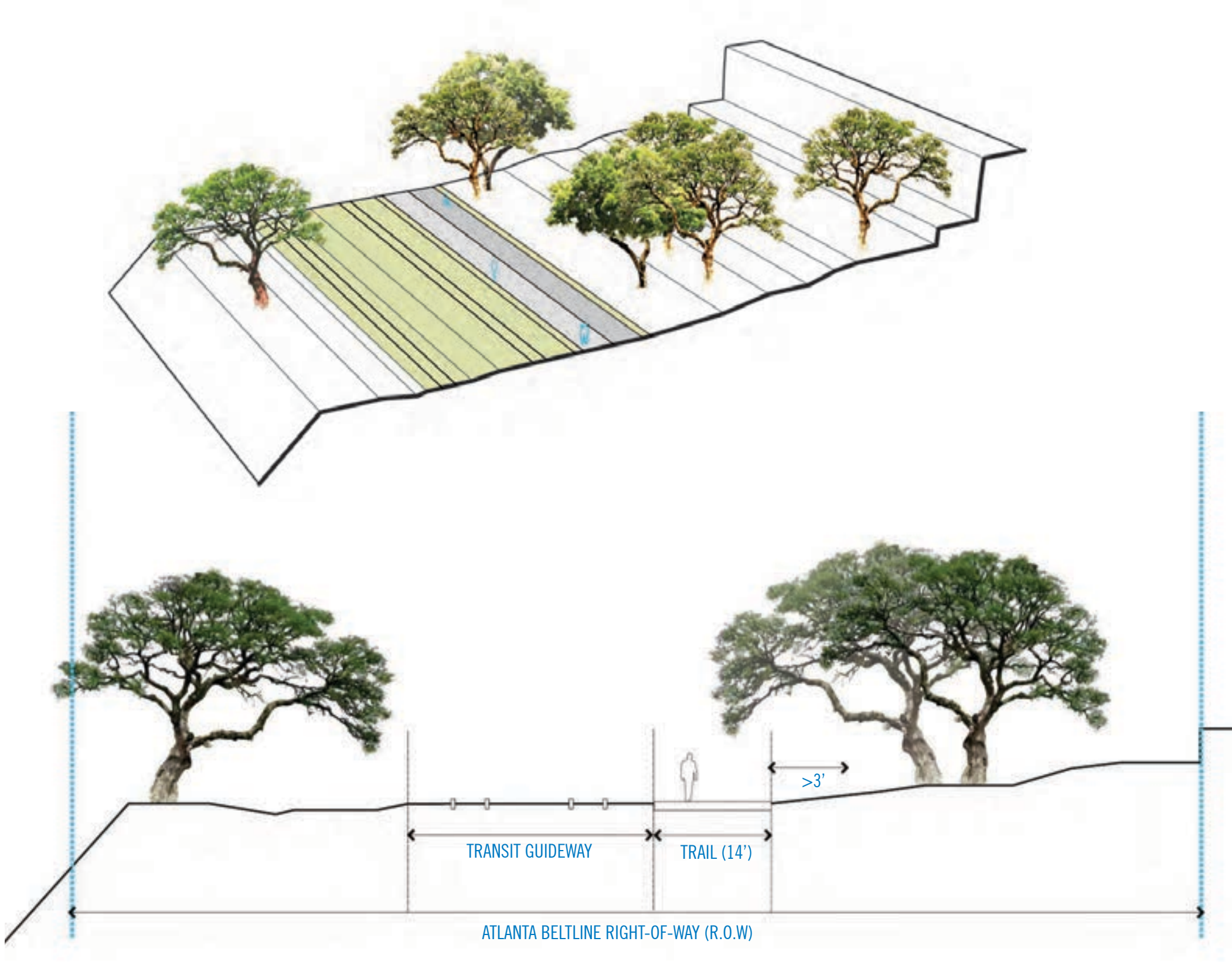
L2.6 THICKETS



CHARACTER ROOMS

Specimens + Clearings L2.1

In the rare instances when the Atlanta BeltLine corridor widens significantly or when there are impressive views and prospects to the City skyline and adjacent parks, the tree canopy should dramatize this scale and perspective shift. Utilizing larger or more mature specimen trees, or species that are regarded for their unique forms, spaced at generous intervals, the corridor can transition into a more open landscape. Meadows and clearings dotted with the striking silhouettes of trees can provide a dynamic foreground to the City views.



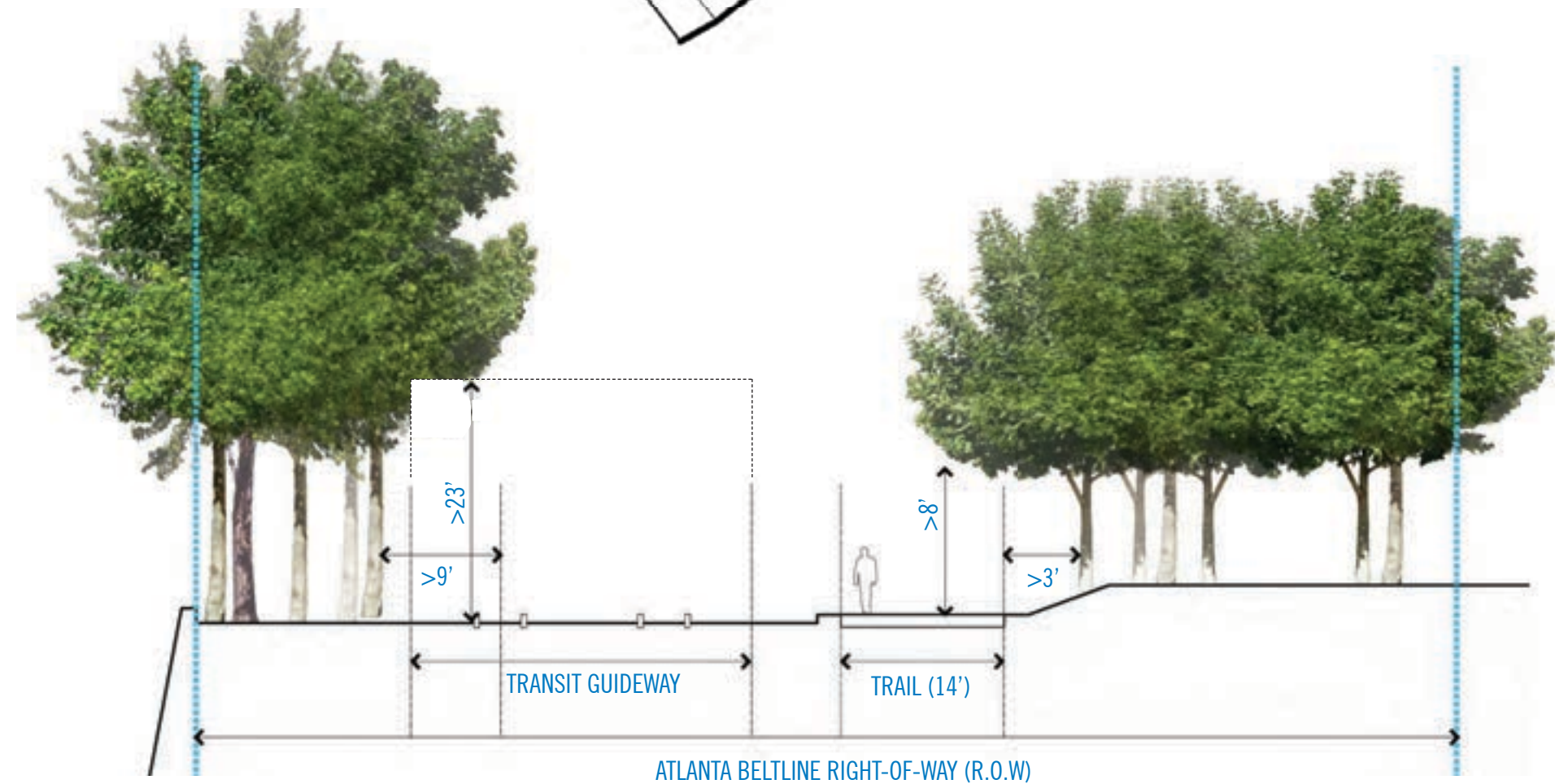
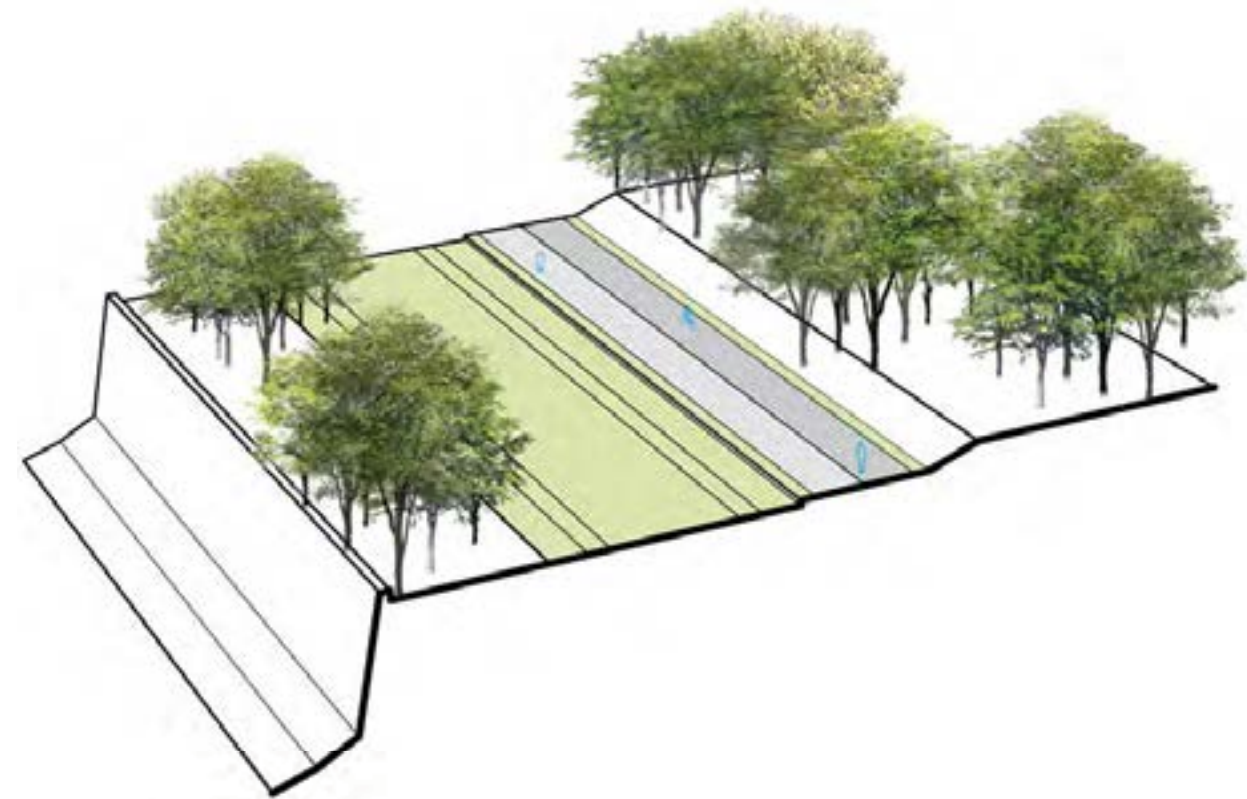
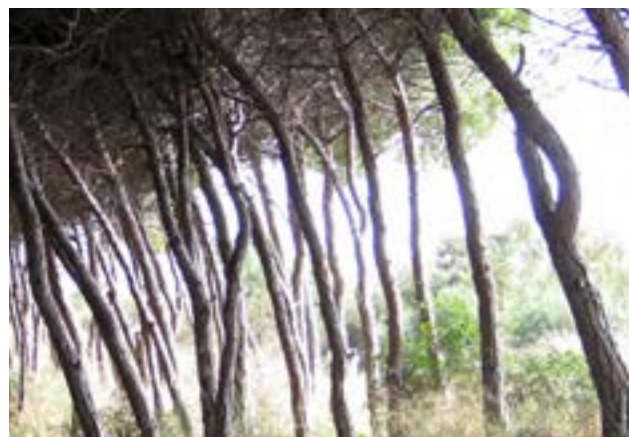
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CHARACTER ROOMS

L2.2 Forest Clumps

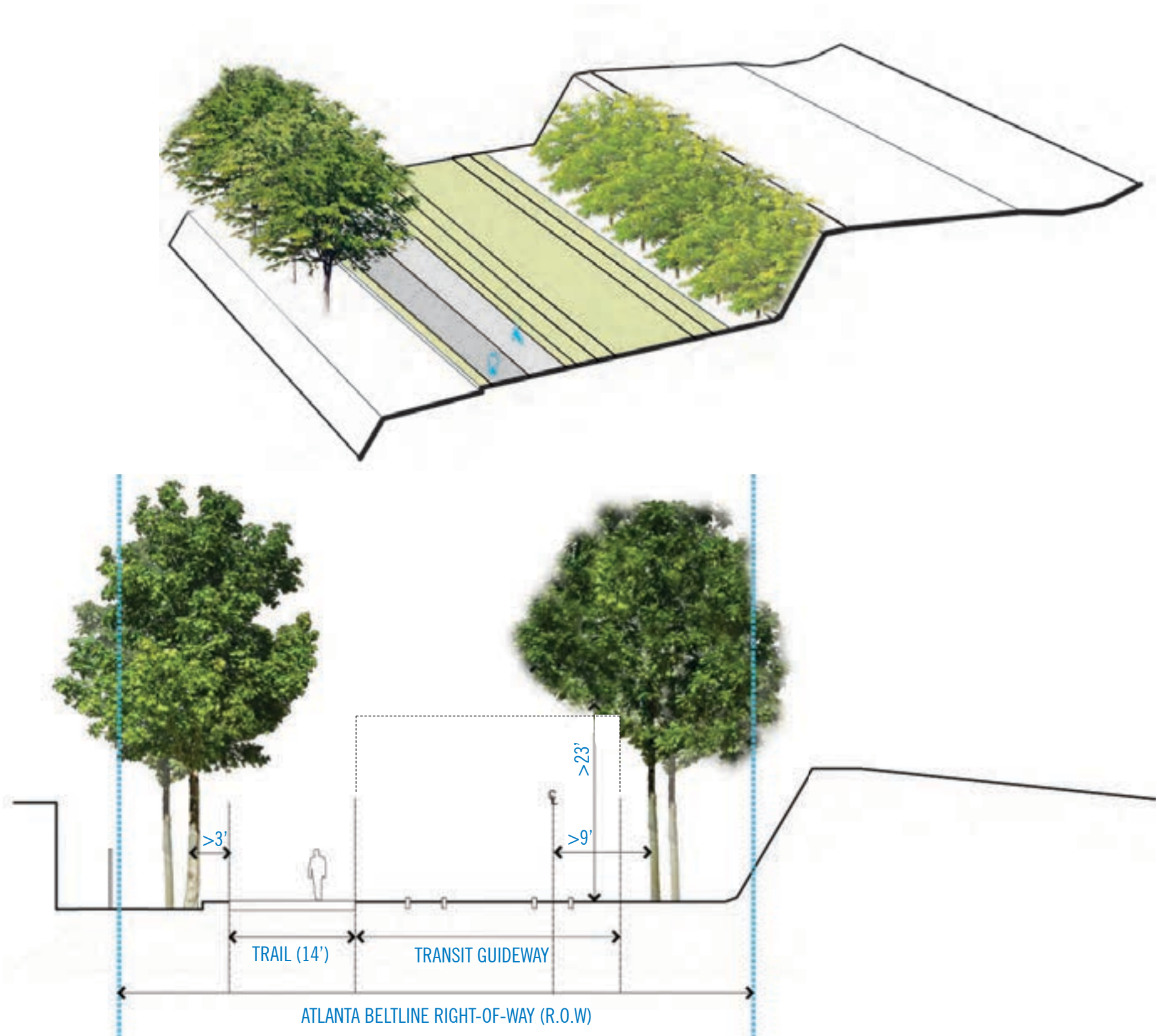
To create settings that have a 'naturalized' quality, or have a feeling of an 'interior' environment (something to walk 'into'), trees (one or two species) can be arranged in densely planted clusters with mixed canopy heights and mixed caliper sizes. Careful selection of species and spacing will be necessary to ensure that the trees can grow vigorously, support passive programs like picnicking or lounging and provide adequate shade and screening where appropriate.



CHARACTER ROOMS

Slip-Rows L2.3

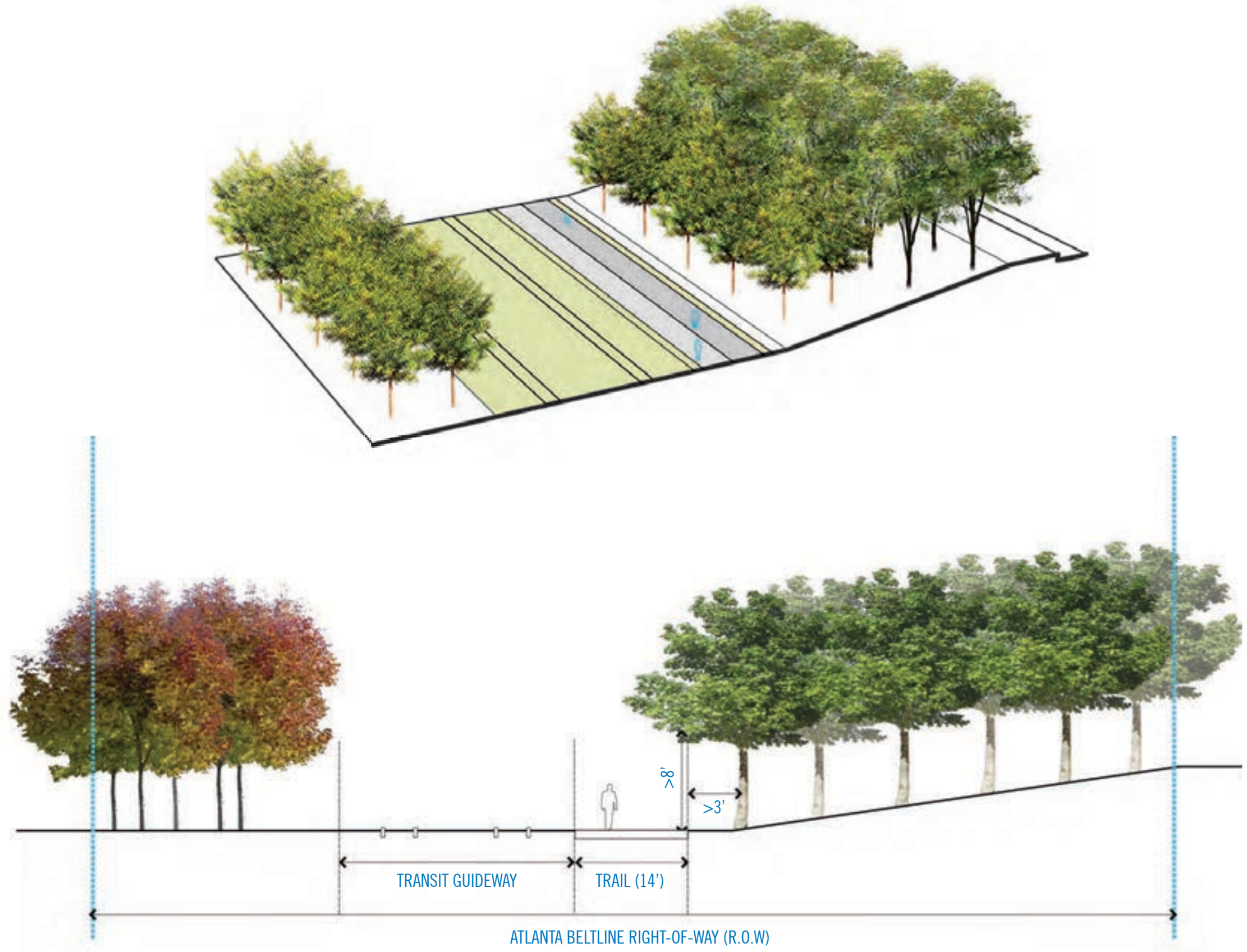
In the narrowest sections of the Atlanta BeltLine corridor, when space beyond the transit guideway and trail is limited, trees might be used to a practical but dramatic effect. Along either side of the trail or corridor, rows of five to fifteen trees of the same species form alternating bands for a unique effect. Narrow conditions are transformed into promenade-type spaces with views down the corridor that are dramatically extended with the framed perspective through the trees. As with the other canopy form types - slip-rows require careful selection of species to ensure that the future canopies 1) are fast growing and upright, 2) extend above the clearance requirements of the guideway, 3) have branching patterns and growth habits that have distinctive qualities or characteristics that differentiate these linear narrow spaces from the average streetscape, and 4) consist of species that can easily be replaced should a tree die.



CHARACTER ROOMS

L2.4 Orchards + Bosques + Groves

Within plaza spaces, or within sites that are part of future phases and can serve as staging grounds for plantings to be used elsewhere along the corridor, larger scale plantings are possible. These plantings can either be spatial, taking the form of groves or bosques that create high shade canopies for social seating and plaza environments, or productive, transforming sections with a wide R.O.W. into temporary nurseries for future Atlanta BeltLine tree needs, or even fruit tree orchards for educational experiences that celebrate health and wellness.

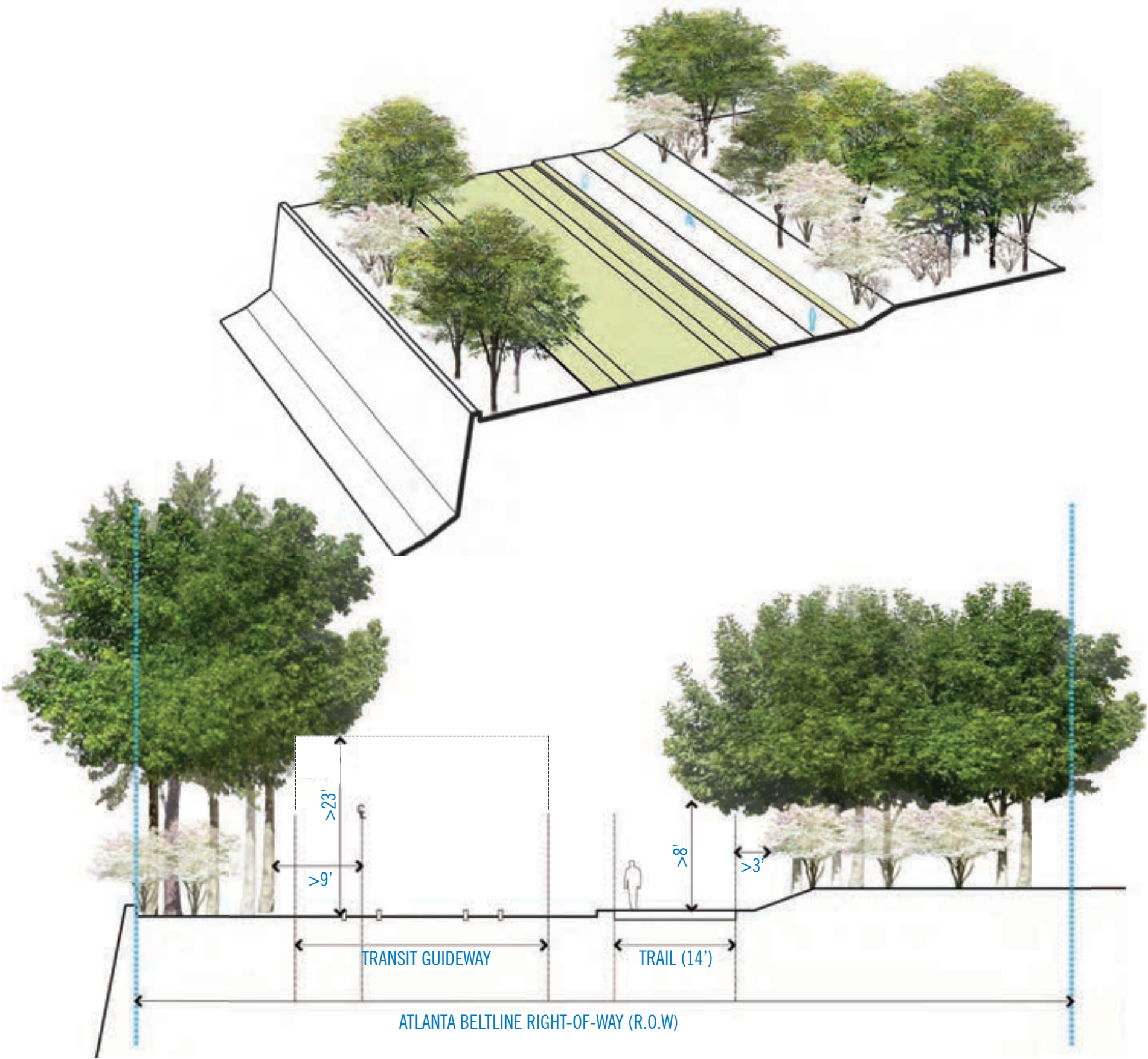


CHARACTER ROOMS

Flowering Understory L2.5

The tree palette for the Atlanta BeltLine corridor consists of an extensive range of native and naturalized species of all sizes, forms, visual character and, in some instances, symbolic quality.

Within this broad range of species, rather than use the traditionally ornamental species (flowering trees and shrubs, low canopy or understory trees) as individual accents within the corridor, these species might be used in a more extensive manner - essentially creating a understory canopy layer of beautifully textured or flowering species. In this way, these ornamental species are used to shape and define distinctive “rooms” within the corridor - settings characterized by their intense seasonality and dramatic horizons of color.

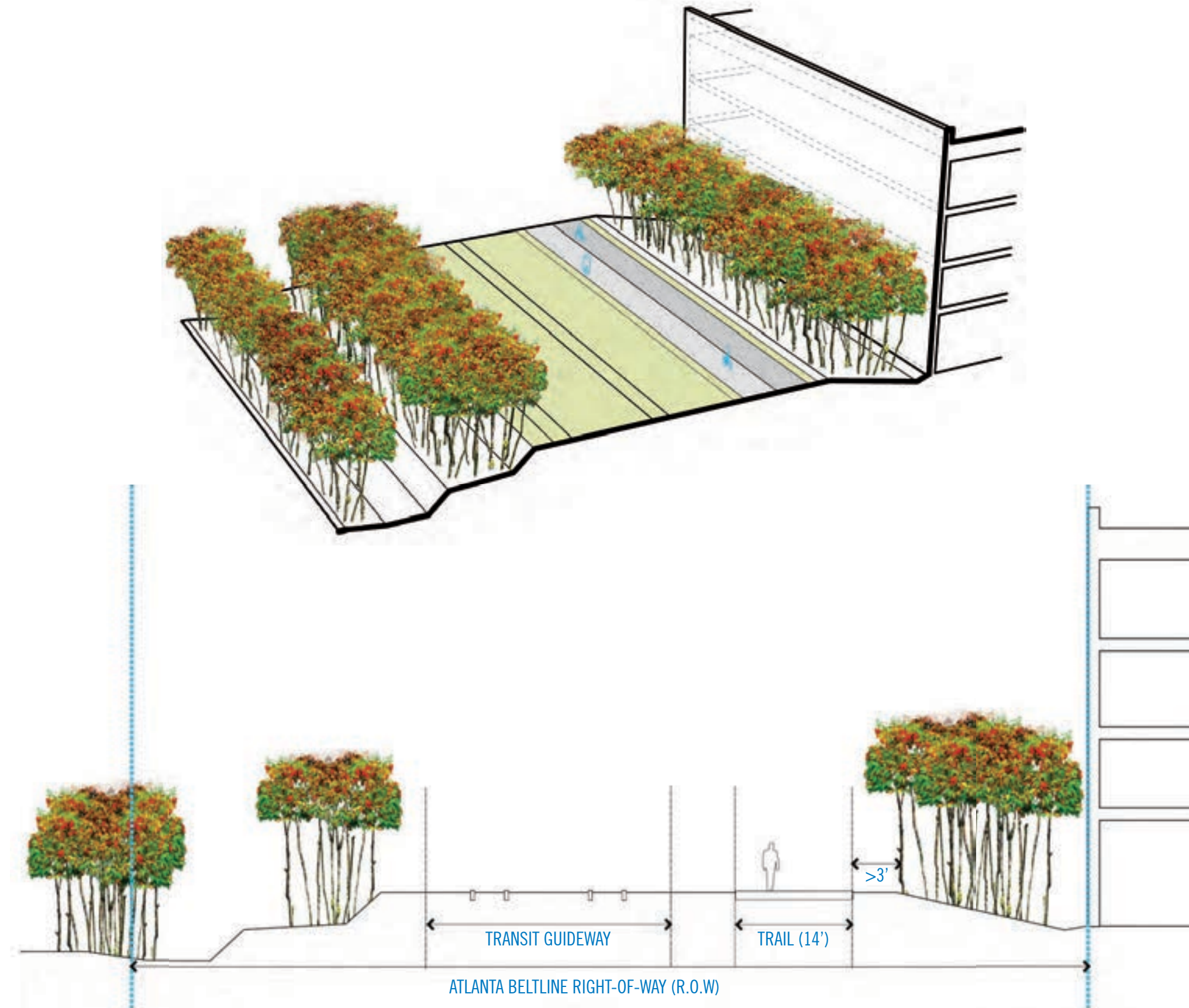


CHARACTER ROOMS

L2.6 Thickets

Similar to forest clumps, thickets are densely planted clusters of mixed trees and shrubs. They are too dense to walk within, as the individual species are often intertwined and tangled. As a planting technique, thickets are intensely textural and capable of creating intimate and immersive spaces in narrow conditions, while simultaneously providing significant screening of adjacent parcels or undesirable features.

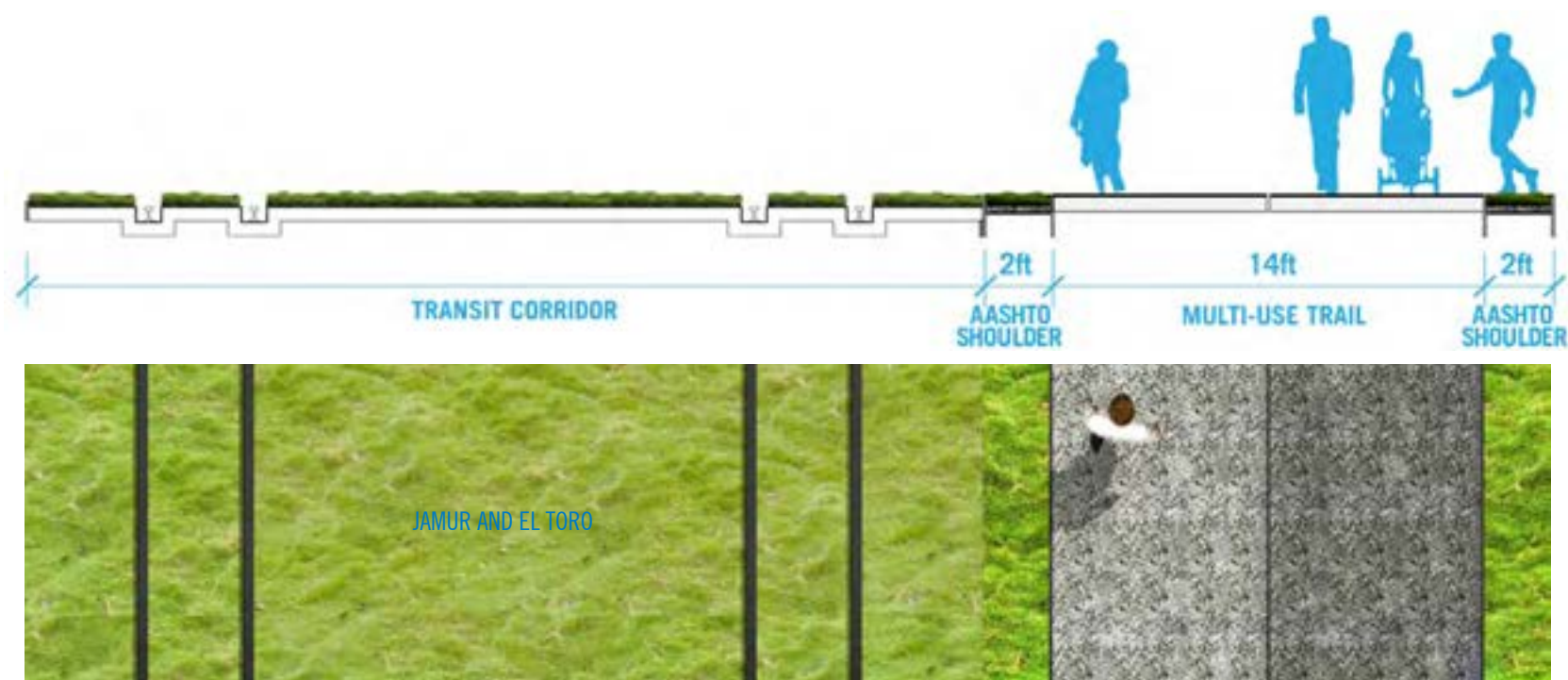
When experienced in contrast to open clearings and plazas along the Atlanta BeltLine - the spaces characterized by thickets will be memorable for their qualities of enclosure, texture, and how they define the space of the Atlanta BeltLine by densely holding the site edges.



GREEN GUIDEWAY & FLOOR L3

The Atlanta BeltLine is as much a ‘landscape’ project as a transit project. It has the potential to be one of the most unique infrastructure projects in the world: a city-wide transit corridor that is also a distinctly beautiful landscape, rich with signature social spaces, neighborhood parks and surprising “rural” settings. The Atlanta BeltLine can become an unprecedented model for 21st Century green infrastructure.

Shaping this “green infrastructure” project will literally start from the ground up. The ground plane of the corridor, the “floor,” will need to be re-vegetated once the grading for the guideway and trail system is complete. To the greatest extent possible, the guideway will be vegetated - utilizing low-growing, low-maintenance and drought tolerant grasses. For the remaining corridor, meadow grasses and groundcover species will be selected to create a soft, richly textured ground plane: akin to the piedmont forest floor. These floor plantings will vary along the corridor responding to existing conditions of sunlight and shade, dryness and wetness and topography. When coupled with the tree canopy, the floor will be a defining and poetic component of the “character rooms”.



TRAM . PARIS, FRANCE



L3 GREEN GUIDEWAY & FLOOR

Ground Cover

As a model of 21st Century green infrastructure, the Atlanta BeltLine transit guideway will be vegetated as much as possible, utilizing low-growing, low-input, low-maintenance and drought tolerant grasses. The green guideway will significantly reduce stormwater run-off and improving the quality of the narrow corridor as a green landscape in the City.

The following grass types are specified:

BUFFALO GRASS

- *Buchloe dactyloides*
- Recommended cultivar: Prestige

BERMUDA GRASS

- *Cynodon dactylon*
- Recommended cultivars: Tifway 419, Tifway Sport, and Patriot (note: triploid Bermuda grass hybrids with sterile seeds are specified to prevent spread)

ZOYSIA GRASS

- *Zoysia japonica*
- Recommended cultivars: Jamur and El Toro



L3.1

PRE-TRANSIT “DRY” FLOOR

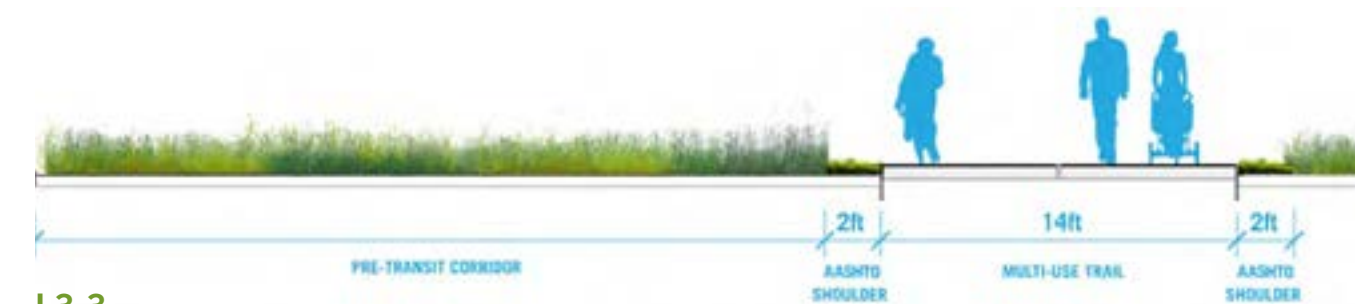
In dry to mesic site conditions, the floor plantings for the Atlanta BeltLine will largely be warm season grasses and perennial mixes.



L3.2

TRANSIT + “DRY” FLOOR

With the introduction of transit, low-growing, sun tolerant turf species will replace the taller growing, warm season grasses within the guideway.

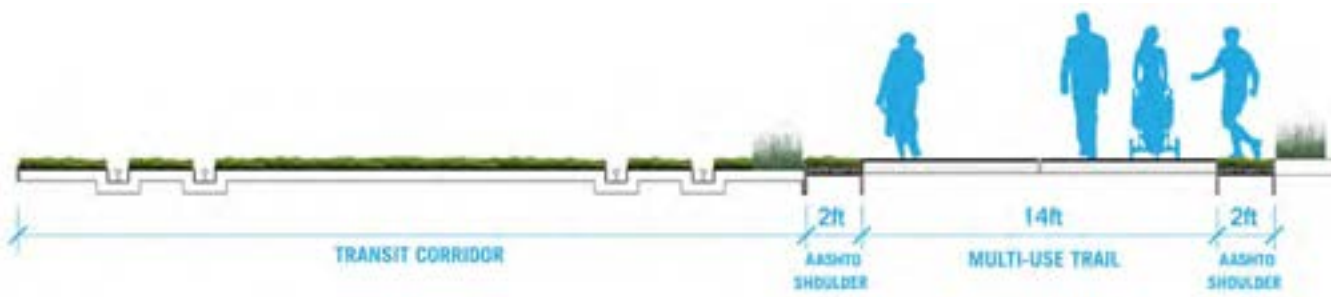


L3.3

PRE-TRANSIT “MOIST” FLOOR

In moist and riparian site conditions, the floor plantings for the Atlanta BeltLine will largely be a mix of shade-tolerant grasses and wetland emergent plants.





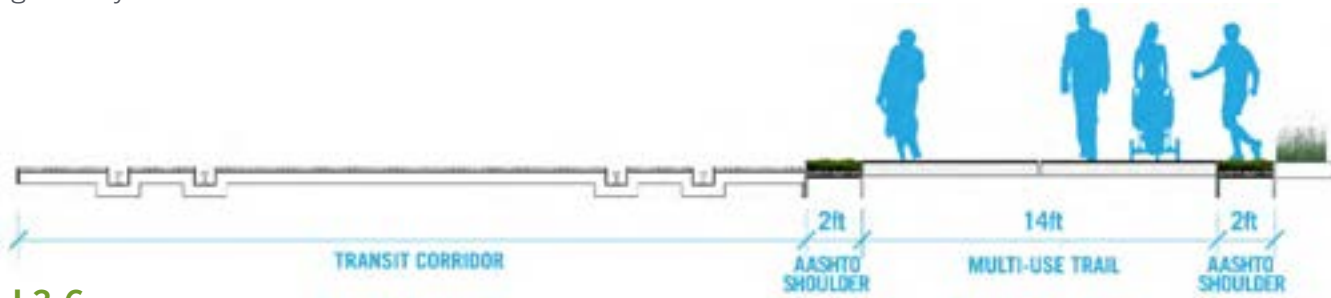
L3.4
TRANSIT + “MOIST” FLOOR

With the introduction of transit, low-growing, shade tolerant turf species will replace the taller grasses and wetland emergents.



L3.5
BALLAST GUIDEWAY

Where a vegetated guideway is not possible or desired, ballast track utilizes a crushed stone surface that provides an alternative aesthetic for the transit guideway.



L3.6
STONE DUST GUIDEWAY

In areas where ballast track is not desired and vegetated guideway is not possible, a stone dust surface provides a smooth but unpaved alternative for the guideway that is consistent with other design elements.



L4 SHRUBS & FLOOR PALETTE

Plantings below the tree canopy are selected in support of each Character Room concept. The matrix here serves as a strategic guideline for future Atlanta BeltLine shrub and floor plantings, in that it prioritizes the categorization of species by relative size and water requirements in order to efficiently demonstrate how species may be selected from one geographic segment to another. While the matrix does not represent an exhaustive or exclusive list of trees for the entire corridor, it is important that any design of shrub and groundcover plantings in the Atlanta BeltLine follow the design strategies outlined in this chapter. Small-scale, site specific, artful and “place-making” planting designs are critical to the success of the Atlanta BeltLine as a public amenity, however, these designs should not work to diminish the overall expression of continuity in the Atlanta BeltLine landscape.



SHRUBS				FLOOR			
TALL SHRUBS		LOW SHRUBS		GRASSES & FERNS		WILDFLOWERS	
Blackhaw Viburnum	<i>Viburnum prunifolium</i>	Pinxterbloom Azalea	<i>Rhododendron nudiflorum</i>	Nimbleweed	<i>Muhlenbergua schreberi</i>	Lanceleaf Coreopsis	<i>Coreopsis lanceolata</i>
Rusty Blackhaw	<i>Viburnum rufidulum</i>	Carolina Azalea	<i>Rhododendron minus</i>	Bearded Shorthusk	<i>Brachyleytrum erectum</i>	Wild Blue Phlox	<i>Phlox divartica</i>
Deerberry	<i>Vaccinium stamineum</i>	Oconee Azalea	<i>Rhododendron flammeum</i>	Carpet Grass	<i>Axonopus fissifolius</i>	Butterfly Weed	<i>Asclepias tuberosa</i>
Mayberry	<i>Vaccinium elliotii</i>	Piedmont Azalea	<i>Rhododendron canescens</i>	Elliot's Bluestem	<i>Andropogon gyrans</i>	Woodland Sunflower	<i>Helianthus divaricatus</i>
Fragrant Sumac	<i>Rhus aromatica</i>	Shrubby St. John's Wort	<i>Hypericum prolificum</i>	Purple Lovegrass	<i>Eragrostis spectabilis</i>	Creeping Phlox	<i>Phlox subulata</i>
Shining Sumac	<i>Rhus copallina</i>	Cedarglade St. John's Wort	<i>Hypericum frondosum</i>	Weeping Lovegrass	<i>Eragrostis curvula</i>	Annual Phlox	<i>Phlox drumondii</i>
Smooth Sumac	<i>Rhus glabra</i>	Fothergilla	<i>Fothergilla major</i>	River Oats	<i>Chasmanthium latifolium</i>	Wild Bergamot	<i>Monarda fistulosa</i>
Chickasaw Plum	<i>Prunus angustifolia</i>	Strawberry Bush	<i>Euonymus americanus</i>	Side Oats Grama	<i>Bouteloua curtipendula</i>	Sundrops	<i>Oenothera fruticosa</i>
Beaked Hazelnut	<i>Corylus cornuta</i>	New Jersey Tea	<i>Ceanothus americanus</i>	Little Bluestem	<i>Symphyotrichum scoparium</i>	Browneyed Susan	<i>Rudbeckia triloba</i>
American Hazelnut	<i>Corylus americana</i>	Eastern Sweetshrub	<i>Calycanthus floridus</i>	Purple Top	<i>Tridens flava</i>	Blackeyed Susan	<i>Rudbeckia hirta</i>
Piedmont Buckeye	<i>Aesculus sylvatica</i>	Dwarf Pawpaw	<i>Asimina parviflora</i>	Deer Tongue	<i>Dichantherium clandestinum</i>	Blazing Star	<i>Liatris scariosa</i>
		Mountain False Indigo	<i>Amorpha glabra</i>	Prestige Buffalo Grass	<i>Buchloe dactyloides 'Prestige'</i>	Aromatic Aster	<i>Aster oblogifolius</i>
		Beautyberry	<i>Callicarpa americana</i>	Indian Grass	<i>Sorghastrum nutans</i>	Georgia Aster	<i>Symphyotrichum georgianum</i>
		Lowbush Blueberry	<i>Vaccinium pallidum</i>	Bermuda Grass	<i>Cynodon dactylon</i>	False Aster	<i>Boltonia asteroides</i>
		Maple Leaf Viburnum	<i>Viburnum acerifolium</i>	Split-beard Broomsedge	<i>Andropogon ternarius</i>	Later Purple Aster	<i>Symphyotrichum patens</i>
		Downy Arrowwood	<i>Viburnum rafinesquianum</i>	Wild Rye	<i>Elymus virginicus</i>	Fire Pink	<i>Silene virginica</i>
		Adam's Needle	<i>Yucca filamentosa</i>	Panic Grass	<i>Panicum anceps</i>	Rose Pink	<i>Sabatia angularis</i>
Heartleaf Willow	<i>Salix eriocephala</i>	St. John's Wort	<i>Hypericum densiflorum</i>	Narrowleaf blue-eyed grass	<i>Sisyrinchium angustifolium</i>	Hyssop Skullcap	<i>Scutellaria incana</i>
Swamp Dogwood	<i>Cornus strictus</i>	Winterberry	<i>Ilex verticillata</i>	Showy Goldenrod	<i>Solidago speciosa</i>	Narrowleaf Mountain Mint	<i>Pycnanthemum tenuifolium</i>
Devil's Walking Stick	<i>Aralia spinosa</i>	Silky Dogwood	<i>Cornus amomum</i>	Tall Goldenrod	<i>Solidago canadensis</i>	Threadleaf Coreopsis	<i>Coreopsis verticillata</i>
Red Chokeberry	<i>Aronia arbutifolia</i>	Virginia Sweetspire	<i>Itea virginica</i>	Tussock Sedge	<i>Carex lurida</i>	Wild Petunia	<i>Ruellia humilis</i>
Switch Cane	<i>Arundinaria gigantea</i>	Elderberry	<i>Sambucus canadensis</i>	Broomsedge	<i>Andropogon virginicus</i>	Spiked Wild Indigo	<i>Baptisia albescens</i>
Deciduous Holly	<i>Ilex decidua</i>	Buttonbush	<i>Cephalanthus occidentalis</i>	Rush	<i>Juncus effusus</i>	Tennessee Coneflower	<i>Echinacea tennesseensis</i>
Wax Myrtle	<i>Myrica cerifera</i>	Yellowroot	<i>Xanthorhiza simplicissima</i>	Rattlesnake Master	<i>Eryngium yuccifolium</i>	Purple Coneflower	<i>Echinacea purpurea</i>
American Snowbell	<i>Styrax americanus</i>	Possumhaw Viburnum	<i>Viburnum nudum</i>	Prairie Dropseed	<i>Sporobolus heterolepsis</i>	Grey Headed Coneflower	<i>Ratibida pinnata</i>
Highbush Blueberry	<i>Vaccinium corymbosum</i>	Spicebush	<i>Lindera benzoin</i>	Lady Fern	<i>Athyrium felix-femina</i>	Blue Sage	<i>Salvia azurea</i>
				Southern Lady Fern	<i>Athyrium asplenoides</i>	Southern Blue Flag	<i>Iris virginica</i>
				Christmas Fern	<i>Polystichum acrostichoides</i>	Swamp Sunflower	<i>Helianthus angustifolius</i>
				Shield Fern	<i>Dryopteris carthusiana</i>	Cardinal Flower	<i>Lobelia cardinalis</i>
				Cinnamon Fern	<i>Osmunda cinnamomea</i>	Golden Canna	<i>Canna flaccida</i>
						White Turtlehead	<i>Chelone glabra</i>
						Scarlet Rose Mallow	<i>Hibiscus coccineus</i>

LANDFORMS L5

Engineered topography is a defining site characteristic of the existing railroad corridors and will remain a dominant characteristic of the new transit and trail corridor. The existing landform of the Atlanta BeltLine varies dramatically as the historic rail corridor slices across the eastern sub-continental divide and rolling piedmont, crossing over streets and passing through tunnels along the way. In addition, the new BeltLine corridor will require accessible entry ramps carved into the corridor's side-slopes, extensive stormwater retention swales, and engineered walls and slopes that will support a widened cross-section that can accommodate both the transit guideway and multi-use trail. Cumulatively, these topographic conditions will effect the way in which users and visitors will experience the Atlanta BeltLine landscape, and the design of these topographic elements should, therefore, take the larger reading of the landscape into account.

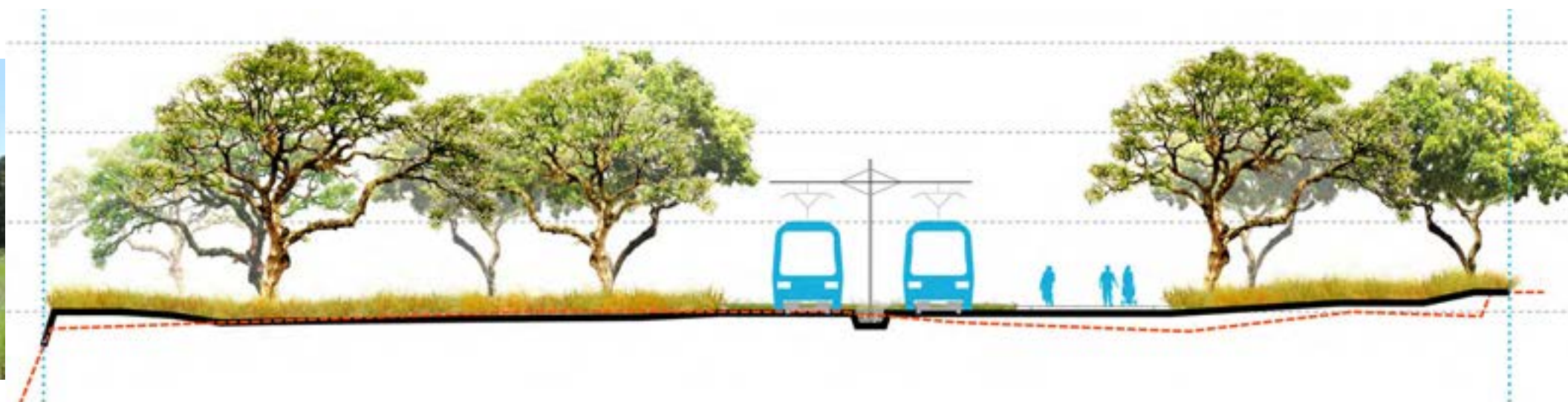
New landforms of the Atlanta BeltLine are site specific and shaped for: 1) High-Performance - an engineered guideway, stable slopes and sustainable stormwater management, and 2) Dynamic Experience - a graceful and accessible trail and ramp design.



LANDFORMS

L5.1 Flat Right-of-Way

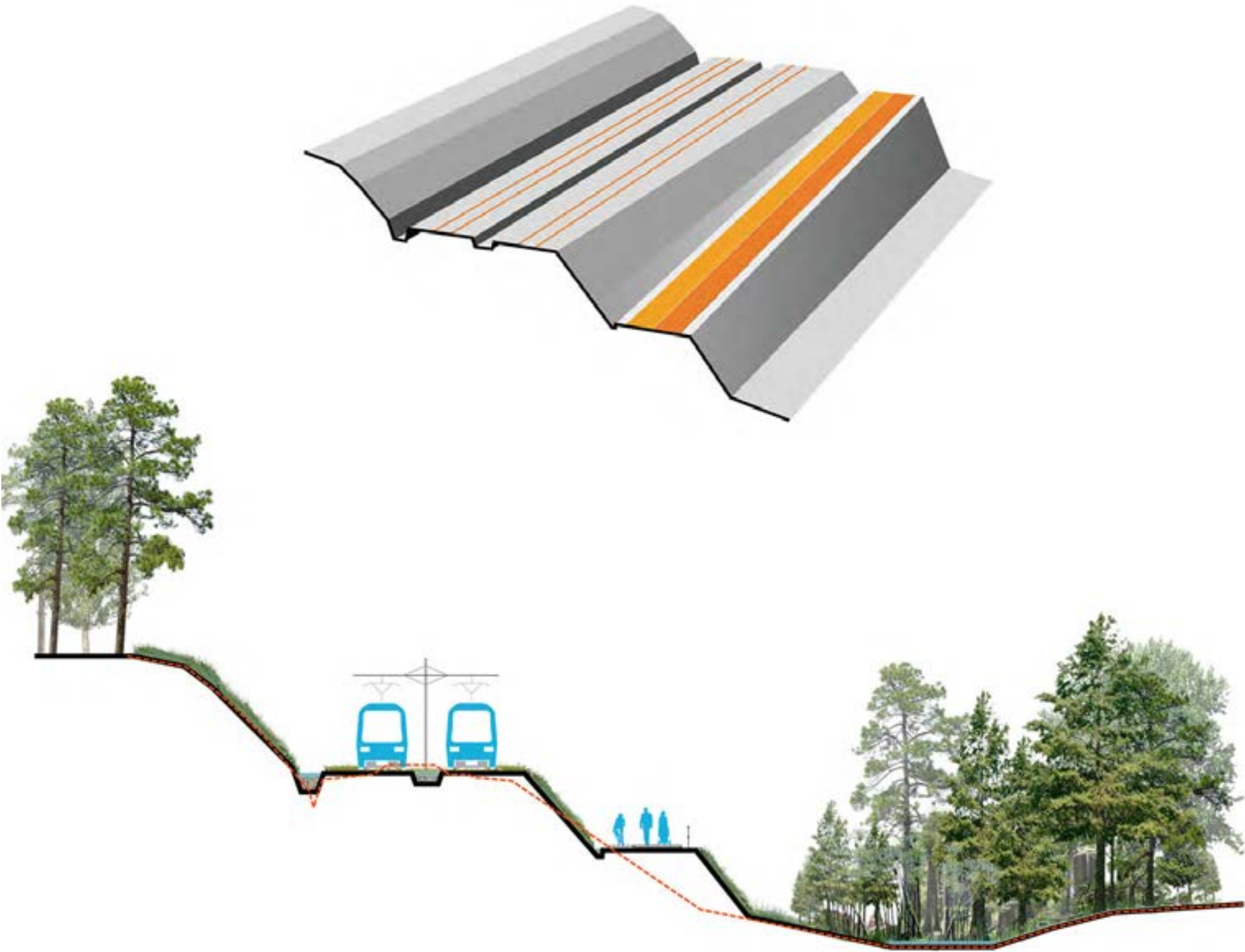
Due to the Atlanta BeltLine's history as a rail corridor, much of the existing cross-section conditions are relatively flat, having been engineered to support the 1 - 2% track grades. To upgrade these sections to support the new trail and transit guideway, the strategic and efficient design of swales and drainage features will be necessary to effectively manage stormwater.



LANDFORMS

Embankments L5.2

In portions of the corridor that have steep grades or side slopes, extensive grading will be necessary to assemble the transit guideway and trail surfaces. Stormwater collection will be essential on both the up-slope and down-slope sides of the guideway and trail. The resulting earthwork should be efficient but graceful and provide a smooth experience for users entering, leaving or traveling the Atlanta BeltLine.



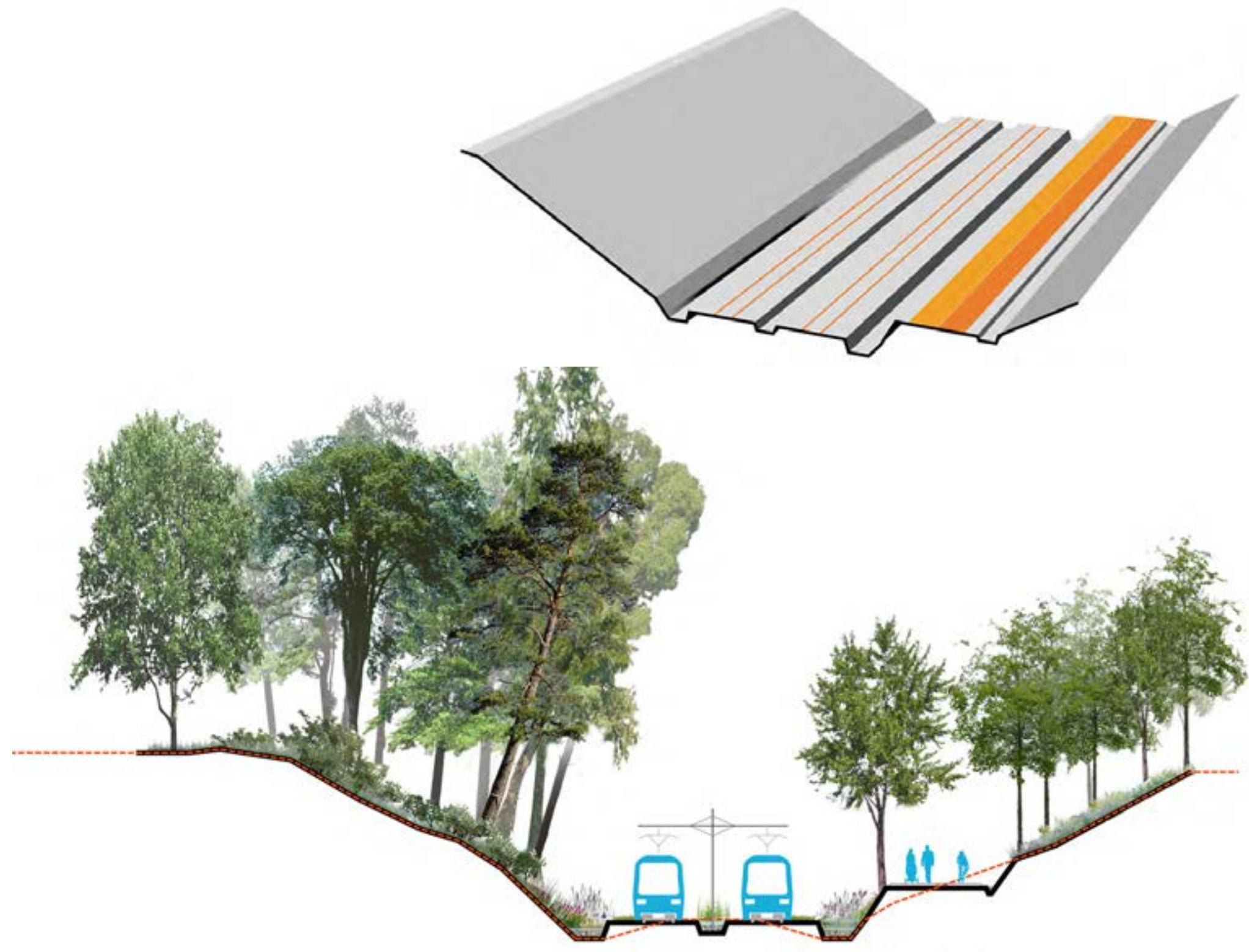
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LANDFORMS

L5.3 Sunken Corridors

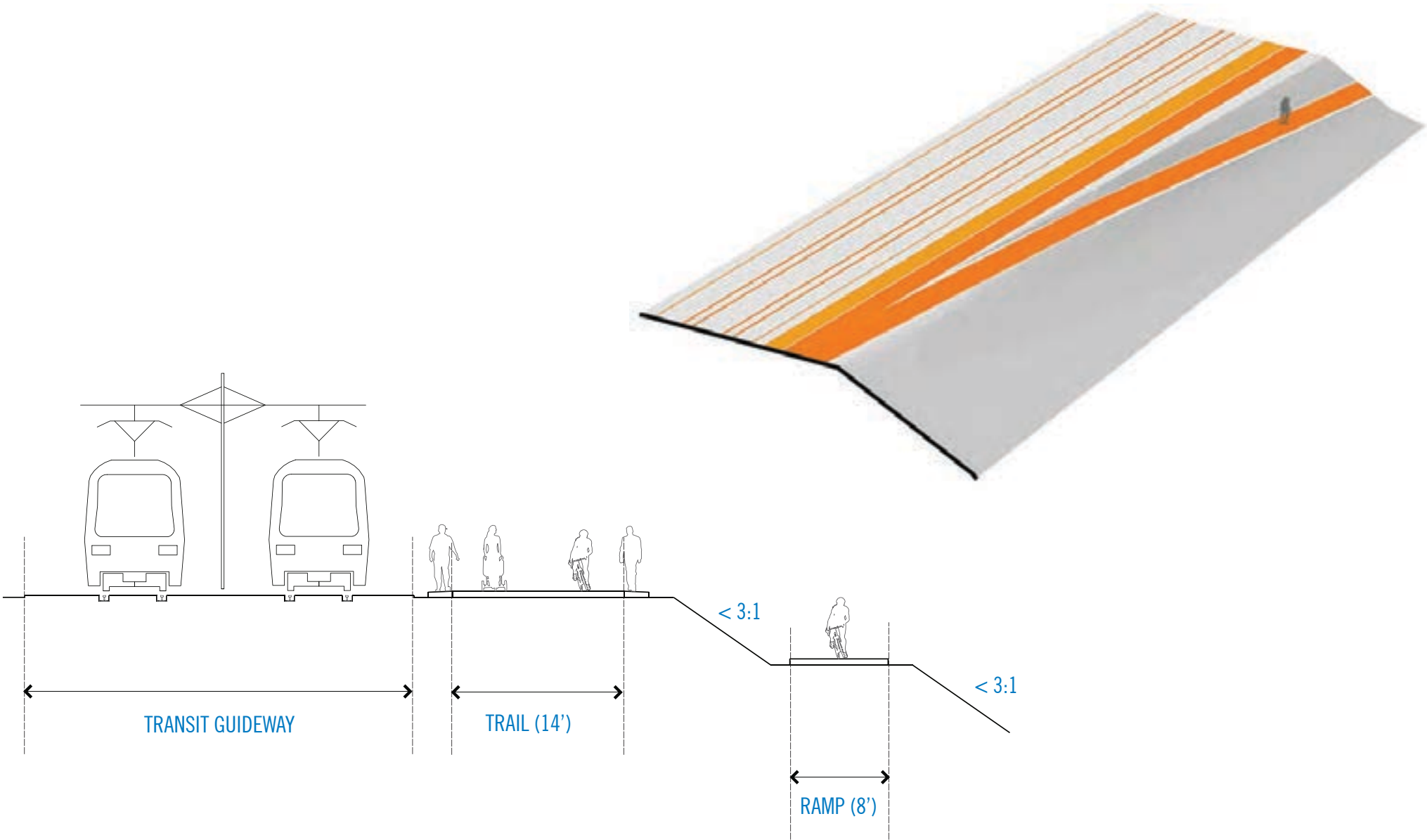
For portions of the corridor in which the future guideway will be recessed below adjacent street level, the new topography should strategically drain the trails and guideway while supporting moist floor species in large bioswale conditions. Placement of the trail should maximize the potential for an experience of an 'interior' landscape, a place removed from the City, while at the same time maintaining open lines of sight into the corridor for safety.



LANDFORMS

Access Ramps L5.4

The construction and grading of entry ramps should be efficient but graceful and provide a smooth, fully accessible experience for users entering, leaving or traveling the Atlanta BeltLine. Ramps without landings and railings are preferred, but will not be possible in many conditions.

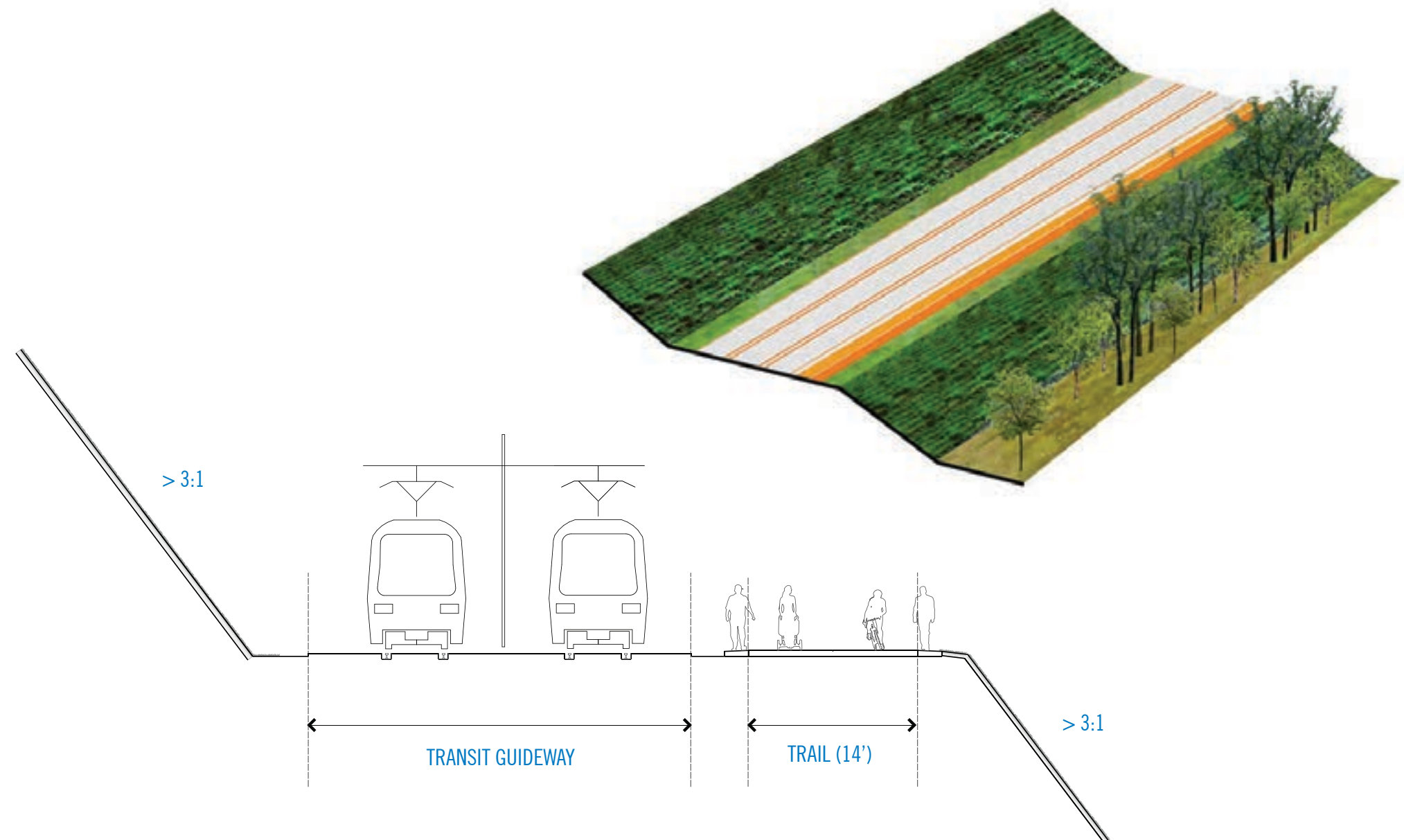


LANDFORMS

L5.5 Green Embankments / Soft Walls

Where space and width permits, the engineered side slopes, or embankments should be green: utilizing material technologies that support steep slopes and vegetation, thereby creating a soft quality to the engineered form.

For slopes ranging from 1.5:1 to 2.5:1, geo-fiber soils and porous, geo-web materials shall be used in place of masonry retaining features - and shall be designed with suitable ground covers, grasses and shrub species that are consistent with the adjacent floor palette.

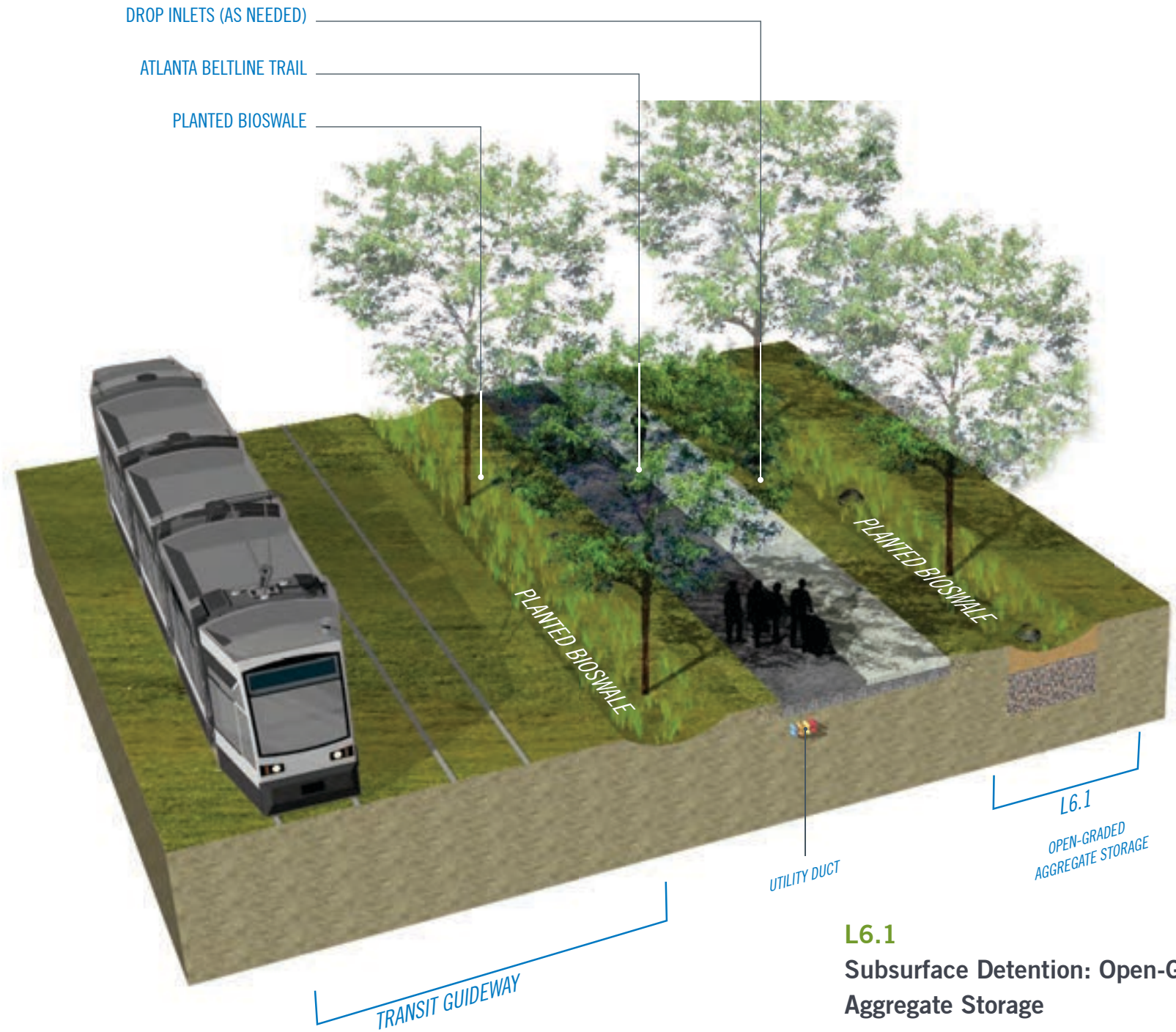


STORMWATER CAPACITY

Subsurface Conveyance & Detention L6.0

Subsurface systems for the infiltration, storage and transfer of stormwater should be utilized when only narrow linear strips of land are available for stormwater conveyance. The Atlanta BeltLine seeks, whenever possible, to not channel stormwater into the City's stormwater system. (See Section 4, Sustainability, for ABI Guidelines for Water Efficiency & Quality.) All stormwater systems must be designed in compliance with the City of Atlanta Post Development Stormwater Management Ordinance, which promotes the use of Green Infrastructure.

Stormwater collected in a vegetated bioswale is directed to a subsurface detention system consisting of Open-Graded Aggregate Storage. Subsurface systems do not need to be continuous, therefore allowing for utility banks and tree plantings to be installed without interference.



L6.1 Subsurface Detention: Open-Graded Aggregate Storage

Open-Graded Aggregate Storage allows for the detention and infiltration of up to 40% of stormwater runoff in a subsurface system. This option can be installed in conjunction with a traditional storm pipe & inlet to convey runoff for larger storm events to other detention areas within the Atlanta BeltLine corridor or to the city stormwater system.





HARDSCAPE

THE ATLANTA BeltLine:
typologies



PERKINS
+ WILL



- L Landscape
- H Hardscape
- TS Transit Stations
- BT Bridges & Tunnels
- LT Lighting
- F Furnishings
- SW Signage & Wayfinding
- PA Public Art
- DI Development Interface
- S Streetscapes

TYPOLOGIES

HARDSCAPE
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► **CONDITIONS**

► **DESIGN**

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- H1.2 Atlanta BeltLine Trail
- H1.3 Atlanta BeltLine Trail at Top of Wall
- H1.4 Atlanta BeltLine Trail at Bottom of Wall
- H1.5 Trail Connections
- H1.5 Trail Connections with Vehicular Access
- H1.6 Detectable Warning Paver
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H3 Plazas & Overlooks:

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- H4.2 Stairs
- H4.3 Ramps
- H4.4 Railings
- H4.5 Screens & Fences



Second only to the landscape character, one of the Atlanta BeltLine’s most defining and visible elements will be the trail and other hardscape features. Along with the transit guideway, the trail is the most continuous feature of the corridor, and will be its primary connective element. More than an average multi-use, it links the many neighborhoods, new social spaces, beautiful passive settings and transit stations. The Atlanta BeltLine Trail connects to, and is supported by, a secondary series of hardscape elements, features and access conditions, all of which will support design continuity and consistency along the length of the corridor and over time.

hardscape

► INTEGRATED SUSTAINABILITY: HARDSCAPE

Energy & Climate: The multi-use trails will provide an alternative transportation option to residents living within walking distance of the Atlanta BeltLine corridor, reducing vehicle use and GHG emissions.



Water Efficiency & Quality: The amount of paved, impermeable surfaces constructed along the corridor is limited to the minimum required by the Atlanta BeltLine program. There is an opportunity to reduce stormwater runoff through the use of permeable pavers in plazas and lookouts within the Atlanta BeltLine corridor.



Soil & Habitat Quality: Materials and coatings specified for the hardscape are non-toxic and will not leach chemicals into the soil.



Sustainable Materials, Design & Construction: Hardscape materials specified for the Atlanta BeltLine corridor are locally sourced and contain recycled content. Paints and coatings with no or low-VOC emissions are required. Construction of Atlanta BeltLine hardscape will be managed to minimize waste, emissions and pollution.



Sustainable Operations & Maintenance: Hardscape materials and coatings are selected for durability and ease of maintenance through life-cycle assessment. The typological design ensures ease of assembly, disassembly, repair and replacement. The Atlanta BeltLine Maintenance Guidelines specify sustainable and cost-effective methods for graffiti prevention / removal, cleaning and repair of walls, walkways and railings.



Community Health, Access & Equity: The hardscape typologies, including trails, ramps and hand-rails, are ADA-compliant and are designed to ensure the safety of Atlanta BeltLine users. Plazas and lookouts are provided, where possible. The ABI Community Benefit Guiding Principles outlines requirements for the equitable distribution of community benefits throughout the Atlanta BeltLine Tax-Allocation District.



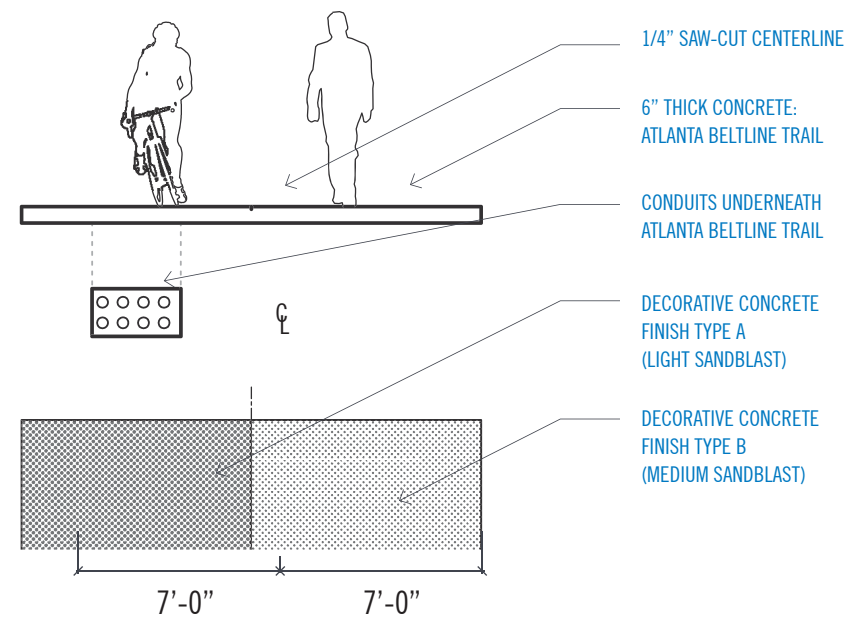
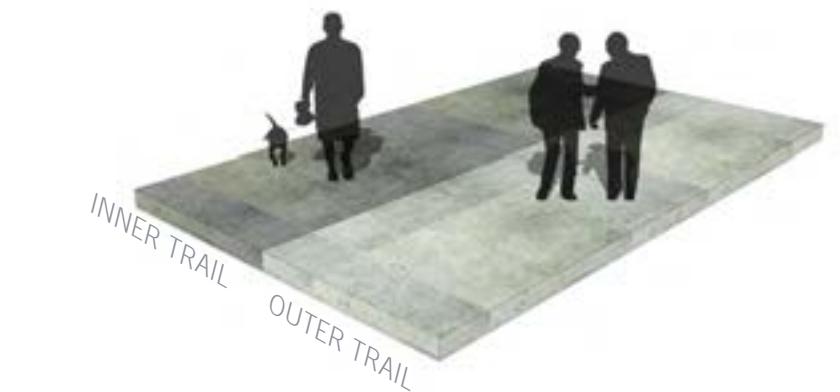
Connectivity & Smart Growth: The 22-mile long Atlanta BeltLine trail connects forty-five intown neighborhoods, greatly expanding the bike and pedestrian connectivity in the City of Atlanta. The hardscape typologies include specifications for spurs, ramps and stairs that allow the Atlanta BeltLine to connect, where possible, to existing pedestrian and bike networks, transit nodes and the city street network.



H1 ATLANTA BELTLINE TRAIL

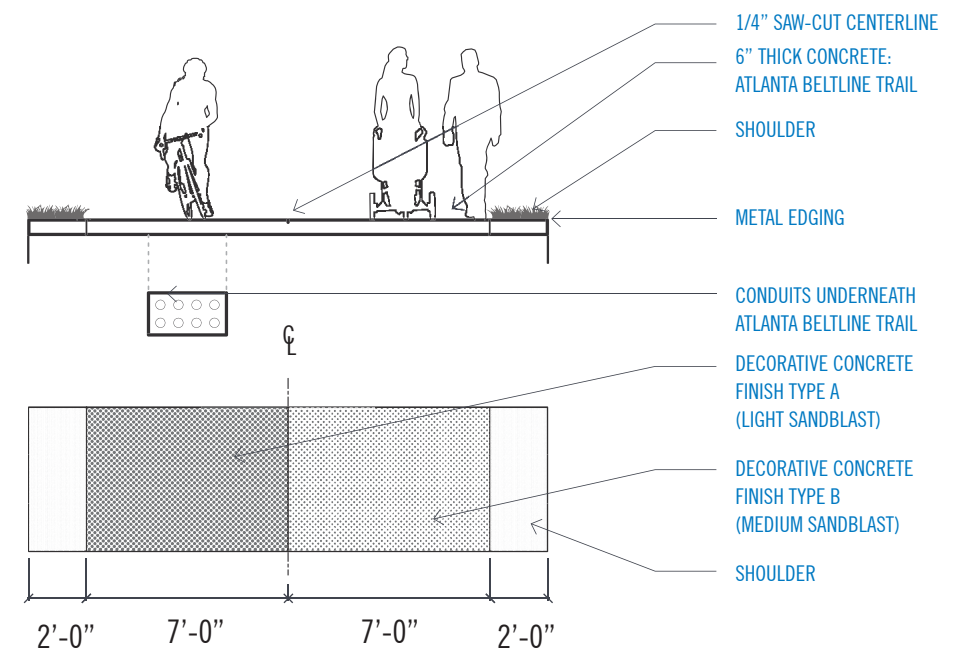
As the single most continuous element of the Atlanta BeltLine project, the design for the Atlanta BeltLine Trail strictly maintains a signature set of details for the entire length of the corridor.

The Atlanta BeltLine Trail is designed as a single, 14-foot-wide multi-use, cast-in-place concrete trail, with 2ft shoulders on either side. The concrete for the trail is mixed with a charcoal color admixture and local granite. The centerline of the trail is saw-cut and the two sides of the trail are treated with different degrees of sandblast—one medium, one light—thereby, exposing varying amounts of the aggregate. The result: a signature trail design that implies multi-directional use and modal separation, while also serving as an orientation reference: the less textured side of the trail (the light sandblast) is always on the inner side of the Atlanta BeltLine - signalling the direction of Atlanta's center even when the City is not visible from the corridor.



H1.1 Atlanta BeltLine Trail

Two-texture, split-lane:
Single Pour, Saw-Cut Centerline
Charcoal color admixture
Light Sandblast Finish (1/2)
Medium Sandblast Finish (1/2)

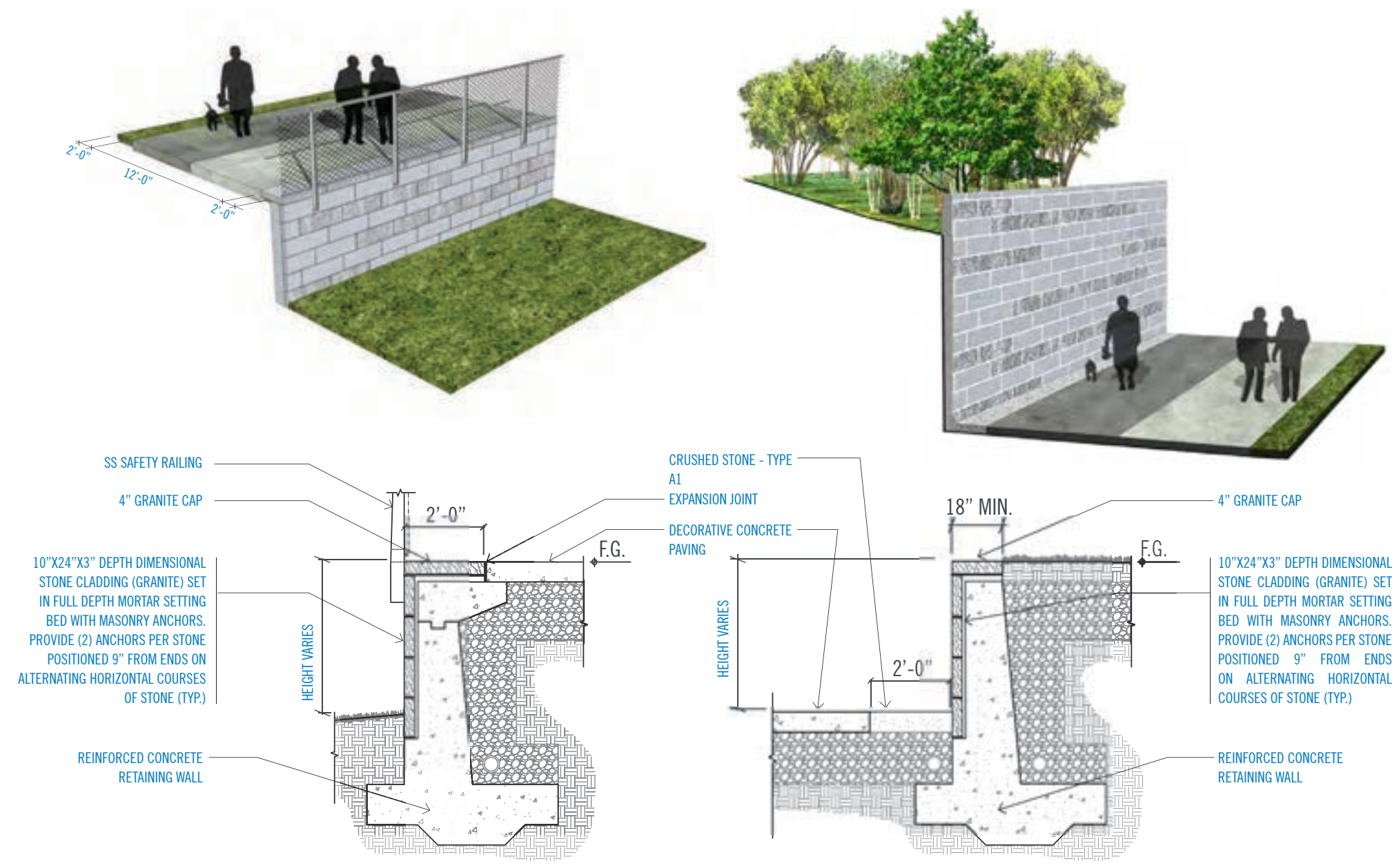


H1.2 Atlanta BeltLine Trail

Trail: Two-texture, split-lane:
Single Pour, Saw-Cut Centerline
Charcoal color admixture
Light Sandblast Finish (1/2)
Medium Sandblast Finish (1/2)

Shoulder: 2' AASHTO - recommended clear zone

ATLANTA BELTLINE TRAIL



H1.3
Atlanta BeltLine Trail at Top of Wall

- Trail: Two-texture, split-lane:
Single Pour, Saw-Cut Centerline
Charcoal color admixture
Light Sandblast Finish (1/2)
Medium Sandblast Finish (1/2)
- Shoulder: Elberton Granite capstone

H1.4
Atlanta BeltLine Trail at Bottom of Wall

- Trail: Two-texture, split-lane:
Single Pour, Saw-Cut Centerline
Charcoal color admixture
Light Sandblast Finish (1/2)
Medium Sandblast Finish (1/2)
- Shoulder: Stabilized crushed-stone

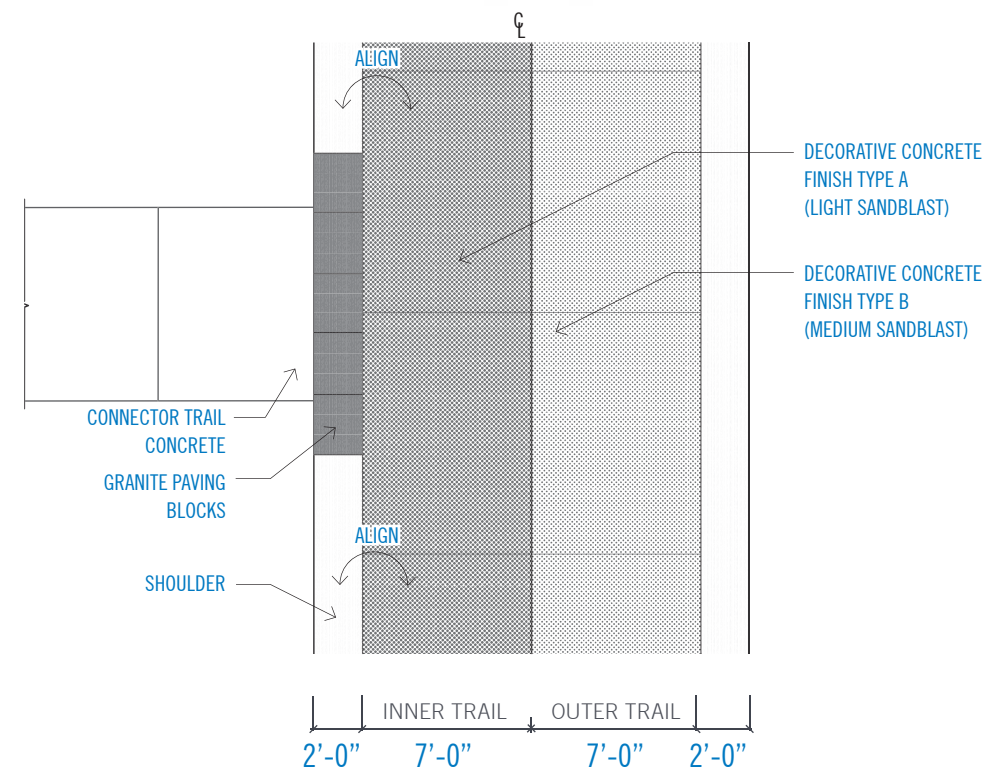


ATLANTA BELTLINE TRAIL

H1.5 Trail Connections

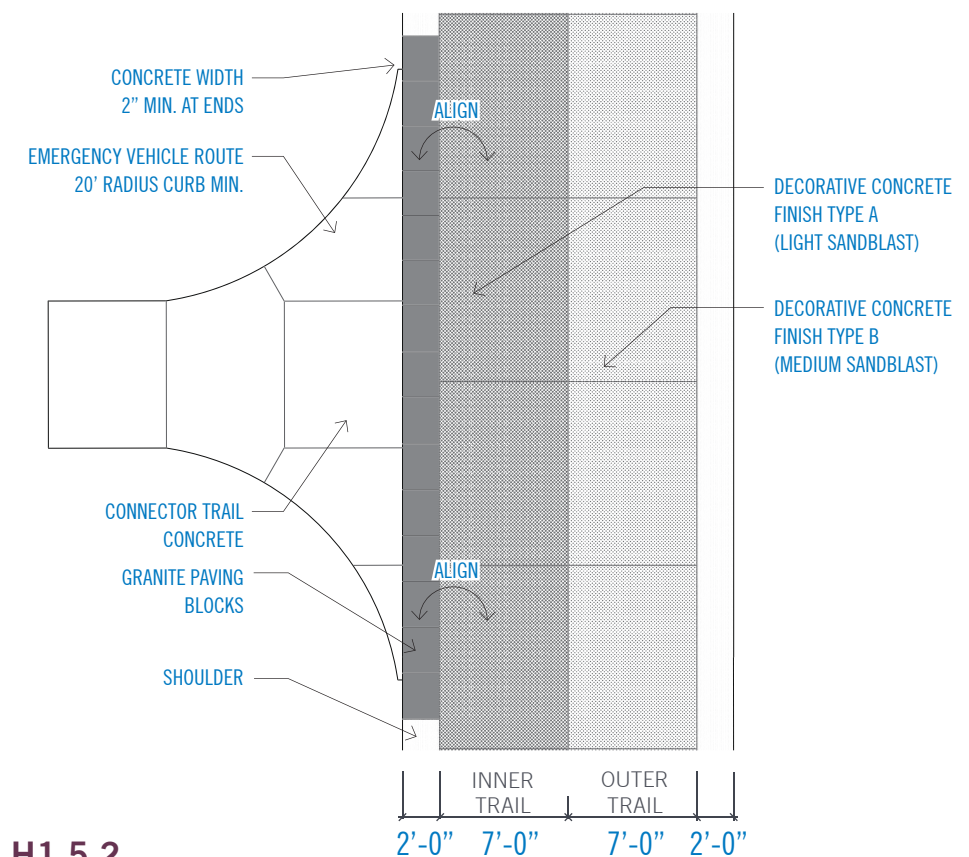
Each opportunity for connection to and from the Atlanta BeltLine trail —whether to intersecting streets, neighborhood street ends, new developments that are oriented to the corridor or adjacent places and features —creates an intersection condition to solve. In order to minimize or eliminate circulation conflicts at trail intersections, the connecting trails meet a threshold of granite paving blocks (“spurs”), which effectively widens the multi-use surface of the trail.

In the event that the material or designs of the connecting trails are not consistent, the granite shoulder serves as a transition or threshold material, whereby the visual continuity of the Atlanta BeltLine Trail and shoulder is maintained.



H1.5.1 Trail Connections

Connecting trails: Uniform, light-colored concrete.
Spurs: Granite paving blocks replace shoulder at threshold.



H1.5.2 Trail Connections with Vehicle Access

Connecting trails: Uniform, light-colored concrete.
Spurs: Granite paving blocks replace shoulder at threshold.

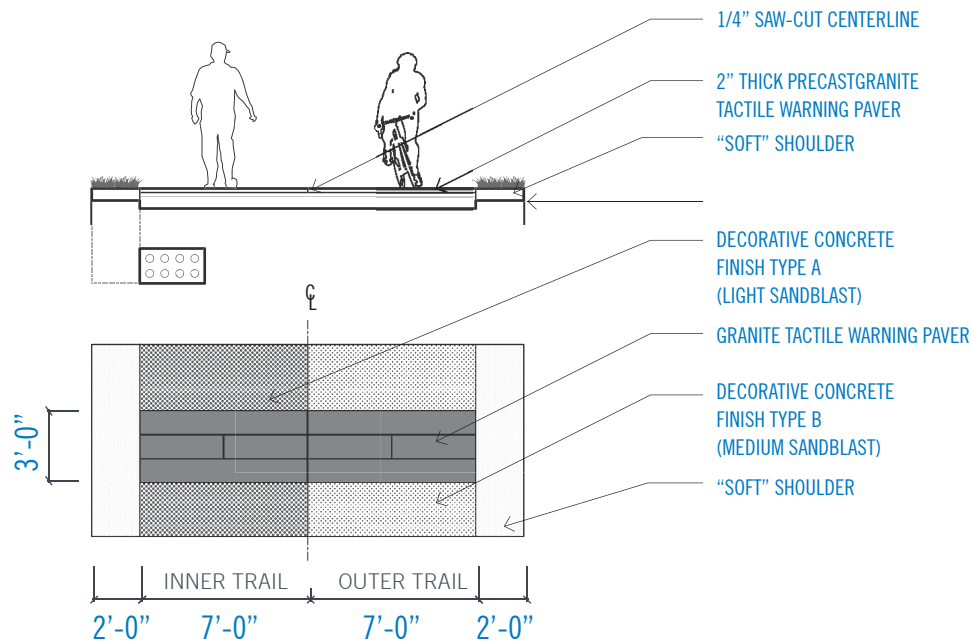


ATLANTA BELTLINE TRAIL

Tactile Warning Paver H1.6

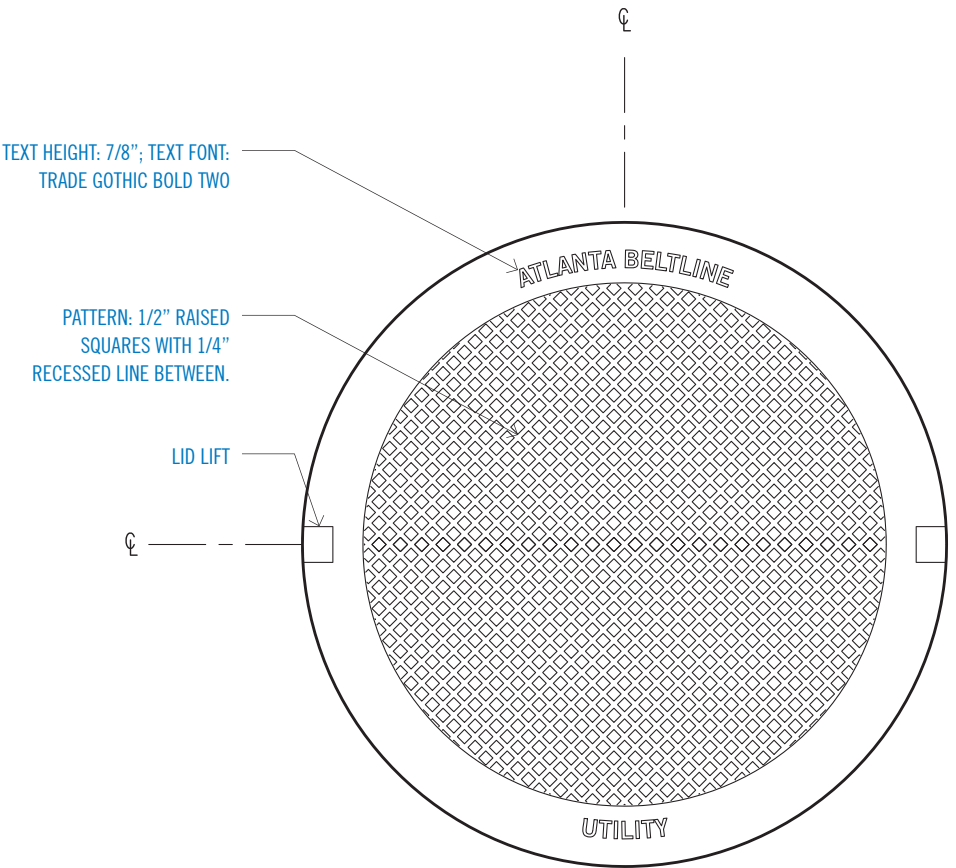
A number of trail markings are required to maintain safe and conflict-free circulation. Following AASHTO standards, visual markings and speed control devices are required in advance of trail crossings, street intersections or, in the case of the Atlanta BeltLine Trail, where it passes through primary social places.

Because of the high frequency of crossings at transit stations, a signature design is provided for tactile speed control devices, or “rumble strips”. Similar to the crosswalks, the rumble strips span the full width of the trail and are executed in granite with regularized scoring imprints to create the textural “rumble” surface.



H1.6 Tactile Warning Paver

Granite, full width of trail;
Color Admixture, low aggregate content;
Regular scoring imprint for texture;
Centerline aligns with trail centerline.



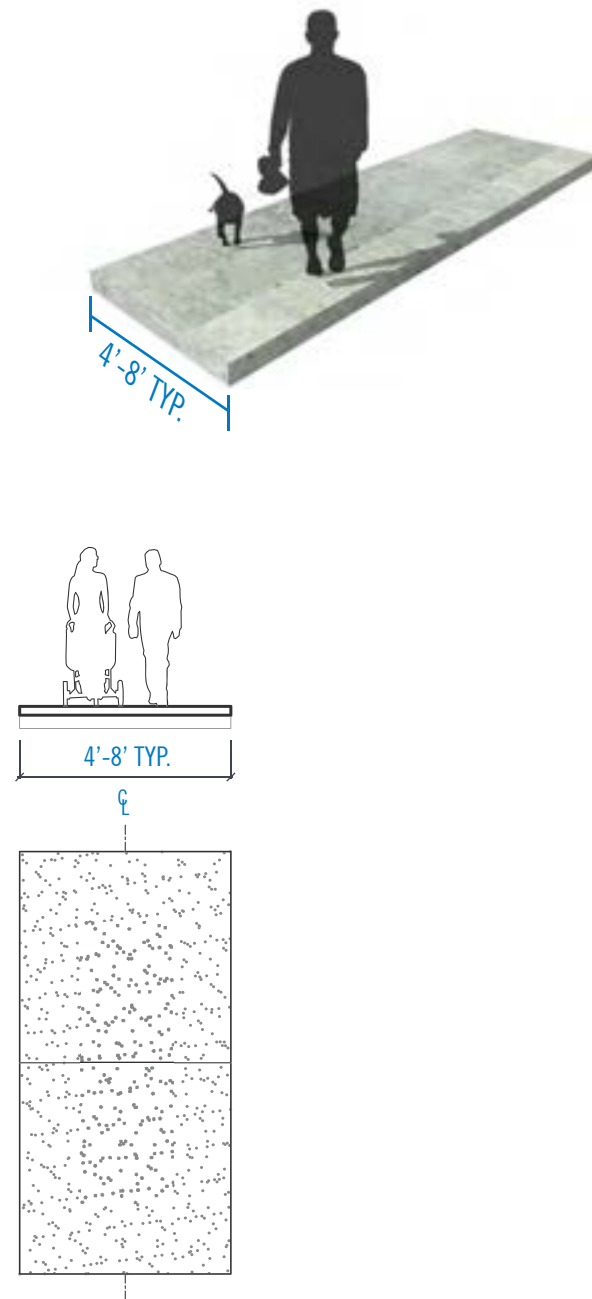
H1.7 Manhole Cover



H2 OTHER CONNECTING TRAILS

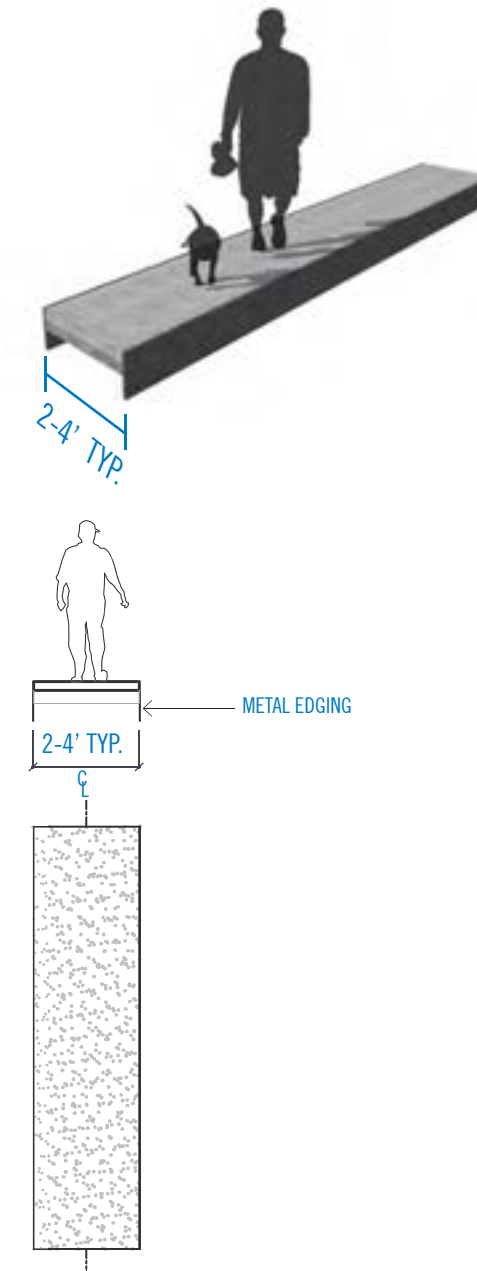
Because of the large number of connecting trail conditions, the design of the connectors is recommended to utilize a consistent light-colored concrete. In this way, there will be visual consistency and coherence to the overall corridor, rather than an ad hoc arrangement of miscellaneous trails. In the event that the material or designs of the connecting trails are not consistent, the granite shoulder band serves as a transition or threshold material so that the visual continuity of the Atlanta BeltLine Trail and shoulder is maintained.

When space within the R.O.W. permits, or when warranted by passive site features (within the corridor or adjacent), soft, narrow crushed stone trails provide important secondary connections. These have the added advantage of being permeable.



H2.1 Hard Trails

Uniform, light-colored concrete
Low aggregate content, 8' max. in width

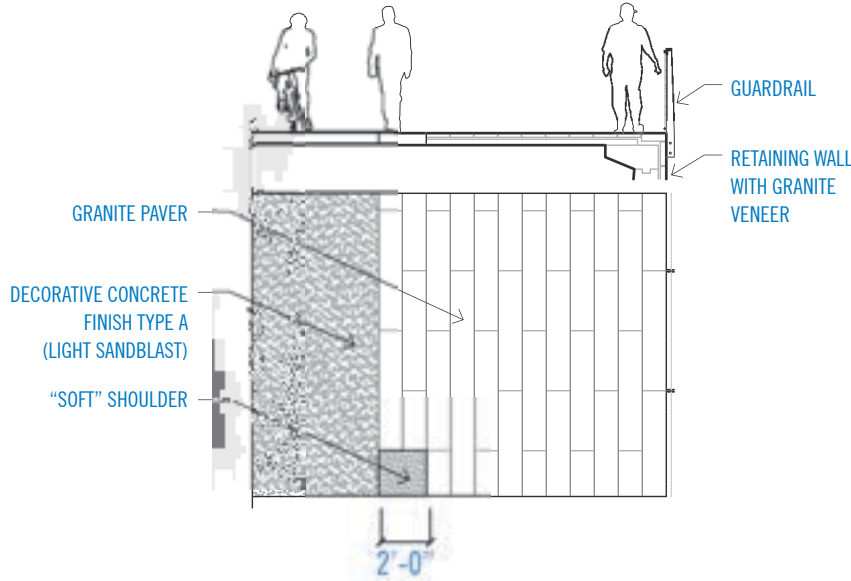
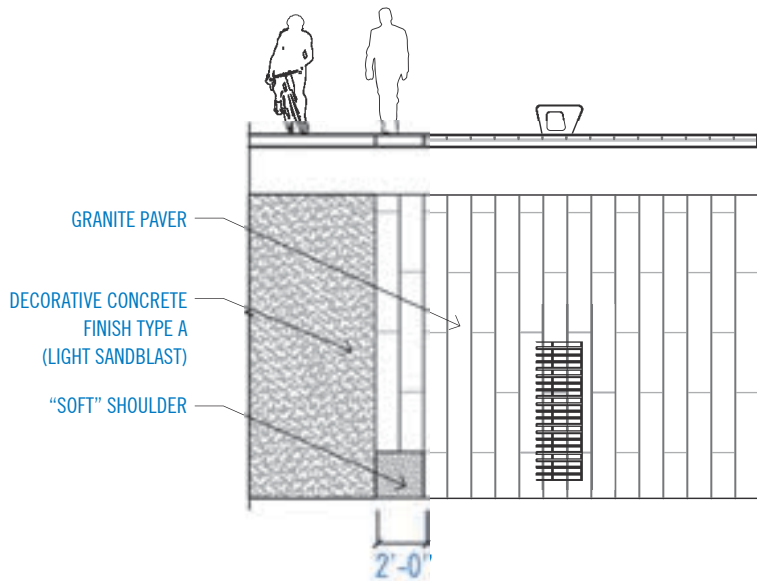
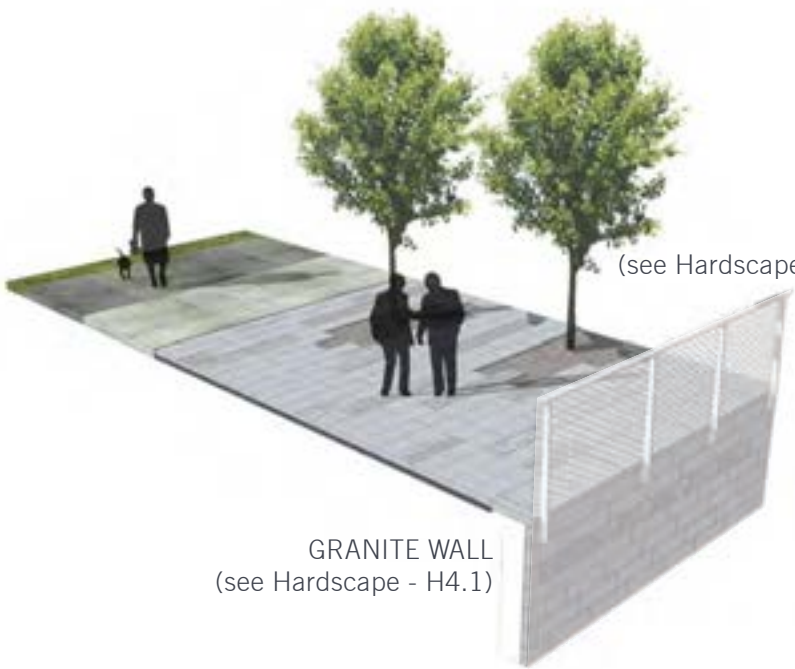


H2.2 Soft Trails

Stabilized crushed-stone trail, 2' - 4' in width, with aluminum edging
Constructed in multiple lifts with sufficient compaction

PLAZA & OVERLOOKS H3

Plazas and overlooks occur as major social spaces along the corridor —the primary places for socialization and gathering. Plaza spaces are typically located at gateway conditions or adjacent to Transit Stations, and should be designed with an array of amenities including seating and shade canopy. Hardscape overlooks are located to maximize a combination of dramatic views and social gathering. For both conditions, locally sourced granite paving blocks provided a consistent design character. Variation is provided in the paving patterns, finish and stone selection.



H3.1
Plazas

Plazas and large hardscaped areas adjacent to the Atlanta BeltLine Trail utilize locally sourced granite block, uniformly sized. A range of block patterns is provided in the material section.

H3.2
Overlooks

Hardscaped overlook areas adjacent to the Atlanta BeltLine Trail utilize locally sourced granite block, uniformly sized. A range of block patterns is provided in the material section.



H4 STRUCTURES

H4.1 Retaining Walls

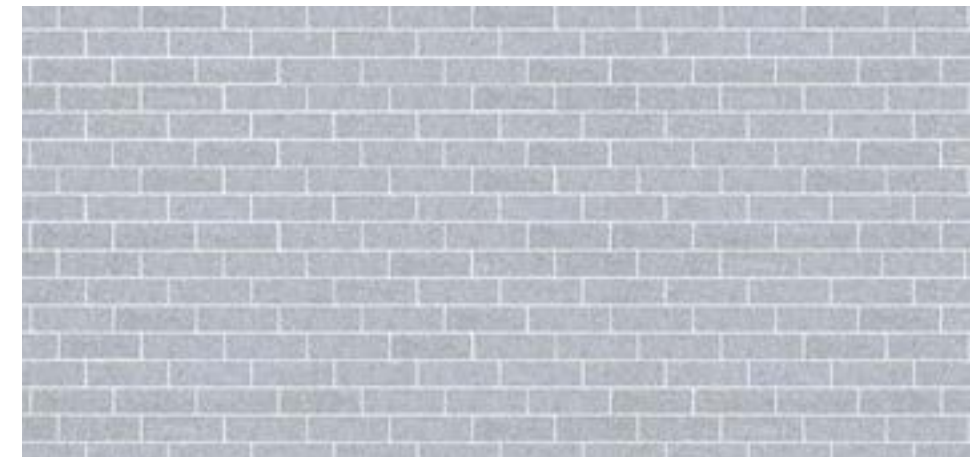
Retaining walls along the Atlanta BeltLine Trail utilize locally-sourced granite block, uniformly sourced. Split-face stone blocks are used as accent bands within a field of honed-finish blocks to create a lateral pattern reminiscent of the rhythm of railroad elements.



H4.1.1 Granite Block Pattern 1

HONED-FINISH GRANITE BLOCK WITH SPLIT-FACE GRANITE BLOCK ACCENTS

Elberton Granite thick stone ashlar veneer; 30" x 10" nominal size, 3" nominal thickness; Honed and Split-Face Finishes; Elberton Granite Cap Stone; 4" thickness; thermal finish on top; match field finish on side.



H4.1.2 Granite Block Pattern 2

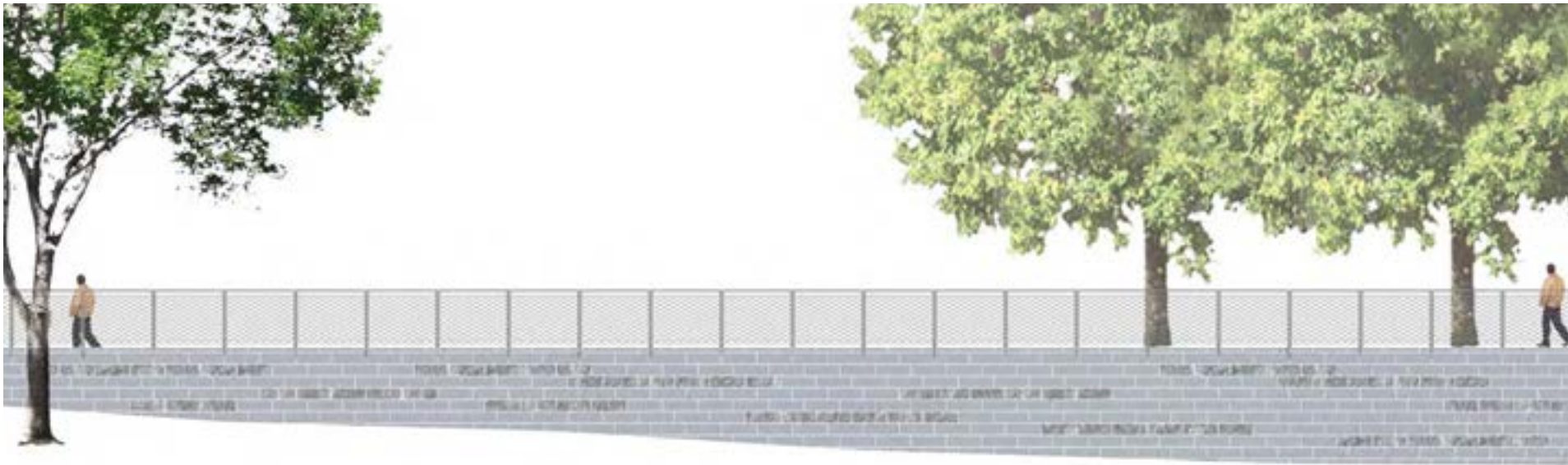
HONED-FINISH GRANITE BLOCK WITH SPLIT-FACE GRANITE BLOCK ACCENTS

Elberton Granite thick stone ashlar veneer; 15" x 5" nominal size, 3" nominal thickness; Honed finish; Elberton Granite Cap Stone; 4" thickness; thermal finish on top; match field finish on side.

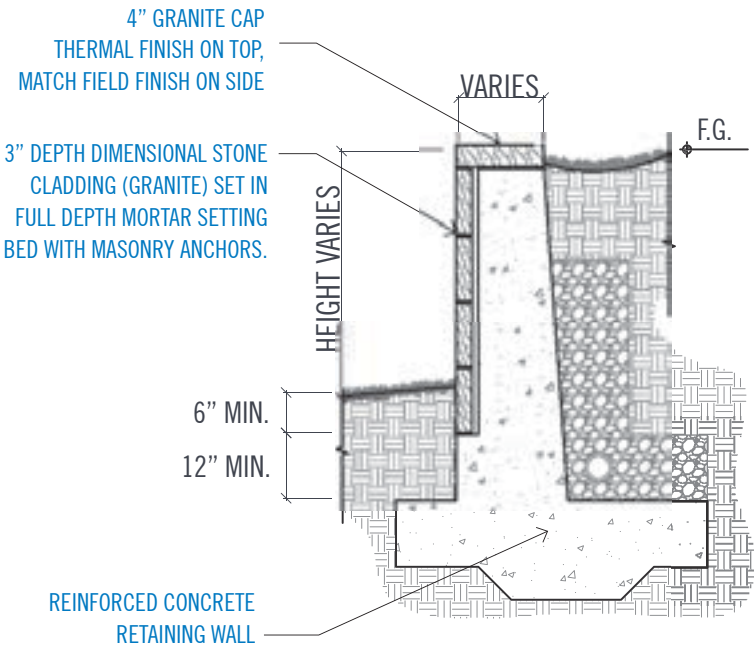




CUT WALL WITH TRAIL BELOW WALL



FILL WALL WITH TRAIL ON TOP OF WALL



H4 STRUCTURES

H4.2 Stairs

With the many grade separated entrances along the corridor, a number of conditions require ramps and stairs. Where there is only a few feet of elevation change, cast-in-place stairs are recommended. For those conditions that involve significant elevation change and steep grades, or where stair does not work with existing slopes, elevated steel stair structures are recommended as an alternative to stone retaining walls. With the elevated structures, the soft qualities of the corridor landscape can extend below, increasing the presence of vegetation within the Atlanta BeltLine.



H4.2.1 At-grade Stairs

Risers and Treads: Granite with granite shoulder at trail, cast-in-place concrete at secondary locations
Railings and Rail Posts: Stainless steel handrail; top-mounted



H4.2.2 Retained Fill Primary Stairs

Risers and Treads: Granite with granite shoulder at trail
Railings and Rail Posts: Stainless steel, double bar; double post; stainless steel handrail; top-mounted
Infill: Stainless steel cables, 4" o.c.
Retaining Walls: Elberton Granite thick stone ashlar veneer (H4.1)



H4.2.3 Retained Fill Primary Stairs

Risers and Treads: Concrete with granite shoulder at trail
Railings and Rail Posts: Painted steel, double bar; double post; stainless steel handrail; top-mounted
Infill: Stainless steel cables, 4" o.c.
Retaining Walls: Elberton Granite thick stone ashlar veneer (H4.1)



STRUCTURES H4

In all instances, long runs of stairs shall be interrupted by intermediate landings, subject to site conditions, and the top and bottom landings shall be oriented toward anticipated destinations.



H4.2.4
Elevated Primary Stairs

Risers and Treads: Stainless steel bar grating; granite shoulder at trail
Railings and Rail posts: Stainless steel double bar; double post
#4 brush finish; stainless steel handrail, top mounted
Infill: Stainless steel mesh; 4" maximum vertical spacing
Structural Members: Painted Steel

H4.2.5
Elevated Secondary Stairs

Risers and Treads: Aluminum bar grating; granite shoulder at trail
Railings and Rail Posts: Painted steel double bar; double post
stainless steel handrail, top mounted
Infill: Stainless steel cables, 4" o.c.
Structural Members: Painted steel



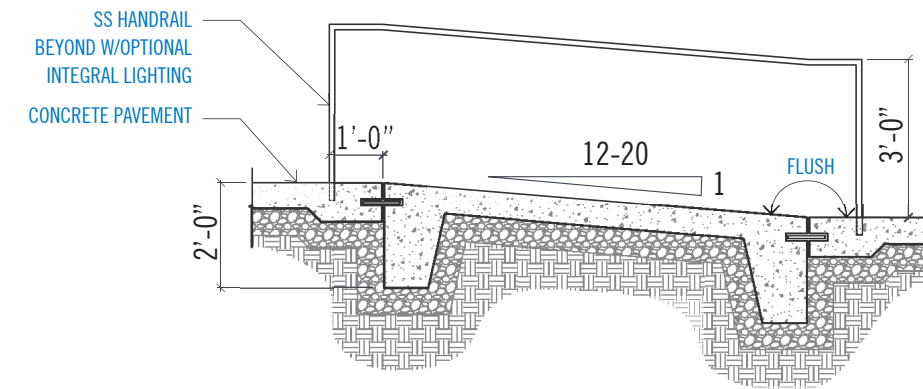
STRUCTURES

H4.3 Ramps

With the many grade separated entrances along the corridor, a number of conditions require ramps and stairs. For those conditions with only a few feet of elevation change, cast-in-place ramps are recommended. For those conditions that involve significant elevation change and steep grades, or where the ramp does not work with existing slopes, elevated steel ramp structures are recommended as an alternative to stone retaining walls. With the elevated structures, the soft qualities of the corridor landscape can extend below, increasing the presence of vegetation within the Atlanta BeltLine.

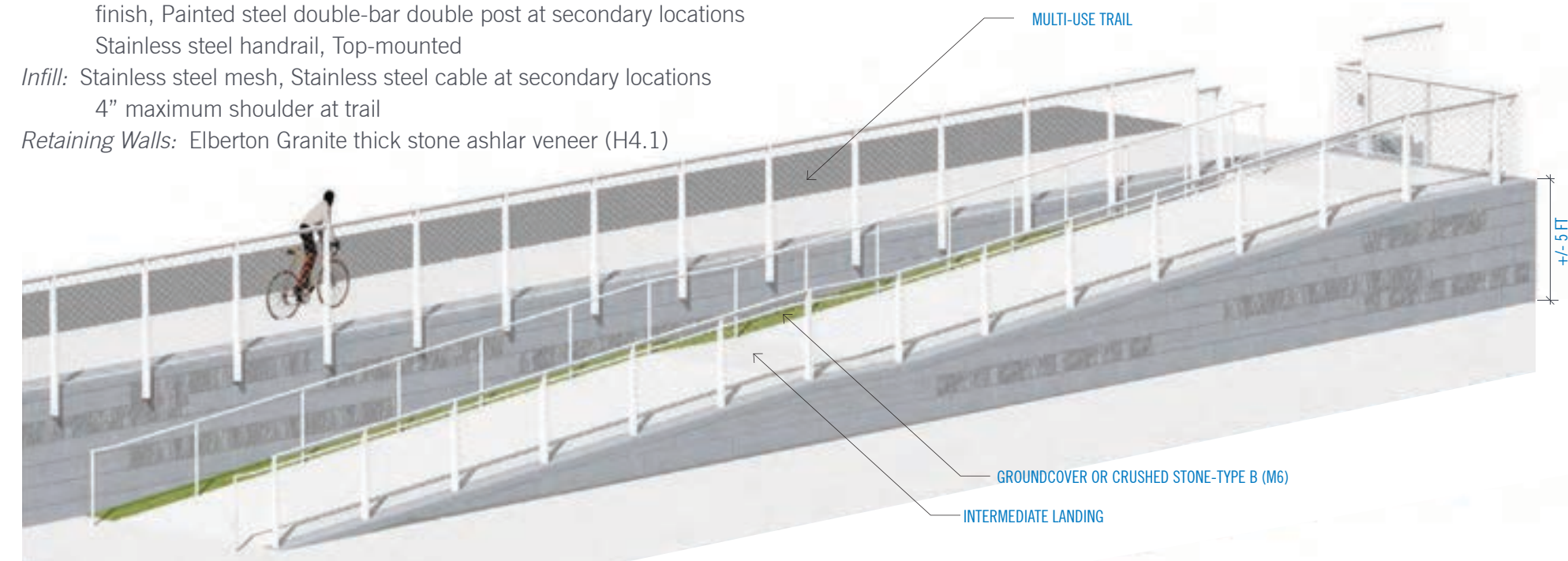
H4.3.1 At-grade Ramps

Ramp Surface: Cast-in-place concrete ramp, with granite shoulder at trail;
Railings and Rail Posts: Stainless steel handrail.



H4.3.2 Retained Fill Ramps

Ramp Surface: Cast-in-place concrete ramp, with granite shoulder at trail
Railings and Rail Posts: Stainless steel double-bar double post, # 4 brush finish, Painted steel double-bar double post at secondary locations
Stainless steel handrail, Top-mounted
Infill: Stainless steel mesh, Stainless steel cable at secondary locations
4" maximum shoulder at trail
Retaining Walls: Elberton Granite thick stone ashlar veneer (H4.1)



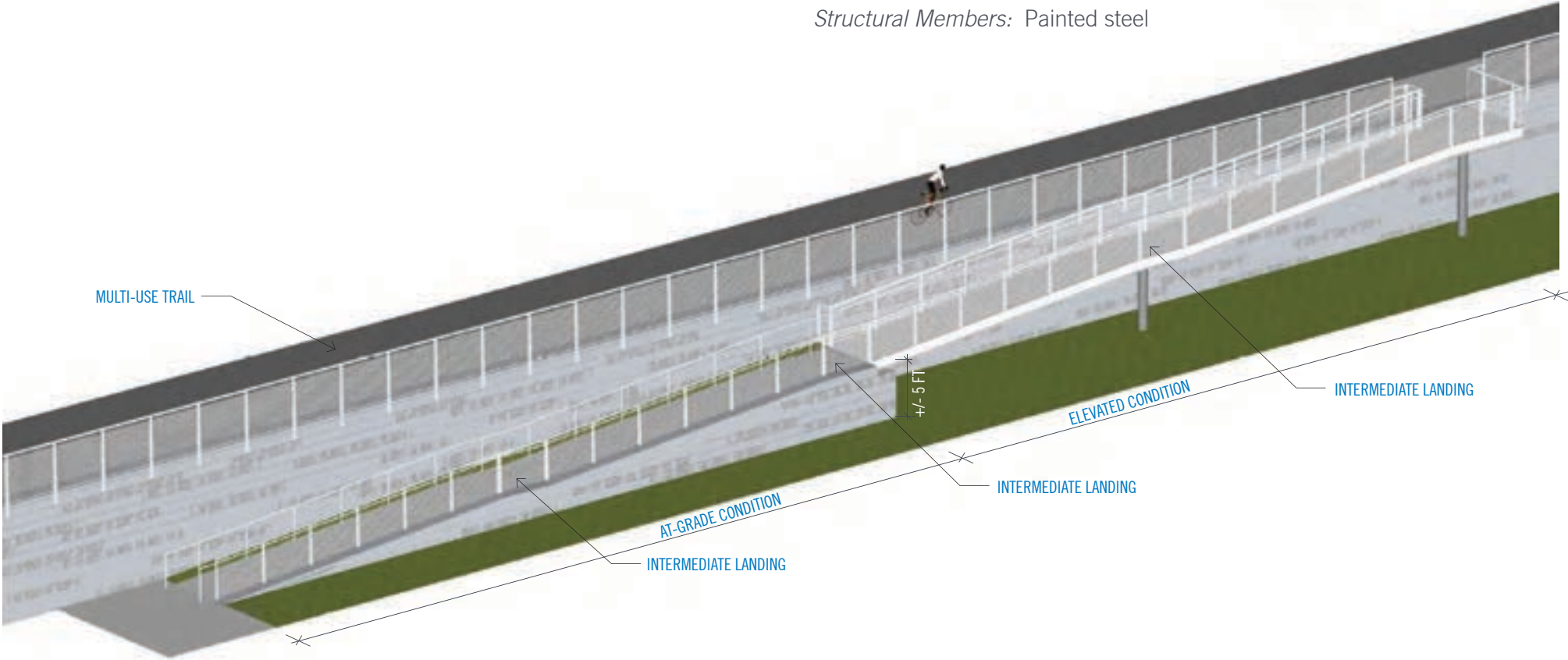
STRUCTURES



H4.3.3
Elevated Ramps

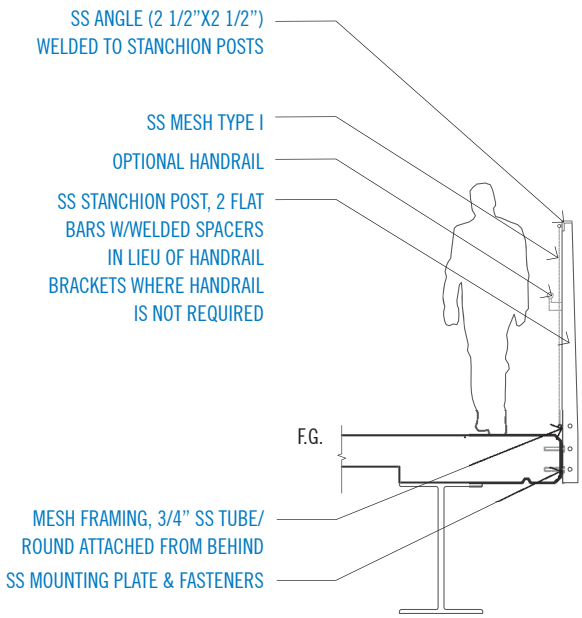
- Ramp Surface:* Stainless steel bar grating; granite shoulder at trail
Aluminum bar grating at secondary locations; granite shoulder at trail
Cast-in-place concrete (at-grade condition)
- Railings and Rail Posts:* Stainless steel double-bar double post, #4 brush finish
Painted steel double-bar double post at secondary locations
Stainless steel handrail
Top-mounted
- Infill:* Stainless steel mesh
Stainless steel cable at secondary locations
4" maximum vertical opening
- Retaining Walls:* Elberton Granite thick stone ashlar veneer (H4.1)
- Structural Members:* Painted steel

Ramps on retained fill conditions shall generally not exceed 5 feet in height before transitioning to an elevated steel ramp structure. Configurations that utilize long successions of ramp runs in a single direction, or multiple switch-backs between individual runs of ramp, shall be avoided where possible. Intermediate landings shall be provided in compliance with ADA guidelines, and the top and bottom landings shall be oriented toward anticipated destinations.

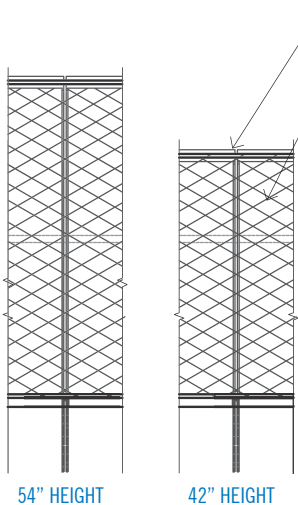


STRUCTURES

H4.4 Railings



SECTION: SIDE MOUNT AT BRIDGE



H4.4.1
Typical Railing

- Heights:
42" and 54"
- Railings and Rail Posts:
Stainless steel double-bar double post, #4 brush finish
Stainless steel handrail optional
Side-mounted
- Infill:
Stainless steel mesh
4" maximum vertical opening
- Primary conditions:
Granite fill wall along trail (54")
Granite fill wall at plaza/lookout (42")

STAINLESS STEEL
RAILINGS AND RAIL POSTS

4" SPHERE CODE COMPLIANCE
STAINLESS STEEL MESH

H4.4.2
Service Railing

- Heights:
42"
- Railings and Rail Posts:
Stainless steel double-bar double post, #4 brush finish
No handrail
Top-mounted
- Infill:
Stainless steel mesh
4" maximum vertical opening
- Primary conditions:
Granite fill wall along transit

STAINLESS STEEL
RAILINGS AND RAIL POSTS

4" SPHERE CODE COMPLIANCE
STAINLESS STEEL MESH

H4.4.3
Safety Railing

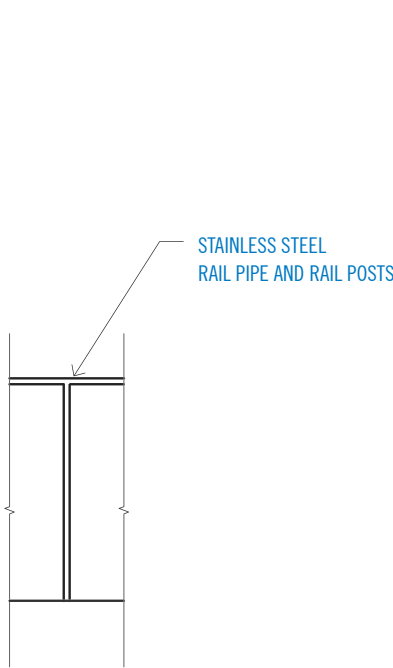
- Heights:
42"
- Railings and Rail Posts:
Stainless steel double-bar double post, #4 brush finish
No handrail
Top-mounted
- Infill:
Stainless steel cable, 12" O.C.
4" O.C. where vertical conditions require
- Primary conditions:
Transit stations along trail edge/other conditions

STAINLESS STEEL
RAILINGS AND RAIL POSTS

STAINLESS STEEL
CABLE AT 12" O.C.

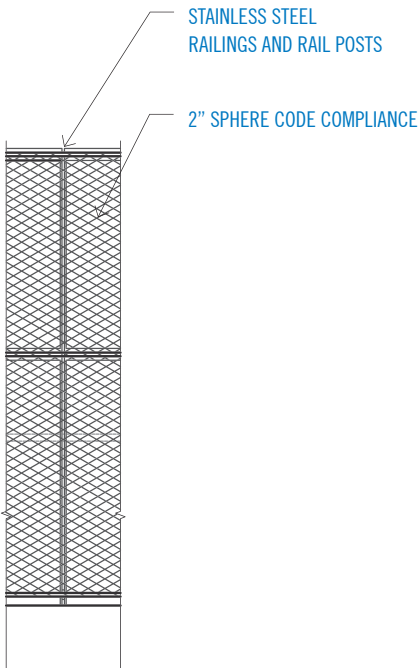


STRUCTURES



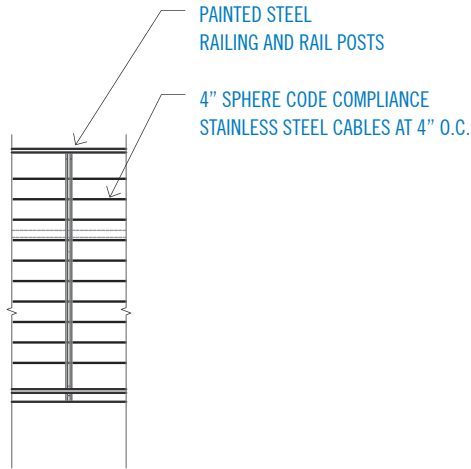
H4.4.4
Hand Railing

- Heights:
36"
- Railings and Rail Posts:
Stainless steel pipe, #4 brush finish
Top-mounted
- Infill:
None
- Primary conditions:
In-ground ramps and stairs that require handrail only



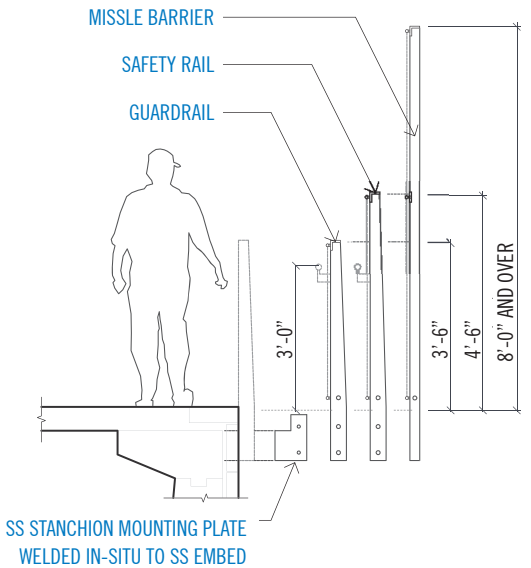
H4.4.5
Missile Barrier

- Heights:
108" and over
- Railings and Rail Posts:
Stainless steel double-bar double post, #4 brush finish
Stainless steel handrail optional
Mounting varies
- Infill:
Stainless steel mesh
2" maximum vertical opening
- Primary conditions:
Bridges over state routes and anywhere else requiring a missile barrier



H4.4.6
Alternate Railing

- Heights:
42"
- Railings and Rail Posts:
Painted steel double-bar double post
Stainless steel handrail optional
Top-mounted
- Infill:
Stainless steel cables, 4" O.C.
- Primary conditions:
Optional use for secondary stairs, ramps and walkways



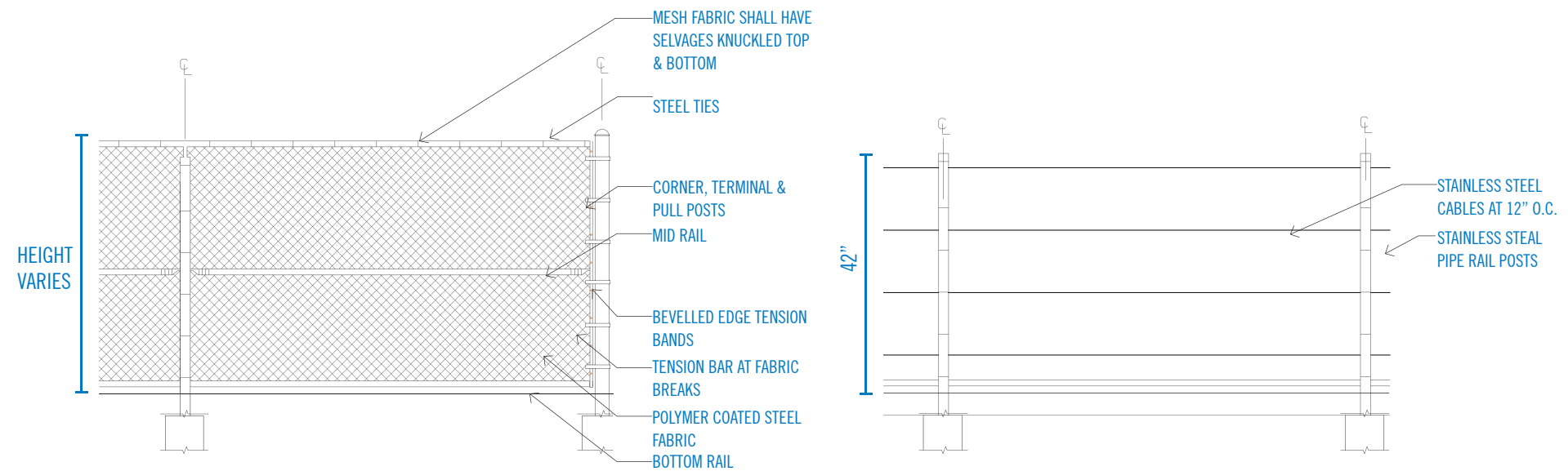
SECTION: RAILING HEIGHTS



STRUCTURES

H4.5 Screens & Fences

When limited space does not allow for the use of vegetation to screen adjacent parcels, architectural fences or screens can be used. When located adjacent to the Atlanta BeltLine Trail or primary public spaces, these fences or screens may require individual design attention.



H4.5.1 Utility Fence

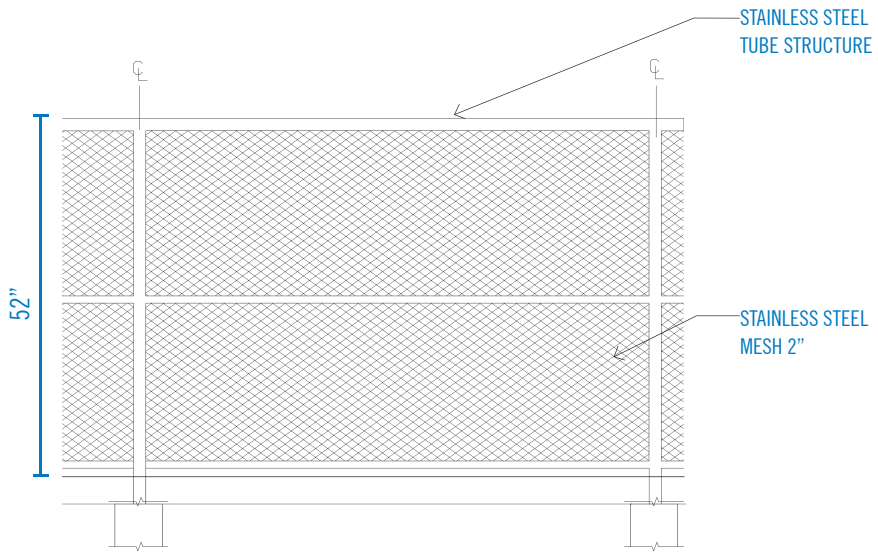
Heights:
Varies
Railings and Rail Posts:
Polymer-coated Steel
Infill:
Polymer-coated Chain Link
Primary Conditions:
For less-visible, utility and temporary conditions

H4.5.2 Safety Fence

Heights:
42"
Railings and Rail Posts:
Stainless steel pipe, #4 brush finish
Ground-mounted
Infill:
Stainless steel cables, 12" O.C.
Primary conditions:
Where the trail is closer than 5' to the transit guideway



STRUCTURES



Not Used

Not Used

H4.5.3
Safety Barrier

- Heights:
54"
- Railings and Rail Posts:
Stainless steel tube, #4 brush finish
Ground-mounted
- Infill:
Stainless steel mesh
2" maximum vertical opening
- Primary conditions:
For exceedingly tight conditions where trail and transit are immediately adjacent

H4.5.4
Wall-Mounted Screen - NOT USED

- Primary conditions:
In place of guardrail immediately along trail

H4.5.5
At-Grade Screen - NOT USED

- Primary conditions:
Less-visible, utility, and temporary conditions





TRANSIT STATIONS

THE ATLANTA BeltLine:
typologies



PERKINS
+ WILL



- L Landscape
- H Hardscape
- TS Transit Stations
- BT Bridges & Tunnels
- LT Lighting
- F Furnishings
- SW Signage & Wayfinding
- PA Public Art
- DI Development Interface
- S Streetscapes

TYPOLOGIES

TRANSIT STATIONS
TABLE OF CONTENTS

- ▶ **PREMISE**
Integrated Sustainability: Transit Stations
- ▶ **CONDITIONS**
- ▶ **DESIGN**
 - TS1 Platforms
 - TS1.1 Center Platform
 - TS1.2 Side Platform
 - TS1.3 On-Street Platform
 - TS2 Platform End Modules
 - TS3 Shelter Modules
 - TS4 Other Platform Elements
 - TS5 Station Guideway



As the most architectural components of the Atlanta BeltLine, transit stations support design continuity and identity for the whole corridor. Canopies, platforms and other elements are composed of a vocabulary of forms that provide elegant solutions to a variety of physical environments in a clearly defined set of modular assemblies. The modules compliment and reinforce the material palettes defined by the hardscape, signage, lighting, and furnishings typologies while embedding opportunities for variety, primarily through public art.

transit stations

► INTEGRATED SUSTAINABILITY: TRANSIT STATIONS

Energy & Climate: The primary use of operational energy in the project will be by the Atlanta BeltLine transit. However, the provision of an alternative transportation option to current and future residents living within walking distance of the Atlanta BeltLine corridor will reduce associated climate-changing greenhouse gas emissions from vehicles and realize a substantial net benefit. All facilities will reduce energy demand through efficiency and on-site distributed renewable energy throughout the project. Standard station canopies can accommodate thin-film solar photovoltaics for on-site energy generation.

Water Efficiency & Quality: Stormwater runoff from impermeable surfaces at Transit Stations will be managed on-site through integrated storm-management techniques such as vegetated bioswales. The Transit Stations are not expected to use any water, although opportunity exists for the capture of rainwater on station canopy. Materials and coatings specified for the stations are non-toxic and will not leach into the ground water.

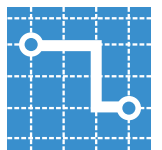
Soil & Habitat Quality: Final station design should minimize opportunities for nesting, in order to prevent conflict between the Atlanta BeltLine transit and wildlife. Its materials and coatings should be non-toxic and non-leaching. At the urban scale, transit stations will minimize development footprints in order to maximize habitat opportunities.

Sustainable Materials, Design & Construction: Materials for the transit stations should be locally sourced, contain recycled content, and have low or no VOCs. All wood is to be FSC certified. Local art is specified to serve as windscreens at select stations (See Public Art). Construction of the Atlanta BeltLine transit stations will be managed to minimize waste, emissions and pollution.

Sustainable Operations & Maintenance: The typological design and materials of the Atlanta BeltLine transit stations ensures ease of repair and maintenance. The Atlanta BeltLine Maintenance Guidelines specifies sustainable and cost-effective methods for graffiti prevention / removal, cleaning and repair of walkways and railings.

Community Health, Access & Equity: The Atlanta BeltLine transit stations are designed for ADA-compliance, as well as user comfort and safety. The ABI Community Benefit Guiding Principles outlines requirements for the equitable distribution of community benefits throughout the Atlanta BeltLine Tax-Allocation District, which applies to the location of transit stations. The transit option will reduce auto dependence in the City of Atlanta, with potential health impacts due to increase walking and reduced air pollution.

Connectivity & Smart Growth: The Atlanta BeltLine encourages transit-oriented, compact development, adaptive reuse and urban infill along the entire corridor and improves connectivity between intown neighborhoods. Catalyzing new development in formerly abandoned, empty or industrial lands with access to transit, the Atlanta BeltLine will counter sprawl in the Atlanta metropolitan area.



STATION LOCATIONS & SITING CONDITIONS

The siting of Atlanta BeltLine Transit Stations is based on many factors. Track alignment combined with right-of-way width, topographic conditions and access routes will determine whether the platform is at the center or side of the tracks, or whether it is an on-street station, as well as the platform's final placement within the corridor.

The transit system technology will ultimately determine the true dimensional constraints of each transit station and its associated built components, but for the purpose of this design effort, the typological elements provided herein are designed using conservative construction clearances and preferred program elements.

The map at right shows the proposed location of over forty transit stations along the Atlanta BeltLine.

Currently, the Atlanta BeltLine transit is proposed to connect with the existing MARTA rail service at the following locations:

Red / Gold Line:

- Lindbergh Center Station
- West End Station

Blue / Green Line:

- Inman Park Station
- Boone Station*

*Green Line only, at proposed new MARTA Station

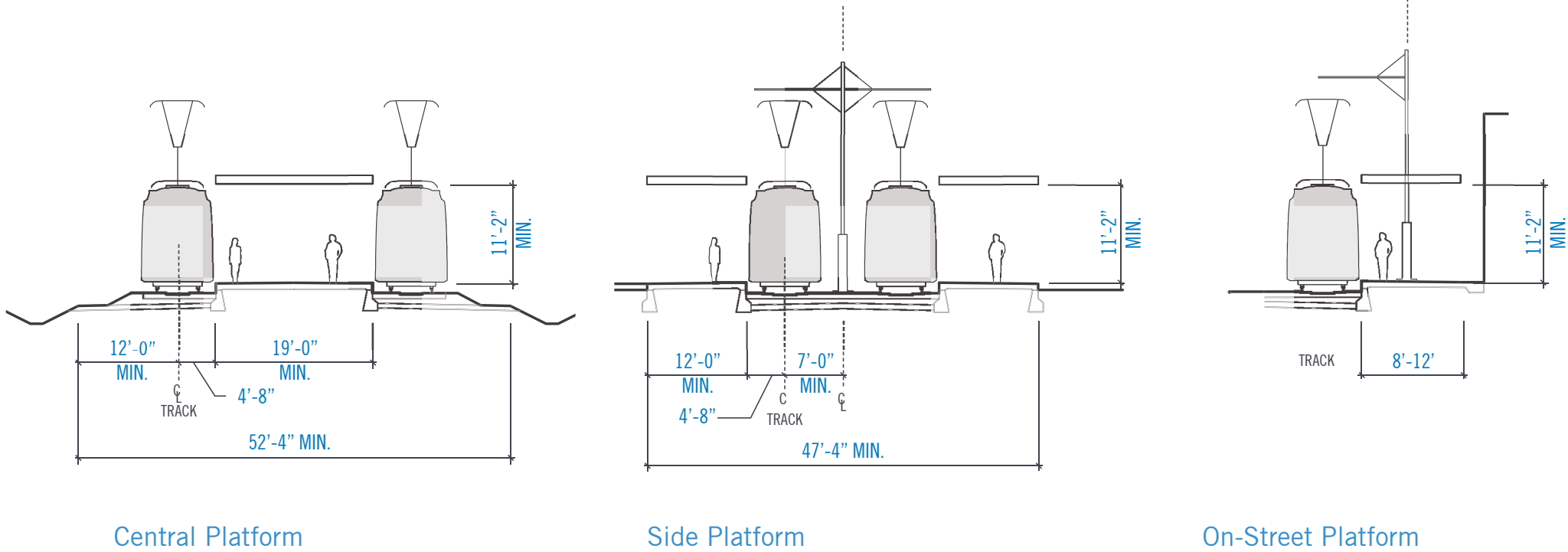
The exact location of stations and marta connections will be determined through subsequent planning and design efforts.



PLATFORMS TS1

For the purpose of these Typologies, the transit station envelope is based on the tolerances shown here to accommodate both Light Rail and Streetcar technologies. The critical minimum clearances listed were developed using national standards and precedent studies. It should be noted that the true dimensions of the transit station and its associated structures are contingent on the actual transit vehicle chosen and are subject to change.

In addition to being compliant with current local and state building codes, each Transit Station is required by law under the American Disabilities Act to have an accessible route. Essential program elements, like ticketing machines and transit maps are also to be accessible, so their placement has a direct relationship to the primary access route.

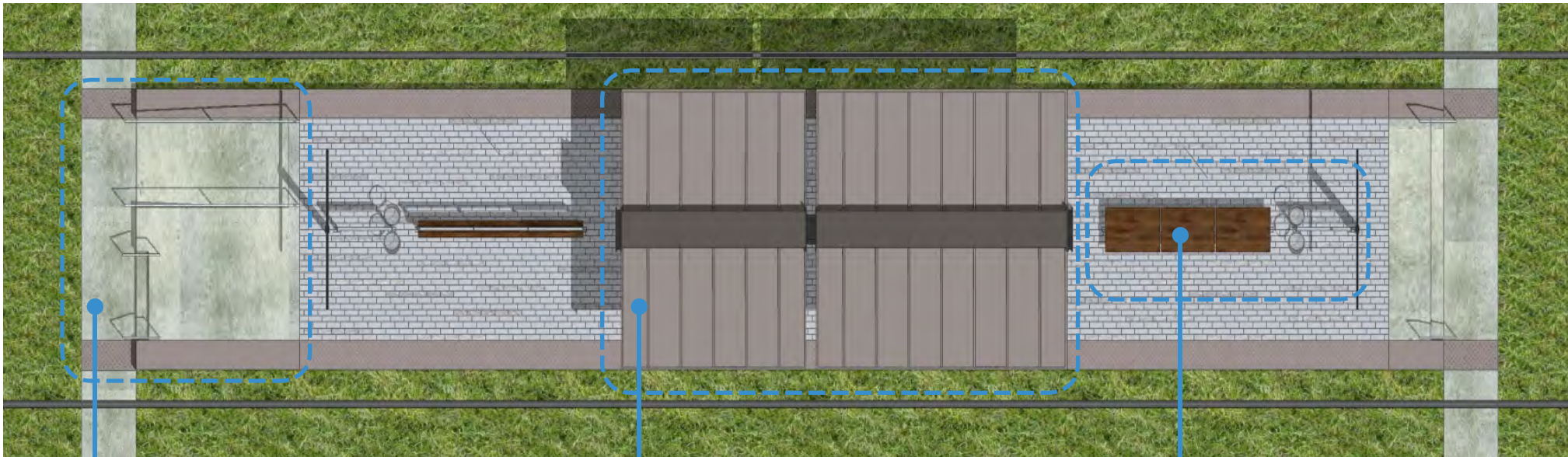


TS1 PLATFORMS

TS1.1 Center Platform

Stations configured with a center platform accommodate transit vehicles on both sides. They have a single canopy structure that provides shelter for passengers waiting for trains from each direction. If ridership demands longer vehicles, the platform is designed to double in length.

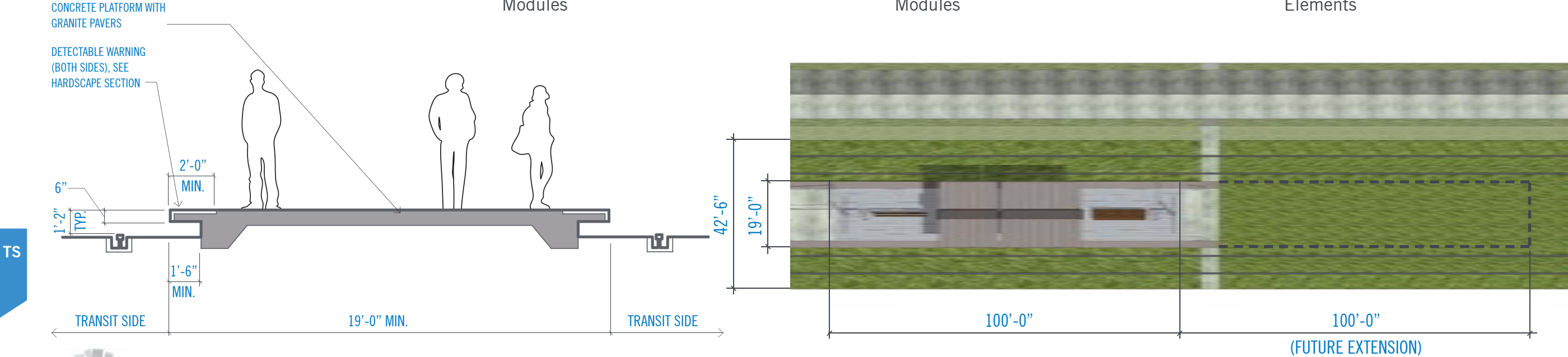
Note:
Bike racks shall be located near all transit stations and shall be part of each specific site design process.



TS 2
End
Modules

TS 3
Shelter
Modules

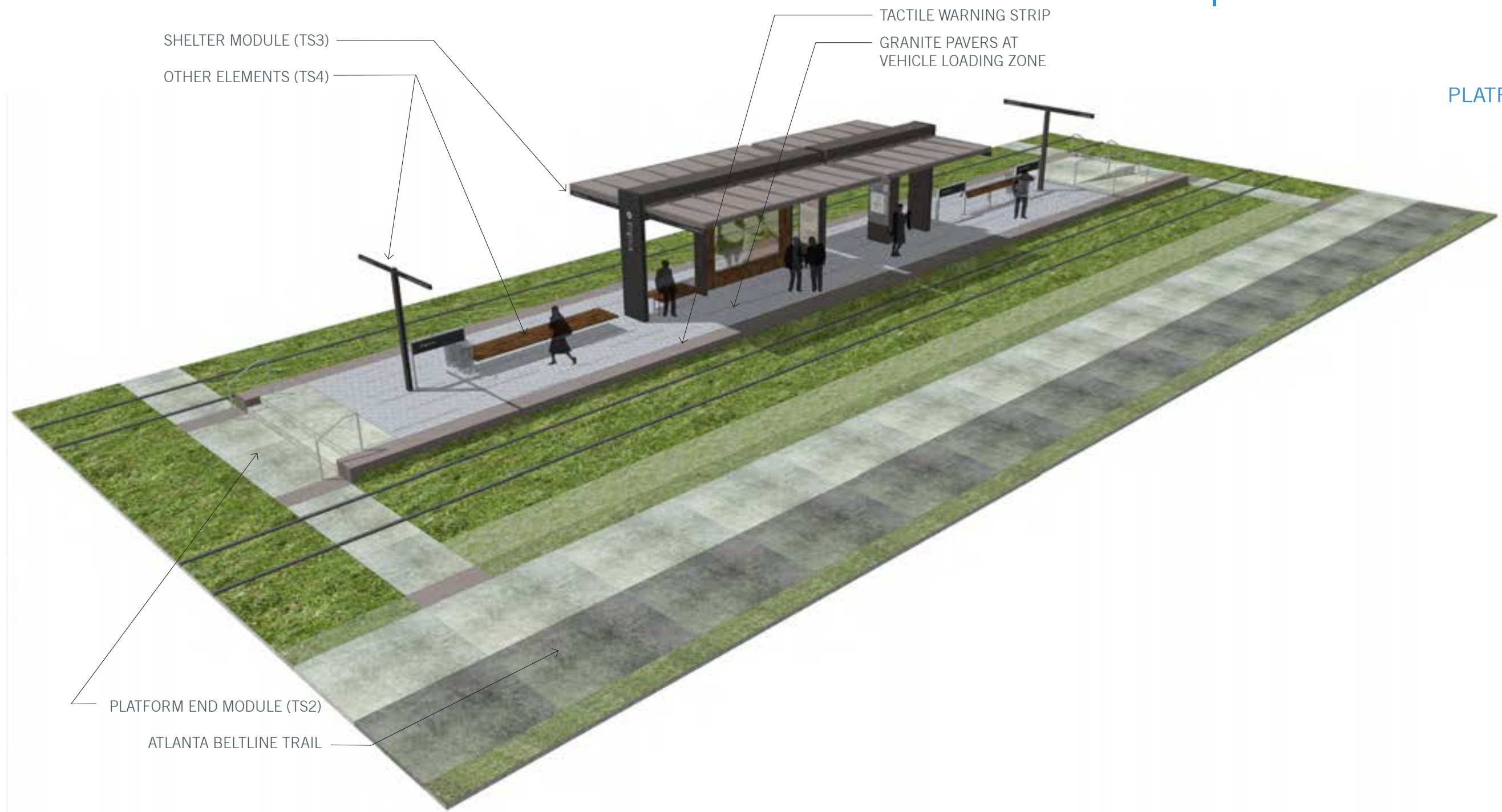
TS 4
Other
Elements



TS



PLATFORMS TS1



TS

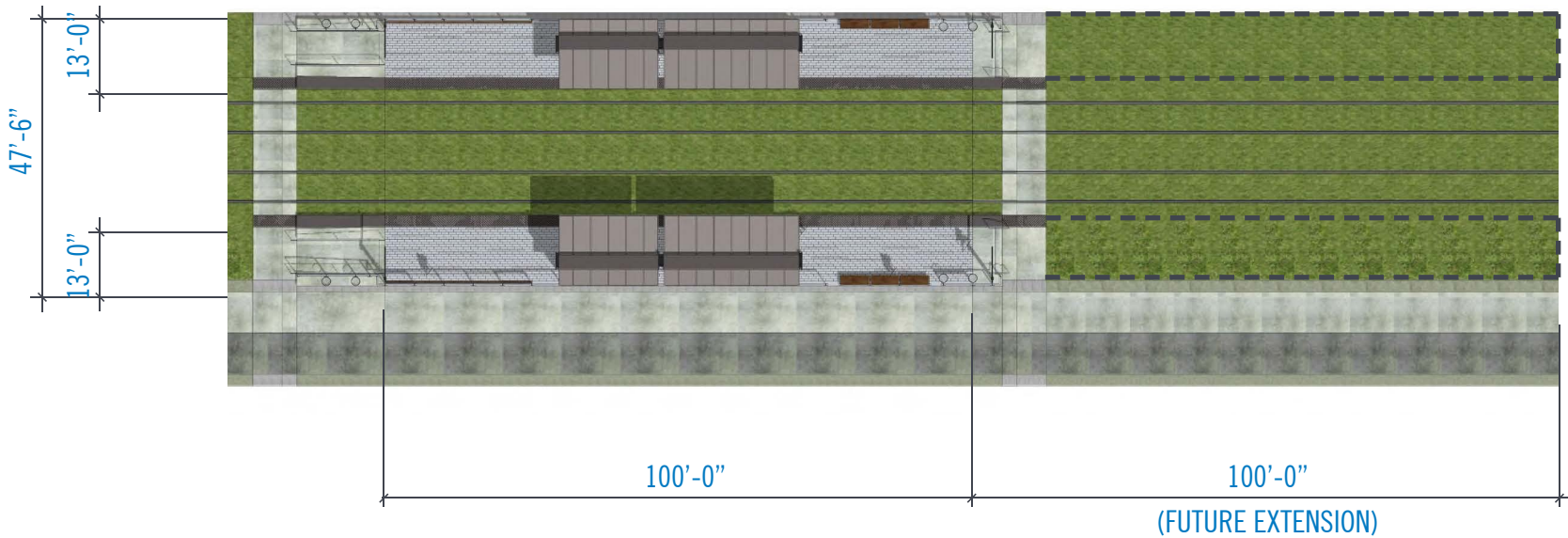
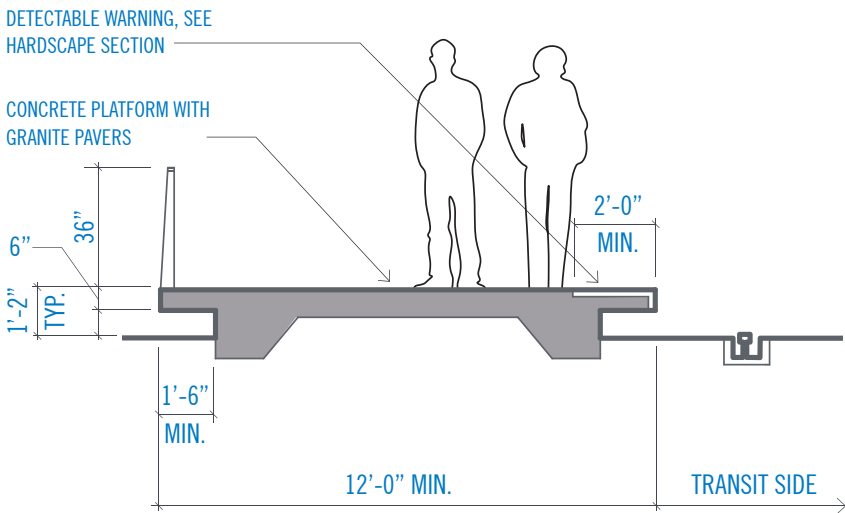
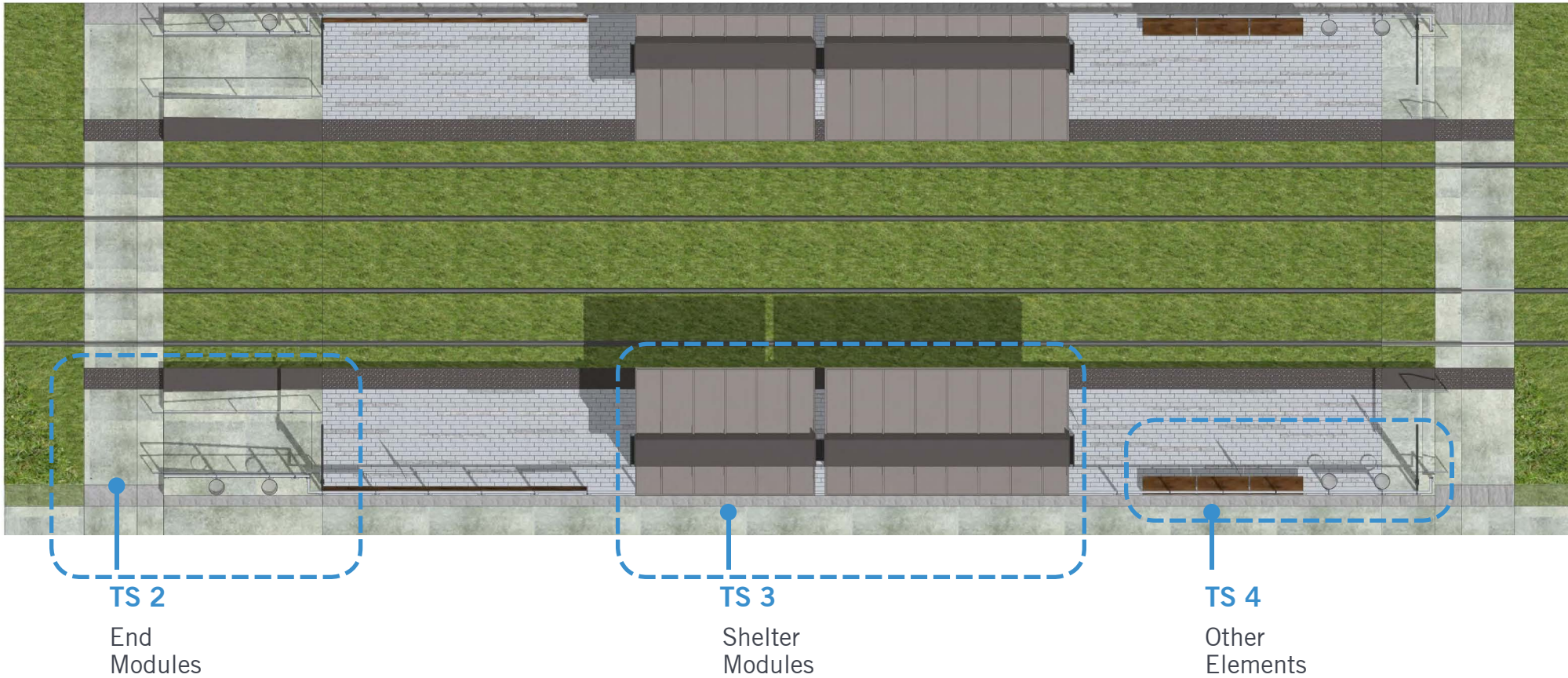


TS1.2 PLATFORMS

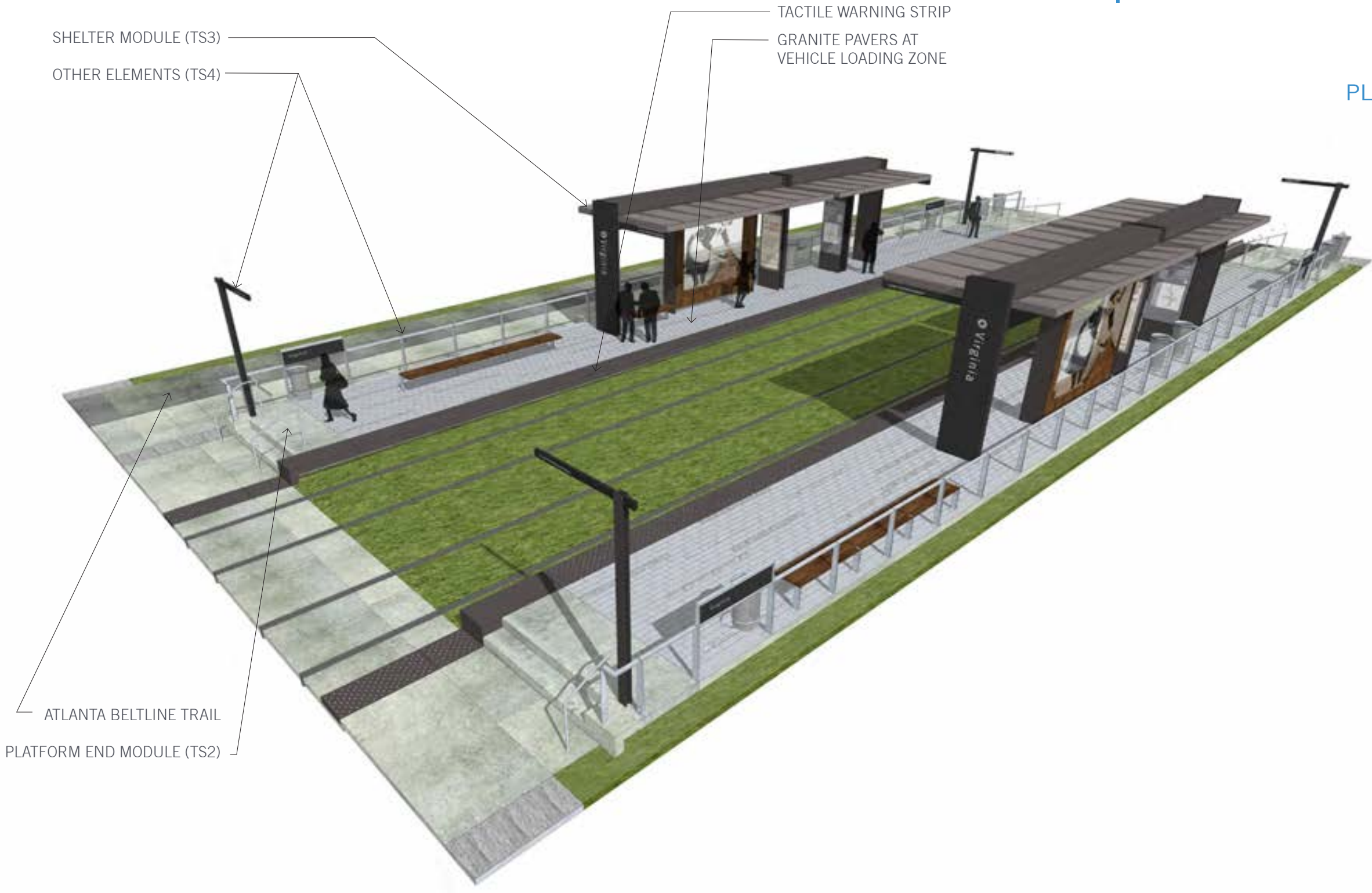
TS1.2 Side Platform

Stations configured with side platforms have the track at center with a platform on each side to serve each direction. Both platforms have a canopy structure that provides shelter for passengers waiting for trains. If ridership demands longer vehicles, the platforms are designed to double in length.

Note:
Bike racks shall be located near all transit stations and shall be part of each specific site design process.



PLATFORMS TS1



TS



transit stations
design

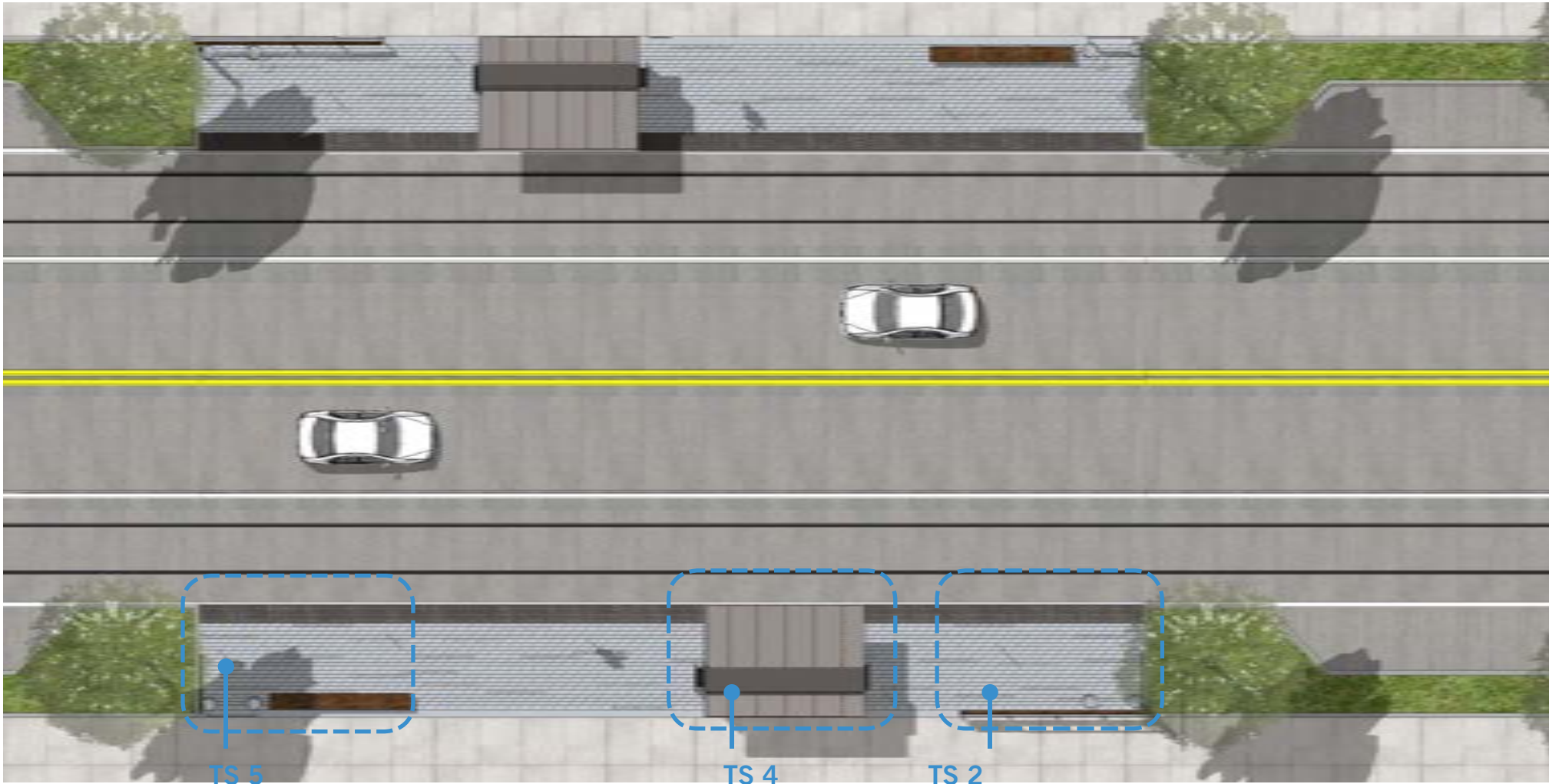
TS1 PLATFORMS

TS1.3 On-Street Platform

Stations configured to support vehicles operating in street-running conditions have unique challenges that must be considered on a case-by-case basis. Generally, however, they have a single, smaller canopy structure that provides shelter for waiting passengers while protecting visibility of adjacent storefronts. If ridership demands longer vehicles, the platform is designed to double in length.

Note:

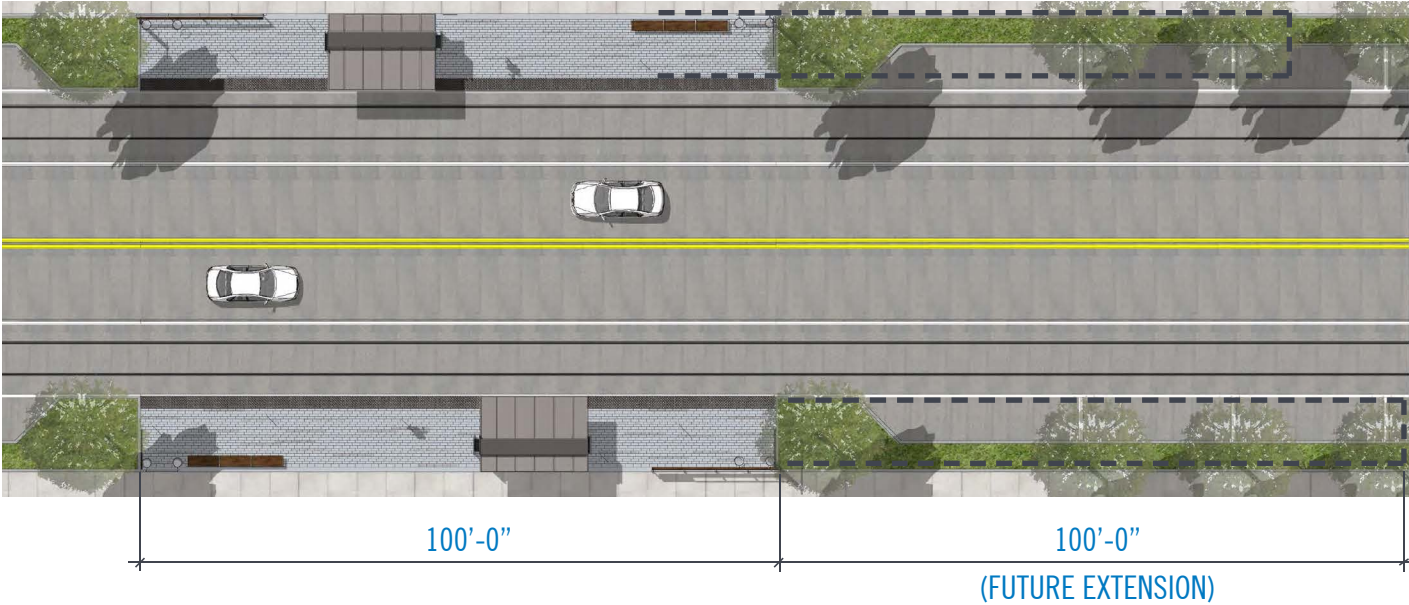
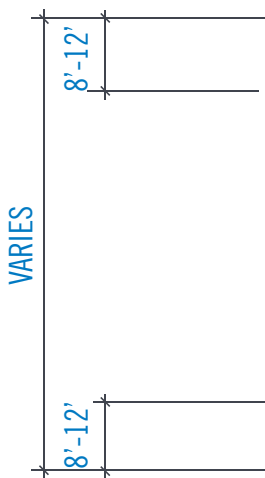
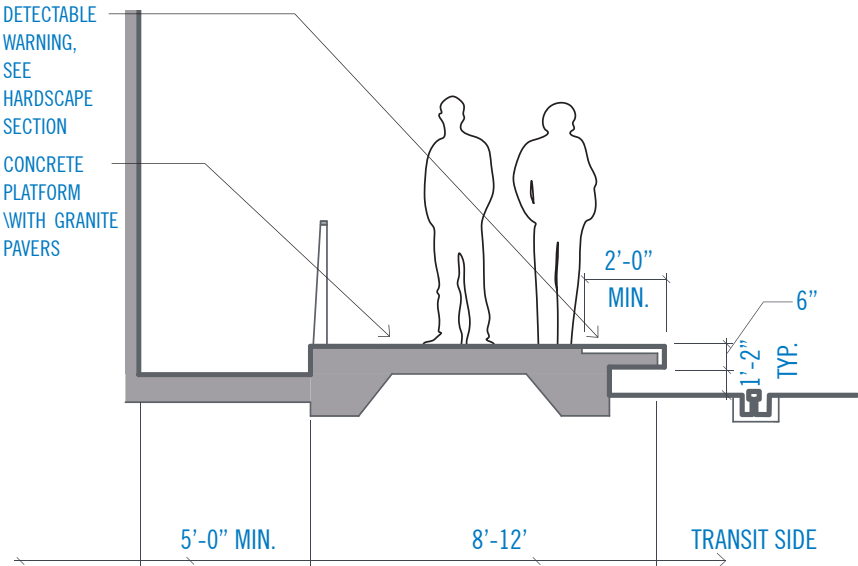
Bike racks shall be located near all transit stations and shall be part of each specific site design process.



Other
Elements

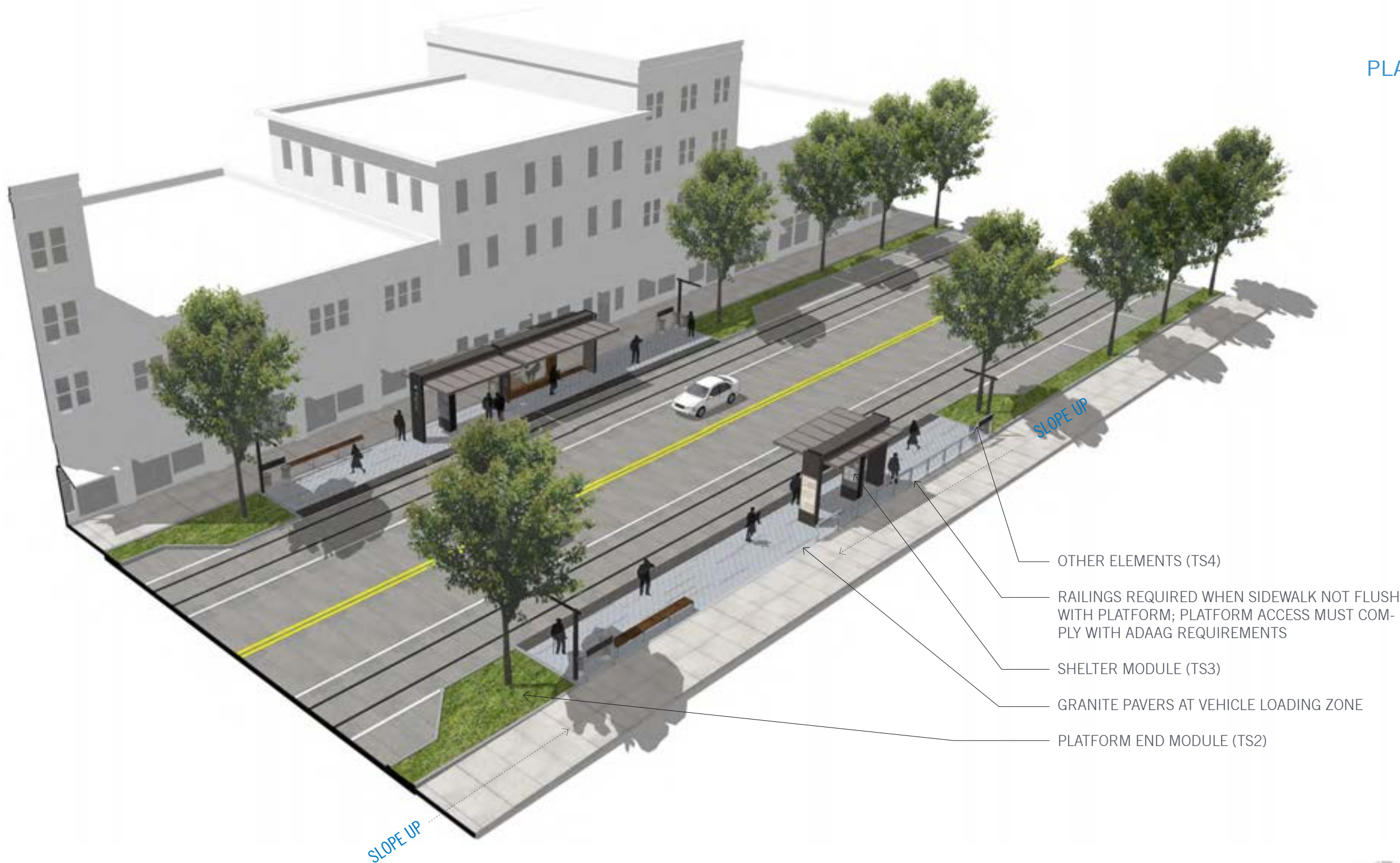
TS 4
Shelter
Module

TS 2
End
Modules



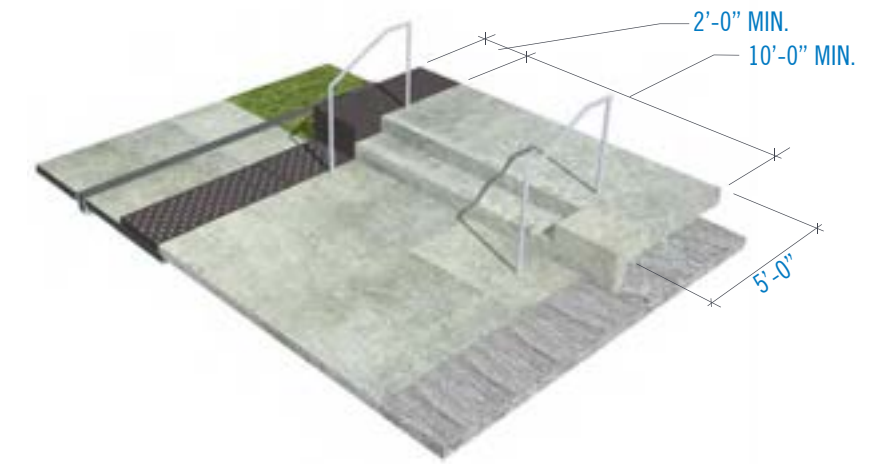
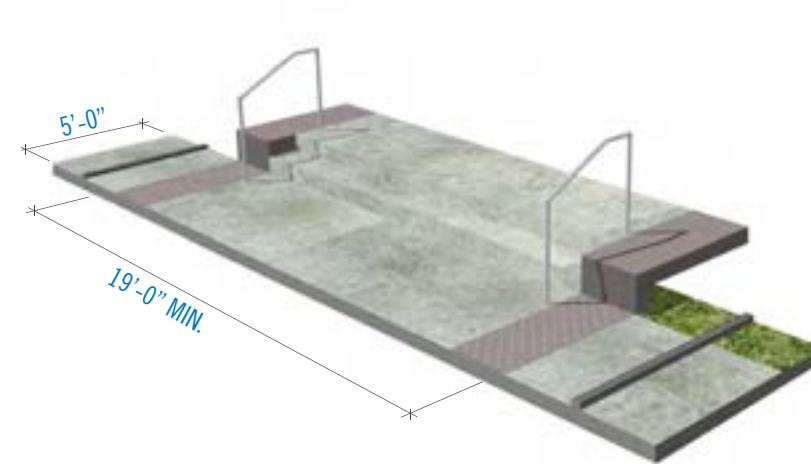
TS

PLATFORMS TS1

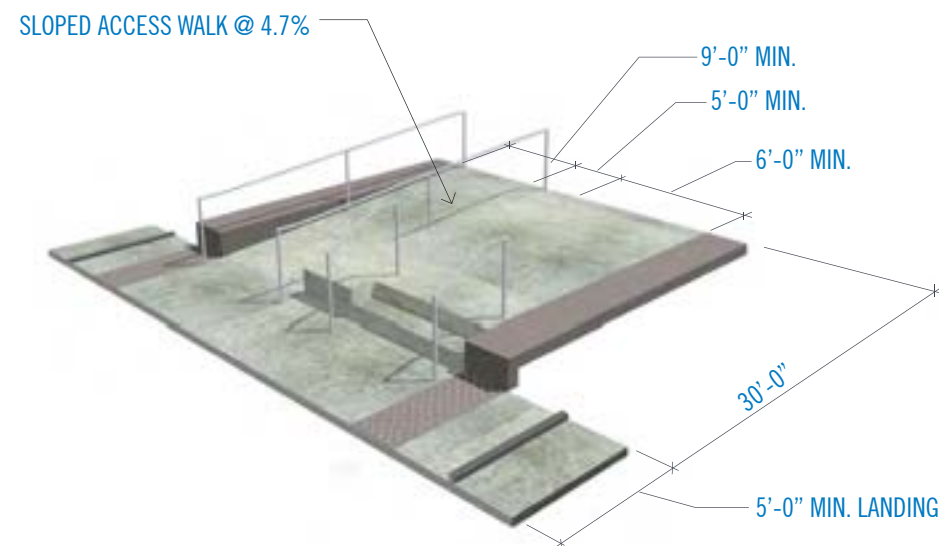


TS2 PLATFORM END MODULES

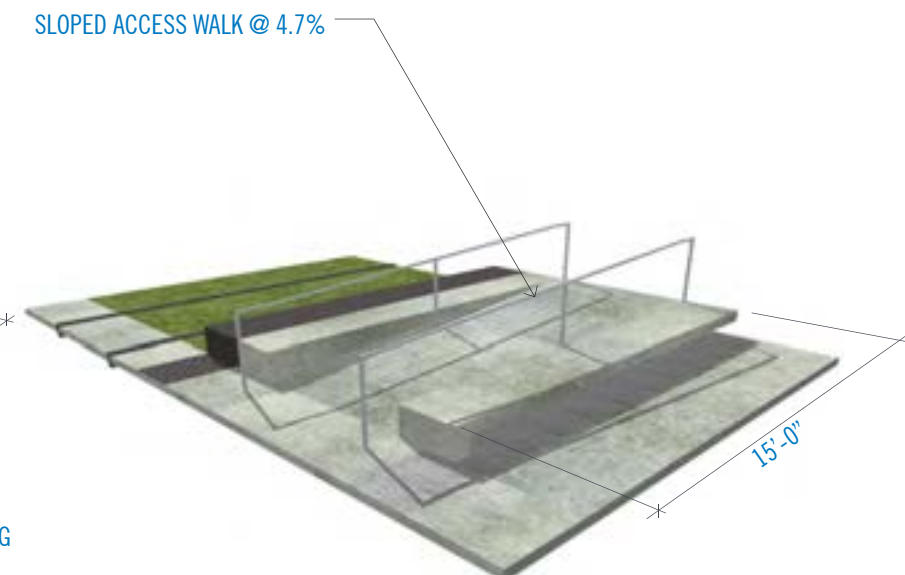
Interchangeable end modules for center and side platforms are designed to provide access down to track crossings and meet ADA requirements where necessary. On-Street platforms ideally have flush access to the sidewalk along the long side, and the end module is planted to help define the platform and soften the streetscape. Where needed, accessible ramps can be incorporated into the planted end module. On-Street modules can also be adapted for other conditions like public plazas.



TS 2.2
End Module - Center Platform Stair

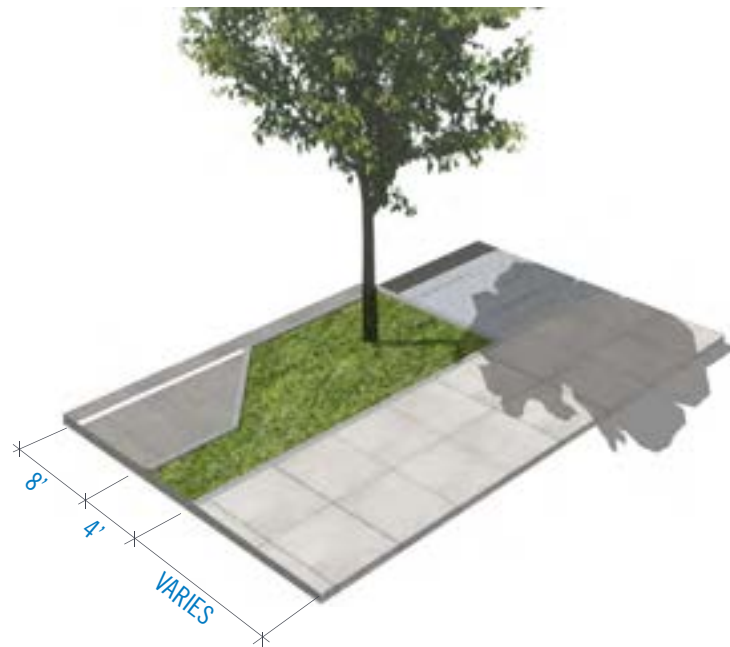


TS 3.4
End Module - Side Platform Stair



TS2.3
End Module - Center Platform Ramp/Stair

TS3.5
End Module - Side Platform Ramp



TS2.1
End Module - Flush

TS



SHELTER MODULES TS3



Core Shelter Modules protect waiting passengers from the sun, wind, and rain. They also provide transit system information, local area information, ticketing, signage, seating, and advertising. Expansion Modules simply extend the length of the shelter. Both modules are provided for each

platform type. They have black anodized aluminum elements and signage. Wood ceilings and benches provide warmth. Granite pavers demarcate the vehicle loading zone. Stainless steel railings and other elements tie the station design into the larger palette of Atlanta BeltLine materials.



TS3 SHELTER MODULES

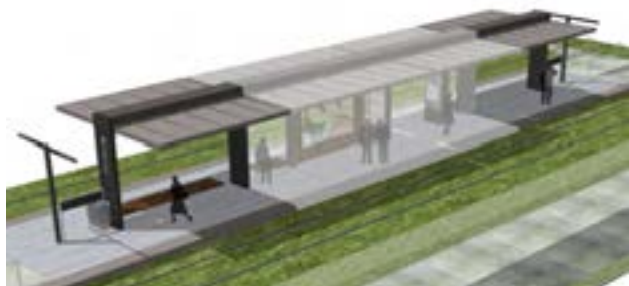
TS3.1.1 Center Platform Shelter - Core Module



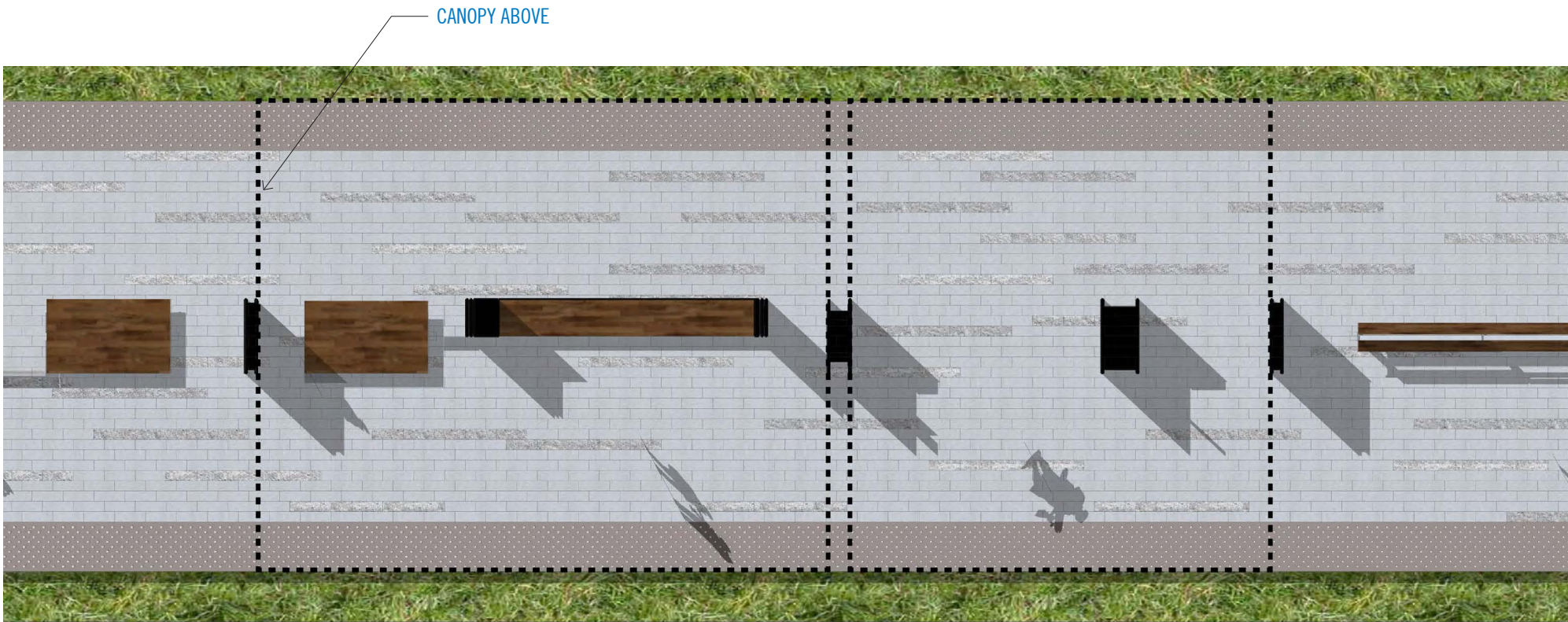
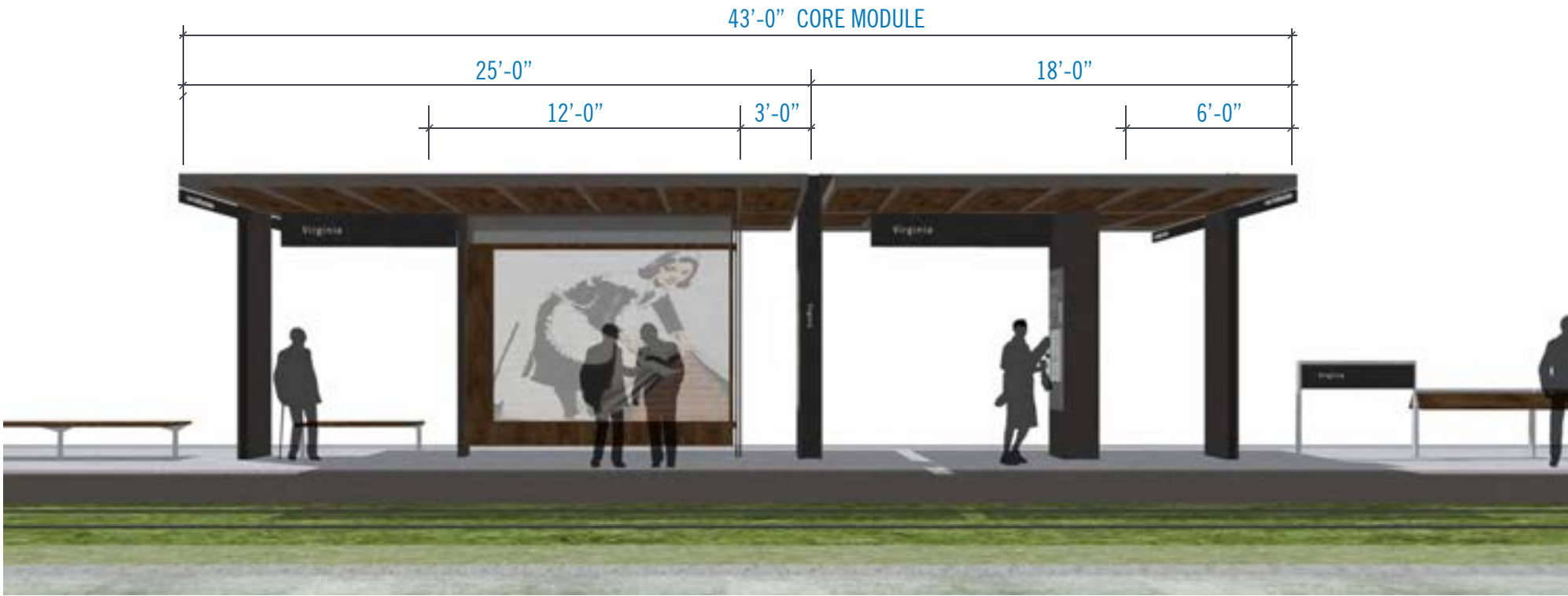
CORE MODULE



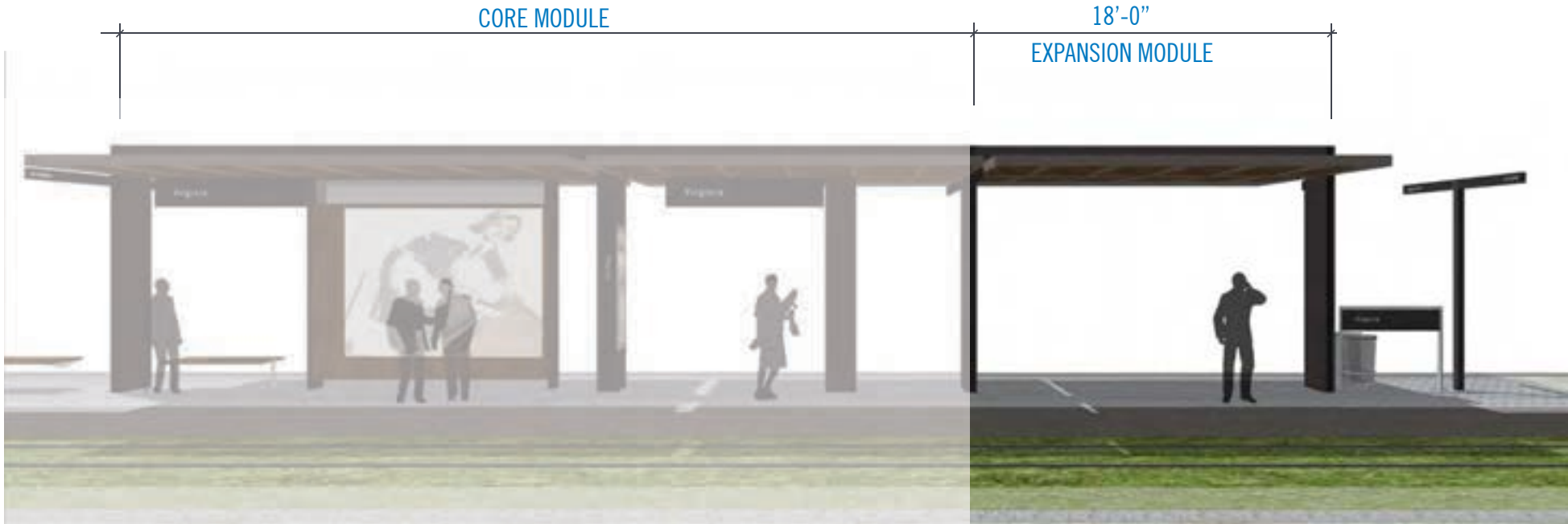
1 EXPANSION MODULE



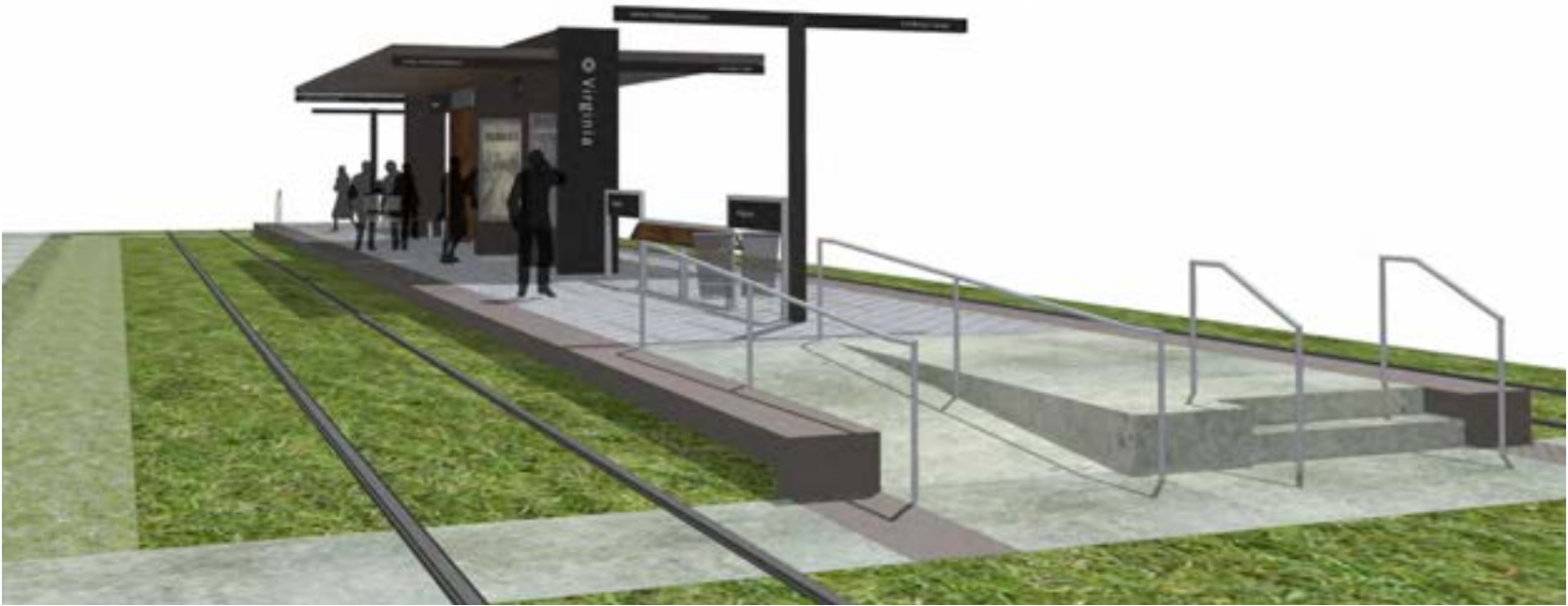
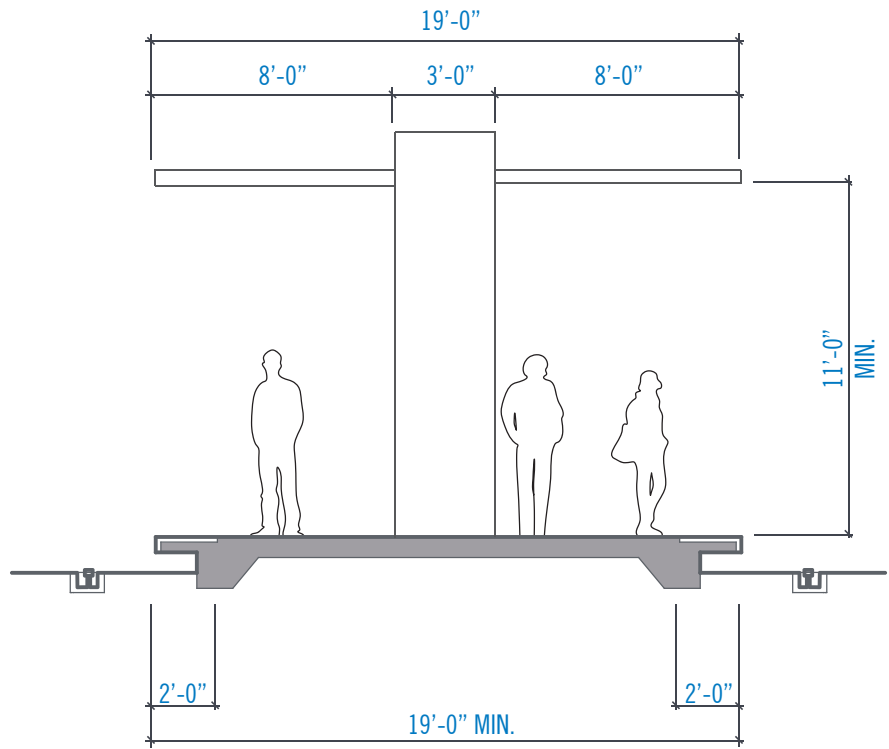
2 EXPANSION MODULES



SHELTER MODULES TS3



TS3.1.2
Center Platform Shelter - Expansion Module



TS3 SHELTER MODULES

TS3.2.1 Side Platform Shelter - Core Module



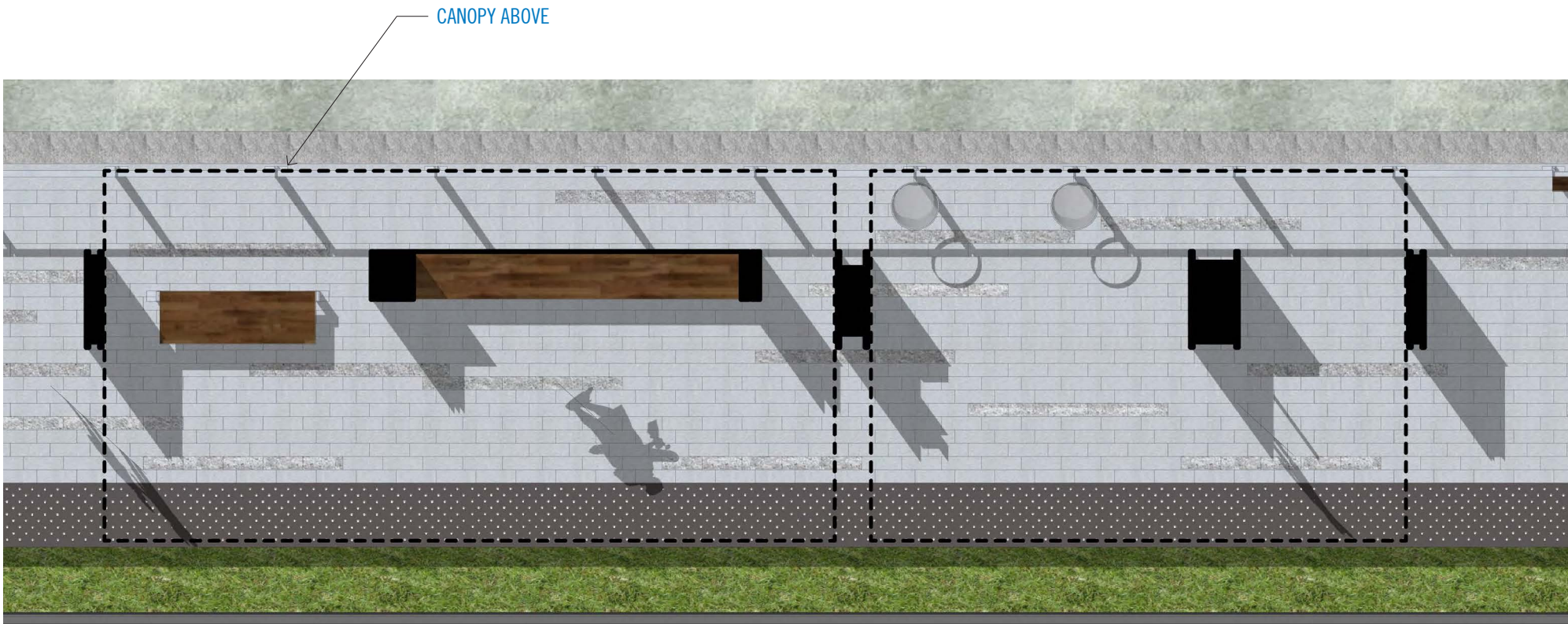
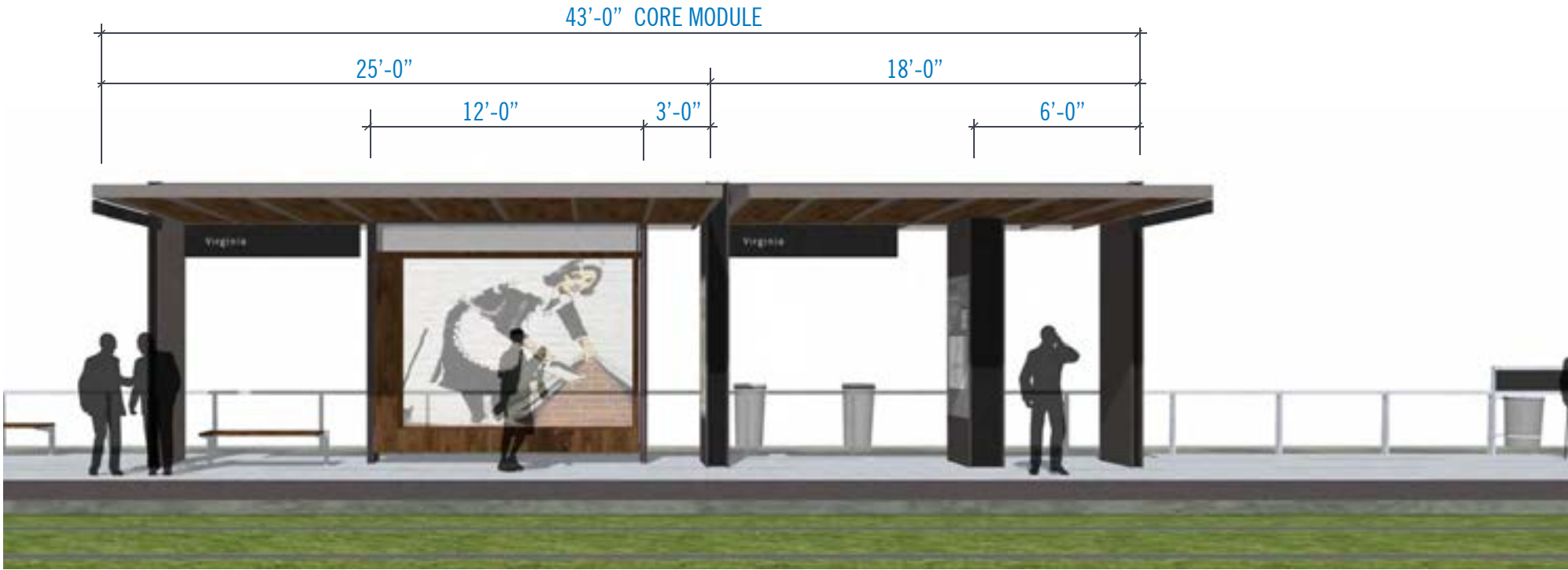
CORE MODULE



1 EXPANSION MODULE



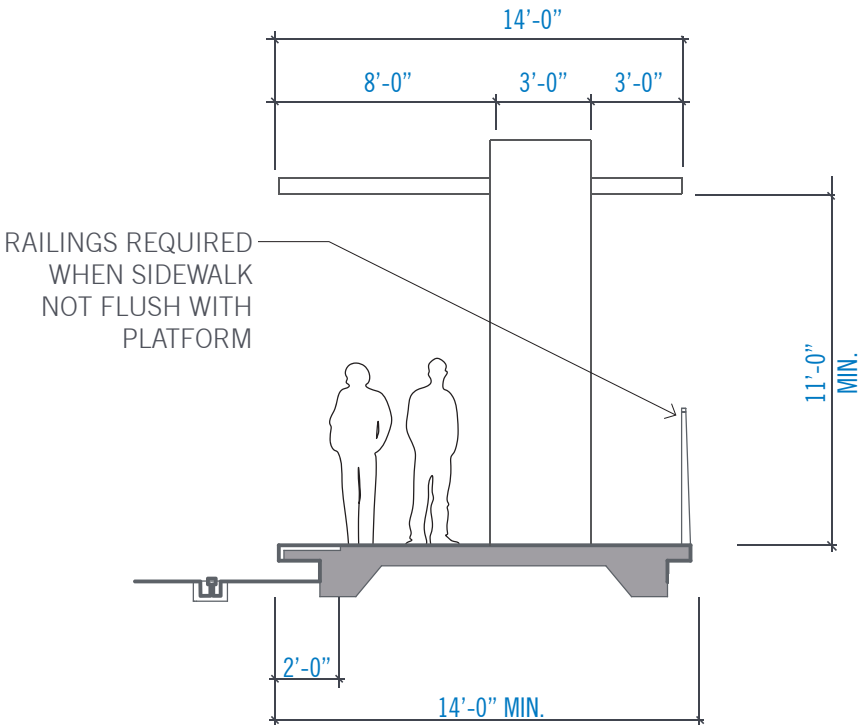
2 EXPANSION MODULES



SHELTER MODULES TS3



TS3.2.2
Side Platform Shelter - Expansion Module



TS3 SHELTER MODULES

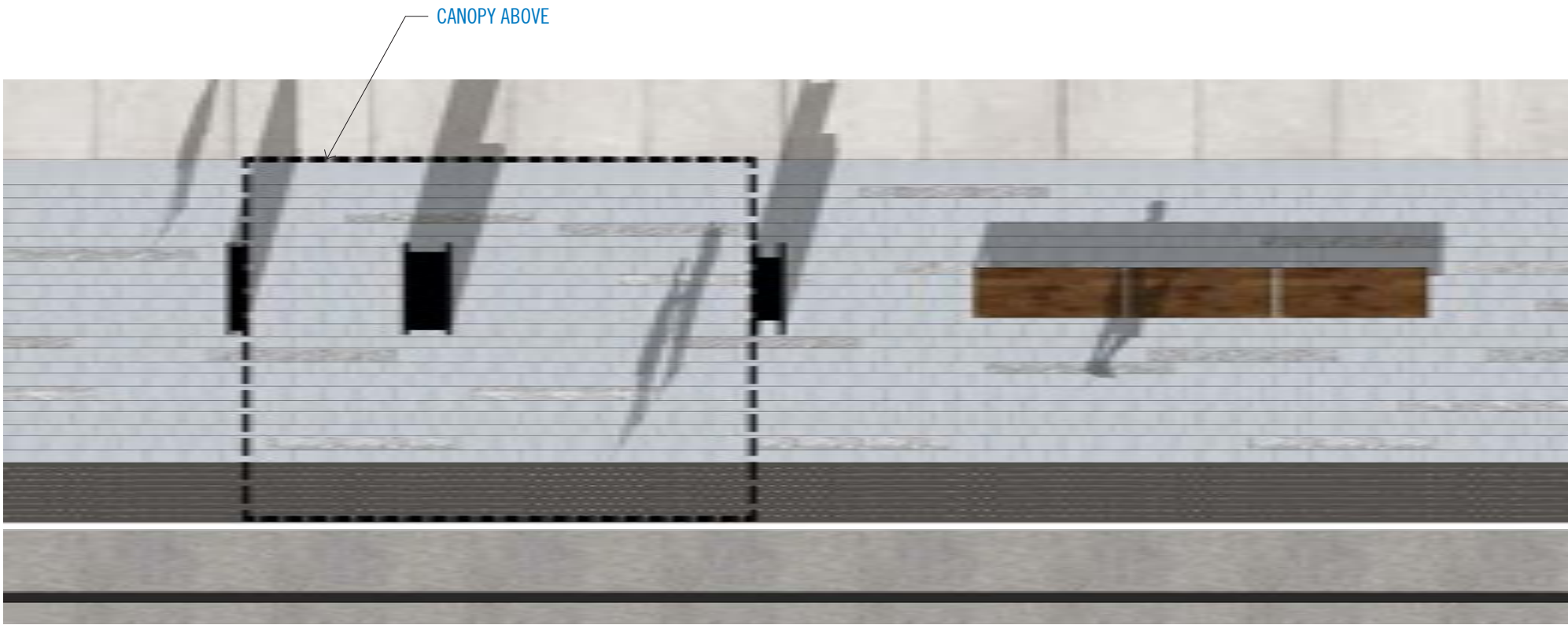
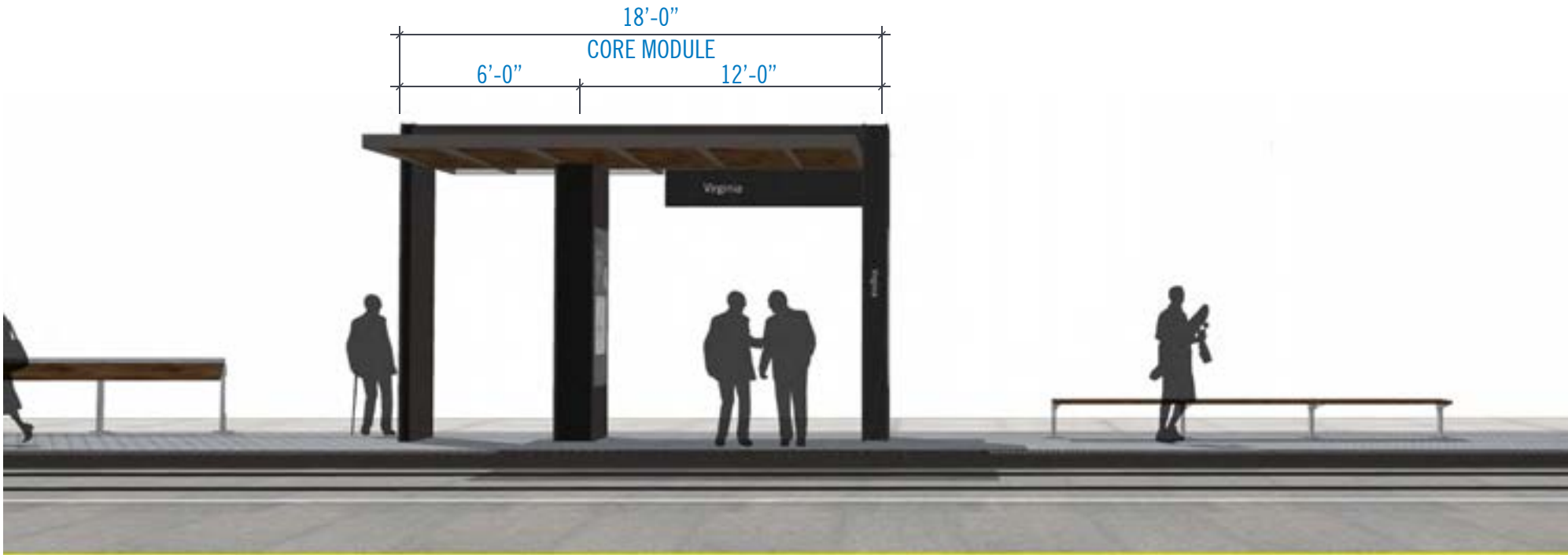
TS3.3.1 On-Street Platform Shelter - Core Module



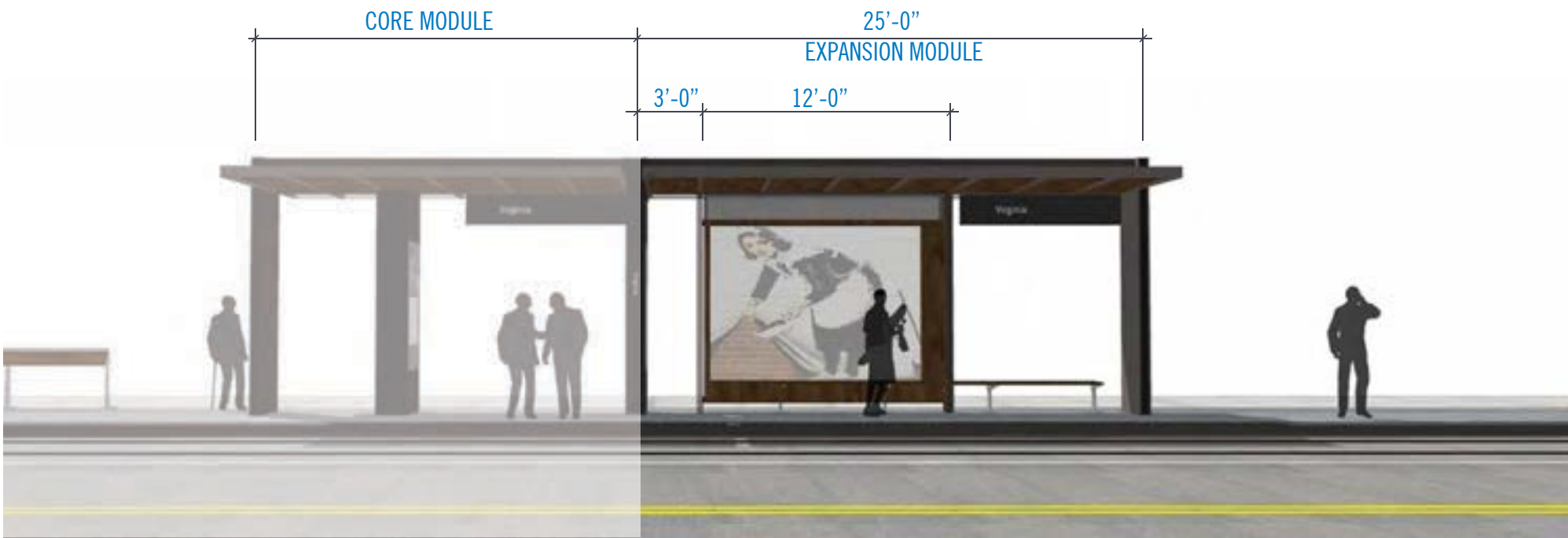
CORE MODULE



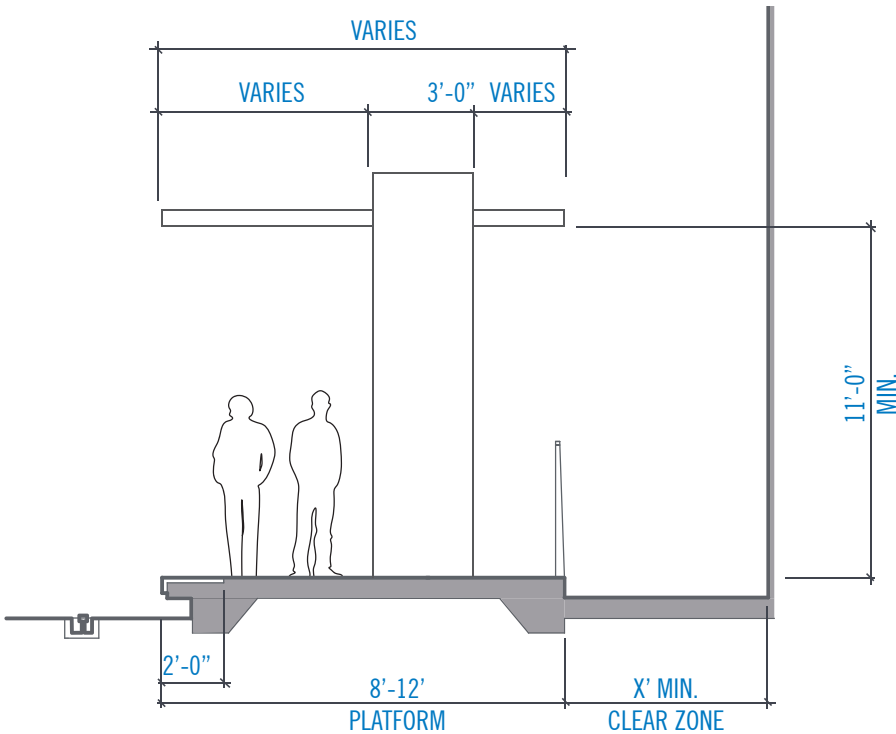
EXPANSION MODULE



SHELTER MODULES TS3



TS3.3.2
Street Platform Shelter - Expansion Module



TS3 SHELTER MODULES

TS3.1 Vertical Elements

Black anodized aluminum clads the structural system of the Shelter Module, organizing essential platform elements like signage, ticketing, advertising and information in order to reduce platform clutter. For detailed signage information, see SW5 Station Signs.

ENDS INCLUDE PRIMARY STATION IDENTIFICATION SIGNAGE

STRUCTURAL COLUMNS INCLUDE INTEGRATED DOWNSPOUTS, CONDUITS, AND OTHER SYSTEMS

CENTER COLUMN PROVIDES PANEL FOR ADVERTISING OR COMMUNITY EVENT INFORMATION



TICKETING COLUMN INCLUDES INTEGRATED BREEZE CARD MACHINE AND DIGITAL SCREEN THAT DISPLAYS APPROACHING TRAIN, DELAYS, EMERGENCIES, AND OTHER INFORMATION



WEATHER SCREEN WITH INTEGRATED PUBLIC ART (PA2.1)

INTEGRATED WOOD SEATING



TS

TS3.1.1
Structural Columns

TS3.1.2
Ticketing Column

TS3.1.3
Weather Screen



SHELTER MODULES TS3

Canopies TS3.2

Canopies are designed to shade waiting passengers during Atlanta's long summers and provide shelter from wind and rain. Rainwater and solar energy collection provide opportunities for sustainable strategies as local conditions permit. For detailed signage or lighting information, see SW5 and LT3.

RAINWATER COLLECTION IS INTEGRATED INTO CANOPY AND STRUCTURAL SYSTEM



TS3.2.1
Rainwater Capture

OPTIONAL PHOTOVOLTAIC FILM ON CANOPY WHERE SOLAR CONDITIONS PERMIT



TS3.2.2
Optional: Solar Energy Collection

INTEGRATED TRAIN DIRECTIONAL SIGNAGE
RESPONSIBLY SOURCED WOOD CEILING TO MATCH SEATING; WITH INTEGRATED UPLIGHTING



TS3.2.3
Ceiling



TS4 OTHER PLATFORM ELEMENTS

Other modular elements complete the Transit Station requirements and complement the overall material palette.

INTEGRATED TRAIN
DIRECTIONAL SIGNAGE



TS4.1 Platform End Light

Material: Black Anodized Aluminum
Fixture: TBD
Elements: Integrated Station ID sign (SW5.04)

INTEGRATED STATION
IDENTIFICATION SIGNAGE
INTEGRATED RECEPTACLES FOR
TRASH AND RECYCLING
36" STAINLESS STEEL HANDRAIL



TS4.2 Side Platform Railing

Material: Stainless Steel
36" Height
No mesh required in typical conditions
Signage in black anodized aluminum
Elements: Integrated Leaning Bench (TS4.5)
Integrated Station ID signage (SW5.03)
Integrated Receptacles (SF)

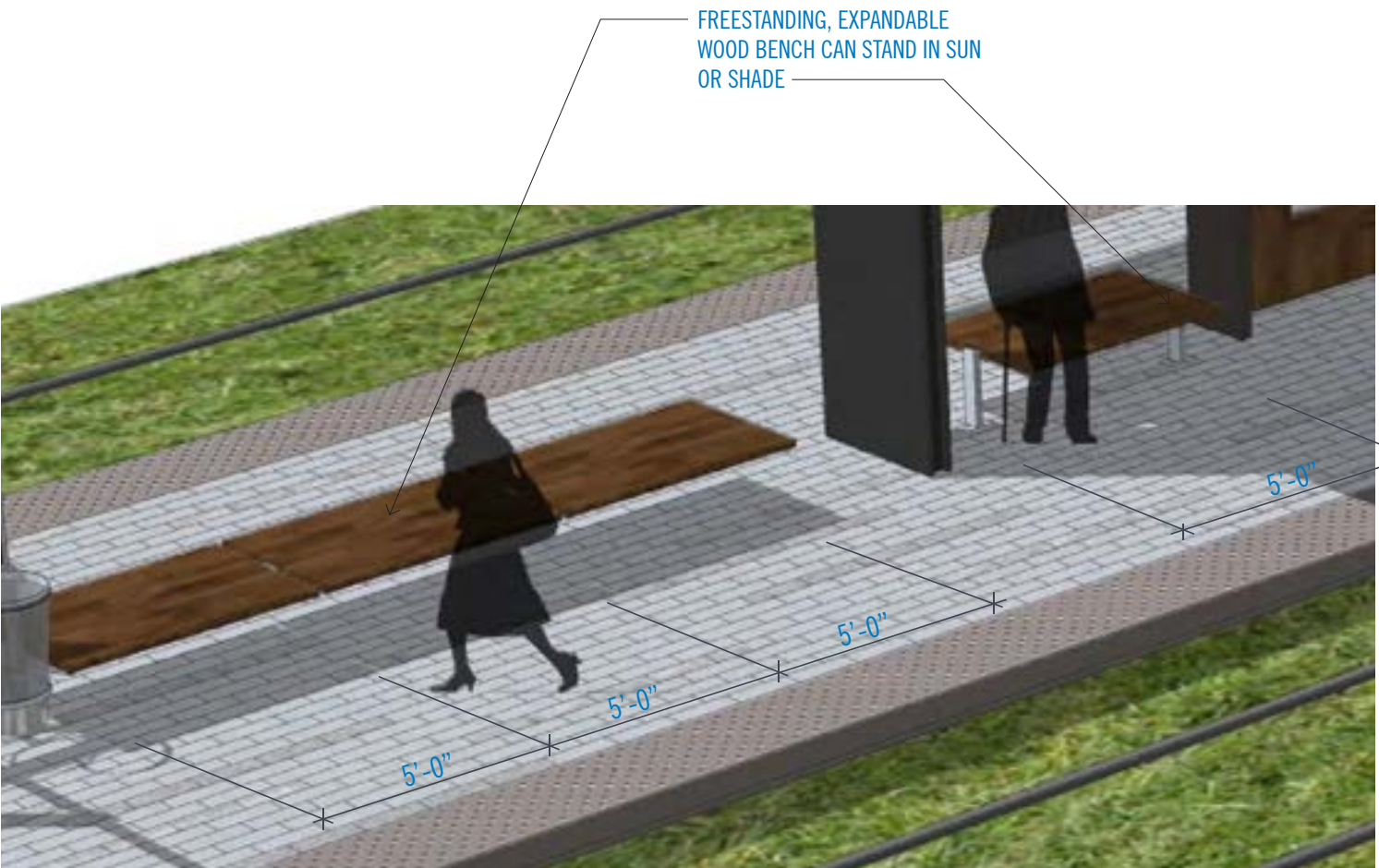
INTEGRATED LEANING BENCH
INTEGRATED STATION
IDENTIFICATION SIGNAGE
INTEGRATED RECEPTACLES
FOR TRASH AND RECYCLING



TS4.3 Center Platform Railing

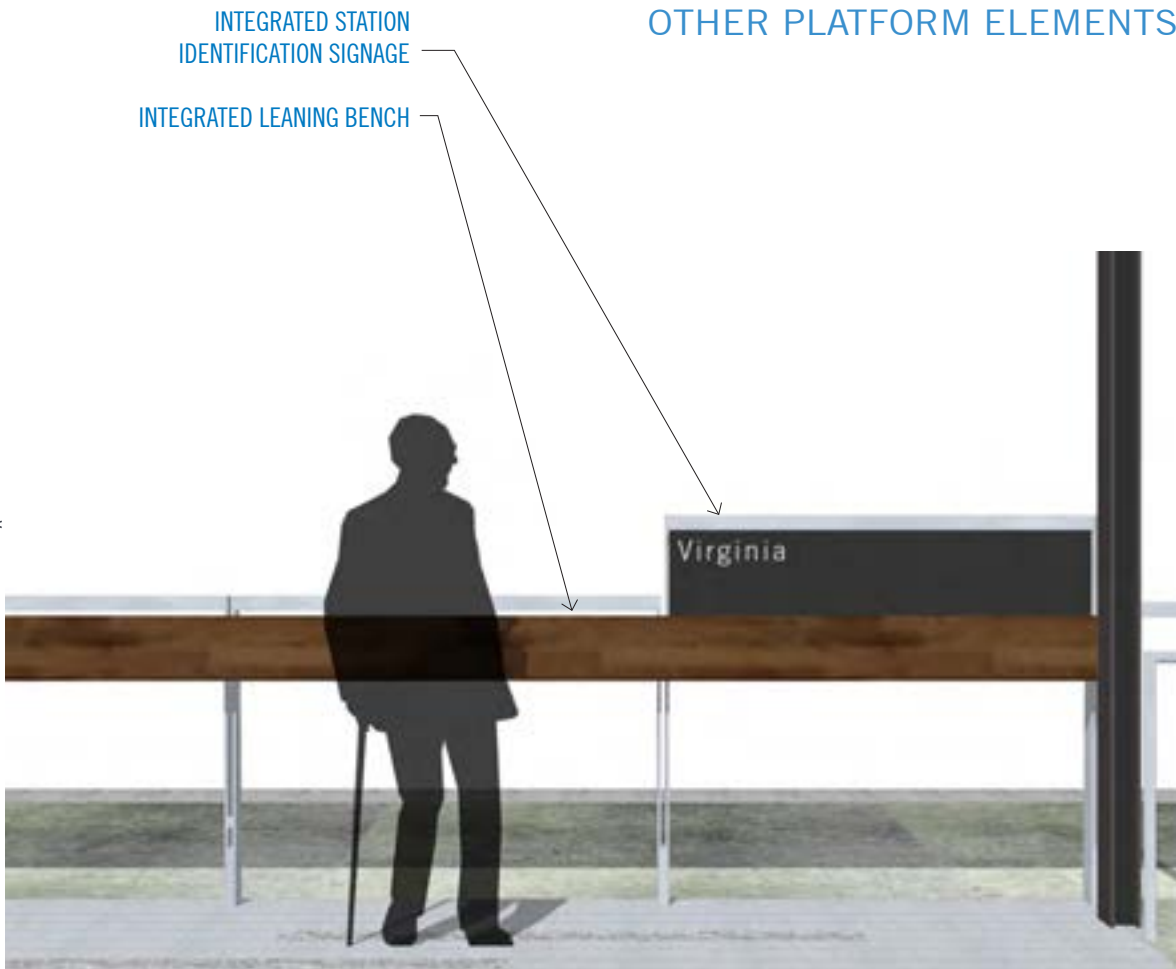
Material: Stainless Steel
36" Height
No mesh required in typical conditions
Signage in black anodized aluminum
Elements: Integrated Leaning Bench (TS4.5)
Integrated Station ID signage (SW5.03)
Integrated Receptacles (SF)





TS4.4
Bench

Seat: Responsibly sourced wood; consider sinker cypress, thermally modified or hardwoods
Structure: 5' modules with stainless steel structure permanently installed to platform floor



TS4.5
Leaning Bench

Seat: Responsibly sourced wood; consider sinker cypress, thermally modified or hardwoods
Structure: Stainless Steel integrated with Platform Railings (TS4.2 AND TS4.3)

OTHER PLATFORM ELEMENTS **TS4**



TS5 STATION GUIDEWAY

Vegetated guideway is the preferred condition for segments of the Atlanta Beltline transit guideway. However, there are many conditions where this is not possible or desirable. At these locations, ballast materials may be used to discourage pedestrians from entering or crossing the guideway. In other applications, concrete or other paving materials may be used.



TS5.1 Vegetated Guideway

Since pedestrians are not permitted to enter the guideway at transit stations, plant selection for a vegetated guideway at transit stations could also include other short, suitable species.

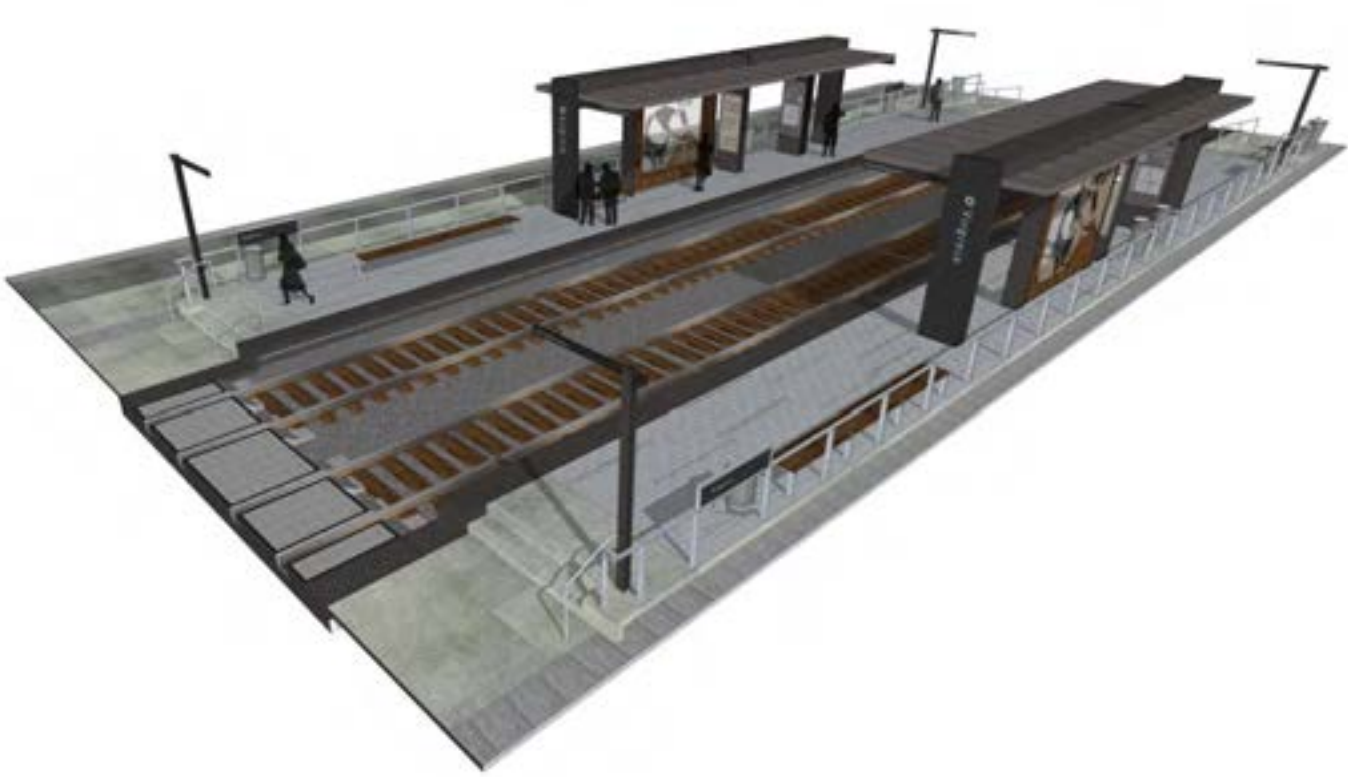


STATION GUIDEWAY TS1



TS5.2
Hardscape Guideway

Where a hard surface guideway is required, plain concrete will be used. In unique conditions, materials like granite or other pavers may be desired to reflect the local area.



TS5.3
Ballast Guideway

For a more permeable surface where vegetated guideway is not possible or desired, and especially where the guideway may be utilizing ballast track for transit, a crushed stone ballast may also be appropriate at the transit station.



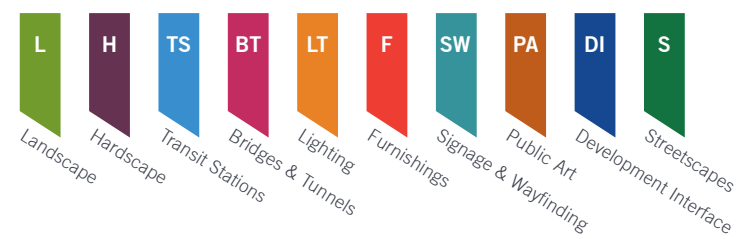


BRIDGES & TUNNELS

THE ATLANTA BeltLine:
typologies



PERKINS
+ WILL



TYPOLOGIES

2

BRIDGES & TUNNELS
TABLE OF CONTENTS

- ▶ **PREMISE**
Integrated Sustainability: Bridges & Tunnels
- ▶ **CONDITIONS**
- ▶ **DESIGN**
 - BT1 Bridge Adaptations
 - BT1.1 Trail Bridge Adaptation: Missile Barrier
 - BT1.2 Trail Bridge Adaptation: Full Guardrail
 - BT1.3 Trail Bridge Adaptation: Partial Guardrail
 - BT2 Tunnel & Underpass Adaptations
 - BT3 New Standard Bridges
 - BT3.1 New Standard Combined Bridges
 - BT3.2 New Standard Transit Bridges
 - BT3.3 New Standard Trail Bridges
 - BT4 New Standard Underpasses
 - BT4.1 New Standard Combined Underpass
 - BT5 New Feature Structures



The Atlanta BeltLine will utilize both existing and new bridges, underpasses and tunnels in its transformation. Built by different railroad companies over a long period of time, existing structures embody authentic railroad character and their reuse will support experiential variety in the corridor. In contrast, most new structures will contribute to design continuity and legibility throughout the corridor, accommodating its expanded program with simple yet elegant designs. In exceptional conditions like long spans or proximity to historic resources, new structures may break from standard designs, offering signature new elements in the landscape.

bridges & tunnels

► INTEGRATED SUSTAINABILITY: BRIDGES & TUNNELS

Energy & Climate: *Efficient lighting will be used throughout and opportunities for on-site renewable energy will be explored for each.*



Water Efficiency & Quality: New bridges are required to incorporate best management practices to control and filter stormwater runoff to prevent pollution of adjacent waterways.



Soil & Habitat Quality: New bridges and tunnels should be designed to minimize opportunities for nesting, in order to prevent conflict between the Atlanta BeltLine transit and wildlife.



Sustainable Materials, Design & Construction: The Atlanta BeltLine will reuse existing bridges and tunnels, to the extent possible. New bridges and tunnels will utilize materials that are locally sourced and have recycled content. Construction activities related to bridges and tunnels will be managed to minimize waste, emissions and pollution.



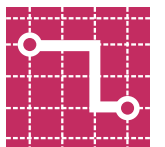
Sustainable Operations & Maintenance: Materials specified for the modification of existing bridges are selected for durability and will have protective coatings (See Materials). The Atlanta BeltLine Maintenance Guidelines (see Appendix) specifies sustainable and cost-effective methods for graffiti prevention / removal, cleaning and repair of walkways and railings.



Community Health, Access & Equity: *Not applicable.*



Connectivity & Smart Growth: Bridges and tunnels as essential for the creation of a dedicated, off-road BeltLine corridor. They are also essential to maintaining roadway connectivity across the Atlanta BeltLine corridor.







bridges & tunnels

conditions







CAPACITY NEEDS

While most existing bridges, underpasses, and tunnels will need some modification to support the Atlanta BeltLine program, a large number of existing structures will need to be rebuilt or augmented. The following map illustrates early assumptions about what might happen at each crossing

EXISTING STRUCTURES:

-  Atlanta BeltLine corridor
-  Atlanta BeltLine on existing bridge
-  Atlanta BeltLine in existing underpass
-  Atlanta BeltLine in existing tunnel

NEW CONSTRUCTION:

-  New combined trail and transit bridge (BT5)
-  New transit bridge (BT6)
-  New trail bridge (BT7)
-  New combined trail and transit underpass (BT8)
-  New transit tunnel (BT9)
-  New combined trail and transit tunnel (BT9)





EXISTING STRUCTURES

Because all of the existing structures on the Atlanta BeltLine are uniquely designed, each requires individual attention during the preliminary design and subsequent phases, addressing questions of both structural and cosmetic rehabilitation. Except as designated in the public art program, the following guidelines apply to the rehabilitation of existing structures.

- Existing stone, brick, concrete and similar materials will be refurbished with respect to their original condition and modified or upgraded as structural needs require.
- Existing painted surfaces on historic structures can match an existing structure's historic color or graphic if this approach is determined appropriate by ABI for an individual structure. Otherwise, painted surfaces on existing structures will utilize a palette, derived from an assessment of historic railroad colors along the corridor.

NEW STANDARD STRUCTURES

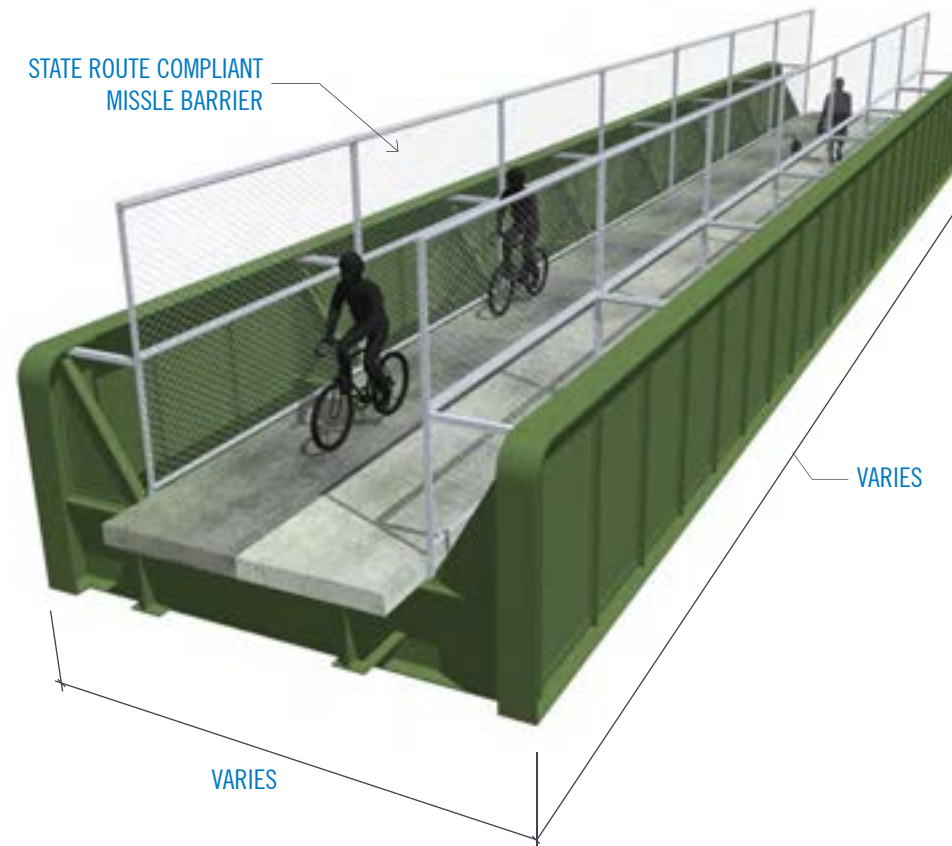
New Standard Structures, including bridge and tunnel adaptations, as well as new bridges and underpasses, will support design continuity along the Atlanta BeltLine. They will create a coherent vocabulary of forms along with other new elements like structured ramps, stairs and transit canopies.

- The design and surface quality of the Atlanta BeltLine Trail (see Hardscape - H1) will continue uninterrupted across new and adapted bridges.
- The dimension of the Atlanta BeltLine Trail (see Hardscape - H1) may only be changed in order to appropriately adapt to existing structures.
- Railings will match an appropriate variation of the railing shown in Hardscape - H4.4.
- Abutment walls required to support new interventions, including additions or modifications to existing abutment walls, will be consistent in design to the retaining walls shown in Hardscape - H4.1.
- Painted surfaces, like steel on new bridge structures or steel structural enhancements to existing structures, will utilize the color palette indicated in the Materials section.

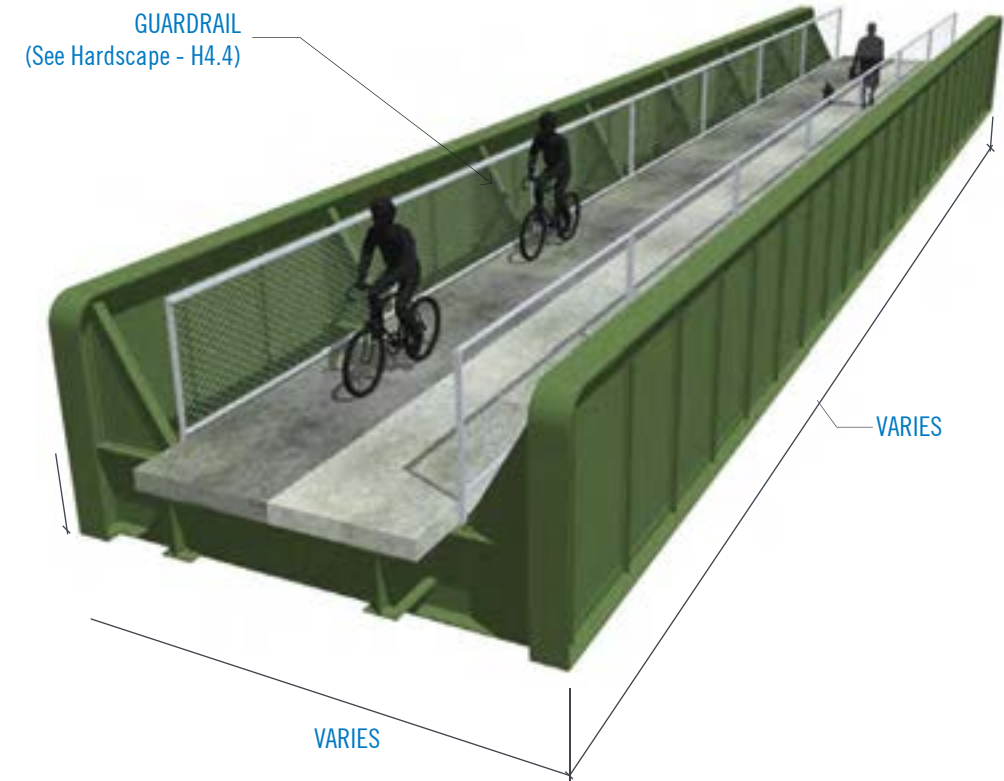


BT1 BRIDGE ADAPTATIONS

No two existing bridges are alike, so the design of each for its adaptation to the multi-use trail, transit guideway, or as a new public space will be a unique challenge. With that said, the design intent is that any railings required, new abutment or retaining walls, and certainly the trail itself, will be in keeping with the Hardscape family of elements. This will allow the existing bridge to stand out as a unique artifact in the corridor.



BT1.1
Trail Bridge Adaptations: Missile Barrier



BT1.2
Trail Bridge Adaptations: Full Guardrail



Bridge over Ponce de Leon Ave, a state route, is adapted with state-route compliant missile barrier

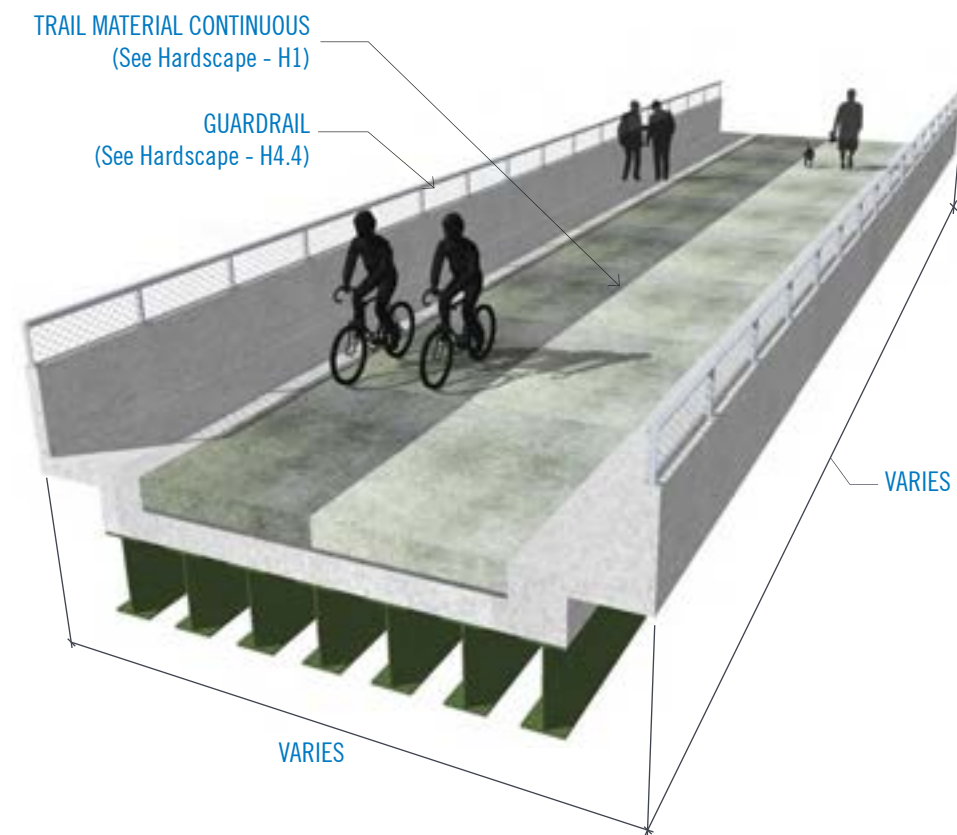


The existing bridge over Mauldin Ave will be adapted for the Atlanta BeltLine trail with partial railings



TUNNEL & UNDERPASS ADAPTATIONS BT2

Similar to existing Bridge Adaptations, existing tunnels and underpasses will be adapted to their new program; each modified within the family of Hardscape elements in order to provide continuity for the trail and highlight the corridor's unique and interesting structures as individual features.



BT1.3
Trail Bridge Adaptations: Partial Guardrail



BT2
Tunnel & Underpass Adaptations



The existing bridge over North Avenue is adapted for the Atlanta BeltLine trail with safety railings



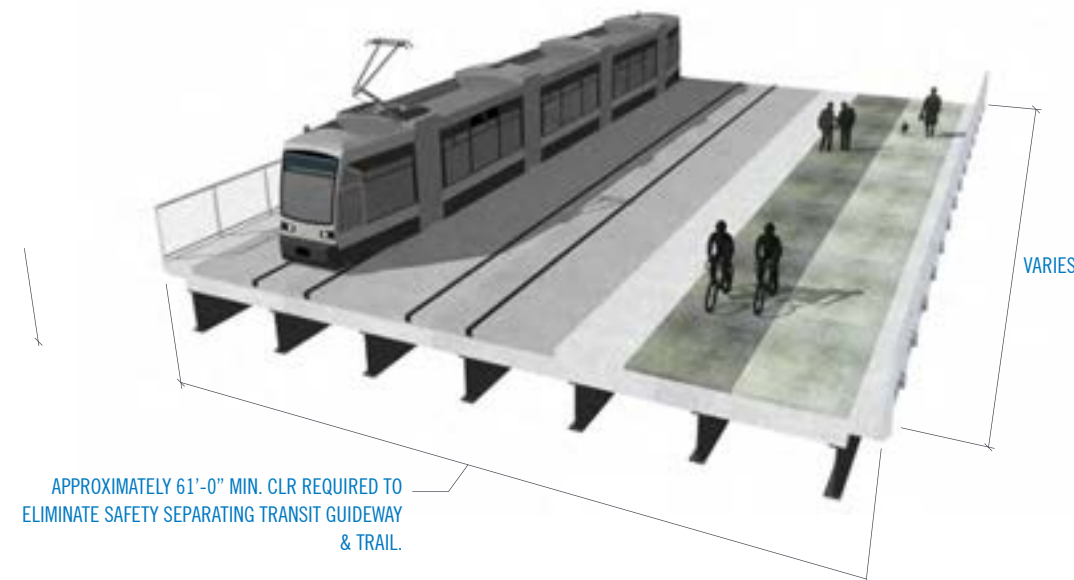
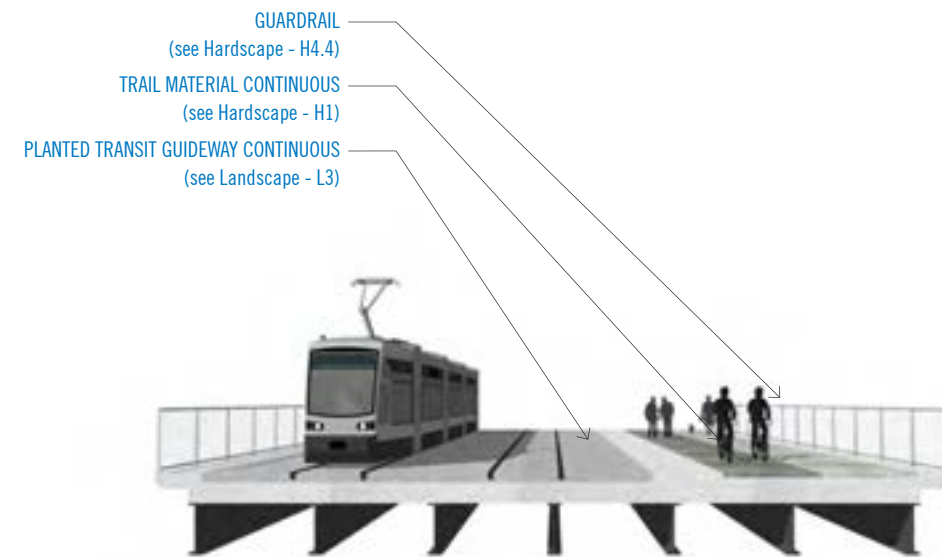
The existing tunnel under Murphy Avenue will be adapted for use by the Atlanta BeltLine trail and transit



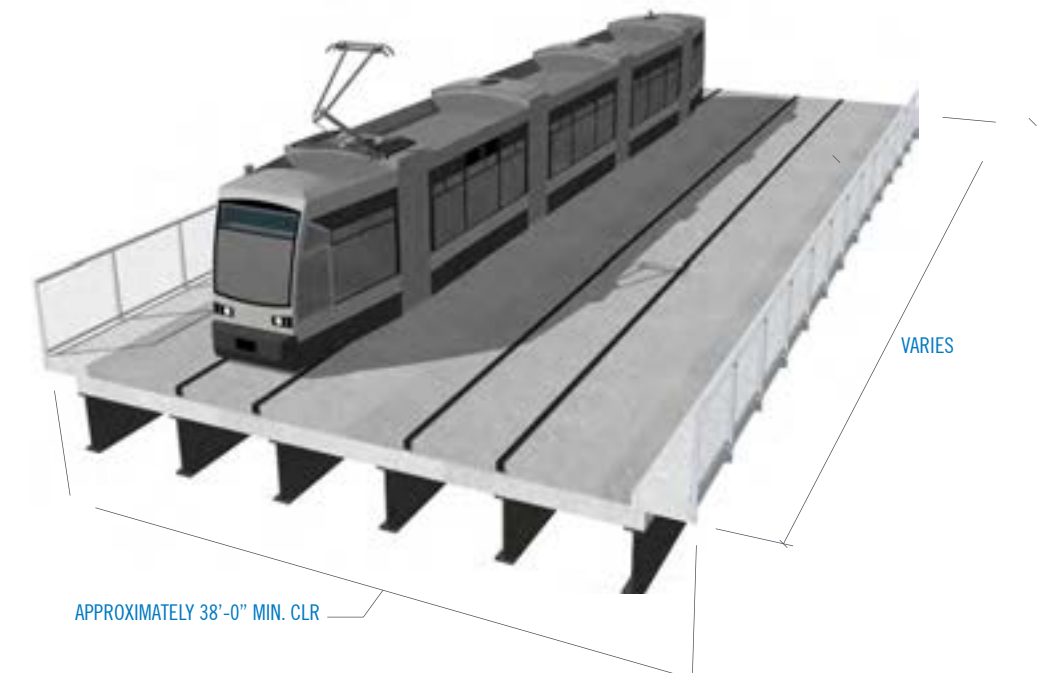
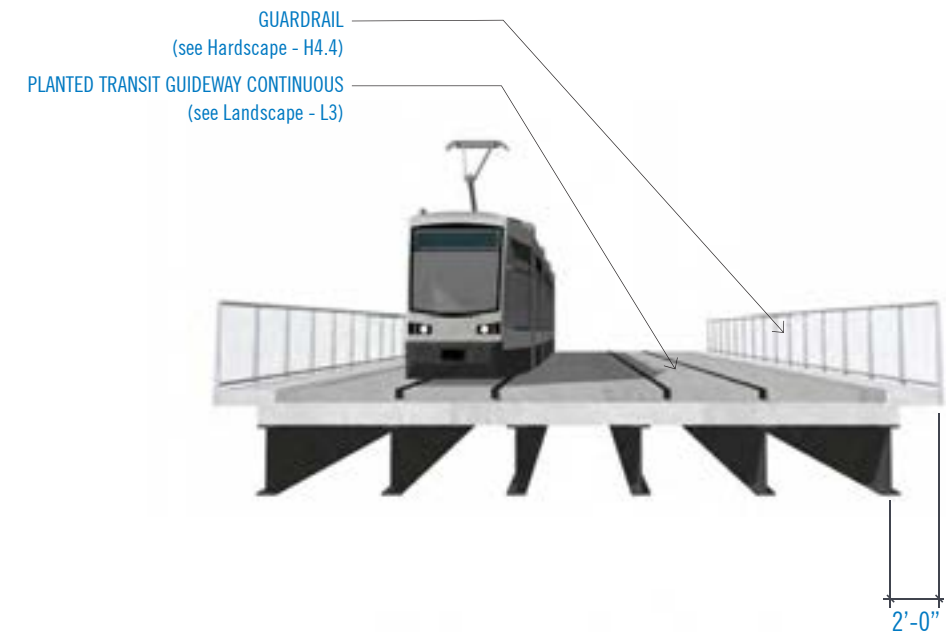
BT3 NEW STANDARD BRIDGES

Standard bridge conditions, which are the most frequent in the corridor, will support design continuity with elegant, discrete, lightweight structures that accommodate programmatic requirements, adjust to span requirements but otherwise defer to the character and conditions of the corridor.

In some cases, new bridges will accommodate both transit and trail. Where existing bridges can be utilized for one mode or the other, new transit-only or trail-only bridges will be built alongside them.



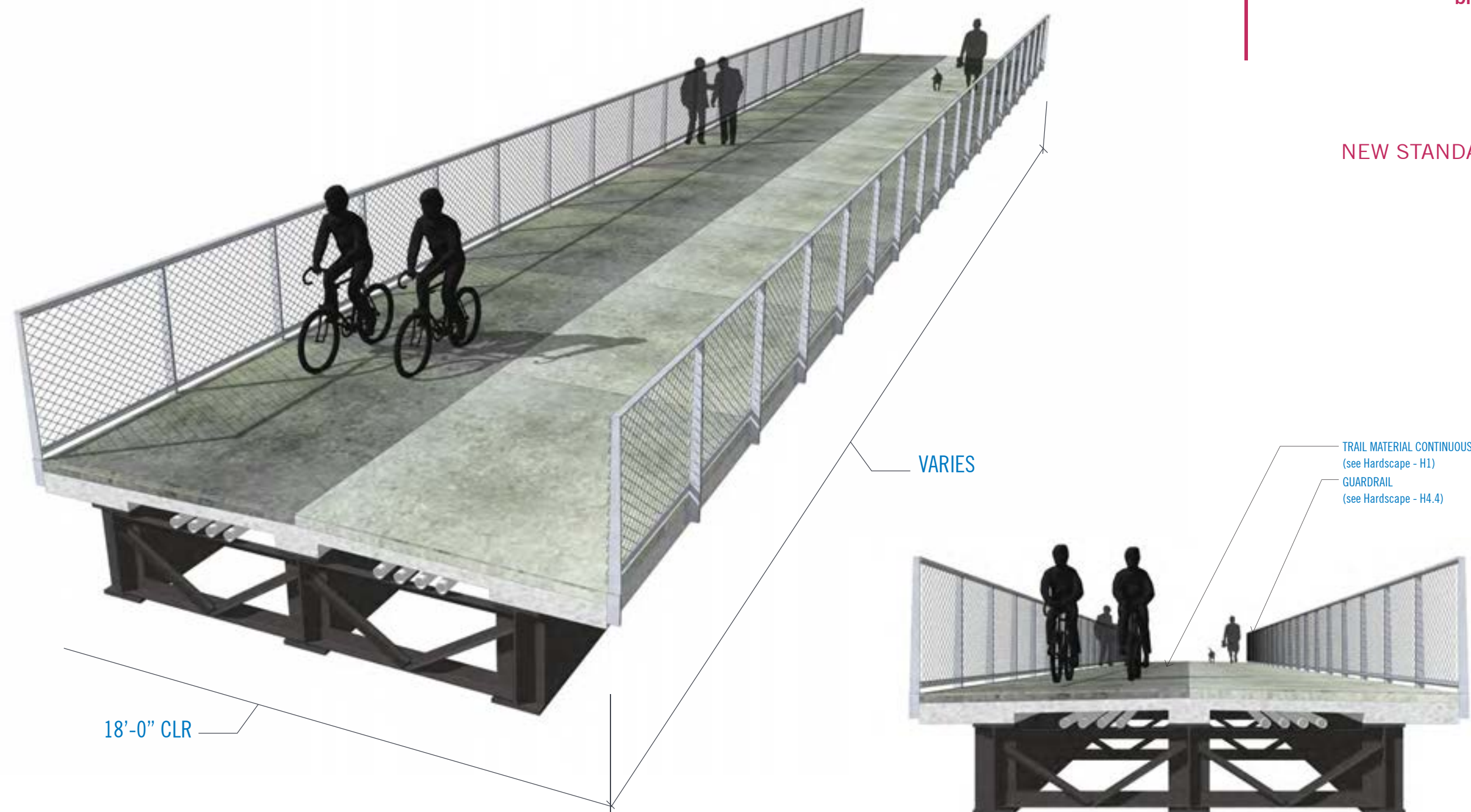
BT3.1
New Standard Combined Bike/ Ped and Transit Bridges



BT3.2
New Standard Transit Bridges



NEW STANDARD BRIDGES **BT3**



BT3.3
New Standard Trail Bridges

BT

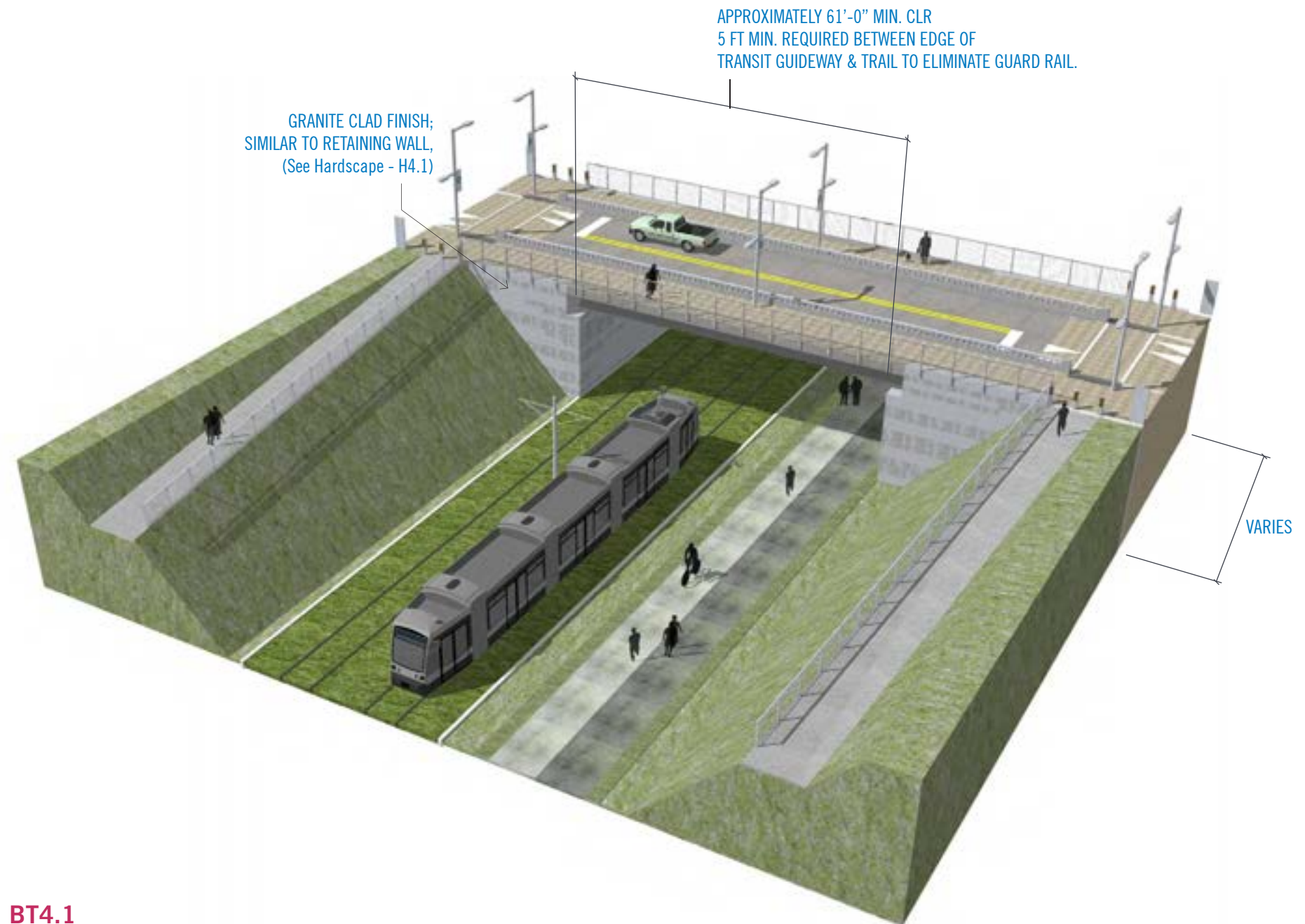


BT4 NEW STANDARD UNDERPASSES

Similar to New Standard Bridges, New Standard Underpasses will utilize the family of Hardscape elements found in these Typologies. They should provide a beautiful, elegant solution and accommodate both the Atlanta BeltLine and crossing street, using granite walls for abutments and stainless steel railings as required. But generally they should defer to the living landscape – the trees, plants and people that physically activate the corridor. For more distinct underpasses, see BT5 New Feature Structures.



Structures like the existing Virginia Avenue Underpass would likely be replaced with new standard structures.



BT4.1

New Standard Combined Bike/ Ped and Transit Underpass



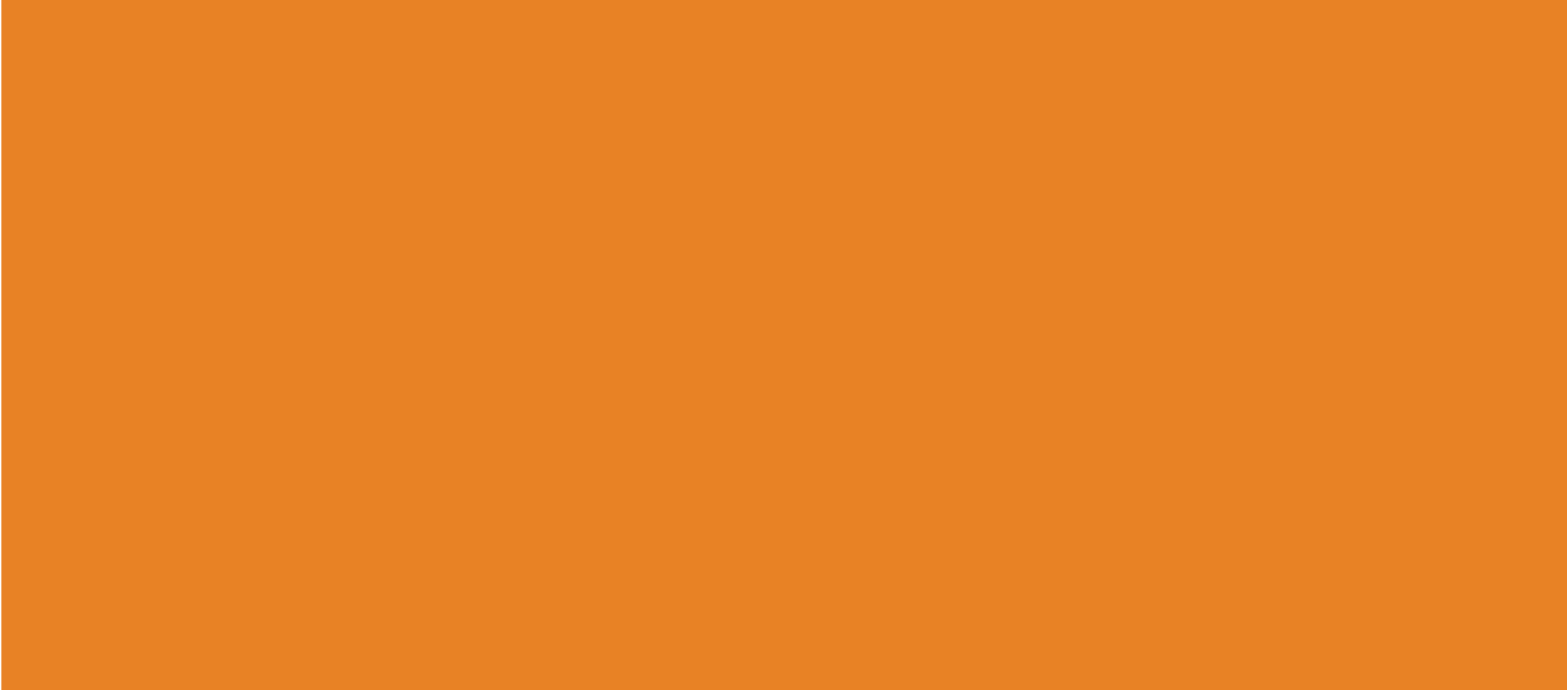
BT5 NEW FEATURE STRUCTURES

New Feature Bridges and all New Tunnels are considered unique design opportunities within the corridor, and as such have greater flexibility in their design than Standard Bridges.

- The dimension of the Atlanta BeltLine Trail should remain consistent (see Hardscape - H1)
- Delineation of a centerline is required.
- Inclusion of artists (see Public Art - PA5.2)



The design of structures like this new tunnel proposed under Hulsey Yard would be developed into new feature structures.



LIGHTING

THE ATLANTA BeltLine:
typologies



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+ WILL



- L Landscape
- H Hardscape
- TS Transit Stations
- BT Bridges & Tunnels
- LT Lighting
- F Furnishings
- SW Signage & Wayfinding
- PA Public Art
- DI Development Interface
- S Streetscapes

TYPOLOGIES

LIGHTING
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- ▶ DESIGN
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 - Control
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 - LT1.1 Pole-Mounted
 - LT1.2 Wall-Mounted
 - LT1.3 Handrail Lighting
 - LT2 Special Area Lighting
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 - LT2.3 Seating-Integrated
 - LT2.4 Curb Lighting
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- LT4 Transit Guideway Lighting
- Lighting for Social Places
- Lighting along Trail
- Bridge, Tunnel and Underpass Lighting
- Future Opportunities



The lighting of the Atlanta BeltLine will support experiential variety along its 22 miles, presenting a unified approach to lighting and its control across a highly differentiated set of conditions. It will support safety, comfort and welcome both before and after transit is built. It will assist wayfinding by marking access to the corridor and lending after-dark legibility to tunnels, plazas and stations. Finally, it will enhance and increase enjoyment of the Atlanta BeltLine through an atmospheric extension of active hours well beyond dusk.

lighting

► INTEGRATED SUSTAINABILITY: LIGHTING

Energy & Climate: Illumination of the Atlanta BeltLine corridor will follow the best practices of sustainable design applicable to the standards for a site of this type. Lighting controls shall be utilized to reduce energy at times of reduced activity. Alternative energy generation shall be considered, particularly around stations and other experiences where lighting intensity may be greatest.



Water Efficiency & Quality: *Not applicable.*



Soil & Habitat Quality: Shielded luminaires will be installed to minimize negative impacts on nocturnal environments.



Sustainable Materials, Design & Construction: Lighting fixtures will utilize materials with Cradle to Cradle® Certification, where possible. Lamps will be long-life and easily maintained, and fixtures shall be rugged and durable.



Sustainable Operations & Maintenance: Efficient Lighting fixtures are selected for long life, durability and ease of maintenance. Installation of the fixtures will be managed to minimize waste, emissions and pollution.



Community Health, Access & Equity: Lighting will be designed as appropriate for the local density and use so as to minimize light trespass and night sky pollution. Types and location of fixtures are specified to ensure the security and safety of all Atlanta BeltLine users. The ABI Community Benefit Guiding Principles outlines requirements for the equitable distribution of community benefits throughout the Atlanta BeltLine Tax-Allocation District.



Connectivity & Smart Growth: *Not applicable.*



LT



lighting
premise

A GLOWING RHYTHM OF LIGHT



LT



CONDITIONS	INTENT	CONTROL	LAMP SOURCE
<p>The corridor has varied conditions in regard to occupancy and “eyes on the trail.” In some sections the areas may not be well populated and in others there is residential, commercial and industrial development alongside. For this reason, lighting fixtures should be optimized for low maintenance. They should be rugged and durable, vandal and impact resistant. In the same spirit, lamp sources should be long-life. The client group has expressed an interest in the capacity to change lighting levels in some areas, in which case, lamps should be dimmable or step-down and 60 CRI (color rendering index) or better.</p> <p>This chapter proposes typical approaches that can be applied to varied uses, adjacencies and planting strategies along the entire length of the corridor that are in keeping with the landscape and hardscape design typologies.</p> <p>Distinct lighting applications will coordinate with character rooms and in order to support a rich experience through all physical conditions, all times of day and night and season of the year.</p>	<p>Illumination for safety and a sense of security is a high priority to encourage the highest volume of use on the trail.</p> <p>The visitor, especially those exercising, walking, running and biking, or traveling from place to place will utilize the trail day and night, and along the entire length. For this reason, it is important to provide a consistent lighting level of ½ foot candle throughout the trail, with increased lighting levels up to 1 foot candle in select locations. In the majority of cases this illumination will be supplied by pole-mounted luminaires. In specific cases, for example, where there are walls, area lighting will be accomplished by illumination <i>of</i> the wall (reflecting onto the trail) or <i>from</i> the wall (mounting an area-light luminaire onto the wall). In all instances, lighting will be designed to minimize off-site light pollution, consistent with a dark sky approach.</p> <p>Some visitors, for example those picnicking and attending events, will remain in social spaces. These spaces are generally wider and contain amenities such as walls, benches, and canopies. Here, lighting accents will be composed to enhance the standard light levels. Special areas such as entrances and underpasses will also be enhanced by composed lighting elements. All lighting will be implemented using a phased approach and taking ambient light levels into consideration.</p>	<p>Public-lighting electronic control-systems (adaptive lighting) are now available in the United States. The Atlanta BeltLine will benefit by use of lighting control to save energy and the ability to adapt to specific local conditions.</p> <p>In order to respond to local development, lighting shall be connected to control systems to allow for brightness and dimness in specific areas at specific times for visitor comfort and to save energy, especially as adjacent areas improve and the transit system is installed (and the area becomes brighter at night). Light level would change according to timeline (e.g. sunset – 11pm, 11pm – 4am, 4am-sunrise).</p>	<p>The typologies are based on high performance, energy efficient and electronically controlled LED lighting fixtures for most of the corridor lighting, especially Pole-Mounted and Wall-Mounted lighting for the Atlanta BeltLine trail.</p>



LT1 AREA LIGHTING

A fixture family with pole-mounted luminaires will be utilized over the entire corridor, and is the “standard” lighting fixture type. Stairs and ramps may be illuminated as features on the Atlanta BeltLine trail to add punctuation and bring attention to means of entry and exit. Stair handrails with pre-integrated lighting provide a discreet layer of lighting on the ground level. Bridges are illuminated by handrails with pre-integrated lighting that provide a discreet layer of lighting on the ground level.



LT1.1

Pole Mounted

Height: 15' - 0"; Lamp Source: LED; Spacing: 55' O.C. typical
Most trail conditions will require pole-mounted fixtures. The lamp source should be dimmable.





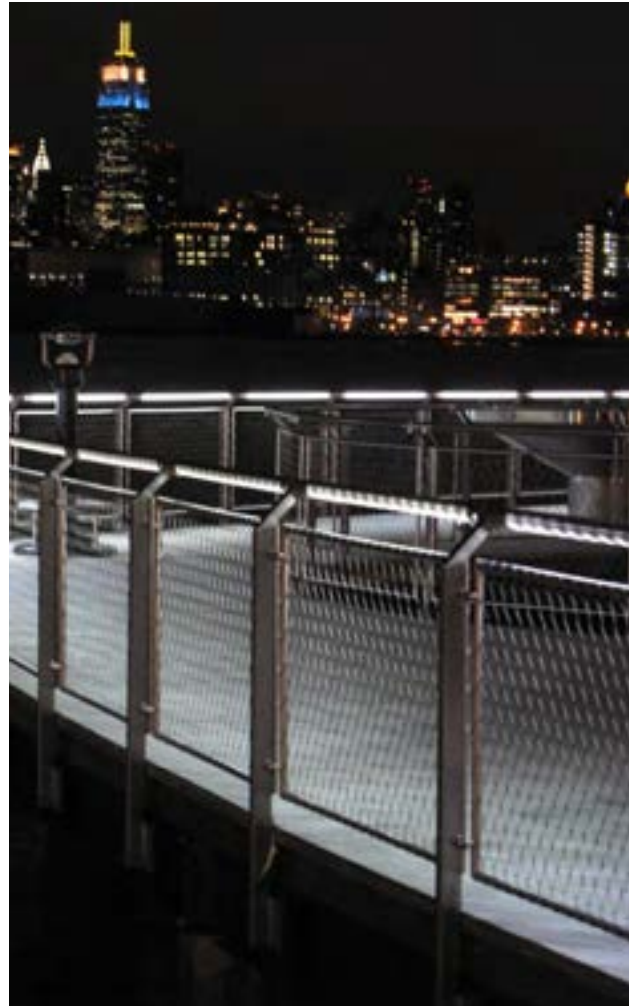
LT1.2

Wall-Mounted

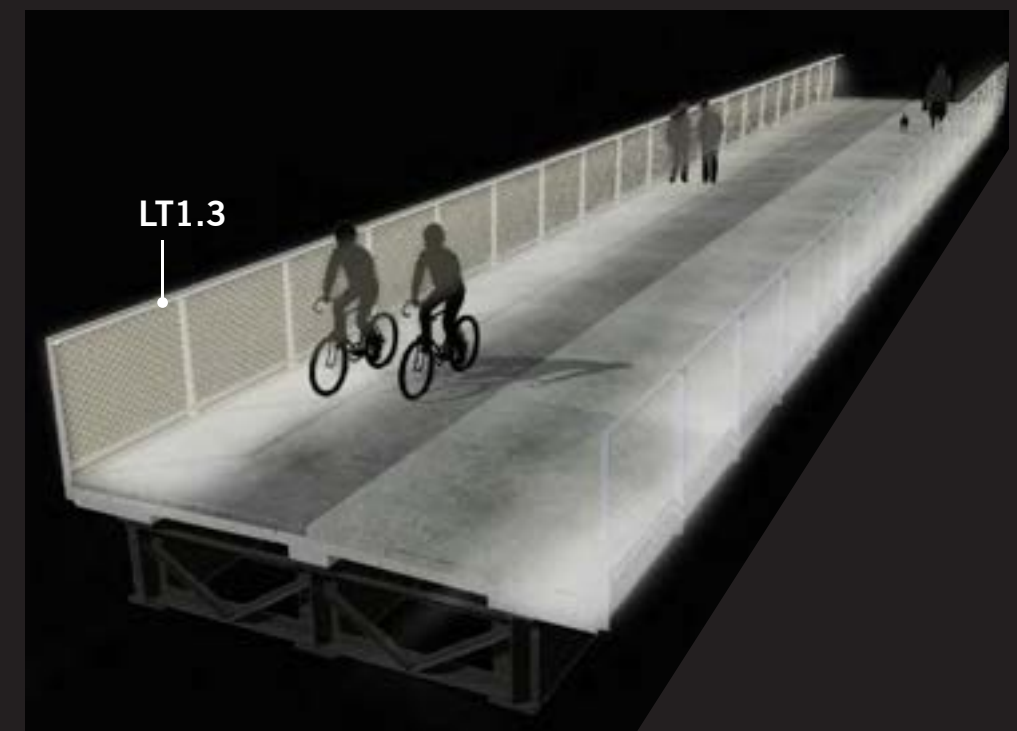
Height: 15' - 0"; Lamp Source: LED; Spacing: 55' O.C. typical
Utilizing the selected L1.3 luminaire, a bracket shall be designed to mount the lighting fixture to retaining walls.



LT1 AREA LIGHTING



Elevated Stair lighting by handrail



Bridge lighting by handrail

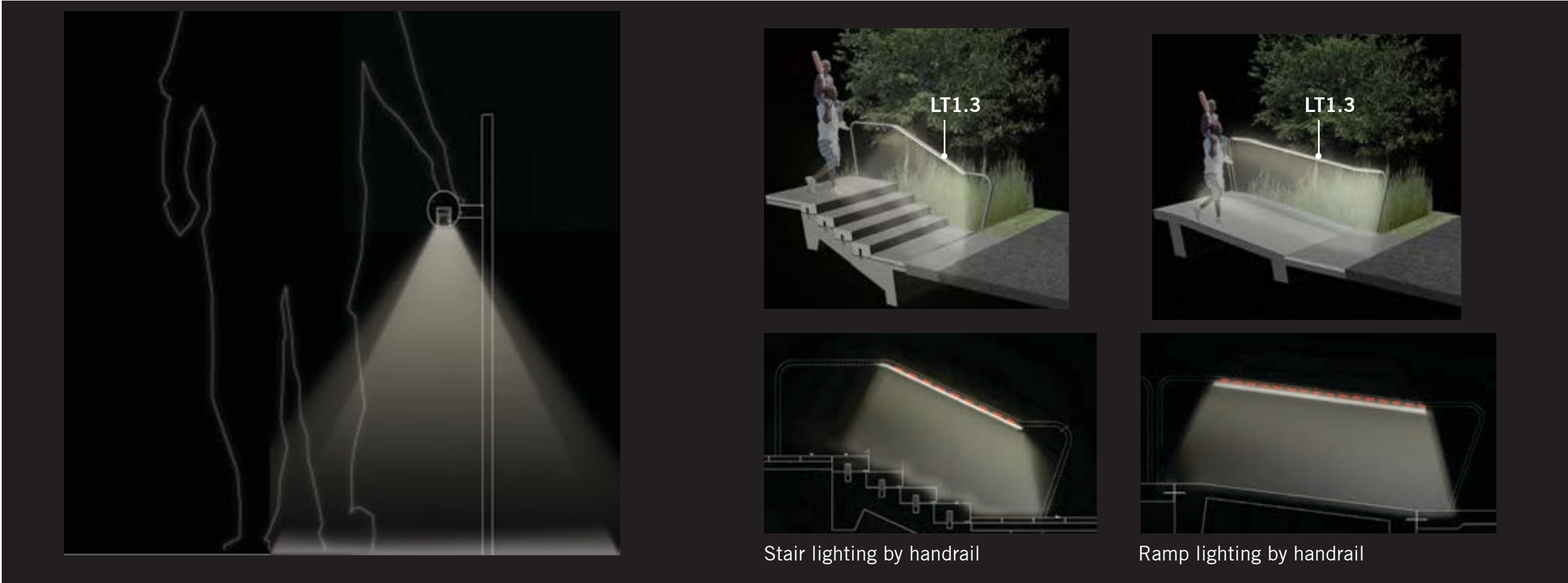
LT1.3

Handrail Lighting

Standard sources: Tubular fluorescent and LED.

When applicable, integrated hand-rail lighting may be used instead of pole-mounted area lighting, or as a supplement to pole or wall-mounted lighting.

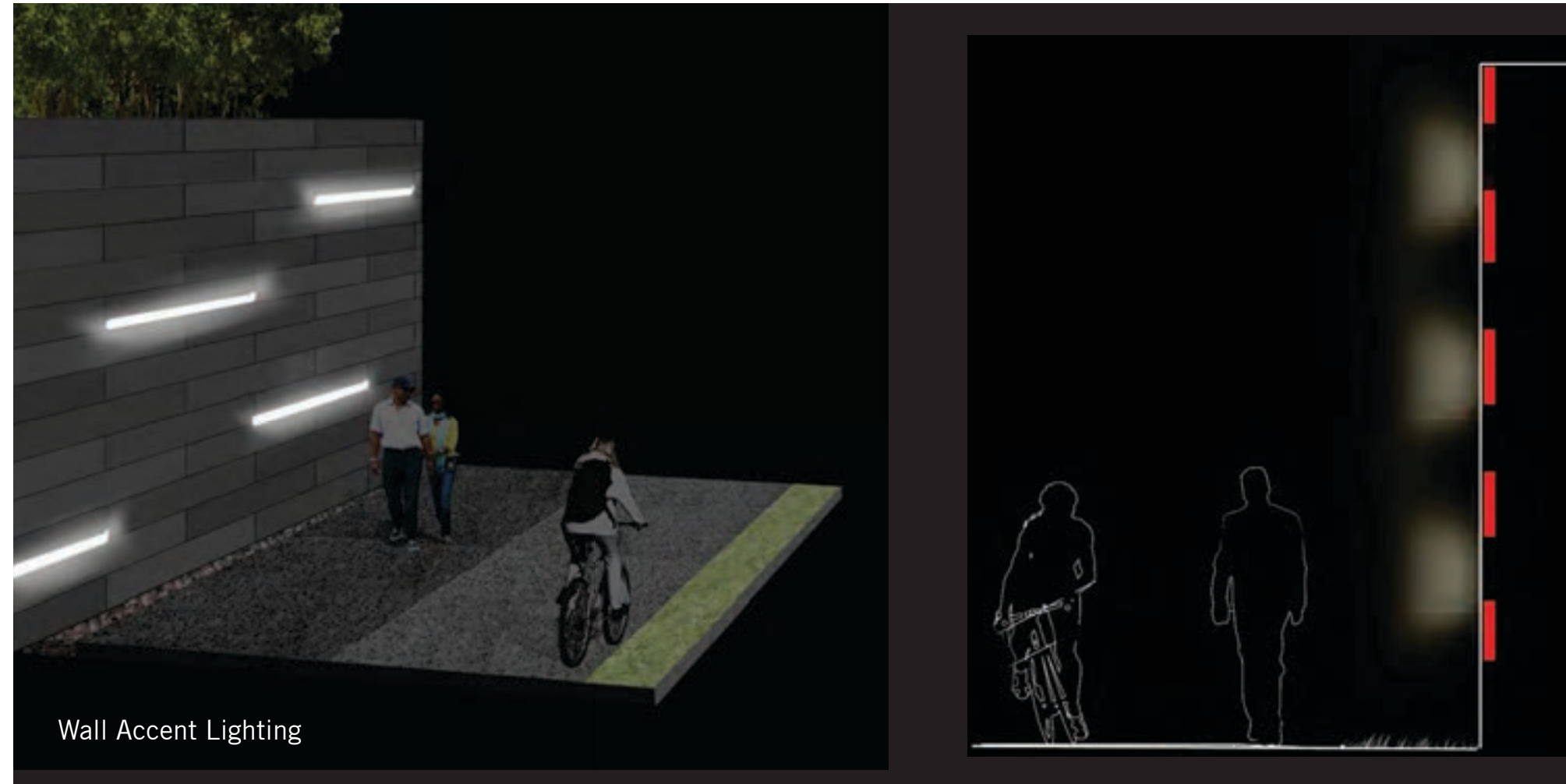




LT2 ACCENT LIGHTING

Light fixtures that are integrated into walls, furnishings, and other elements, can provide an enrichment to the composition of hard and soft trail components in plazas and other feature areas. Benches and trees can be illuminated features to create areas of focus. Under-lit benches create a lovely floating appearance. These unique markers identify places of after-dark social interaction. Curb lighting in series along plaza edges creates a serene effect.

Enhancing natural forms like the illumination of trees, is envisioned as a highlight, especially for unique specimens and bosques of trees. A feature tree might have large limbs and canopy, colorful leaves and flowers, or other notable characteristics.



Wall Accent Lighting

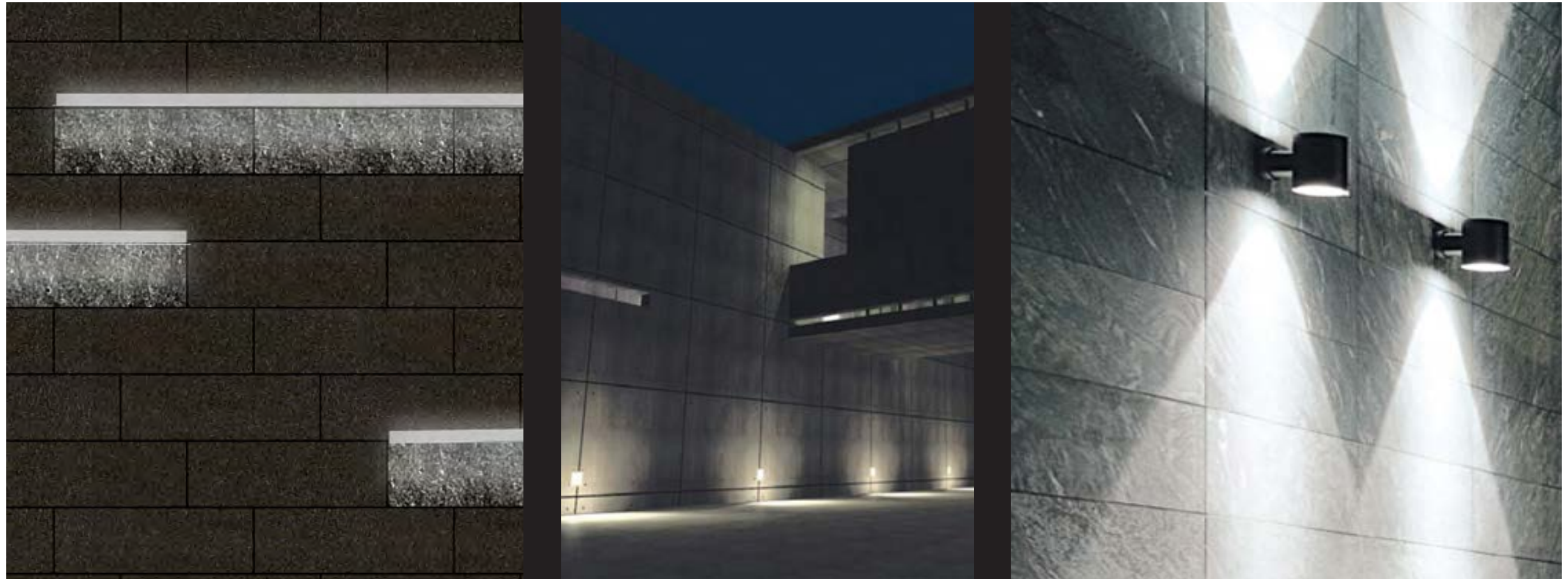
LT2.1

Wall-Integrated

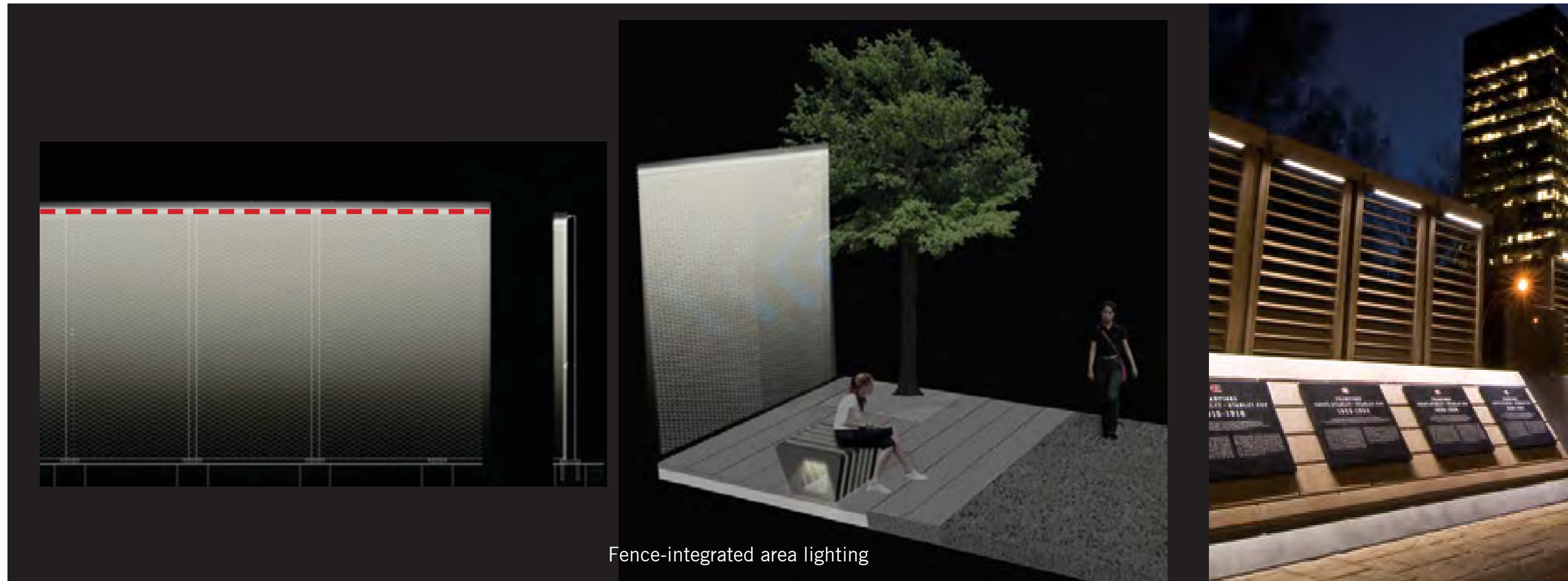
Utilizing an inset, reflectorized and lensed tubular fluorescent luminaire, openings in retaining walls shall be designed to contain an outward facing accent light. Scattered pattern spacing similar to the granite finish pattern shown in H4.1.1 should be determined by aesthetic and proportional studies.



ACCENT LIGHTING LT2



LT2 ACCENT LIGHTING



Fence-integrated area lighting

LT2.2

Fence-Integrated

Integrated linear lighting such as fluorescent or LED similar to the handrail lighting, can cap a fence and graze its surface.





LT2.3

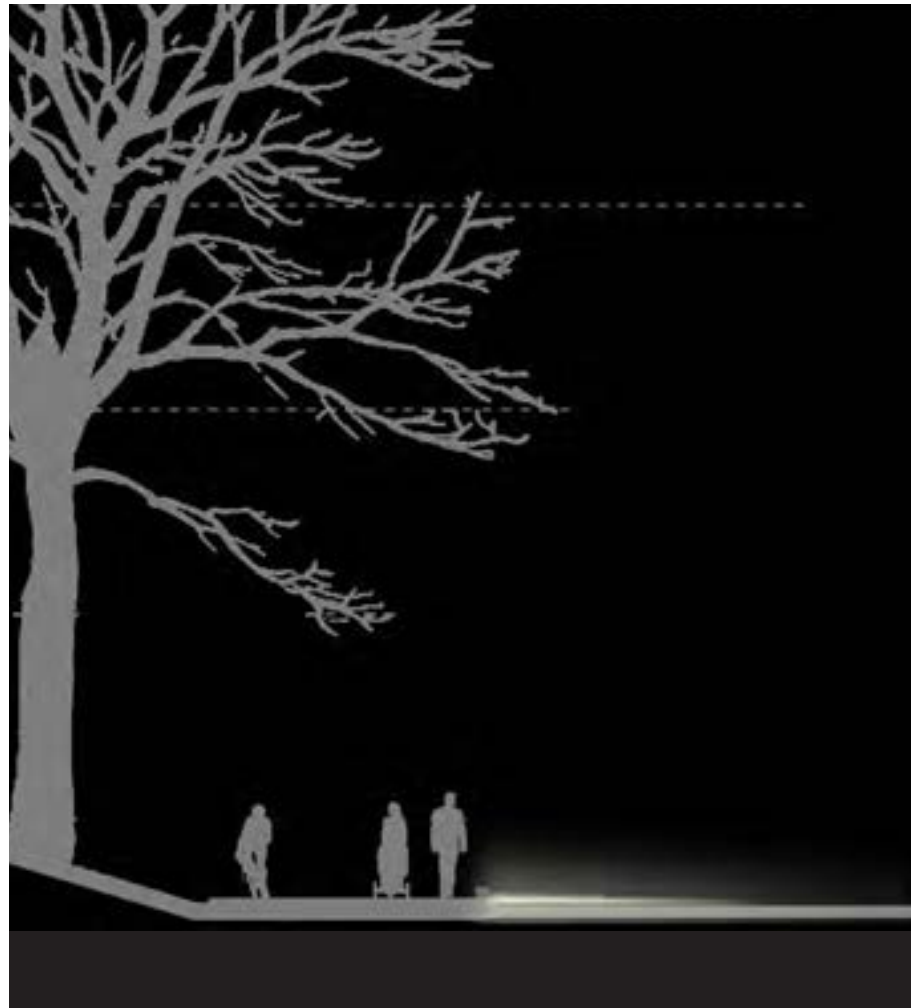
Seating-Integrated

The particular light effect should be designed integrally with the bench design. Luminaires and lamp types should be especially long-lasting, durable and mounted in a way that precludes vandalism. Mounting dimensions must provide space for access to re-lamping.

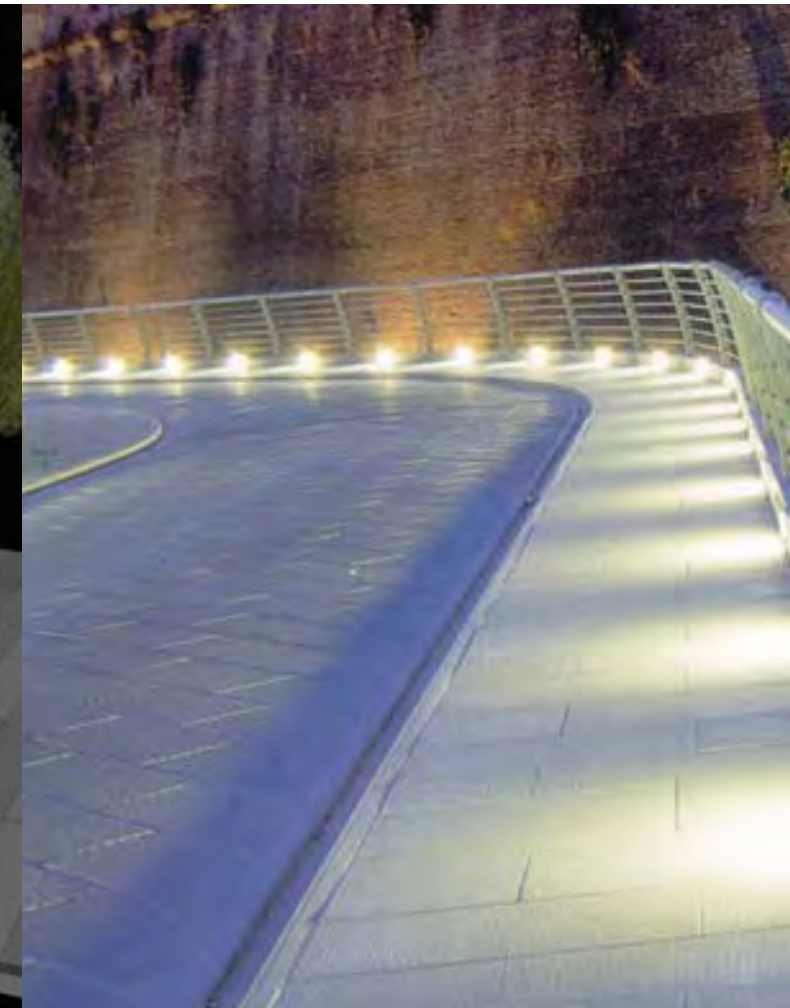
LT



LT2 ACCENT LIGHTING



Curb Lighting at Plaza



LT2.4

Curb Lighting

Lighting that is integrated into the curb can provide a nice effect as it grazes a granite plaza, providing adequate light for safe footing, but keeping the night skyline dark for extraordinary views.





Tree Uplight Lighting at Plaza

LT2.5

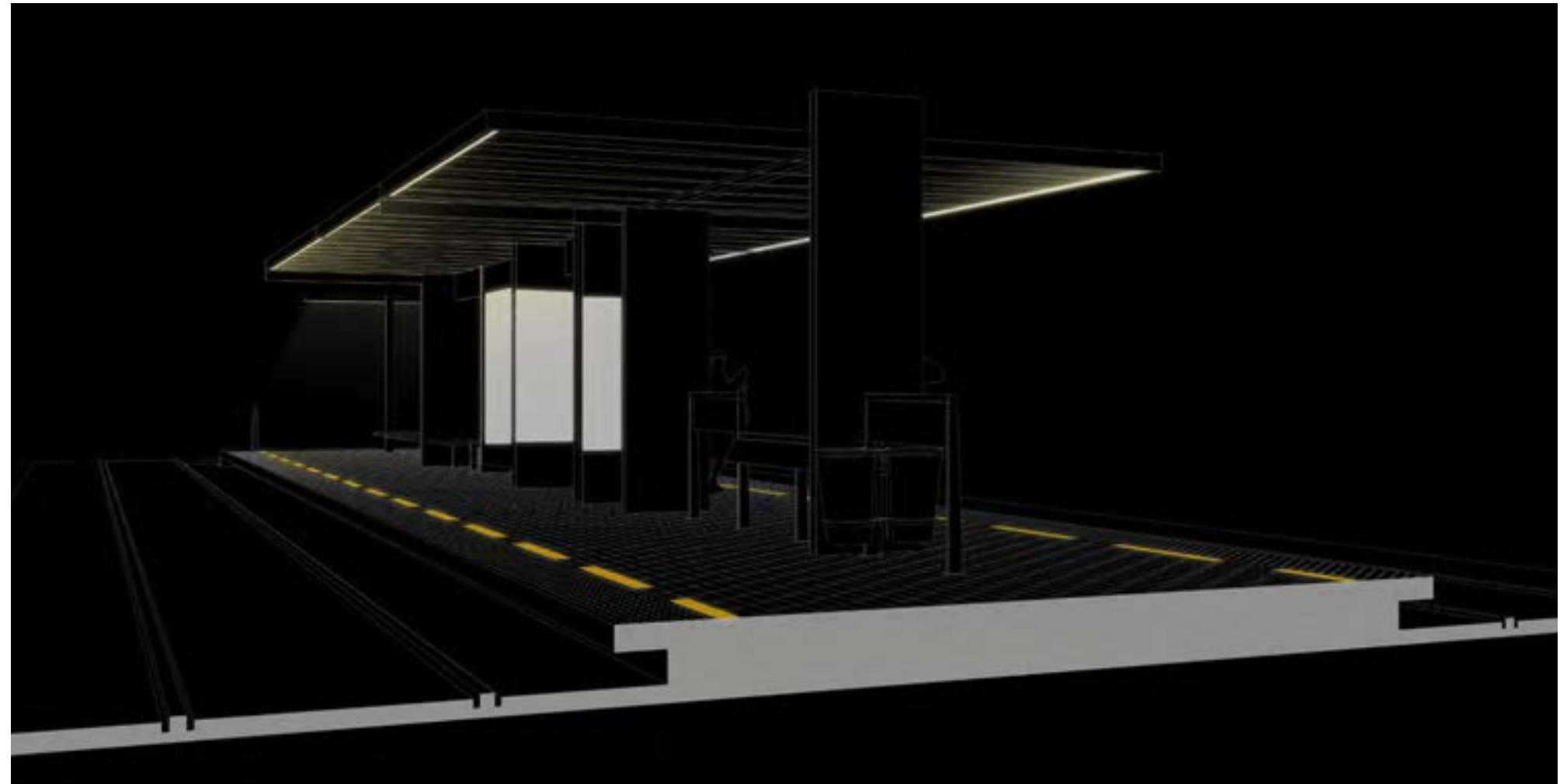
Tree Uplight

Featured specimens or bosques at key crossings or entry points may warrant special highlighting effects at night. For durability, it is recommended that tree uplights of the type that protrude from the ground-plane (rather than flush) are used.



LT3 TRANSIT PLATFORM LIGHTING

Transit shelters will be illuminated for safety, utility, and to emphasize architectural forms. These nighttime amenities are envisioned to be welcoming points of reference. After dark, the canopy shelter provides a warm illuminated space with linear bands of light along its outward edge, raking across the wood ceiling. The canopy provides a comfortable, welcoming places to wait for transportation. Additional fixtures light the remainder of the platform. Inset floor lights along the loading edge of the platform can signal approaching trains.



LT3.1

Platform End Lighting

Pole-mounted light fixture that matches canopy structure height, material and cantilever.

LT3.2

Canopy Lighting

Ceiling up-lighting rakes across the warm wood inlay.



TRANSIT GUIDEWAY LIGHTING **LT4**

If possible, and only as needed, catenary poles should provide lighting so as to limit the need for separate light poles. Where additional light is needed in the corridor, catenary poles may create supplemental lighting effects.



Tram Catenary Lighting

LT4

Tram Catenary Lighting

Lighting options should be further explored once the specific power system is identified.



LIGHTING FOR SOCIAL PLACES

The Atlanta BeltLine's role in Atlanta's urban life is unprecedented for its vast length and integration into the city. The availability of free social spaces is a wonderful asset for Atlanta. The lighting will parallel this aspiration.

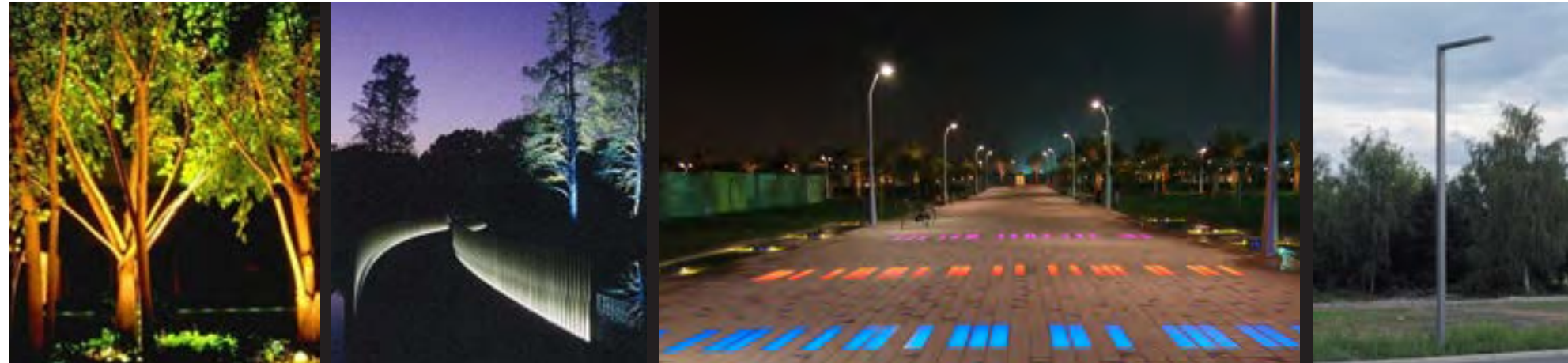
The illuminated nighttime experience in every city is a quintessential urban experience.

Attracting visitors to the Atlanta BeltLine in the evening hours will enhance perception of safety after dark.

Each social space will be uniquely designed. The typologies in this document provide a varied set of lighting fixture families to be utilized imaginatively for each space.

It is expected that adjacent development will add illumination to these areas.





lighting
design

LIGHTING ALONG TRAIL

As the primary route to transit stations after dark, lighting is especially important along the trail. A limited palette of options should be used by all future lighting designers in order to minimize the number of fixture types and streamline maintenance efforts.



EXAMPLE OF TRAIL LIGHTING



BRIDGE, TUNNEL & UNDERPASS LIGHTING

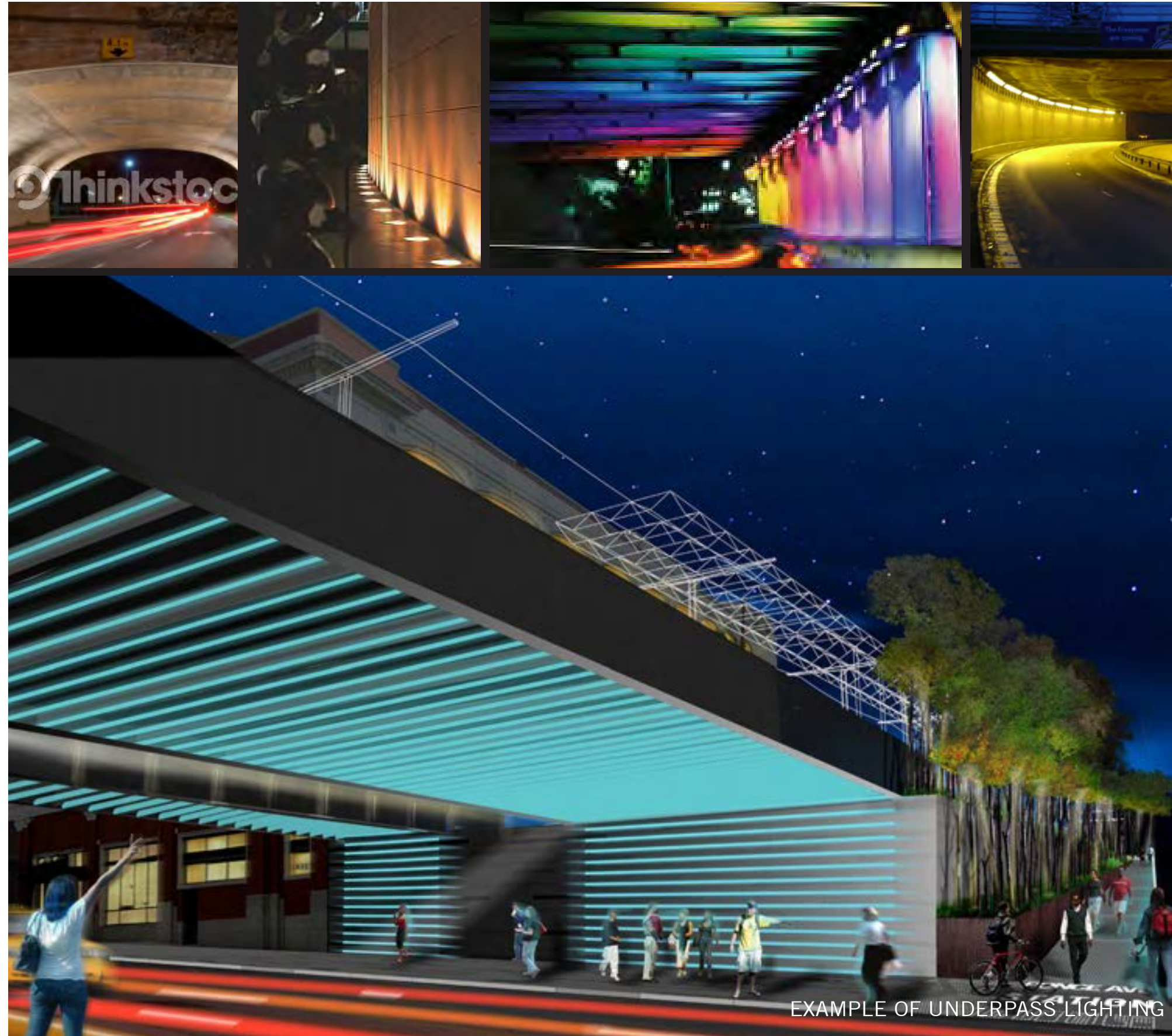
Many underpasses or tunnels mark the way of the Atlanta BeltLine. New and old, decorated and plain, these points of reference help to locate the visitor on their way along its route.

The standard typological approach to the tunnels and underpasses utilizing standard luminaires (wall-packs, linear fluorescent or floodlights) should be site specific. Specific characteristics such as surface interest, length of tunnel and formal features (e.g. columns, arches) should be illuminated to distinguish each tunnel.

Walls, faces, columns, ceilings, textures (e.g. riveted beams) are among the many fascinating elements that differentiate the underpasses from each other.

It is recommended that selected bridges and tunnels are illuminated as features. Because of location or extraordinary engineering architecture, these infrastructural forms can become works of evening art.

Revitalizing underpasses has an added benefit of providing rain and shade-proof areas for gathering. Bridges and tunnels provide ready-made spaces easily transformed into iconic meeting places.

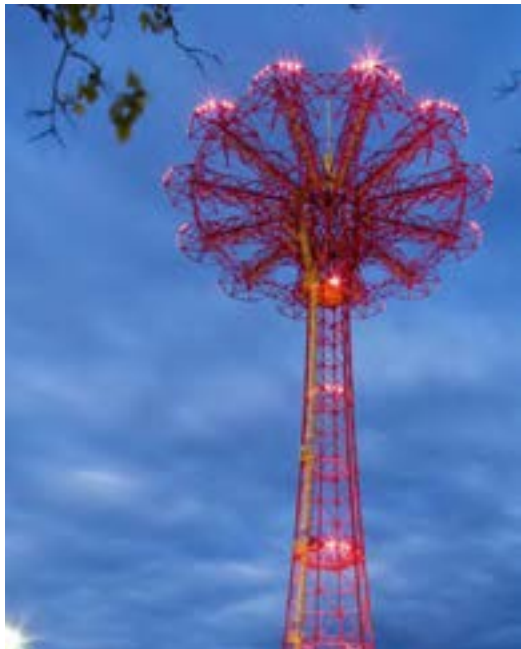


EXAMPLE OF UNDERPASS LIGHTING

FUTURE OPPORTUNITIES

Future enhancements could include illumination of adjacent landmarks, buildings, relics and industrial forms, (such as water and transmission towers), as well as special illumination for public areas and event spaces.

Interactive LED and media embellishments and active “Light Playgrounds” blur the line between lighting and public art.





FURNISHINGS

THE ATLANTA BeltLine:
typologies



PERKINS
+ WILL



- L Landscape
- H Hardscape
- TS Transit Stations
- BT Bridges & Tunnels
- LT Lighting
- F Furnishings
- SW Signage & Wayfinding
- PA Public Art
- DI Development Interface
- S Streetscapes

TYPOLOGIES

FURNISHINGS
TABLE OF CONTENTS

- ▶ **PREMISE**
Integrated Sustainability: Furnishing
- ▶ **CONDITIONS**
- ▶ **DESIGN**



furnishings

► INTEGRATED SUSTAINABILITY: FURNISHINGS

Energy & Climate: Furnishing will be placed in areas where lighting is needed for other purposes such as crossings and stations so as to not add lighting burden to the project.



Water Efficiency & Quality: *Furnishing are not expected to have an impact on water, although water features may be included in the project that are dual purpose such as integrated bench features.*



Soil & Habitat Quality: Furnishings are generally placed in hardscape areas around crossings and transit stations, and paved plazas and outlooks. Such placements reduce the burden of hardscape and enhance soil and habitat.



Sustainable Materials, Design & Construction: Materials for the furnishings should be locally sourced, contain recycled content, and have low or no VOCs. All wood is to be FSC certified. Installation of furnishings will be managed to minimize waste, emissions and pollution.



Sustainable Operations & Maintenance: The typological design and materials of the furnishings ensures ease of repair and maintenance. The Atlanta BeltLine Maintenance Guidelines specifies sustainable and cost-effective methods for graffiti prevention / removal and cleaning.



Community Health, Access & Equity: Furnishings provide opportunities for rest and gathering along the Atlanta BeltLine corridor, encouraging more frequent and extended use. The ABI Community Benefit Guiding Principles outlines requirements for the equitable distribution of community benefits throughout the Atlanta BeltLine Tax-Allocation District.



Connectivity & Smart Growth: *Not applicable.*



furnishings
conditions



Not Used







SIGNAGE AND WAYFINDING

THE ATLANTA BeltLine:
typologies



PERKINS
+ WILL



- L Landscape
- H Hardscape
- TS Transit Stations
- BT Bridges & Tunnels
- LT Lighting
- F Furnishings
- SW Signage & Wayfinding
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- DI Development Interface
- S Streetscapes

TYPOLOGIES

SIGNAGE AND WAYFINDING
TABLE OF CONTENTS

- PREMISE
 - Integrated Sustainability: Signage
- CONDITIONS
- DESIGN
 - Design Concepts
 - Graphic Standards
 - Typography
 - Iconography
 - Sign Families
 - Primary Signs
 - Secondary Signs
 - Regulatory Signs
 - Station Signs
 - Sign Types
 - SW1 Corridor Directional Signs
 - SW2 Interpretive Signs
 - SW3 Identification Signs
 - SW4 Regulatory Signs
 - SW5 Station Signs
 - SW6 Feature Signs
 - SW7 Technology



signage

THE ATLANTA BELTLINE: TYPOLOGIES
REVISED 08/05/2013

An important part of creating the Atlanta BeltLine's identity is a consistent signage and wayfinding strategy. Signage will assist users in locating the Atlanta BeltLine, and direct them along its route to nearby destinations and neighborhoods. It will assist in the interpretation of places and historical events along the corridor and provide information about places of public interest including the arboretum, public art and cultural sites, reinforcing the role of signage in placemaking.

The Atlanta BeltLine is supported by a methodical wayfinding system that includes standardized sign types, adherence to a cohesive design aesthetic across the family of sign types, and consistency of site locations. The system includes directional, interpretive, identification, regulatory and feature signs.

► INTEGRATED SUSTAINABILITY: SIGNAGE

Energy & Climate: Where possible, signage will be illuminated with integrated, high-efficiency lamps. The location and design of lighting and signage will be coordinated to minimize energy use.



Water Efficiency & Quality: *No significant impact.*



Soil & Habitat Quality: Materials and coatings specified for the signage are non-toxic and will not leach into the soil.



Sustainable Materials, Design & Construction: Signage materials specified for the Atlanta BeltLine corridor are durable and resistant to vandalism. Where possible, signage materials will be locally sourced and contain recycled content. Paints and coatings with little or no VOC emissions are required. Installation of the signage will be managed to minimize waste, emissions and pollution.



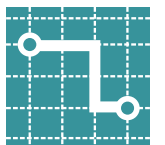
Sustainable Operations & Maintenance: The typological signage design ensures ease of assembly, disassembly, repair and replacement. The Atlanta BeltLine Maintenance Guidelines (see Appendix) specifies sustainable and cost-effective methods for graffiti prevention / removal.



Community Health, Access & Equity: The signage typologies are designed to be ADA-compliant and meet the wayfinding and safety needs of all Atlanta BeltLine users. The ABI Community Benefit Guiding Principles (See Appendix) outlines requirements for the equitable distribution of community benefits throughout the Atlanta BeltLine Tax-Allocation District.



Connectivity & Smart Growth: The content, type and location of signage is specified to ensure connectivity of the Atlanta BeltLine corridor to existing pedestrian and bike networks and activity and transit nodes.



WAYFINDING STRATEGY

The wayfinding strategy for the Atlanta BeltLine is designed to be systematic and to build a rhythm and consistency across the entire twenty-two miles of transit, trail, and destinations.

The transit system will be a primary and highly visible element of the Atlanta BeltLine. Stations can become major hubs for information, including transit maps and schedules, corridor information, maps and more.

Another key feature is the walking and biking trail, which links neighborhoods and connects the public to destinations on and off the corridor. When users arrive at the trail, primary directional signage will indicate which destinations are located in each direction, quickly guiding users on their way.

Once users have navigated their way to their intended destination, additional placemaking signage will enhance their experience through interpretive signage.

Primary access points warrant identity-defining sign designs and thresholds to articulate the point of access. Regulatory signs here support functional requirements.

A more discrete secondary family of signage directs to accessible routes and other secondary information

Major directional signage at transit stops and major access points uses the primary design family; signs are located at connection points to trail

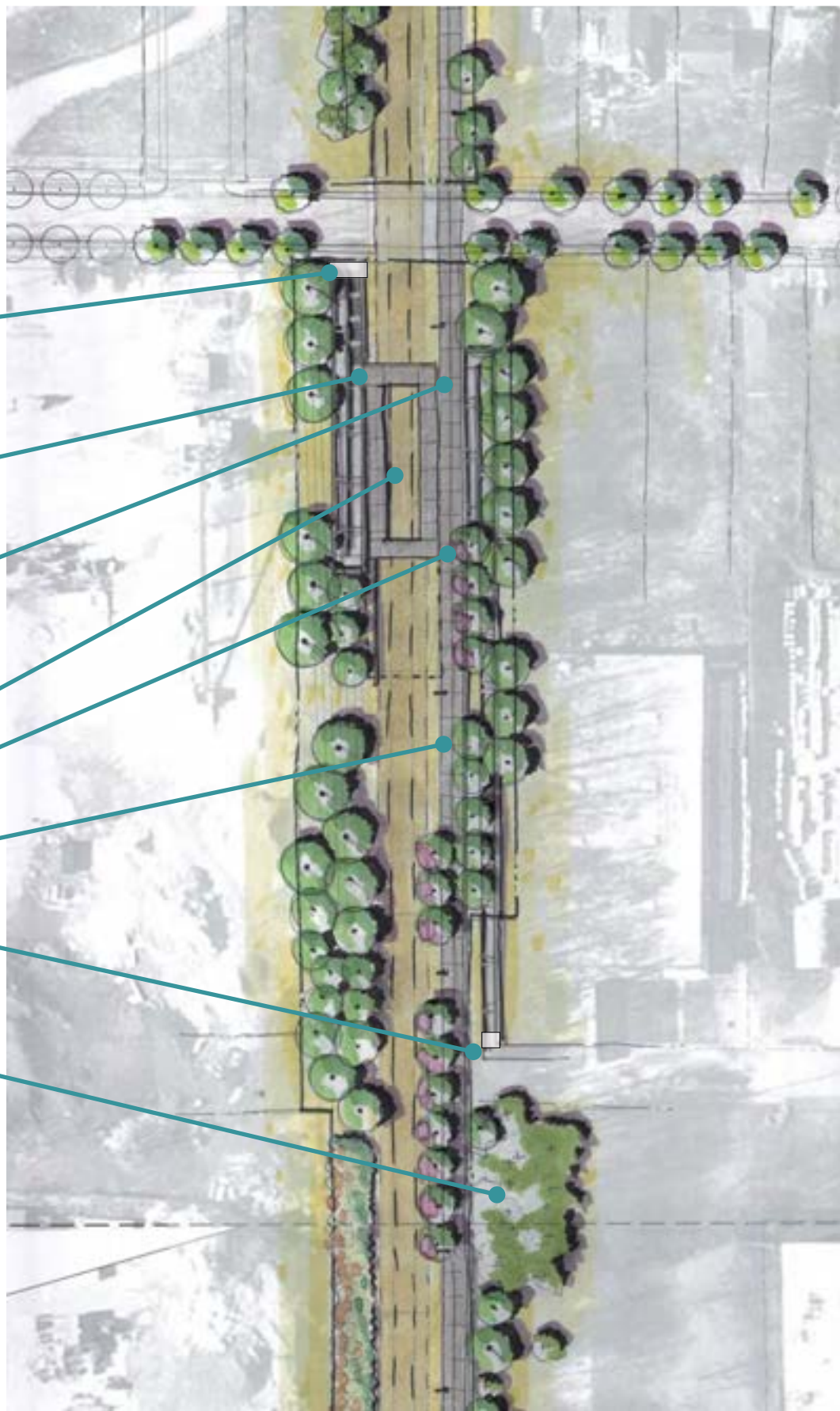
Station-specific signage at transit stops

Discrete secondary signage at secondary access points to trail

Regulatory signs are functionally visible, but otherwise do not call attention to themselves

Minor public access points use secondary sign family; ground articulation at all public thresholds

Interpretive signs set off trail at special sites or features



WAYFINDING STRATEGY

User groups on the Atlanta BeltLine include adults of varying heights, seated persons and persons in wheelchairs, small children and bicyclists. Activities on the corridor include sitting, walking, running, bicycling and riding the train. The visibility diagrams show the viewing angles for different user groups and the viewing distances were taken into account when determining sign sizes, text size, and sign locations in proximity to the various users.

Tabletop trail maps and interpretive ground markers will be viewed from a short distance, and therefore the size of the signs and the text can be smaller. Secondary directionals will be viewed at a moderate distance and are mostly used to navigate on and off the corridor at slower speeds. Primary directionals will be viewed from further away and must be large enough to serve all speeds of travel.

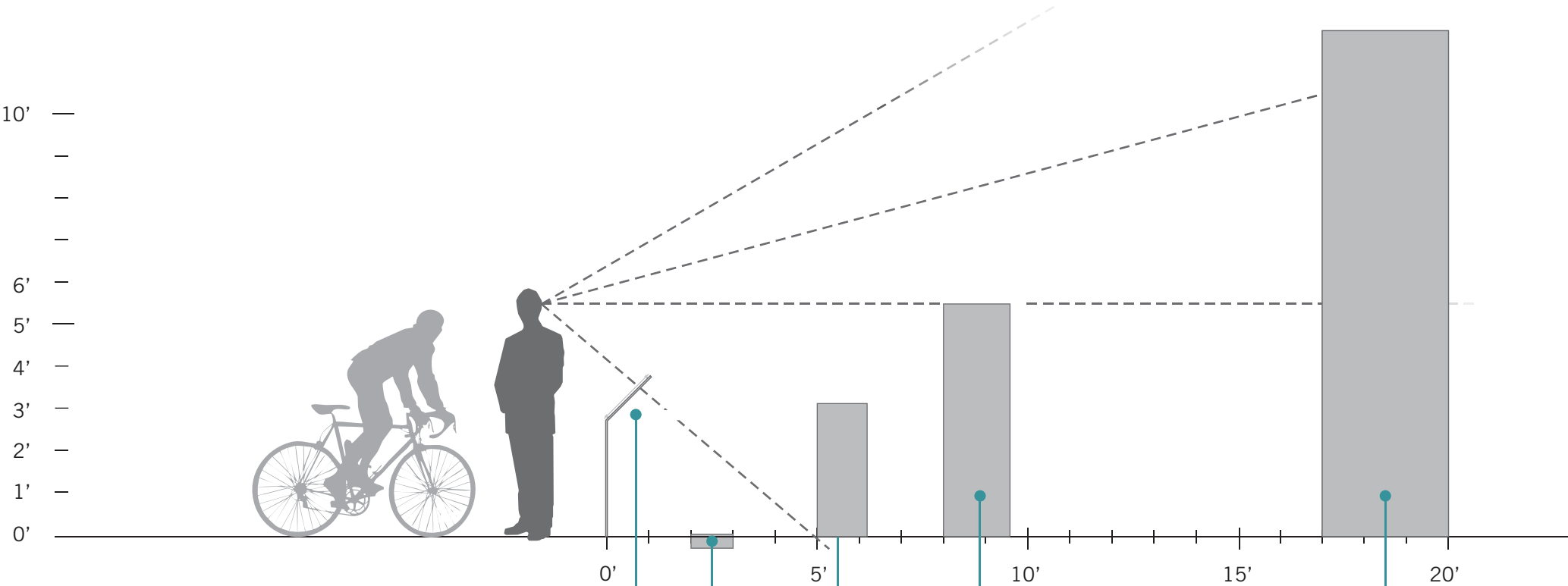
There are three primary conditions or needs for signage:

IDENTIFICATION + INTERPRETIVE NEEDS - of the corridor and things along the way

CORRIDOR DIRECTIONAL NEEDS - along the corridor, or into/out of the corridor, as well as distance

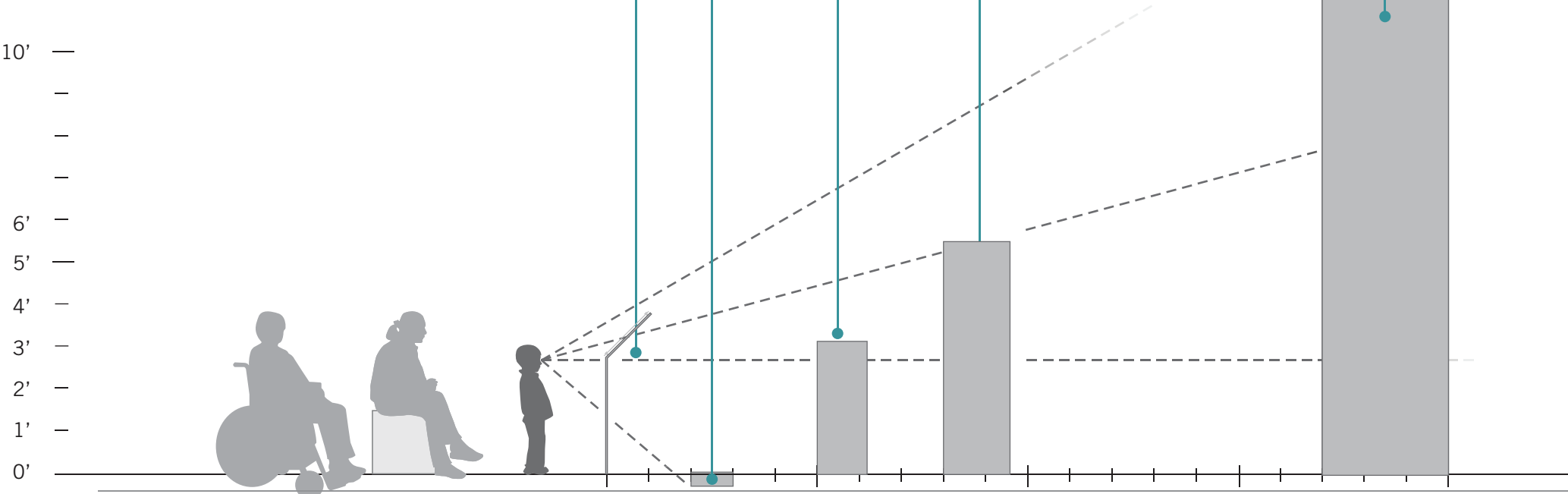
STATION NEEDS - including identification, direction, user information, etc.

SW



VISIBILITY DIAGRAMS

Station identification signs will assist in navigation and orientation. These signs will be incorporated into the transit stations and viewed from a greater distance.



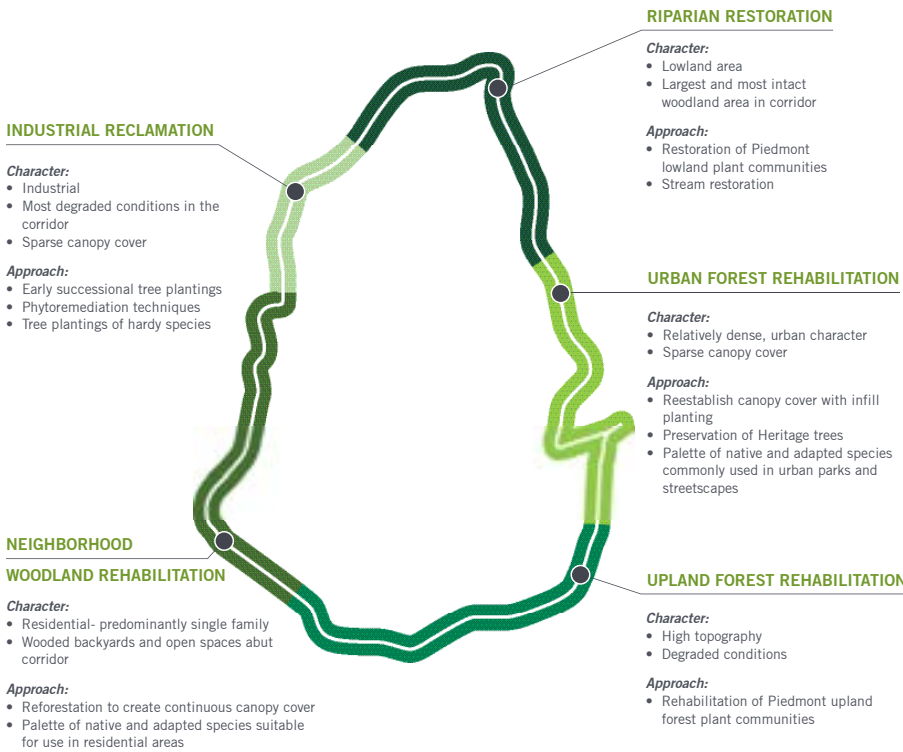
IDENTIFICATION +
INTERPRETIVE NEEDS

The Atlanta BeltLine will be distinctive and recognizable in its design and therefore needs only supplemental signage for corridor identification. For users of its trail and transit system, however, the ease and speed of travel through the city along these old railroads can be somewhat disorienting. The identification of place names including neighborhood names, districts, and other orientation devices is important. The Atlanta BeltLine itself also creates a lot of new “places” – parts of town that were previously not accessible to average citizens. These names can be useful in wayfinding along the corridor, and will also require identification through signage. Finally, the interpretation of those places, as well as the people, historic events and design strategies that developed them are worthy of presentation in the corridor.



Place Identification

The identification of individual destinations, places, and districts can be included in both interpretive and directional signs. The “BeltLine Spaces” outlined in the Landscape Typology can be especially helpful for user orientation. Examples include “Three Tree Hill,” “North Porch” or the “Abernathy Square.”



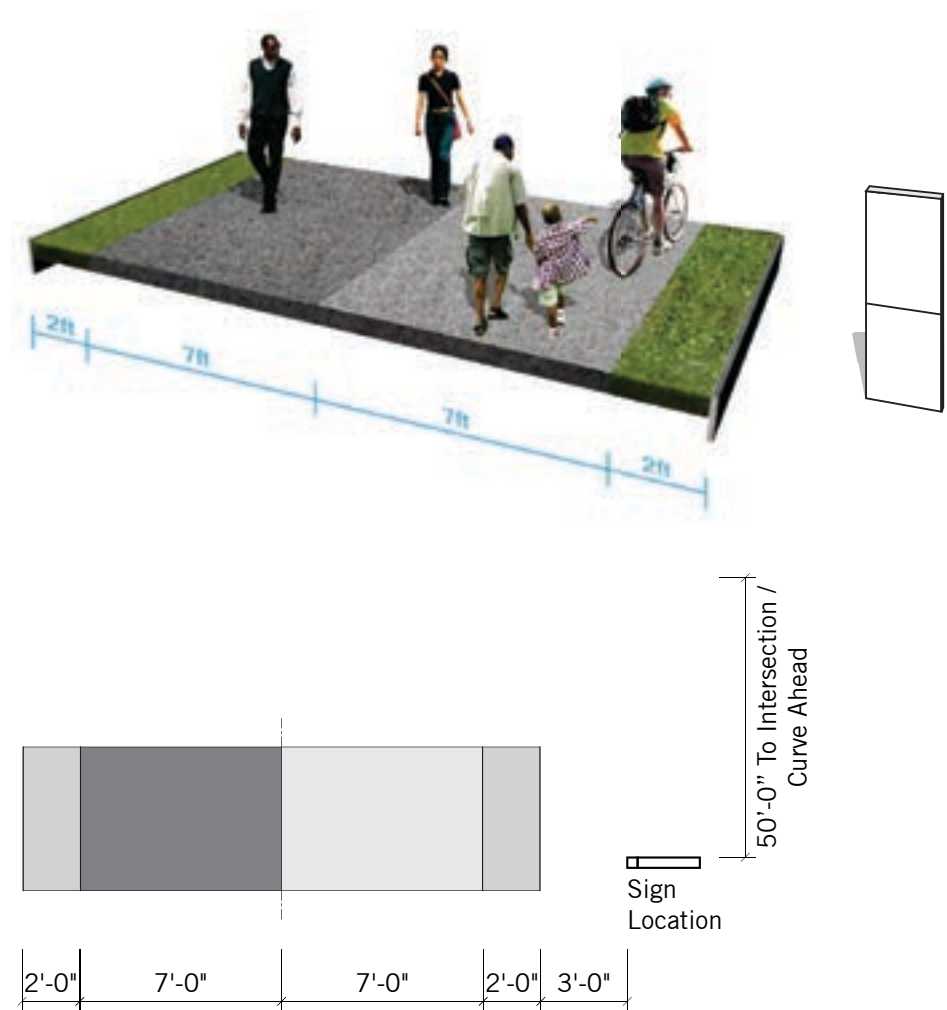
Place Interpretation

The interpretation of sites, historic events, public art, the arboretum or other aspects of the Atlanta BeltLine will require a range of sign types – from simple information like the species of a specimen tree within the arboretum, to more thorough, highly-graphic information for educational purposes.



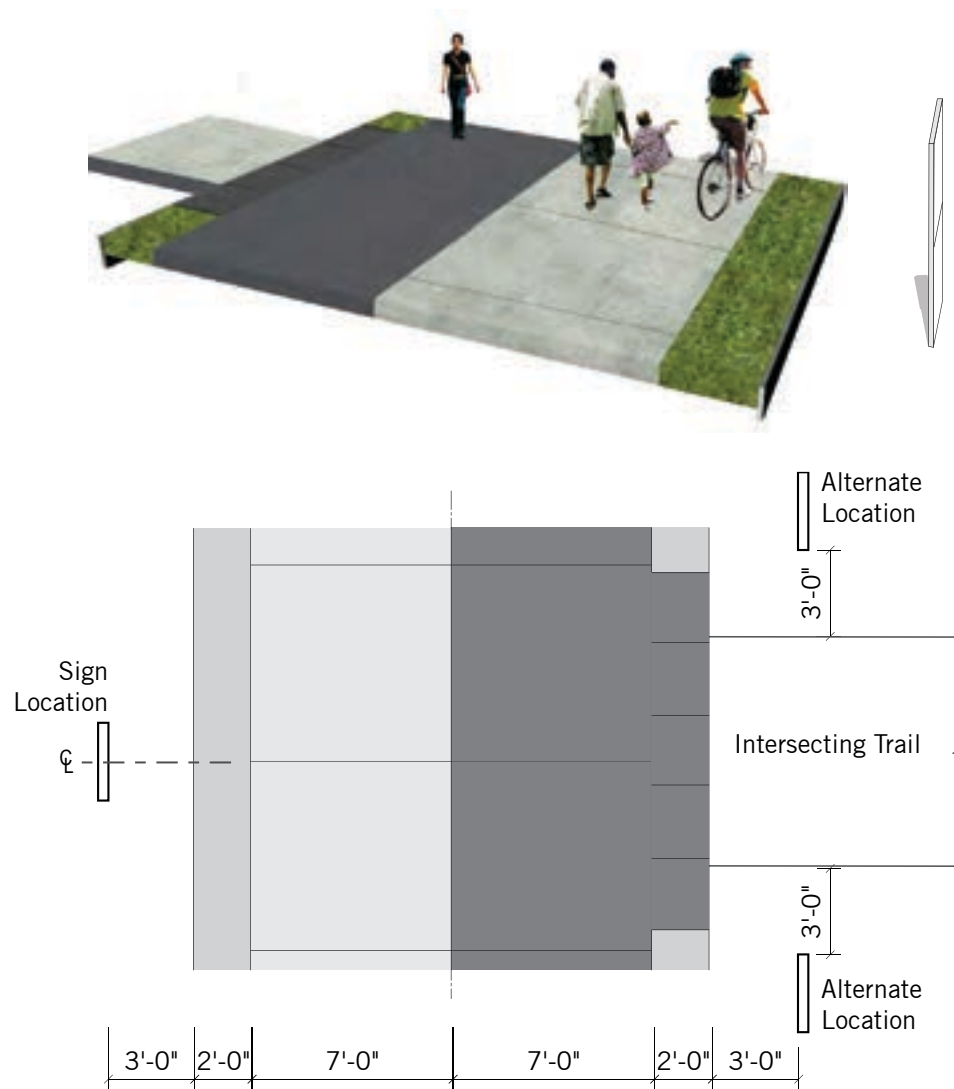
CORRIDOR DIRECTIONAL NEEDS

The circular form and multiple modes of transportation along the Atlanta BeltLine requires special attention be given to directional signage. The trail not only provides access to the transit stations, but also carries many kinds of users going in many different directions. The vertical separation of these routes from city streets further complicates conditions for signage. A flexible family of directional signage is therefore required to work along the trail, at plazas, or fixed onto walls and railings. Signs must also be able to accommodate multiple messages so that the corridor does not become too cluttered.



Trail

All signs located along the trail proper must be a minimum of 3 feet away from the shoulder, or 5 feet away from the edge of the concrete trail. Regulatory signs indicating an intersection or curve ahead must be placed 50 feet before an intersection or curve.



Trail Crossings

At intersecting entrances to the trail proper, the preferred option is for directional signage to be on the opposite side of the trail. When the right-of-way or the transit guideway does not allow this, the alternate location is on the near side of the trail. When a granite wall or railing is available in the appropriate location, the directional sign should be attached to it rather than using a freestanding sign.



CORRIDOR DIRECTIONAL NEEDS



Plazas

The locations of signs will vary on the spatial conditions unique to each plaza. Signs may be freestanding in paved or planted surfaces, or may be integrated into walls or railings.

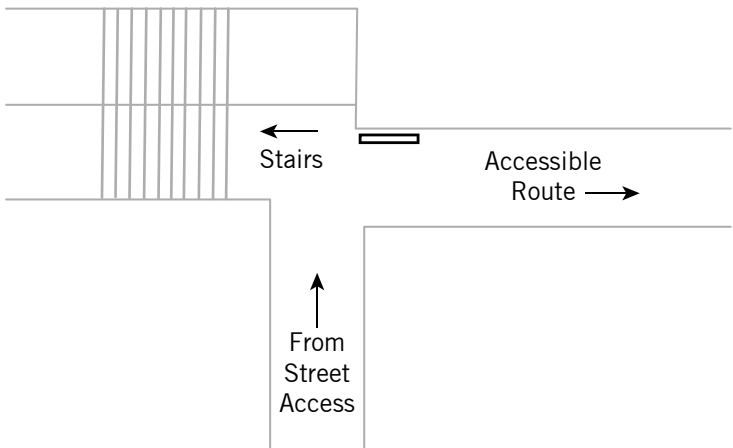


Retaining Walls

Due to Atlanta's rolling topography, there will be many places where retaining walls will be needed or desired, and in order to reduce clutter in the corridor, where appropriate, signs may be mounted to walls. Sign locations should still follow the over arching strategy for sign placement.



CORRIDOR DIRECTIONAL NEEDS



Railings

Due to the constrained condition of the trail and transit for much of the corridor, railings will be required in many places. In order to reduce clutter in the corridor, where appropriate, signs may be mounted to walls. Sign locations should still follow the over arching strategy for sign placement.



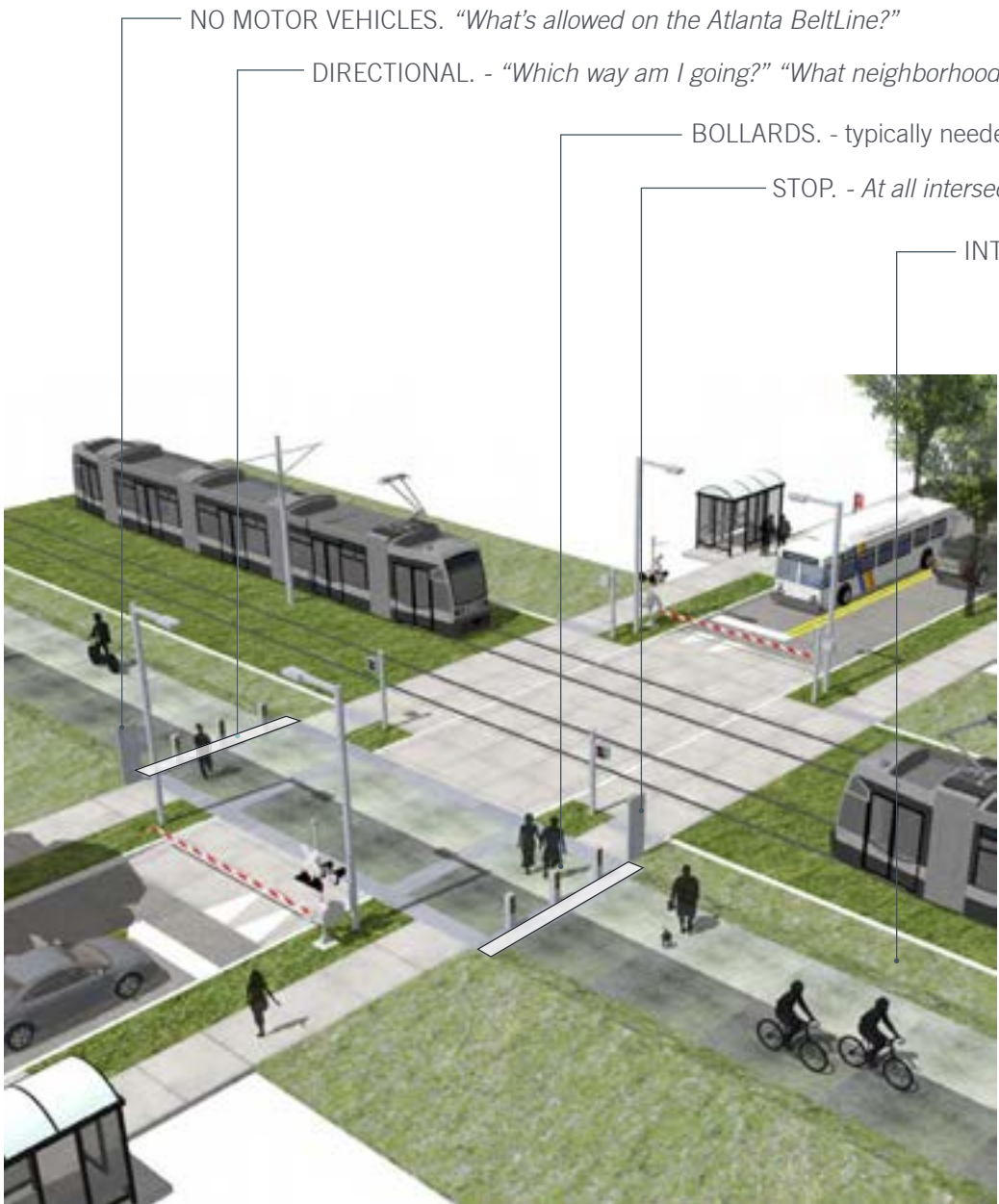
Ramps

Whether entering or leaving the Atlanta BeltLine, accessible routes for disabled users should be indicated. This will also be helpful for other users including those with strollers or other wheeled objects.



CORRIDOR DIRECTIONAL NEEDS

As the primary points of access, all streets that cross or otherwise connect to the Atlanta BeltLine include signage indicating the street, neighborhood, and direction to local landmarks.



At-Grade Crossings

At-grade crossings require additional regulatory signage because the Atlanta BeltLine main trail physically intersects with street traffic. Users need to know what direction they're heading along the Atlanta BeltLine trail. Indication of which neighborhood is on which side of the corridor will also help with overall orientation and direction.

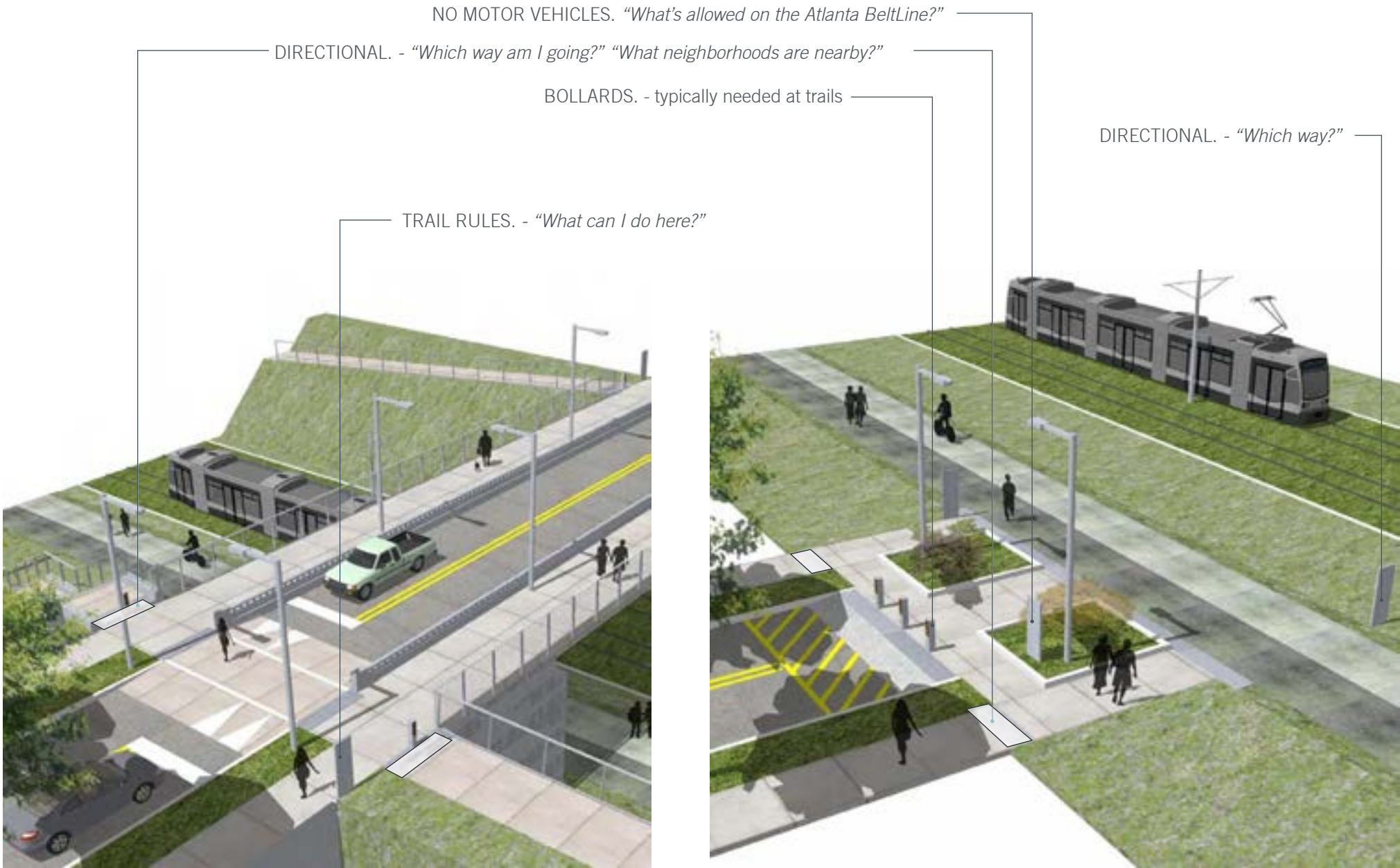


Above-Grade Crossings

Vertical access conditions vary significantly, and signage is important especially where points of access are not readily apparent. In places where accessible ramps may differ slightly from routes with stairs, directional signage is especially critical. At street level, indication of which neighborhood is on which side of the corridor will also help with overall orientation and direction.



CORRIDOR DIRECTIONAL NEEDS



Below-Grade Crossings

Similarly, directional signage to accessible routes is important when the corridor crosses below street grade. But here, an additional challenge is that often signage may be the only indication to potential users have that the Atlanta BeltLine is passing below them. At street level, indication of which neighborhood is on which side of the corridor will also help with overall orientation and direction.

Dead-End Crossings

At at-grade conditions, Dead Ends provide good opportunities for emergency access. Designs should include removable bollards. Also, unlike all other crossings, Dead Ends provide access to only one neighborhood on one side of the corridor, so only one neighborhood can be identified here.



STATION NEEDS

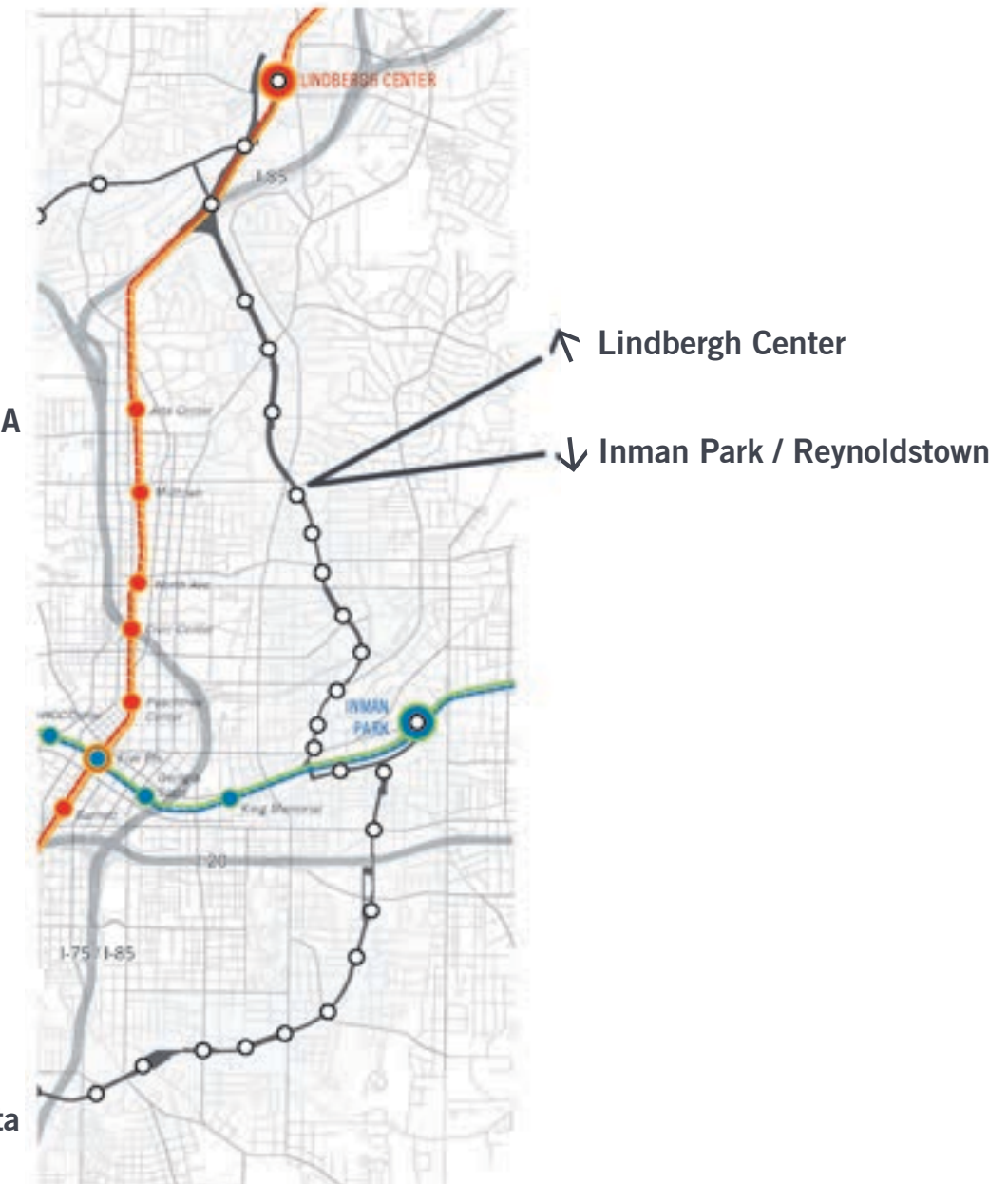
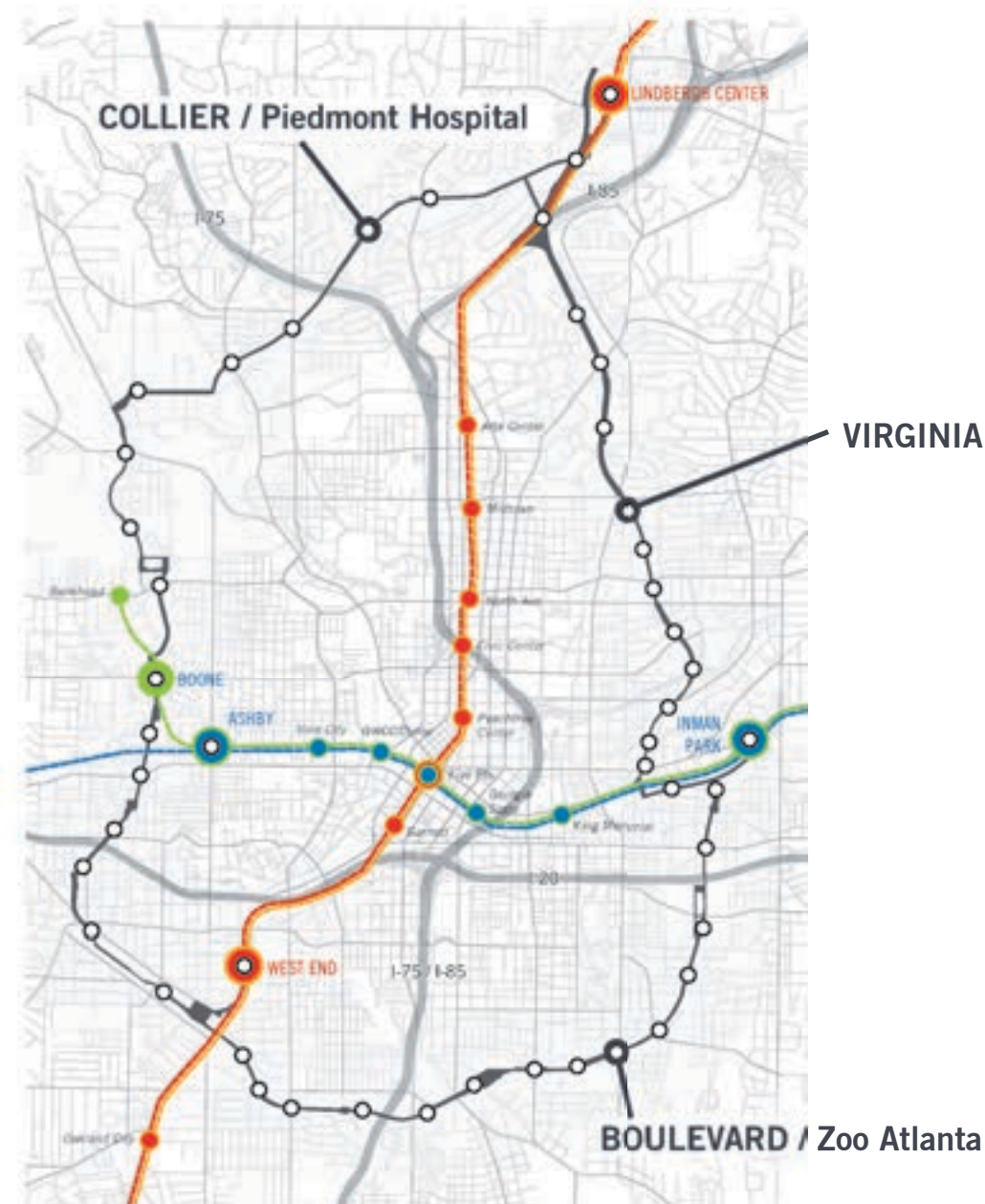
The transit stations of the Atlanta BeltLine play a special role in placemaking along the 22-mile corridor, but their nomenclature must prioritize efficient wayfinding for users of the transit system and within Atlanta's larger transit network. Their signage system requires particular attention to the transit user's experience.

STATION IDENTIFICATION

The Atlanta BeltLine is accessed primarily at street crossings, and the names of these streets are already familiar to people in the community. For this reason, they should be used as the names of transit stations to reinforce the public's geographical reference of the Atlanta BeltLine as it slices through the city. Examples include "Virginia," "Peachtree," "Abernathy," and "Metropolitan." At stations that also coincide with major Atlanta destinations, like Piedmont Hospital or Zoo Atlanta, station names may include these sub-headings as a secondary reference.

TRANSIT DIRECTION

A unique challenge of the Atlanta BeltLine transit system is the user's understanding of direction. Because it forms a loop, cardinal directions like north, south, east and west will not work. And because there are no terminal points, the end-of-the-line station cannot be used to indicate direction either. Further complicating direction is the fact that additional transit routes will utilize segments of the corridor – not just the full circular route.



Station Identification. "At which station have I arrived?"

Transit Directional. "Which way is this train going?"

USER INFORMATION

The first thing that users arriving at a station by foot will need to know is the name of the station in order to confirm they are in the correct place. The second thing they need to know is which platform will lead in the direction they want to go. Both Station Identification and Transit Direction are key to a user's first experience at any station.



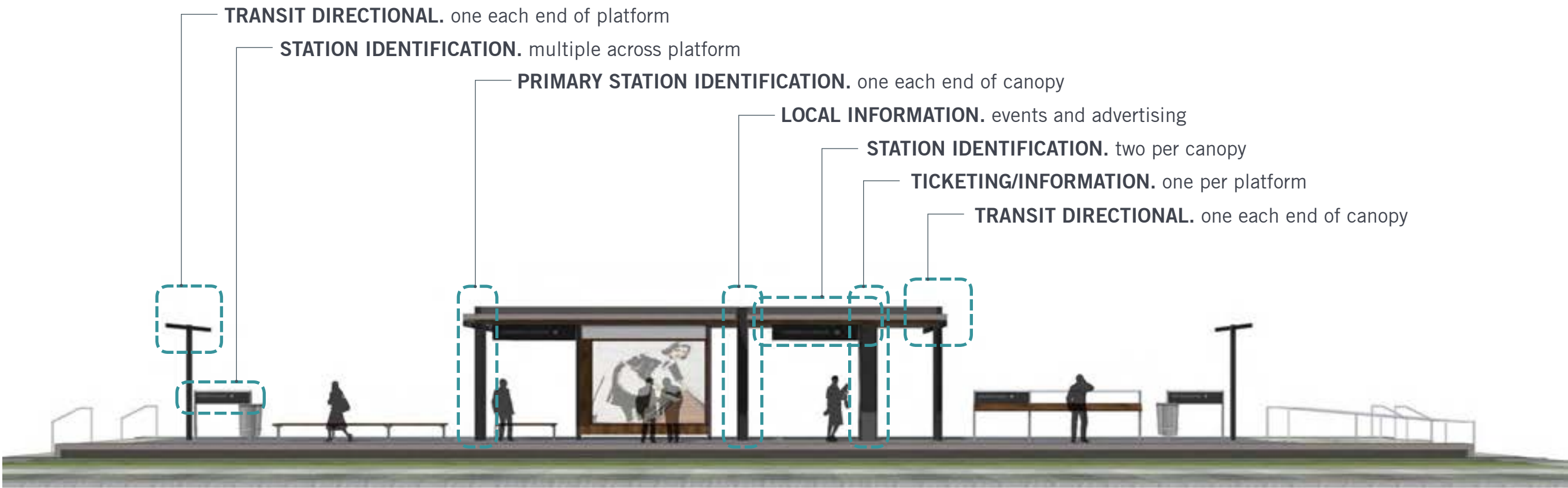
STATION NEEDS

Once a user has gotten to the right platform, he or she needs to quickly understand how to use the system. Even familiar riders need easy and almost subconscious confirmation that they are in the right place and can get the information that they need. Ticketing is first, followed by supporting system information and maps. Changeable signs for local community events or advertising is secondary to all pertinent system information.



STATION NEEDS

No matter which side of the platform a user enters, Station Identification, Transit Direction and User Information signage will be quickly and easily understood.



SW



DESIGN CONCEPT

Weathered steel has the strength and permanence of steel with an added texture and coloration inherent to the natural and built environment of the Atlanta BeltLine. Cut-out graphics respond to the continual changes in daylight and reflect the man-made structures found throughout the corridor. The use of simple metal plates evokes the construction aesthetic of the railroad, bridges and historical structures.

The primary freestanding sign types are constructed of naturally weathered steel with cut-out graphics, while the panels for secondary sign types that are integrated into existing and new walls or structures are constructed of black anodized aluminum. All graphics and text are white silkscreen for a coarse, stenciled look. A system of mechanical fasteners will attach sign panels to their structure, railings, etc.

Simple clear modern typography and icons communicate easily to all types of users. A consistent application of graphic standards based on Signage and Wayfinding Best Practices reinforces legibility as well as identity utilizing simple placemaking strategies.



Weathering Steel



Cut Out Graphics



Anodized Aluminum - Black



Silkscreen White Text / Graphics





signage and wayfinding design

DESIGN CONCEPTS

The family of BeltLine signs provide a seamless, high-quality system that addresses key issues:

GRAPHIC STANDARDS. Creates a consistency that supports overall design continuity, system efficiency, and user legibility.

TYPOGRAPHY. Supports graphic consistency and information hierarchy.

ICONOGRAPHY. Performs an almost subconscious legibility for users of any mode.

Building on these standards, the design of the sign themselves create a cohesive collection that provide a hierarchy of information for the corridor.

PRIMARY SIGN FAMILY. Key signs signal important information about place on the Atlanta BeltLine; major directional or interpretive information.

SECONDARY SIGN FAMILY. Signs provide secondary information, supporting the primary family with more details.

REGULATORY SIGN FAMILY. Visible enough to accomplish their regulatory purpose, they should otherwise recede within the corridor experience.

STATION SIGN FAMILY. Provide key information to trail and transit users as to location and orientation. Additional information is provided on how to use the system.

SW



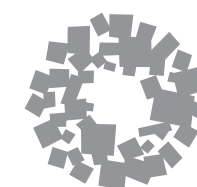
GRAPHIC STANDARDS

On the Atlanta BeltLine signs, the graphic identity is displayed as either the One Color Logo or as the Symbol without text in one color or cut out.

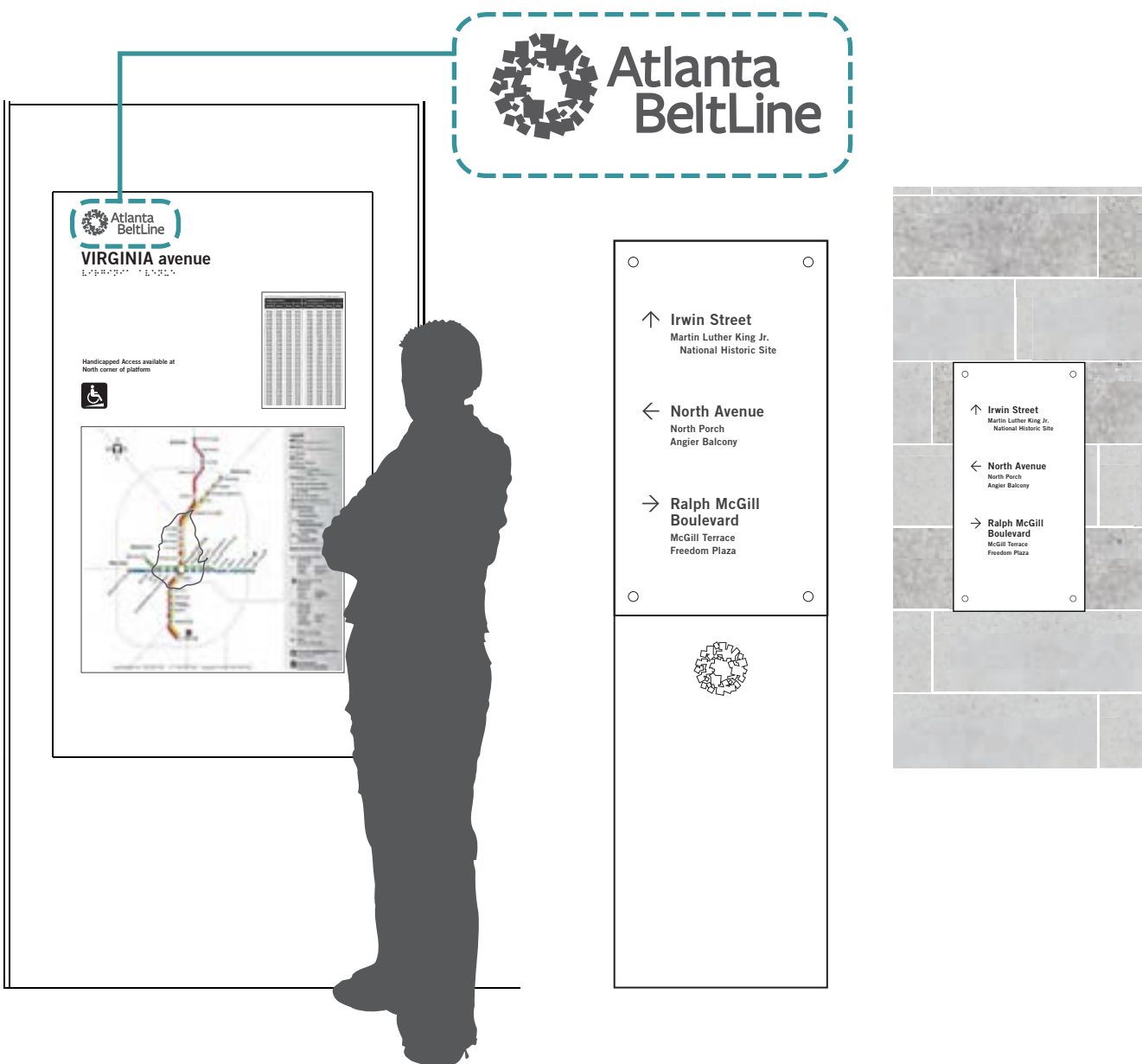
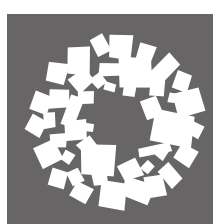
Atlanta BeltLine One Color Logo



Atlanta BeltLine Symbol



Atlanta BeltLine Symbol Cut-Out



Use the Atlanta BeltLine One Color Logo on signage at transit stations

Use the Atlanta BeltLine Symbol as a Cut-Out on primary signs

Do not use the logo on secondary signs



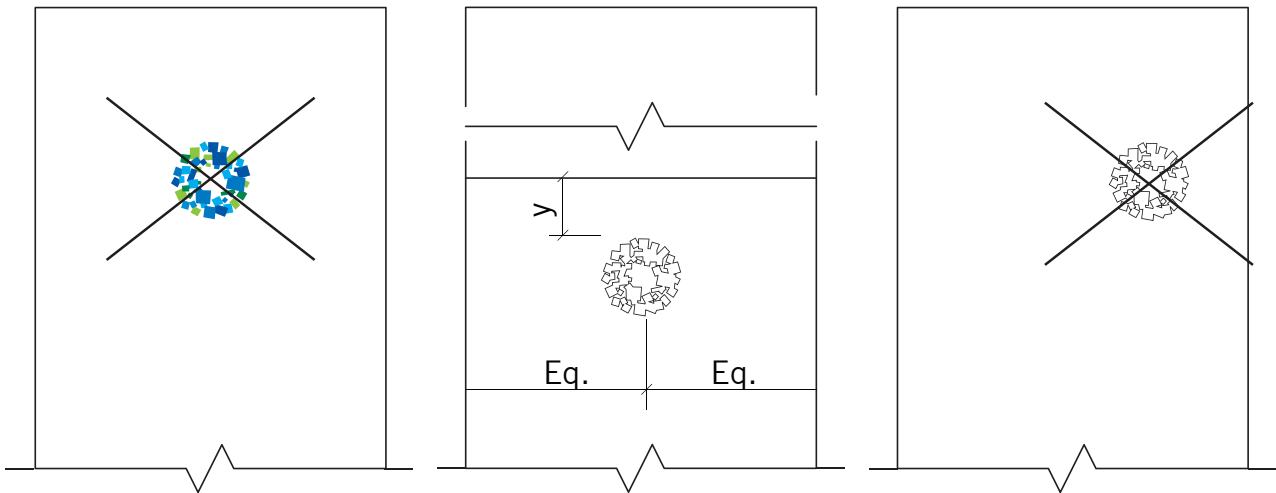
GRAPHIC STANDARDS

Atlanta BeltLine Symbol

The Atlanta BeltLine Symbol is used on primary signs and should be centered.

Atlanta BeltLine Logo / Symbol
Trade Gothic Bold Two
Clear Space

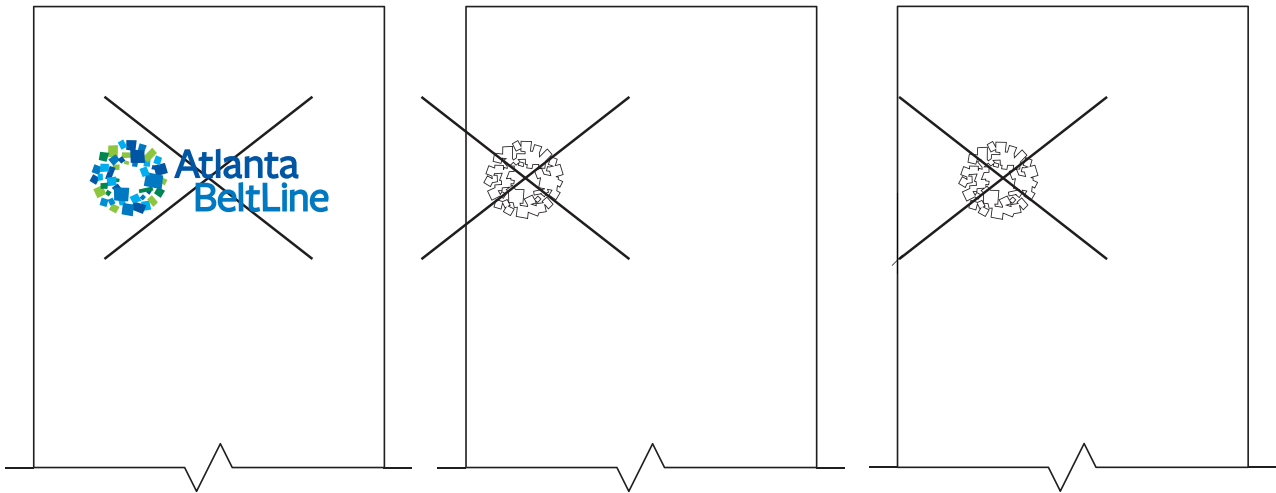
Clear space guidelines must be followed for both the One Color Logo and the Symbol, per the original Atlanta BeltLine standards document.



Do not use colored
Atlanta BeltLine Symbol
on signage

Center Atlanta BeltLine
Symbol below

Right justify the Atlanta
BeltLine Symbol



Do not use colored
Atlanta BeltLine
Master Logo on signage

Do not place
Atlanta BeltLine Symbol
too close to edge

Do not left justify the
Atlanta BeltLine Symbol



Clear Space = 1B
(B = height of B in BeltLine)



TYPOGRAPHY

Trade Gothic BoldTwo is the main font to be used for all major messages.

All directional signage should be in upper and lower case for ease of legibility. All body text should also be in upper and lower case. All uppercase lettering should only be used when quick understanding and ease of legibility is not essential.

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
0123456789

ABCDE abcde
ABCDE abcde
ABCDE abcde

Aa

Trade Gothic BoldTwo



Font Comparison
Atlanta BeltLine Logo



Sign Elevation

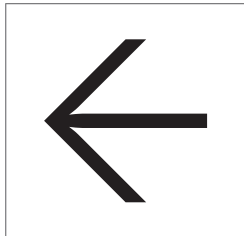


Detail - Typography

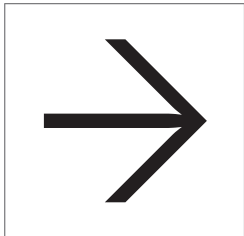


ICONOGRAPHY

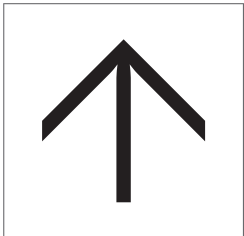
Iconography on the Atlanta BeltLine includes directional arrows, the symbol of accessibility, and bike traffic regulatory symbols. For more information on required traffic symbols, reference the Manual on Uniform Traffic Control Devices 2009 (MUTCD).



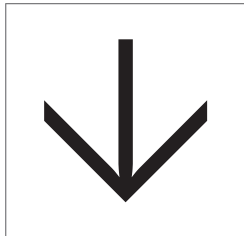
Arrow Left



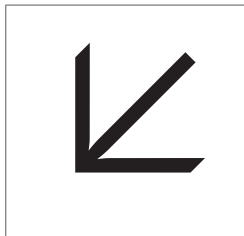
Arrow Right



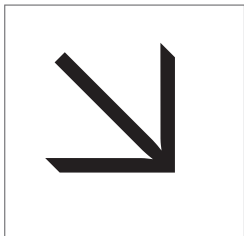
Arrow Up



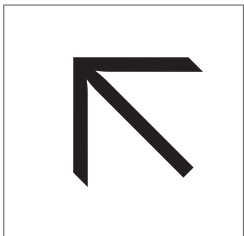
Arrow Down



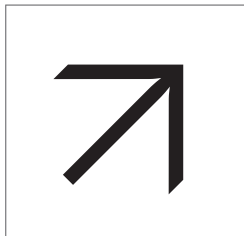
Arrow Down, Left



Arrow Down, Right



Arrow Up, Left



Arrow Up, Right



Accessible



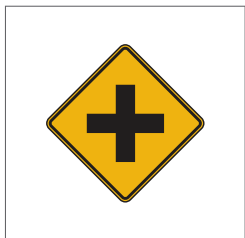
Stop
R1-1
PMS 1797C
Process White



Yield
R1-2
PMS 1797C
Process White



No Motor Vehicles
R5-3
PMS 124C
Process Black



Intersection Warning
W2-1, 2, 3, 4, 5
PMS 124C
Process Black



Turn/Curve Warning
W1-1, 2, 3, 4, 5
PMS 124C
Process Black



Type 3 Object Marker
OM3-R, OM3-L
PMS 124C
Process Black

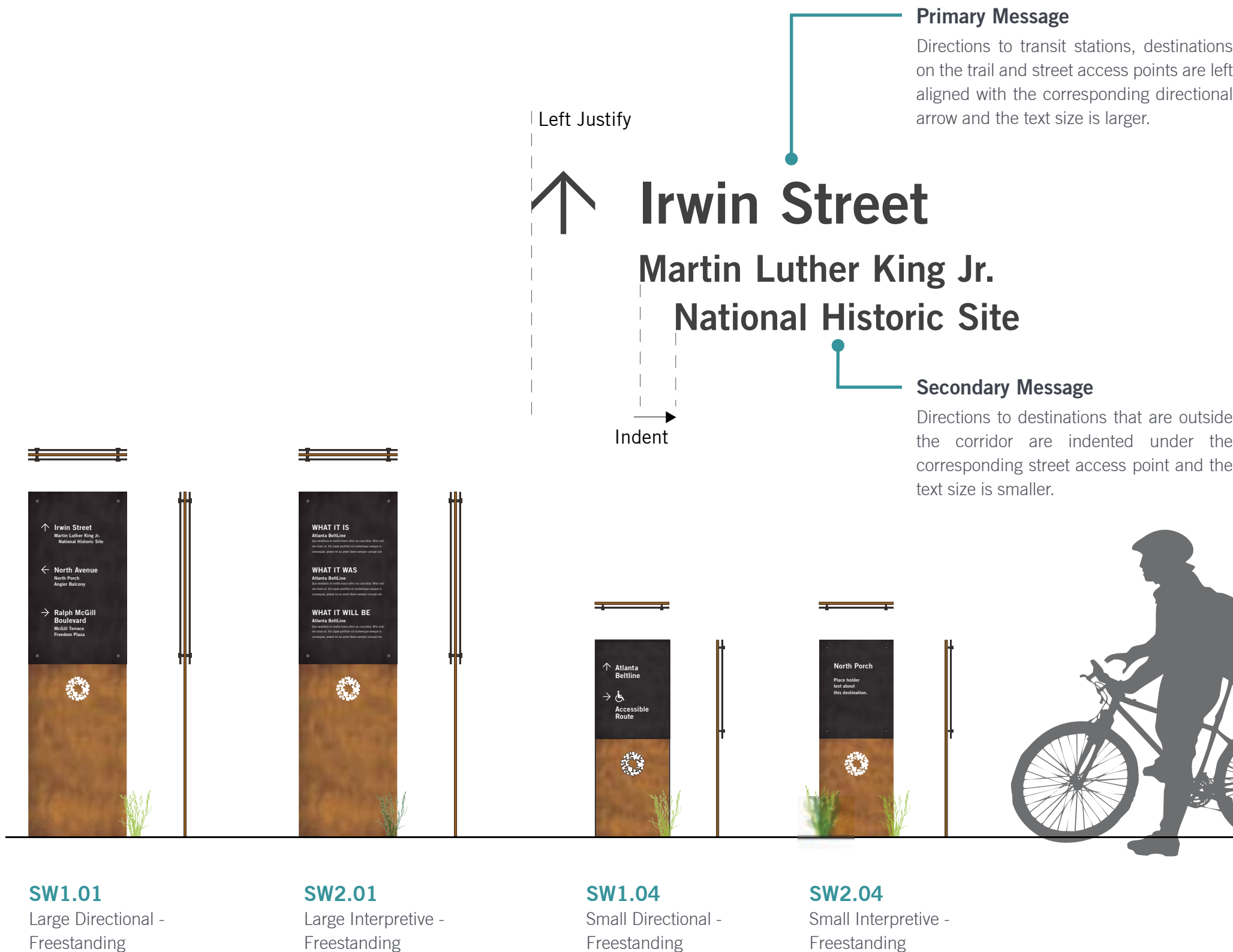


PRIMARY SIGN FAMILY

The Primary Sign family signals important information about places within the Atlanta BeltLine. Information here is elevated within the corridor experience, highlighting major directional or interpretive information for corridor users of all modes. It consists of highly visible signs, including freestanding directional, large interpretive informational signs and tabletops.

Primary Signs utilize corten steel as a unique, attractive, highly durable, sustainable and eye-catching material to highlight the primary sign's role within the entire collection. Black anodized aluminum panels are mounted with an offset to the corten structure with stainless fasteners and silkscreen painted with white text and graphics. The Atlanta BeltLine logo is highlighted as a cut-out in the lower section of the corten panel.

SW



PRIMARY SIGN FAMILY

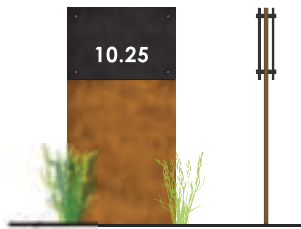


SW2.07
Large Interpretive - Tabletop

SW2.03
Small Interpretive - Tabletop



SW1.08
Access Threshold Permanent



SW1.09
Mile Marker - Freestanding

SW



SECONDARY SIGN FAMILY

The Secondary Sign family provides secondary, or more detailed directional and interpretive information within the corridor. Materials are cohesive with Primary Signs, but somewhat more subdued, supporting a hierarchy of information in the corridor. This family of signs is more discrete, often incorporated into walls and railings so that it does not clutter the corridor with secondary information.

Secondary Signs are made of black anodized aluminum panels with stainless fasteners to walls and railings, and have silkscreen painted text and graphics.



SW1.02

Large Directional - Wall

SW2.02

Large Interpretive - Wall



SW1.05

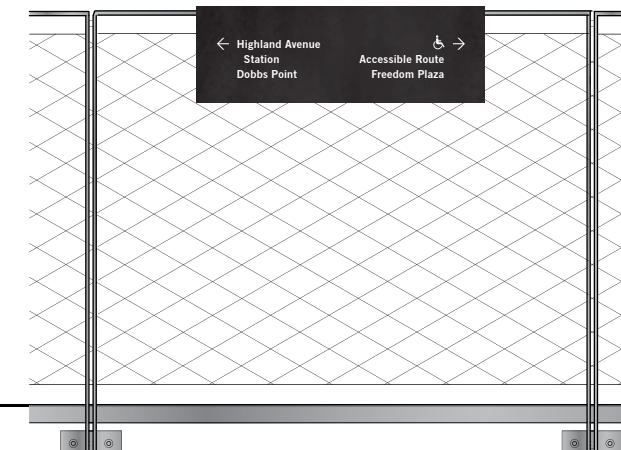
Small Directional - Wall

SW2.05

Small Interpretive - Wall

SW3.04

Donor Identification - Wall



SW1.07

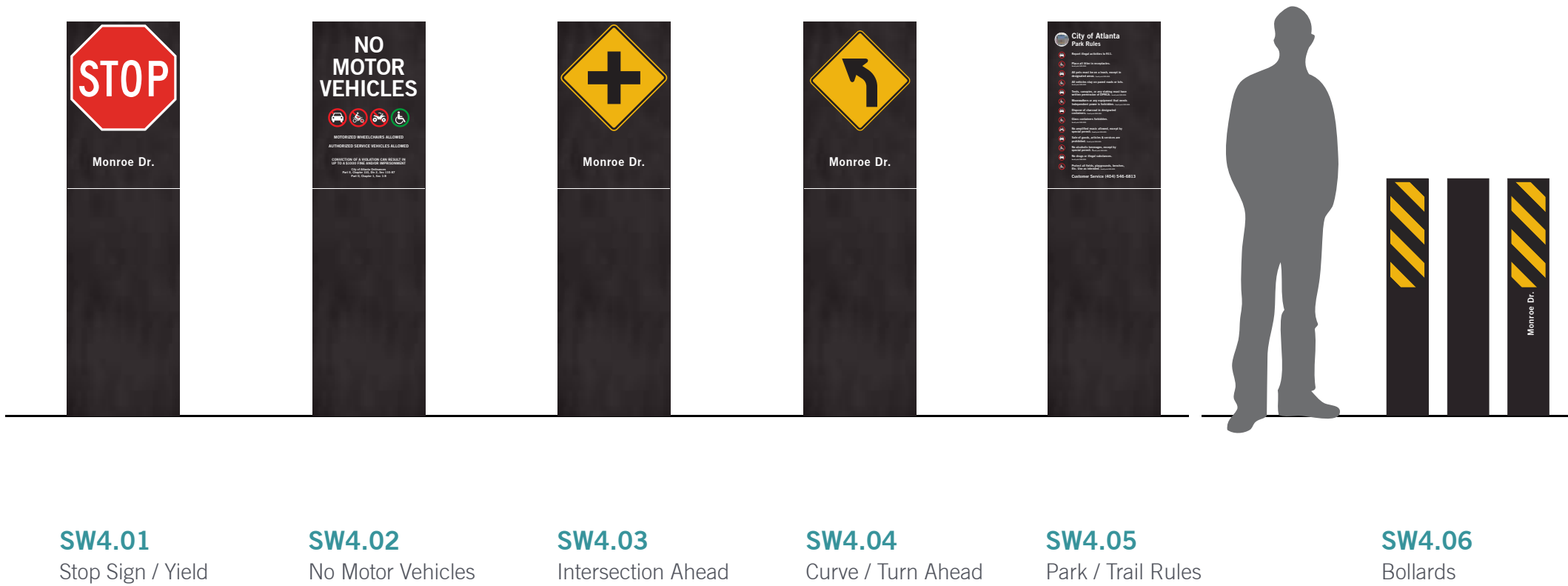
Small Directional - Railing



REGULATORY SIGN FAMILY

The Regulatory Sign family remains highly-visible within the corridor, achieving its regulatory purpose and meeting appropriate guidelines. But otherwise, as a design family, these signs should recede in deference to the corridor experience, providing an almost subconscious vocabulary of rules for public utilization of the corridor. In addition to signs for cyclists on the multi-use trail like “Stop,” and “Turn Ahead,” this family outlines limitations to users like “Trail Rules,” “No Motor Vehicles,” and bollards.

Regulatory signs are made of black anodized aluminum panels with vinyl stick-on graphics for regulatory controls as well as silkscreen painted text and graphics.



SW4.01
Stop Sign / Yield

SW4.02
No Motor Vehicles

SW4.03
Intersection Ahead

SW4.04
Curve / Turn Ahead

SW4.05
Park / Trail Rules

SW4.06
Bollards



STATION SIGN FAMILY

The Station Sign Family is comprised of a collection of directional and identification signs, as well as additional transit-specific signs. Because this collection of signs exists primarily to support transit riders in particular, rather than corridor users more generally, the station signs constitute a separate collection for design consideration.

Additionally, this sign family will be further coordinated with the entire transit system, not just the Atlanta BeltLine.

Station Signs are made of black anodized aluminum panels and in some cases are an integral part of the station structure cladding. They utilize stainless fasteners to walls and railings where applicable, and have silkscreen painted text and graphics. Directional signs are communicated in upper and lower case text for ease of legibility.

Every transit station canopy, as outlined in the Transit Station typology, has at least one of each sign type and may include additional Events/Advertising panels.



SW5.02
High Station Identification

SW5.01
Large Station Identification



SW5.05
Transit Directional - Canopy



SW5.07
"Breeze" System Ticketing
(this side)

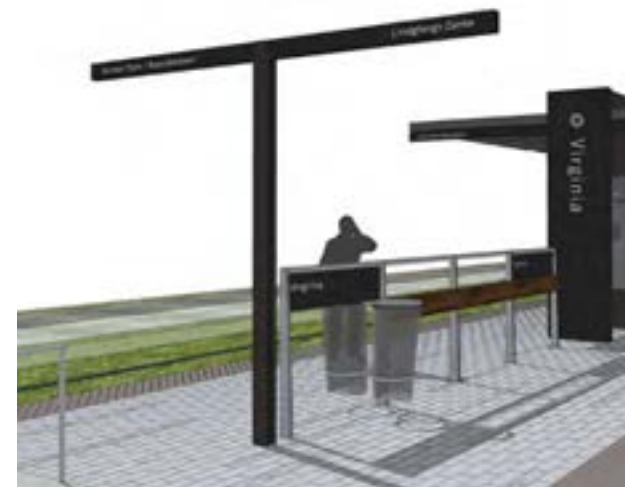
SW5.06
Transit System Map/Schedules
(other side)

Station Identification



SW5.03
Low Station Identification

Transit Direction



SW5.04
Transit Directional - Platform End Light

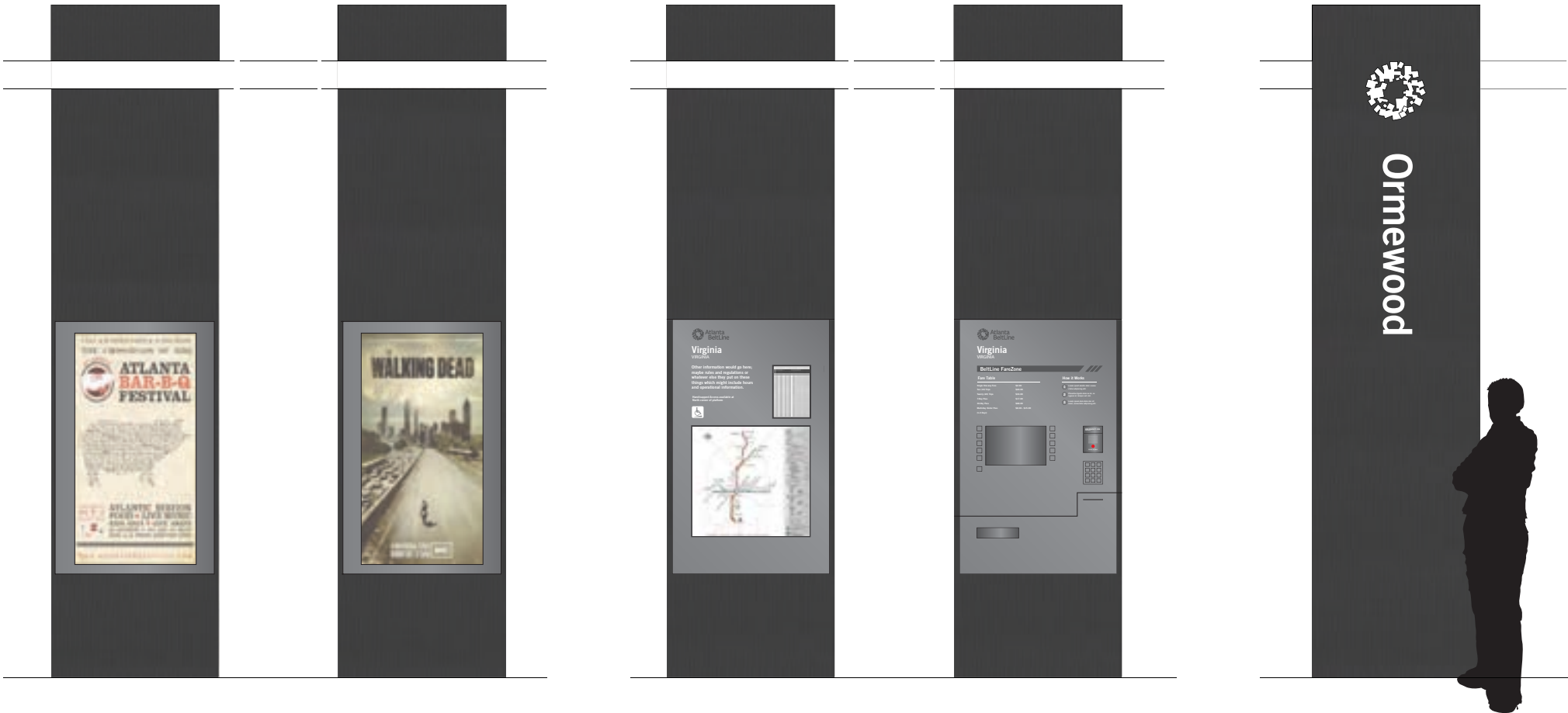
User Information



SW5.08
Community Events/Advertising
(both sides)



STATION SIGN FAMILY



SW5.08
Community Events/Advertising

SW5.06
Transit System
Maps/Schedules

SW5.07
“Breeze” System
Ticketing

SW5.01
Large Station Identification



SIGN TYPE SCHEDULE

The Atlanta BeltLine sign system has been designed to convey a consistent identity throughout the corridor, indicating to users when they are on or near it. All signs will conform to this standard.

Individual sign types use the same materials and methods, tying them back to the larger sign family. All text panels have a consistent layout, using the same fonts, alignments, and formatting. Graphic standards have been established by sign type to maintain uniformity across the system. The sign family is subdivided into seven categories:

SW1 CORRIDOR DIRECTIONAL SIGNS

- SW1.01 Large Directional - Freestanding
- SW1.02 Large Directional - Wall
- SW1.04 Small Directional - Freestanding
- SW1.05 Small Directional - Wall
- SW1.07 Small Directional - Railing
- SW1.08 Access Threshold
- SW1.09 Mile Marker - Freestanding
- not used* SW1.03, SW1.06

SW2 INTERPRETIVE SIGNS

- SW2.01 Large Interpretive - Freestanding
- SW2.02 Large Interpretive - Wall
- SW2.03 Large Interpretive - Tabletop
- SW2.04 Small Interpretive - Freestanding
- SW2.05 Small Interpretive - Wall
- SW2.05 Small Interpretive - Tabletop

SW3 IDENTIFICATION SIGNS

- SW3.04 Donor Identification - Wall Plaque
- SW3.06 Bridge Identification
- not used* SW3.01, SW3.02, SW3.03, SW3.05

SW4 REGULATORY SIGNS

- SW4.01 Stop Sign / Yield
- SW4.02 No Motor Vehicles
- SW4.03 Intersection Ahead
- SW4.04 Curve / Turn Ahead
- SW4.05 Park / Trail Rules
- SW4.06 Bollards

SW5 STATION SIGNS

- SW5.01 Large Station Identification
- SW5.02 High Station Identification
- SW5.03 Low Station Identification
- SW5.04 Transit Directional - Platform End Light
- SW5.05 Transit Directional - Canopy
- SW5.06 Transit System Map/Schedules
- SW5.07 “Breeze” System Ticketing
- SW5.08 Community Events/Advertising
- SW5.09 LED Display

SW6 FEATURE SIGNS

- SW6.01 Gateway ID
- SW6.02 Placemaking

SW7 TECHNOLOGY

- SW7.01 “Next Train” LED Sign
- SW7.02 Dynamic Mapping
- SW7.03 Interpretive Apps
- SW7.04 Digital Ads



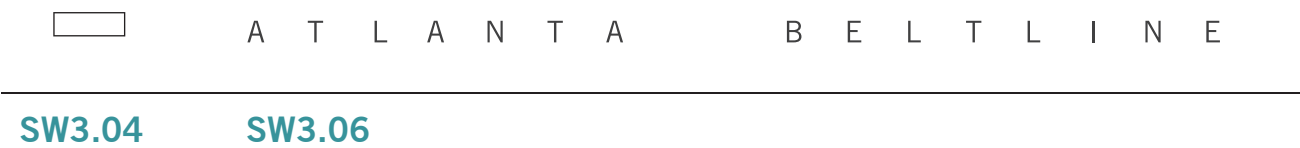
CORRIDOR DIRECTIONAL SIGNS



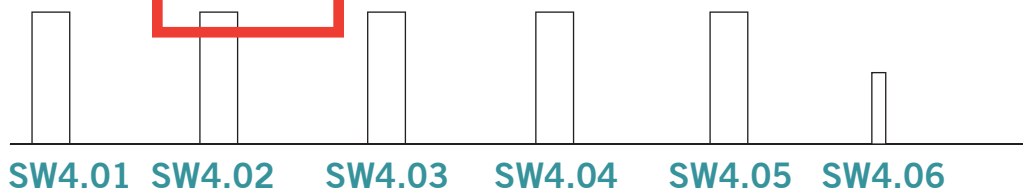
INTERPRETIVE SIGNS



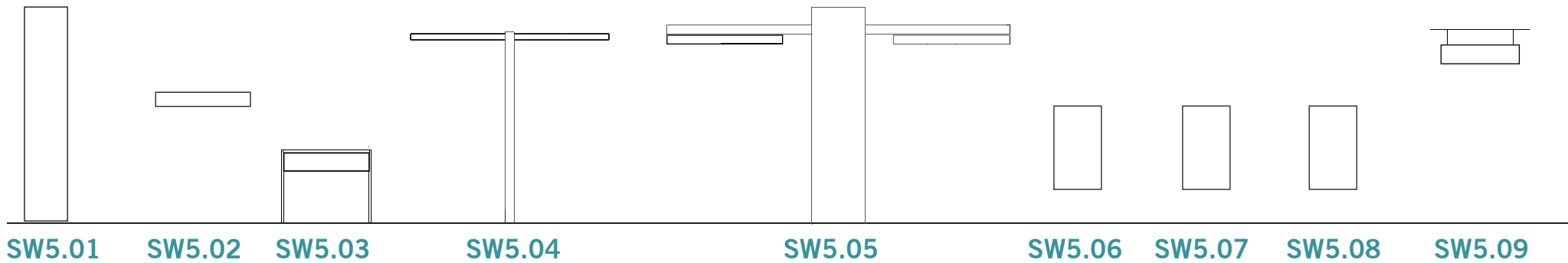
IDENTIFICATION SIGNS



REGULATORY SIGNS



STATION SIGNS

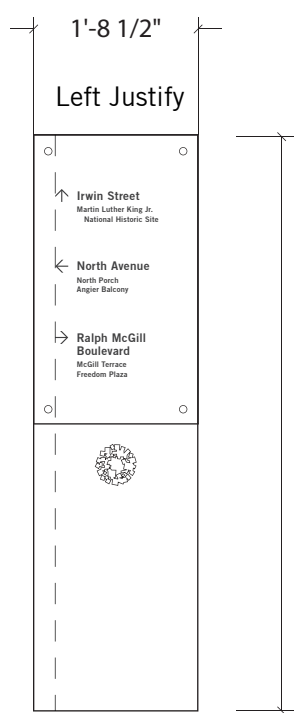


SW1 CORRIDOR DIRECTIONAL SIGNS

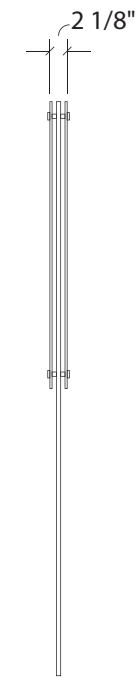
Corridor Directional Signs provide key information, orienting users on the Atlanta BeltLine and directing them toward their intended destinations. They include signs from both the Primary and Secondary Sign families.



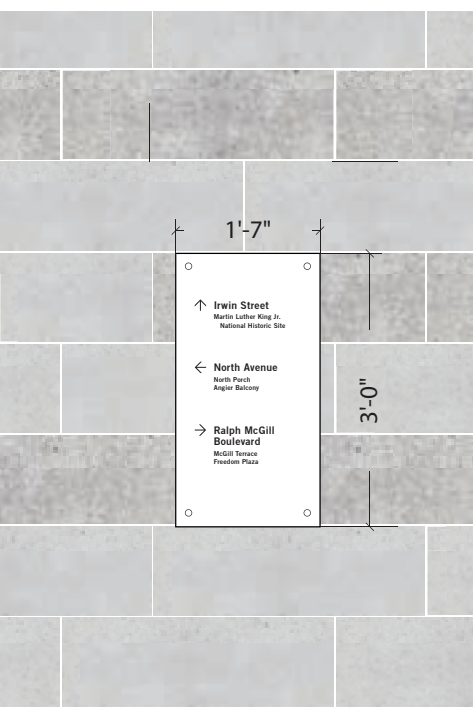
Plan



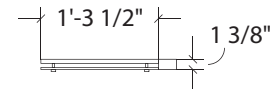
Elevation



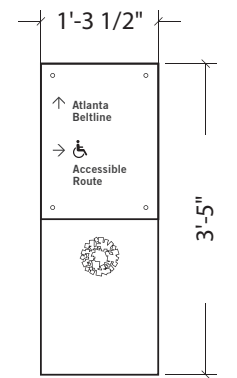
Side



Elevation



Plan



Elevation



Side

SW1.01 Large Directional - Freestanding

Sign Family: Primary
Large directional signs list transit stations and destinations, street access points, and destinations adjacent to the corridor.

The large freestanding directional should be used along the Atlanta BeltLine trail when there is no adjacent wall available in the appropriate location.

SW1.02 Large Directional - Wall

Sign Family: Secondary
Large directional signs list transit stations and destinations, street access points, and destinations adjacent to the corridor.

The large, wall-mounted directional sign should be embedded where a granite wall is available and appropriately positioned for maximum legibility.

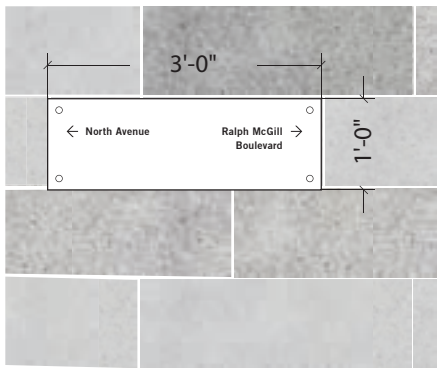
SW1.04 Small Directional - Freestanding

Sign Family: Primary
Small directional signs are mostly used to give direction on and off the Atlanta BeltLine, but may also be used within the corridor when a smaller sign is preferred.

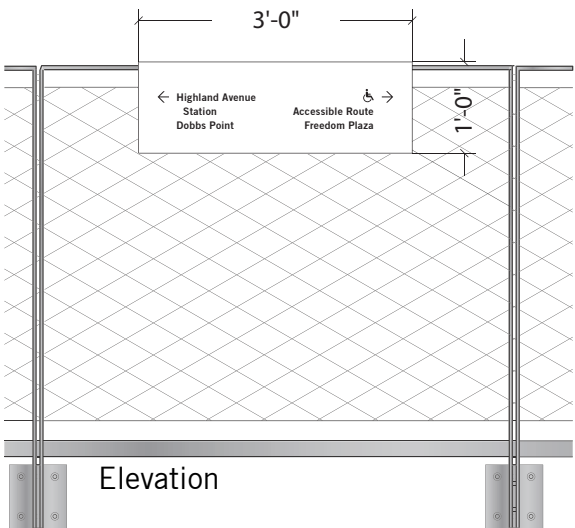
The small freestanding directional should be used when there is no adjacent wall in the appropriate location.



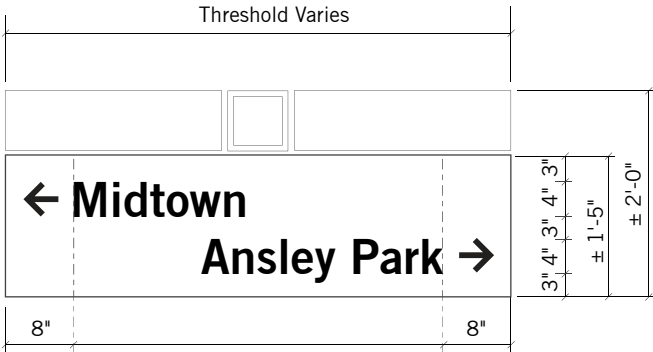
CORRIDOR DIRECTIONAL SIGNS SW1



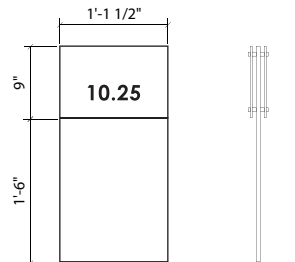
Elevation



Elevation



Plan



SW1.05
Small Directional - Wall

Sign Family: Secondary
Small directional signs are mostly used to give direction on and off the Atlanta BeltLine, but may also be used within the corridor when a smaller sign is preferred.

The small, wall-mounted directional sign should be embedded when a granite wall is available and appropriately positioned for maximum legibility.

SW1.07
Small Directional - Railing

Sign Family: Secondary
Small directional signs are mostly used to give direction on and off the Atlanta BeltLine, but may also be used within the corridor when a smaller sign is preferred. The small directional sign should be mounted to a railing when available and appropriately positioned for maximum legibility.

SW1.08
Access Threshold

Sign Family: Primary
As illustrated in the Streetscape typology, access thresholds are embedded in the ground at access points to the corridor. Engraved sign graphics indicate the neighborhood on either side of the Atlanta BeltLine.

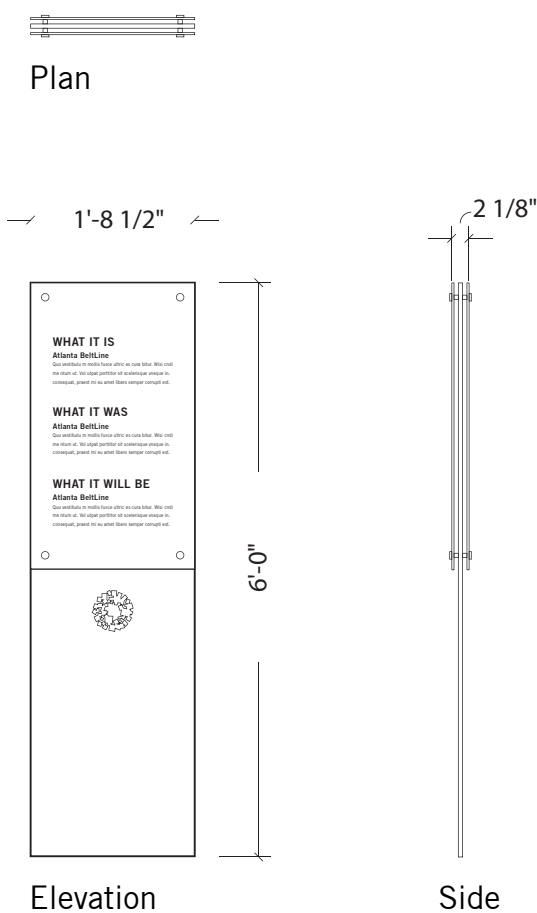
SW1.09
Mile Marker - Freestanding

Sign Family: Primary
Marked at quarter-mile intervals, Mile Markers should be placed outside the fall zone along the trail.



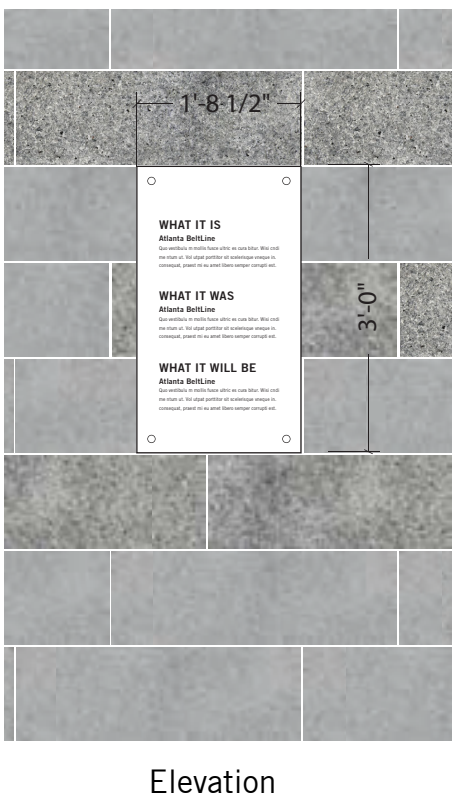
SW2 INTERPRETIVE SIGNS

Interpretive Signs provide users with wayfinding support like local and system maps, as well as public interest information about adjacent sites or objects like public art, site history, and details about the Atlanta BeltLine arboretum, other educational information and environmental awareness.



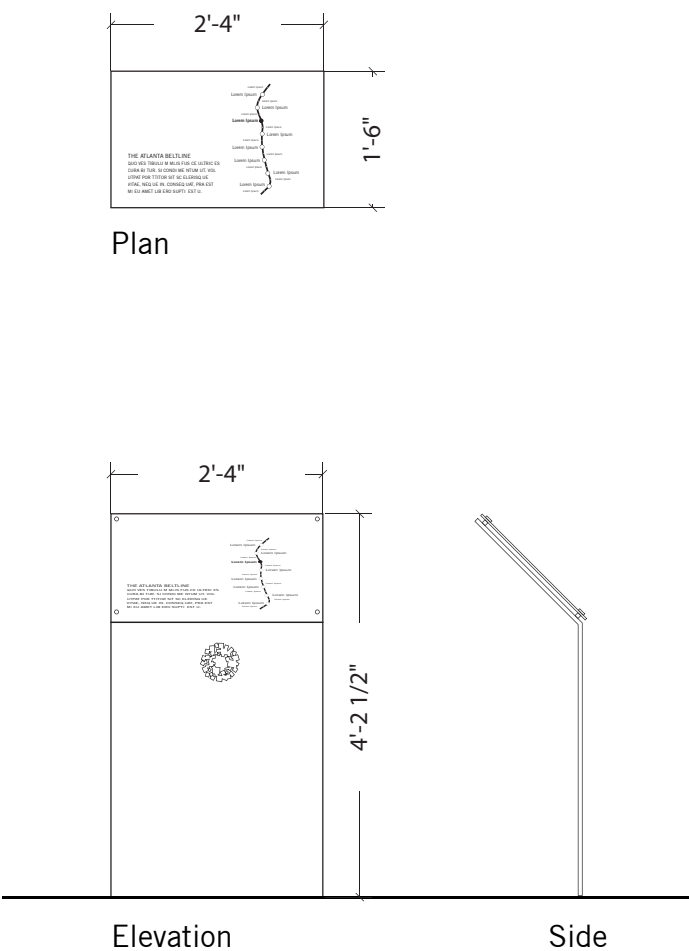
SW2.01
Large Interpretive - Freestanding

Sign Family: Primary
The largest interpretive freestanding sign will be used in public gathering spaces or other places where a large amount of interpretive text and/or graphics are desired.



SW2.02
Large Interpretive - Wall

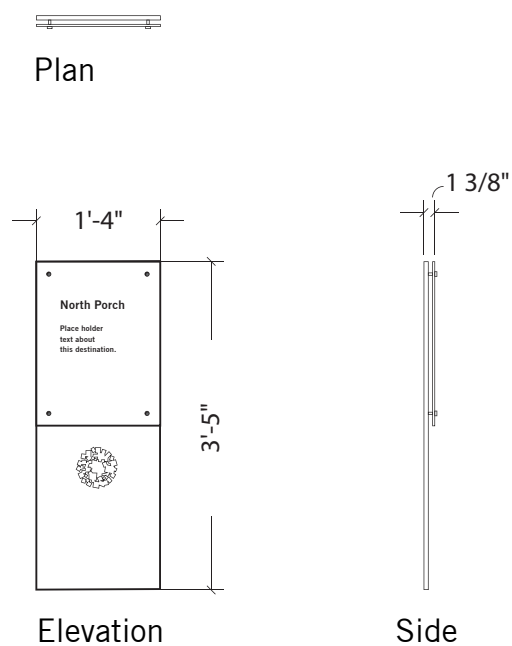
Sign Family: Secondary
Interpretive information should be embedded when a granite wall is available and appropriately positioned for maximum legibility. The large interpretive signs will be used in public gathering spaces or other places where a large amount of interpretive text and/or graphics are desired.



SW2.03
Large Interpretive - Tabletop

Sign Family: Primary
The large freestanding tabletop can be used to illustrate larger amounts of interpretive information or other details such as trail system maps or other graphics, offering tools for users to navigate their immediate environment and the larger context for reference.

INTERPRETIVE SIGNS **SW2**



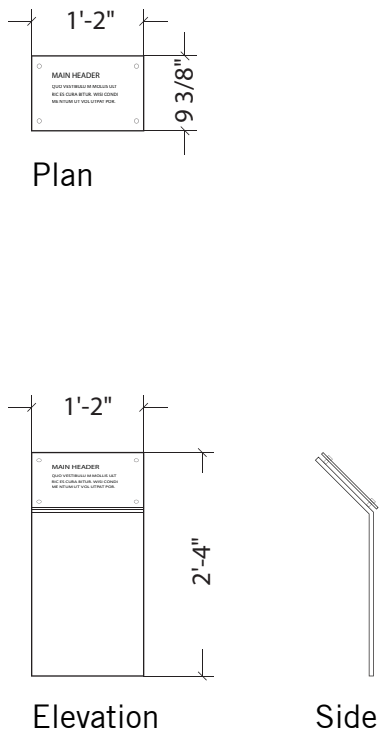
SW2.04
Small Interpretive - Freestanding

Sign Family: Primary
The small freestanding sign will be used to indicate Atlanta BeltLine destinations or other interpretive information.



SW2.05
Small Interpretive - Wall

Sign Family: Secondary
Interpretive information should be embedded when a granite wall is available and appropriately positioned for maximum legibility. These signs will be used to indicate Atlanta BeltLine destinations or other interpretive information.



SW2.06
Small Interpretive - Tabletop

Sign Family: Primary
This small ground-mounted tabletop sign will be used for smaller interpretive moments, especially details about the arboretum, public art recognition, or similar uses.

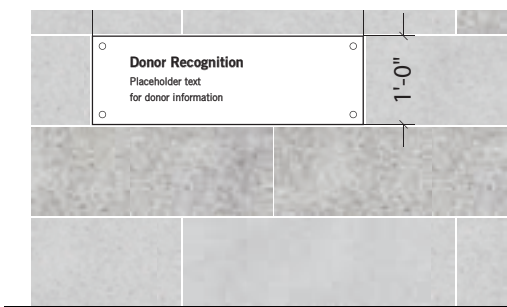


SW3 CORRIDOR IDENTIFICATION SIGNS

While the Atlanta BeltLine will be distinctive and recognizable by its design and active use, supporting Identification Signs can help support the corridor's identity for people moving through the city, as well as recognize the agencies and donors who made the project possible.



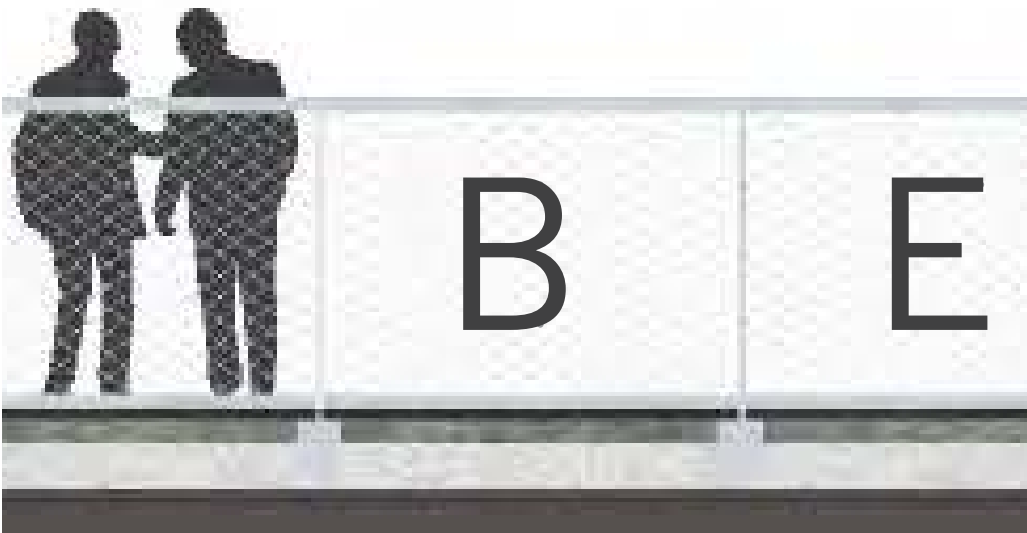
Elevation



Elevation

SW3.04
Donor Identification - Wall Plaque

Sign Family: Secondary
Donor identification, if any, will be embedded into granite walls. Guidelines for donor recognition must be established prior to implementation.



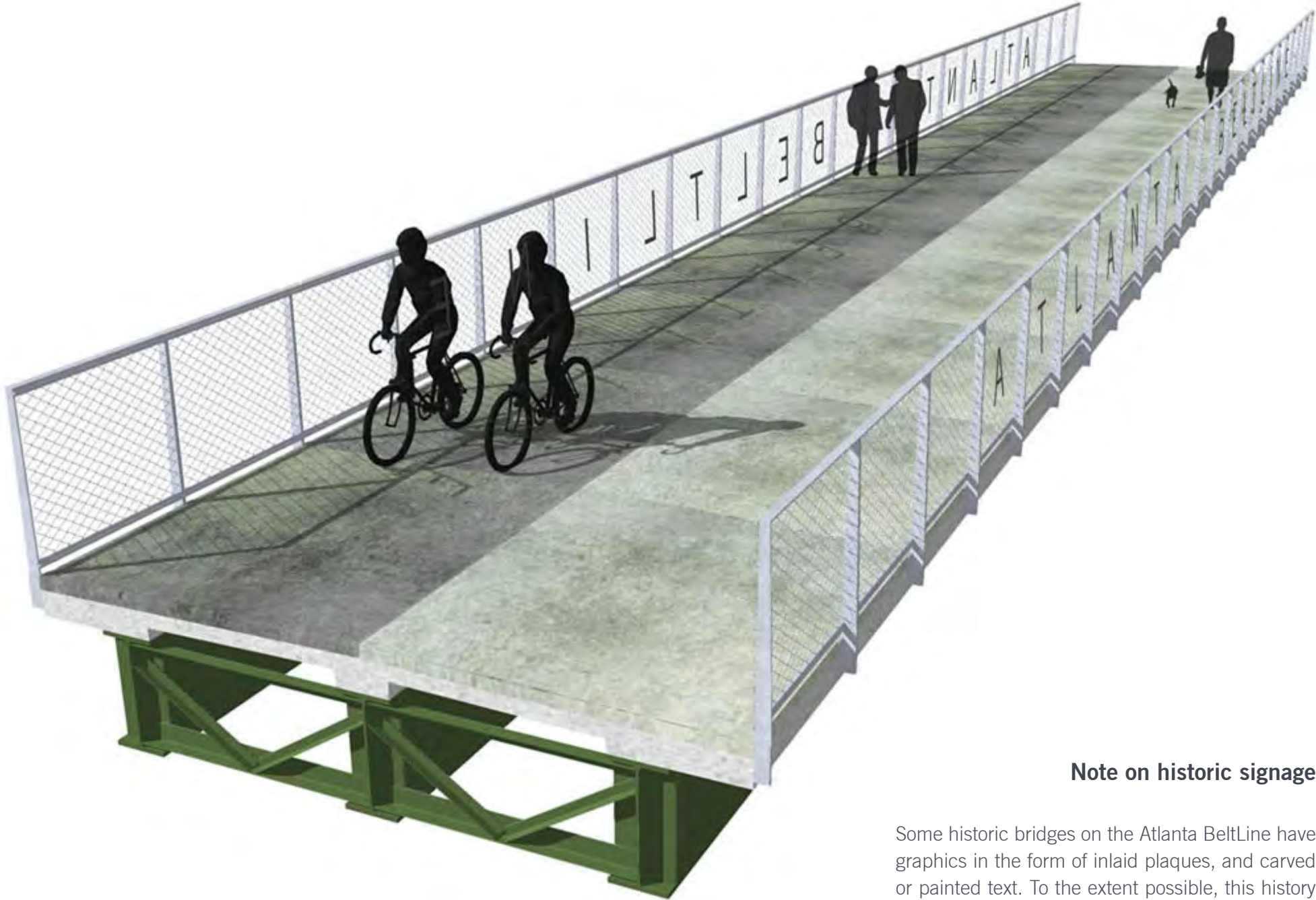
Detail Elevation

SW3.06
Bridge Identification

Sign Family: Secondary
Identification signage for new bridges indicate to drivers and pedestrians below that they are crossing the Atlanta BeltLine. This is likely utilized only at the most populated street crossings where new standard bridges are built. Dimensional letters are mounted to clear acrylic and attached to railing mesh for a simple, transparent application.



CORRIDOR IDENTIFICATION SIGNS SW3



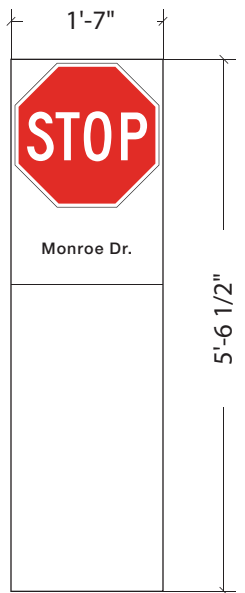
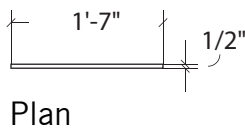
Note on historic signage

Some historic bridges on the Atlanta BeltLine have graphics in the form of inlaid plaques, and carved or painted text. To the extent possible, this history should be retained and restored.



SW4 REGULATORY SIGNS

Regulatory Signs are required on the Atlanta BeltLine to maintain a safe environment for all users. For more information on required traffic symbols, reference the manual on Uniform Traffic Control Devices 2009 (MUTCD).



Elevation

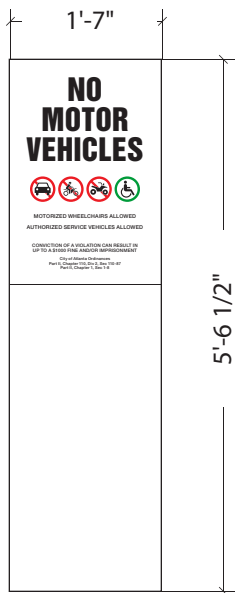
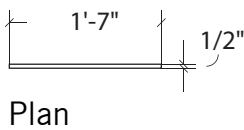
Side

SW4.01
Stop Sign / Yield

Sign Family: Regulatory

Stop Signs and Yield signs will be used as needed to control pedestrian and bicycle traffic along the Atlanta BeltLine. The street name is included for user convenience.

When used at at-grade streets, the Stop Sign graphic and the No Motor Vehicles message are used in conjunction as a double-sided sign.



Elevation

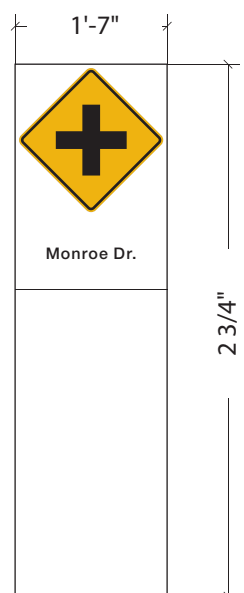
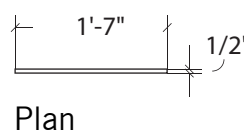
Side

SW4.02
No Motor Vehicles

Sign Family: Regulatory

No Motor Vehicle signs, used with bollards, are intended to prohibit vehicular traffic from entering the corridor, except in emergency circumstances.

In cases where lighting is not yet installed, these signs may also include the hours during which the Atlanta BeltLine is open.



Elevation

Side

SW4.03
Intersection Ahead

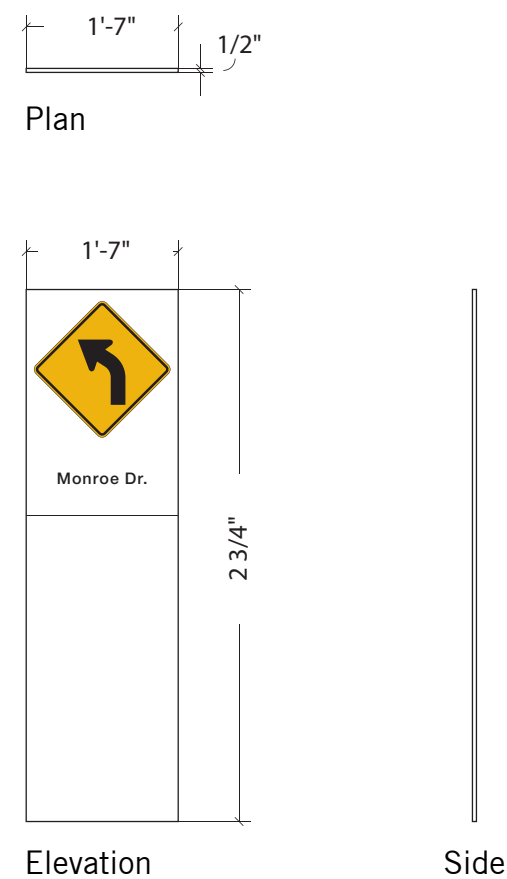
Sign Family: Regulatory

The Intersection Ahead sign is used to indicate that an at-grade crossing is ahead and give users time to prepare for it.

The street name is included here for convenience to the trail users.

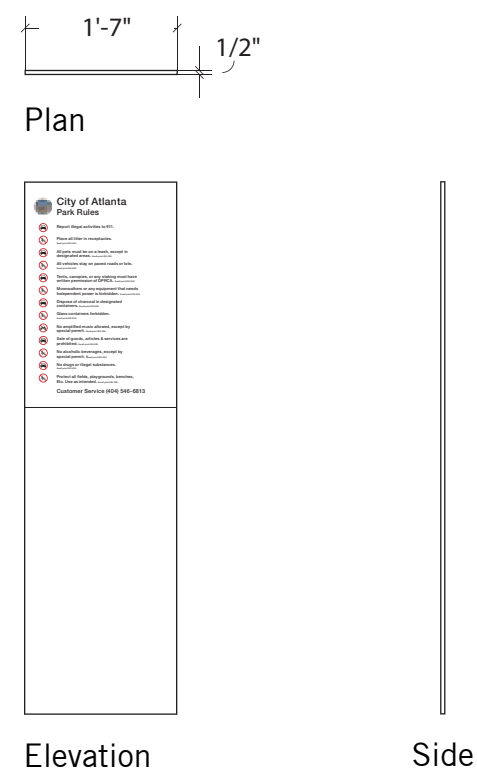


REGULATORY SIGNS **SW4**



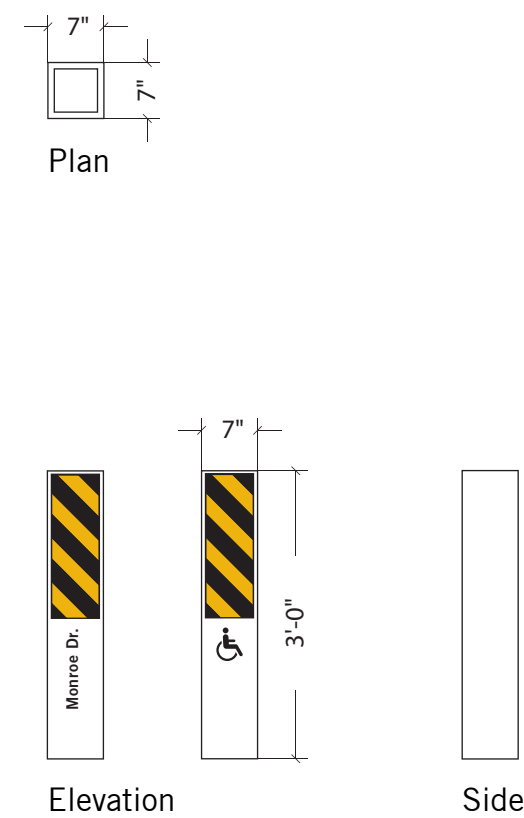
SW4.04
Curve / Turn Ahead

Sign Family: Regulatory
The Curve/Turn Ahead sign is used to indicate that a major curve in the path is ahead and give users time to prepare for it.



SW4.05
Park / Trail Rules

Sign Family: Regulatory
Park/Trail Rules will be posted near access points and transit stations and other spaces as appropriate. The rules are intended to keep the corridor clean, safe and enjoyable for the public.



SW4.06
Bollards

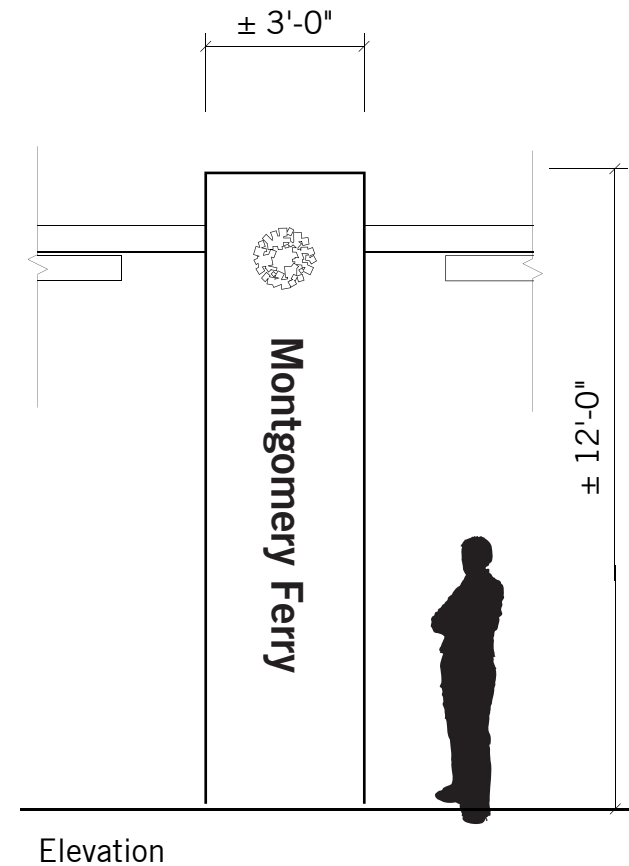
Sign Family: Regulatory
Bollards are intended to prohibit vehicular traffic from entering the corridor, except in emergency circumstances.



SW5 STATION SIGNS

The transit stations are the most visible architectural structures on the Atlanta BeltLine. Located at relatively regular intervals and near adjacent street access points, they are an orientation device for transit and trail users alike.

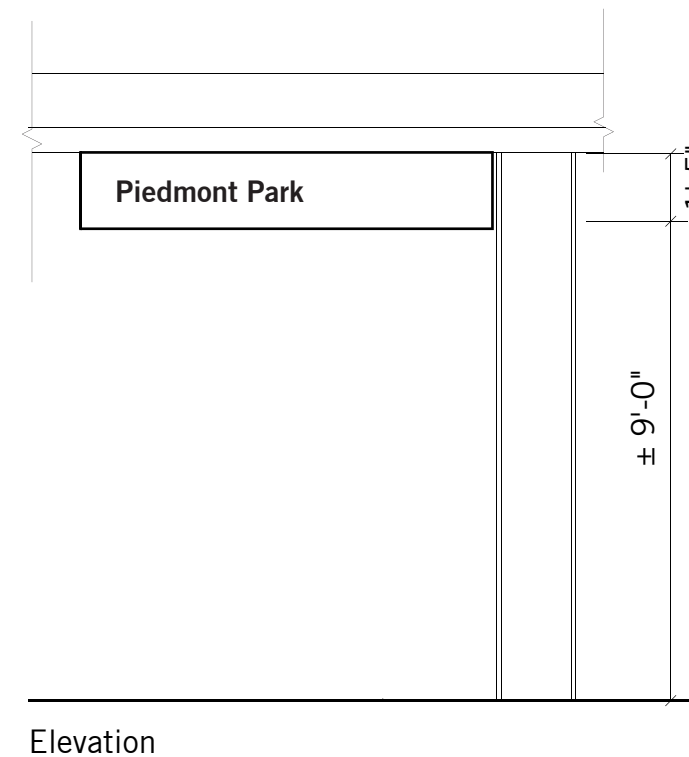
Station Signs are used to indicate station identification, transit direction and user information. As additional layers of signage may be applied to stations over time to keep in accordance with local, state or federal guidelines, or to update information systems to state-of-the-art technology, consistency in materials, color, graphics and iconography should be considered in order to protect overall station design consistency.



SW5.01 Large Station Identification

Sign Family: Station

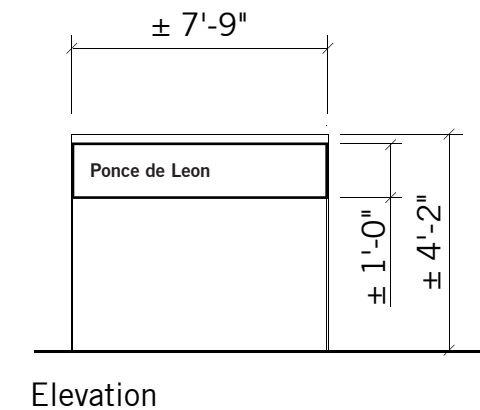
The largest sign at each station is its primary station identification. It is intended to give transit riders their first confirmation of which station they have arrived at by foot or bike. Large text and Atlanta BeltLine logo make the sign visible from a distance.



SW5.02 High Station Identification

Sign Family: Station

For users arriving to the station by train, high station identification signs within the canopy structure indicate the station name at an optimal height.

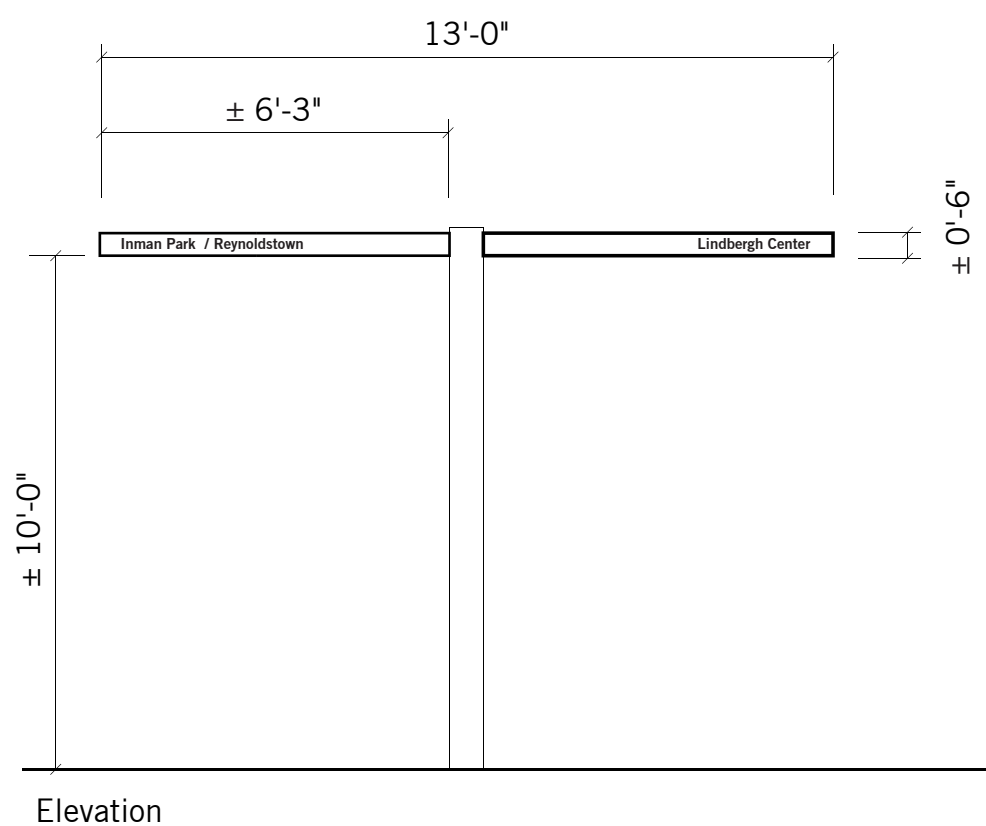


SW5.03 Low Station Identification

Sign Family: Station

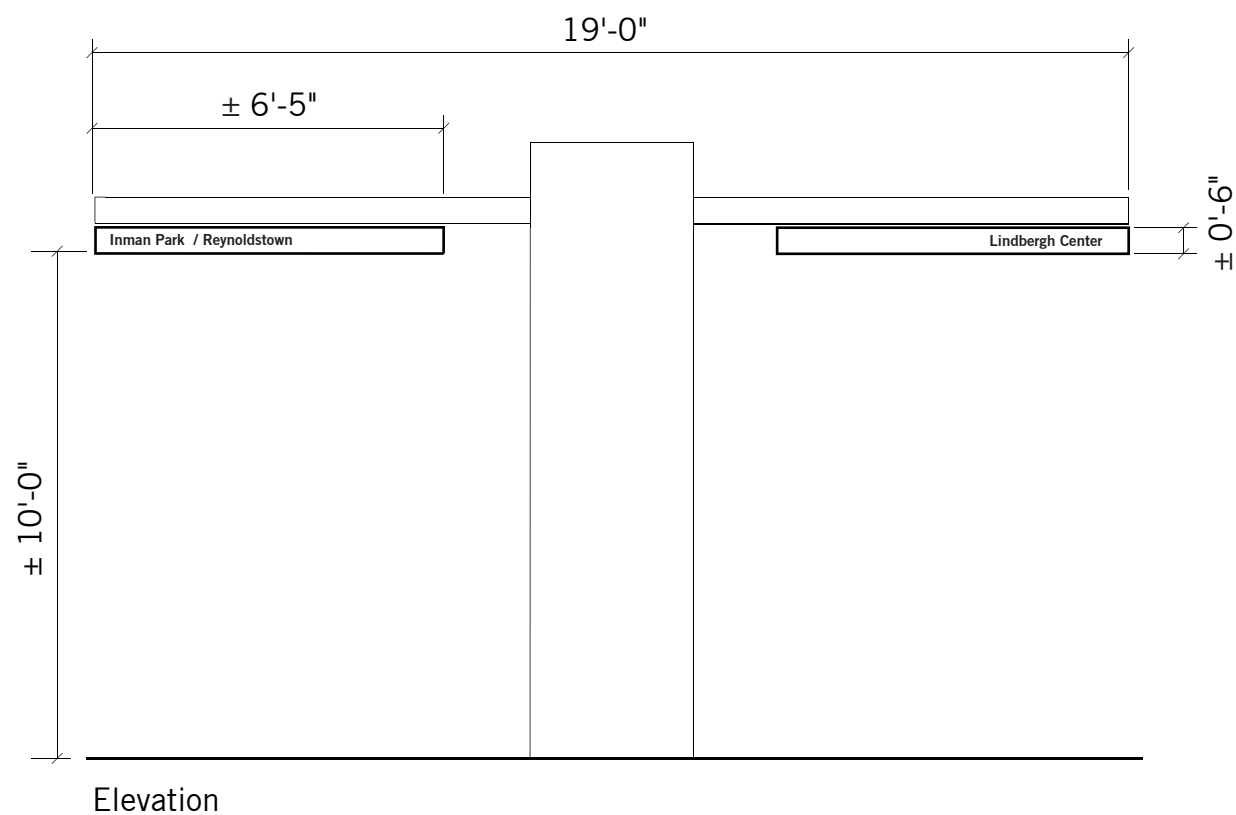
Similarly oriented for train arrivals, low station identification signs will be mounted to the stainless steel railings that occupy the length of the platform.





SW5.04
Transit Directional - Platform End Light

Sign Family: Station
These directional signs are located on light fixtures at each end of the transit platform and indicate for transit passengers the direction of trains arriving on their side of the platform.

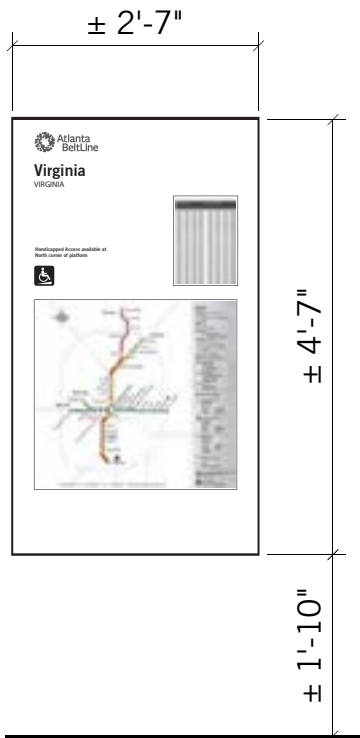


SW5.05
Transit Directional - Canopy

Sign Family: Station
These directional signs are located at each end of the transit station canopy and indicate for transit passengers the direction of trains arriving on their side of the platform.



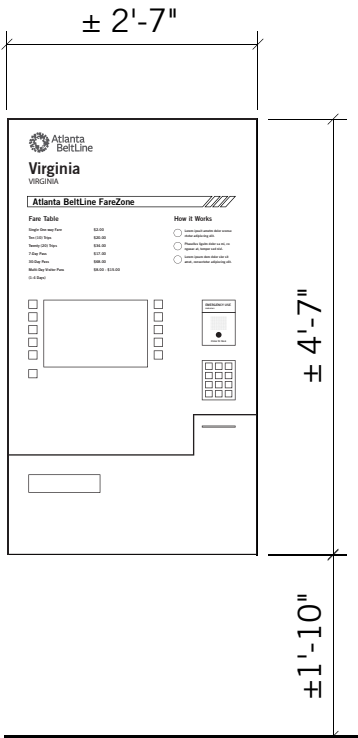
SW5 STATION SIGNS



Elevation

SW5.06
Transit System Map/Schedules

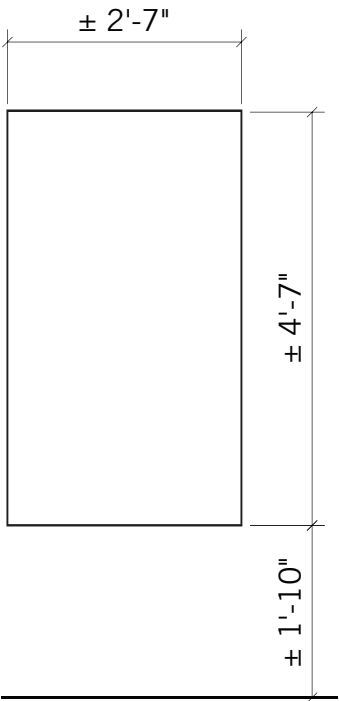
Sign Family: Station
Changeable transit map and schedule information indicating the Atlanta BeltLine connections to MARTA and the streetcar and bus systems will be integrated into the transit station structures. This area will also have code-required accessible signage. The layout shown here is for design intent and will be modified based on actual content.



Elevation

SW5.07
"Breeze" System Ticketing

Sign Family: Station
Integrated digital "Breeze" system ticketing machines fit into the canopy structure. The layout shown here is for design intent and will be modified based on actual content.

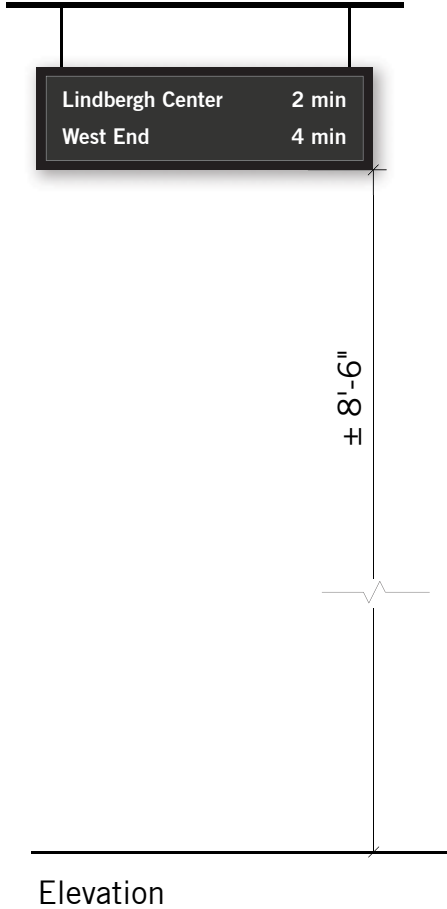


Elevation

SW5.08
Community Events/Advertising

Sign Family: Station
Changeable, backlit or digital community events graphics may be permitted for posting at the transit stations.





SW5.09
LED Display

Sign Family: Station
LED displays may hang from the transit canopy or be integrated into the canopy structure in order to provide information to waiting passengers, including next train arrivals, construction or emergency updates as needed.



SW6 FEATURE SIGNS

The Feature Signs category encompasses unique design opportunities for gateway and placemaking sign applications. Although the majority of corridor signage supports continuity and a consistent identity, these features celebrate the experience and originality of places along the Atlanta BeltLine.

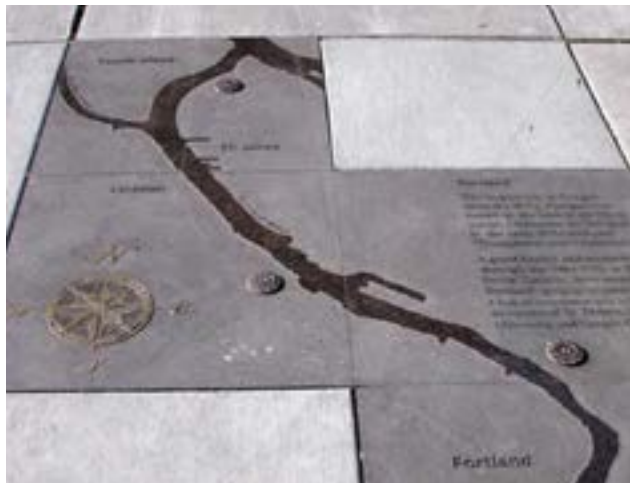
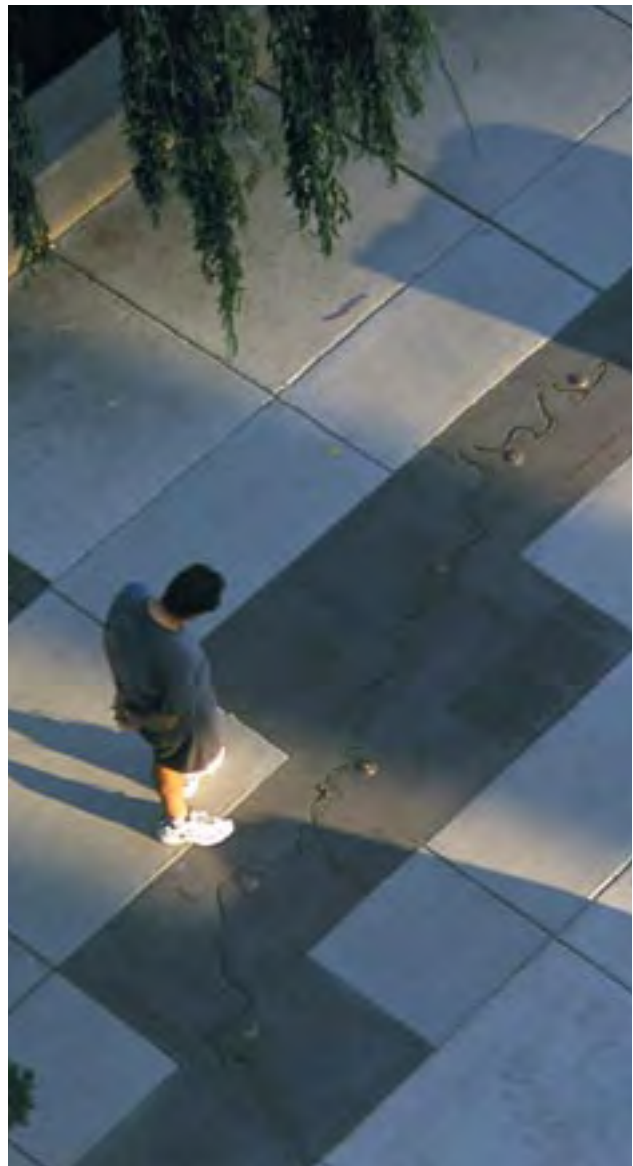


SW6.01

Gateway ID

Gateway signage will create landmark recognition at vital and highly visible entrances to the Atlanta BeltLine. These site-specific signs may maintain a relationship with the selected sign concept and/or materials. However, this is an opportunity to uniquely highlight these important gateway entrances.





SW6.02
Placemaking

The plazas along the corridor offer opportunities for unique placemaking signage installations. These site-specific signs may maintain a relationship with the selected sign concept and/or materials. However, this is an opportunity for originality and expression.



SW7 TECHNOLOGY

As the Atlanta BeltLine is developing over the next twenty years and beyond, technology will continue to evolve and progress. We have speculated on how technology will be used in the corridor, but these ideas will change over time to meet the needs of the users and to match the most current technological advancements.



SW7.01 “Next Train” LED Sign

LED read-out signs will hang from the transit canopy and provide information to waiting passengers.

In the future, these signs could be replaced by handheld smart phone applications as they become more universally used. Today, some people are already planning their route based on up-to-the-minute time estimates for transit.



SW7.02 Dynamic Mapping

Dynamic mapping uses an interactive LCD monitor for passengers to map the best route from their present location to their desired destination.

In the future, this could be replaced by handheld smart phone applications as they become more universally used. Today, some people are already using handheld applications for wayfinding.





SW7.03
Interpretive Apps

In the interest of minimizing interpretive text on the signs, handheld applications with custom icons would allow users to obtain more information on the things they are interested in. Topics may include public art, communities, flora, environmental awareness and historical landmarks.



SW7.04
Digital Ads

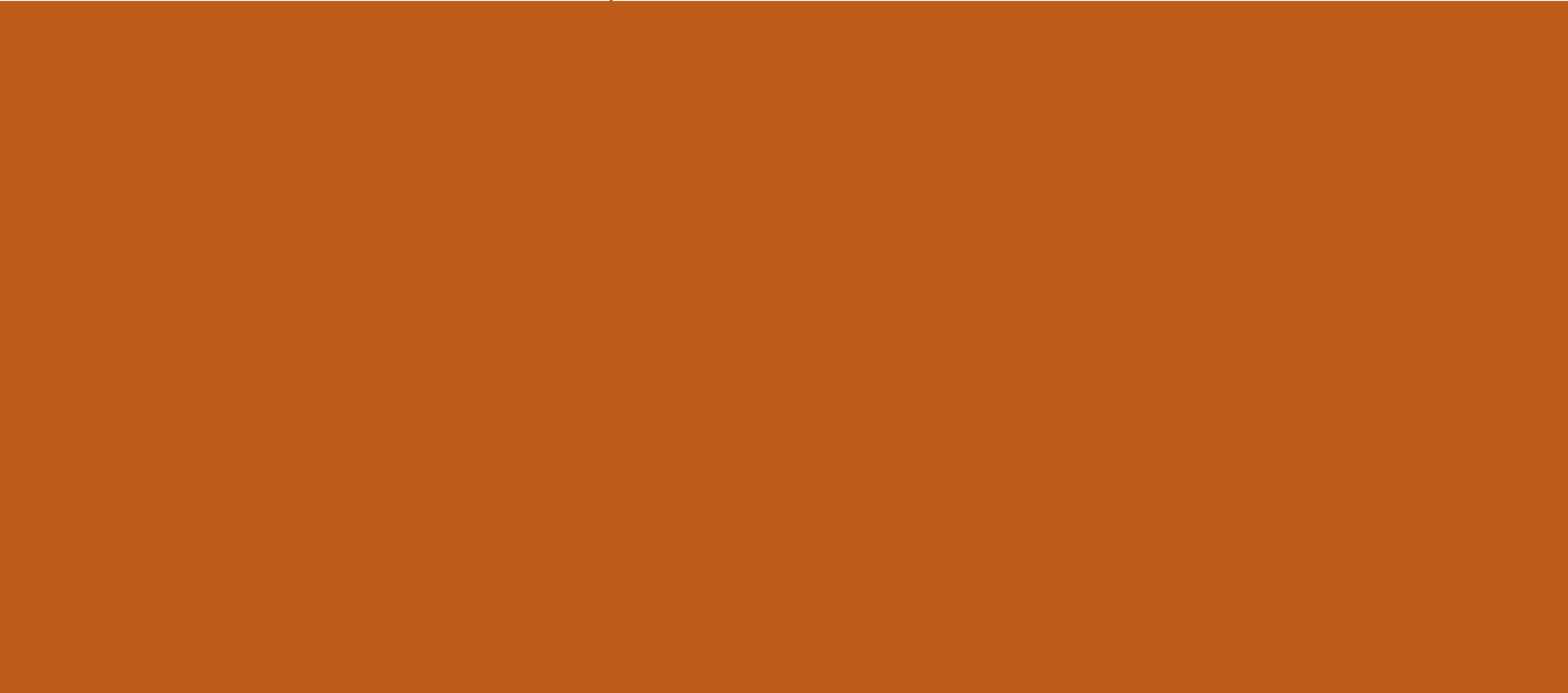
Digital advertising allows for ease of changeability and the opportunity for constant updates.

In the future, digital advertising will likely become interactive and customizable.





PUBLIC ART



PUBLIC ART
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The Atlanta BeltLine is a performative space where all public artwork is located with intent, is site-specific and operates both as a large-scale collection and as a set of intimate responses to specific site conditions. Public Art engages and contributes to the rich cultural variety of the Atlanta BeltLine through participation and inspiration.

public art

► INTEGRATED SUSTAINABILITY: PUBLIC ART

Energy & Climate: *Opportunity exists for artwork to incorporate on-site energy generation. Artwork can also have an educational component, informing the public of the Atlanta BeltLine’s contributions to reducing Atlanta’s carbon footprint.*



Water Efficiency & Quality: *Opportunity exists for artwork to incorporate active or passive water filtration / collection elements.*



Soil & Habitat Quality: *Opportunity exists for artwork to create habitat for wildlife. Artwork can also have an educational component, informing the public of urban wildlife present within the Atlanta BeltLine corridor, or in the Atlanta area.*



Sustainable Materials, Design & Construction: Public Art should not include toxic or leaching materials or coatings. Installation impact and waste should be minimized. Artists will be encouraged to use sustainable materials wherever possible.



Sustainable Operations & Maintenance: Artists will be encouraged to create pieces that are weather-resistant. Art which will require little or no maintenance will be encouraged.



Community Health, Access & Equity: Public Art is provided for the enjoyment of all. The ABI Community Benefit Guiding Principles outlines requirements for the equitable distribution of community benefits throughout the Atlanta BeltLine Tax-Allocation District. Artwork can also have an educational component, informing the public of the history of the Atlanta BeltLine and surrounding neighborhoods.



Connectivity & Smart Growth: *Artwork can have an educational component, informing the public of the Atlanta BeltLine’s contributions to urban connectivity and smart growth.*



CONDITIONS

While physical conditions for public art vary widely in the corridor, three simple considerations outline a framework of opportunities for the Atlanta BeltLine: Duration, Approach, and Cultural Conditions.

DURATION

While physical conditions for public art vary widely in the corridor, three types of conditions are possible.

Temporary

The Atlanta BeltLine offers a truly unique opportunity to be experimental and provocative through temporary public art across a broad variety of media. In addition to its benefits as art, it will constantly refresh the corridor, encouraging active use and engagement with both Atlanta residents and visitors.

Performative

As a new public space that is primarily designed for the movement and enjoyment of people, the Atlanta BeltLine is a natural performative space. By including both formal and informal spaces and infrastructure for performance, the corridor can support civic dialogue through a fluid reinterpretation of the public realm. Performative art could include artists' performance, performance of the space itself through intervention and contextualizations, and temporal / spatial performance involving mobility as an active element.

Permanent

The Atlanta BeltLine offers an organizing strategy for a cohesive collection of permanent public art, with work ranging from local talent to world-renowned artists; from integrated works where artists design integral components of the Atlanta BeltLine's infrastructure to stand-alone sculptures and monuments.

APPROACH

Whether freestanding or embedded in the design process, all public art is considered with site-specific criteria, through an intentional site selection process that also considers the artist's contribution to the site. Durational and Cultural conditions are applied to each commission to ensure appropriate cultural contributions.

Independent

Artists work more independently on projects. Existing works are selected with specific site compatibility criteria.

Integrated

Artists work with design teams, contractors and manufacturers to achieve artwork that is fully integrated into a larger design context and can contribute to functionality.

CULTURAL CONDITIONS

Cultural Conditions on the Atlanta BeltLine present a multidimensional social fabric that must be considered when addressing public art.

Existing Cultural Assets

Established amenities and cultural organizations anchor clustered hubs providing community resources in cultural production and outreach.

Equitable Distribution

Cultural impact must reach beyond creative hubs to serve the diversity of communities and address underserved neighborhoods.

Historical Context / Connections

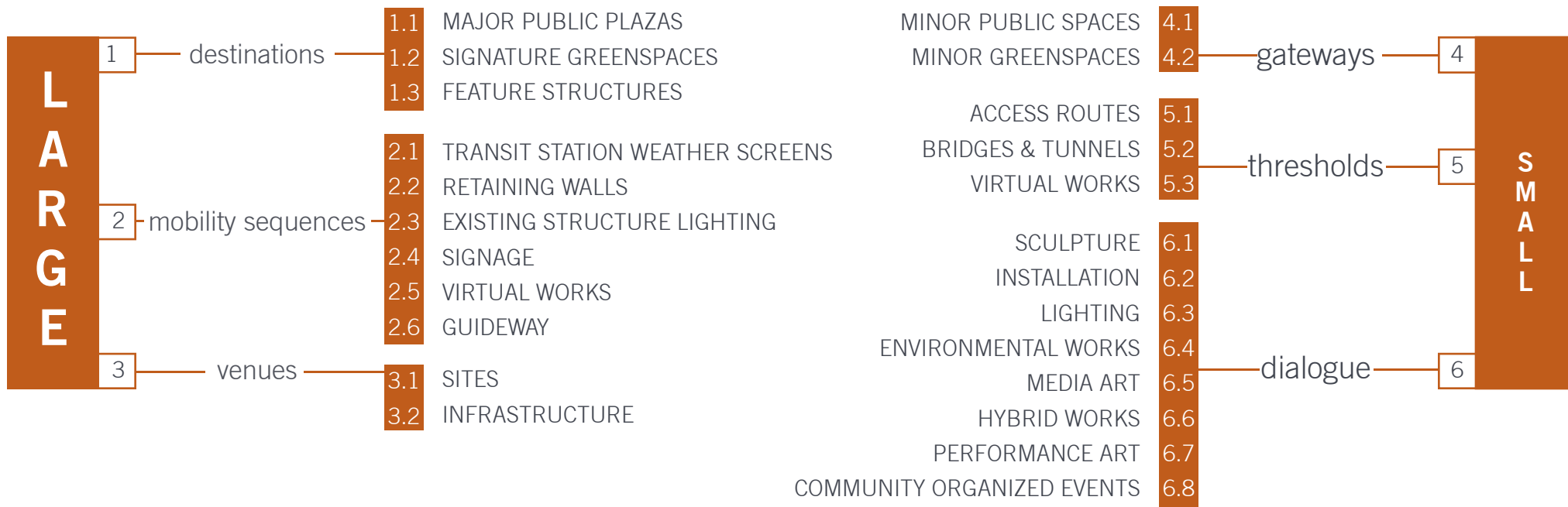
A comprehensive historical context provides a broader engagement of the railroad history of the Atlanta BeltLine as well as specific site identifications as part of a historical matrix.





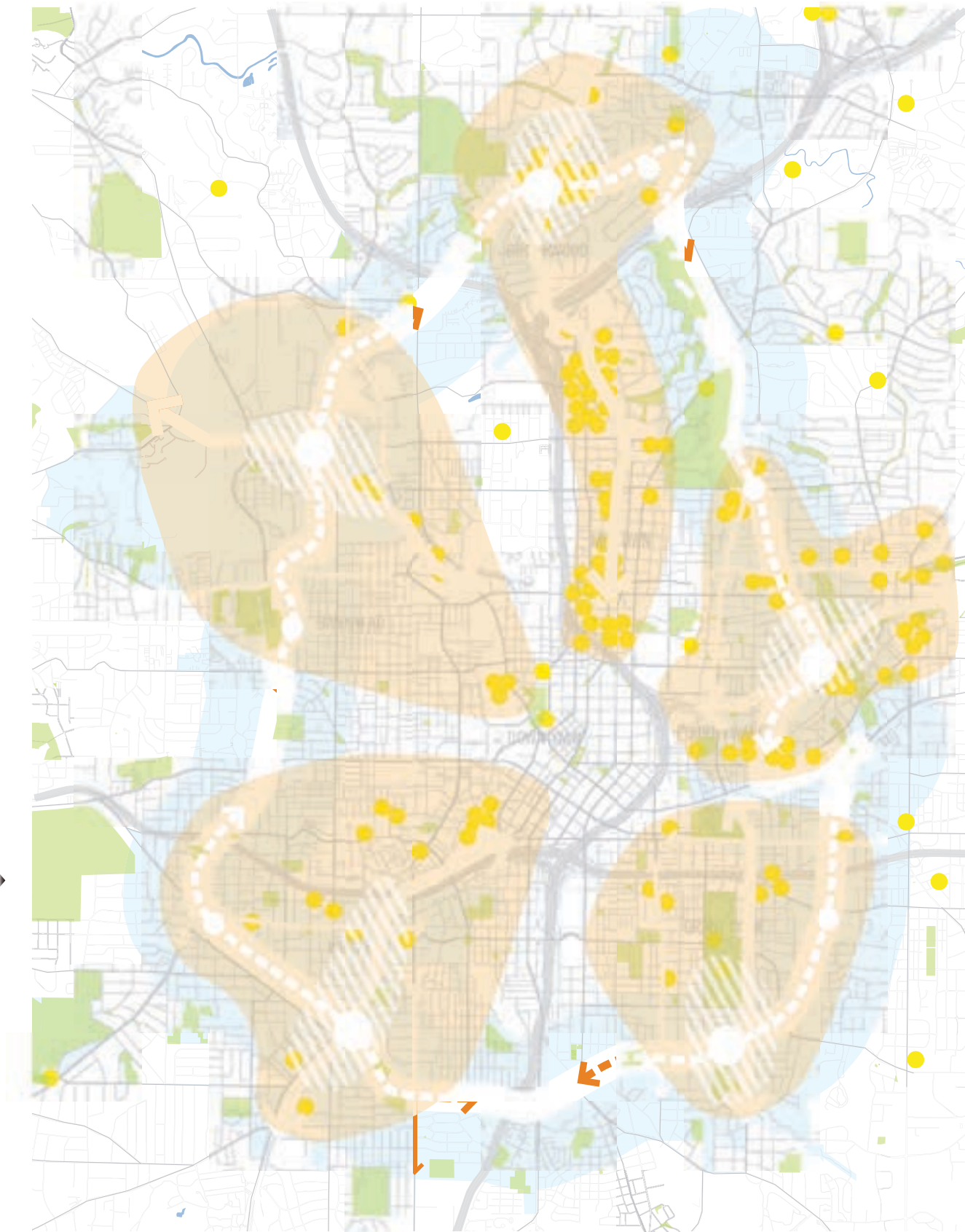
DESIGN MATRIX

Public Art supports a balance of cultural experiences woven together at both large and small scales. Large scale public art operates at the scale of the Atlanta BeltLine itself, ensuring cultural conditions are met across a large geography. Small scale works respond to more immediate and physical circumstances at the site level. Overlap between these scales will ensure that big destinations do not ignore their immediate context and more intimate responses can be heard within a larger dialogue.



LARGE SCALE ART

Geographically, five cultural corridors are identified as a way to organize large-scale public art strategies and support existing and emerging arts districts. These corridors provide a fluid framework of resources and opportunities to relate and respond to the social fabric of the Atlanta BeltLine communities. This civic infrastructure supports the development of a balanced, equitable distribution of destinations, sequential connections and site-specific interventions while contributing to the growth and development of cultural producers in the public realm.



A. Peachtree

This is an established cultural corridor housing the majority of Atlanta's cultural organizations, including the Woodruff Arts Center, which houses the Atlanta Symphony Orchestra, the Alliance Theater and the High Museum of Art. It is also includes the opportunity for a prominent new public space at the crossing of Atlanta's signature Peachtree Street.

B. Freedom

This is an emerging cultural corridor that includes the ML King, Jr. Center, Jimmy Carter Presidential Library, Piedmont Park, the Atlanta Botanical Gardens and Freedom Park itself, often used for exhibitions of temporary public art.

C. Boulevard

This is a burgeoning corridor representing a mix of young gallery and non-profit theater and performance driven spaces integrated into mix-used and residential areas. Its major amenity is Grant Park, housing the historical Cyclorama and its institutional anchor, Zoo Atlanta.

D. Murphy

This is an emerging cultural corridor connecting Castleberry Hill into the Atlanta BeltLine and including a large share of artist studios in the transitioning industrial districts along Murphy Avenue. It also includes institutions like Hammonds House, the Wren's Nest and is the closest link into facilities and programs at the Atlanta University Center.

E. Marietta

This is an emerging cultural corridor, loosely connecting Georgia Tech to the Atlanta BeltLine with the established Westside Arts District which includes several art galleries, the Atlanta Contemporary Art Center and King Plow Arts Center.



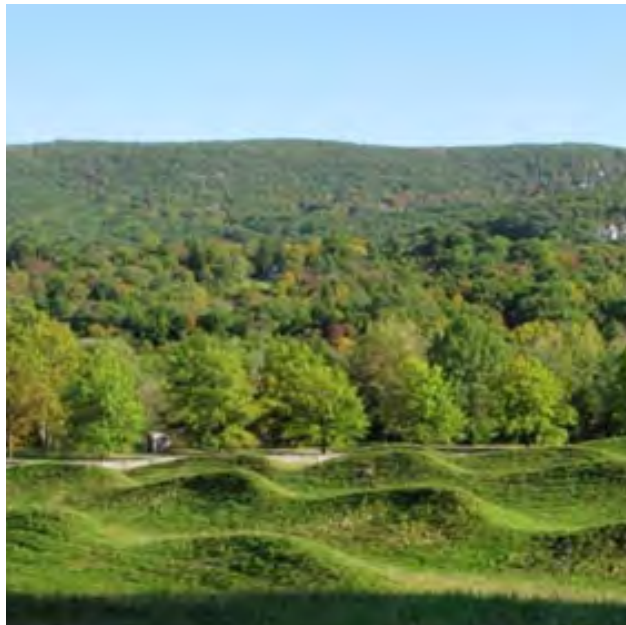
DESTINATIONS PA1

Destination development provides a balance of place-making anchors to uphold a linear infrastructure of social spaces. Destinations anchor the amenity development of public art on the Atlanta BeltLine while ensuring equitable distribution of assets throughout the corridor. These are signature, important works and spaces that typically emerge from [public process], and they are deliberately positioned within the large-scale context of the Atlanta BeltLine within each of the cultural corridors.



PA1.1 Major Public Plazas

Signature, Large-Scale Permanent Sculpture. These works present dynamic visual icons and significant national and international cultural assets for a world-class public art collection. Commissions include both integrated and freestanding permanent commissions, or may be the design of a permanent site for rotating artwork. The latter would support freestanding and performative works through temporary works-on-loan. Ongoing presentation of nationally significant works supports an infrastructure of social spaces as destinations and a fluid interpretation of civic spaces over time. Commissions may also include feature lighting design for the plaza and artwork.



PA1.2 Signature Greenspaces

Permanent Environmental Works. Integrated environmental works create unique correlations between the natural and built environment, presenting living forms and landscapes within the public art collection. Temporary Lighting projects create experiential and interactive greenspace destinations and support civic relationships to the natural environment.



PA1.3 Feature Structures

Permanent, Integrated Works with Bridges and Tunnels. Signature bridges and tunnels provide an integrated public art commission at the design phase of the project that may include sound, lighting and surface impacts. Distance viewing and pedestrian experience are considered equally. Linear surface applications in texture and material, as well as lighting designs, create a progressive experience with mobility as a key consideration.



PA2 MOBILITY SEQUENCES

Sequential projects enhance the mobility experience between destination sites. Sequential or Serial Public Art emphasizes a mobility of experience based upon time space relationships and the fluidity of the Atlanta BeltLine's horizon. Large segment and full-scale structural impact sites present a progressive, incremental continuity to the visual landscape.



PA2.1 Transit Stations

Permanent, Integrated Weather Screens. Weather screens are identified as an integrated art component within the modular design of each transit station canopy structure. This vertical public art element is most typically a transparent surface, laminated glass application allowing two-dimensional works to incorporate photographic, painted, collage, and text based works, to name a few. Alternate works for the same vertical plane at below-grade stations may include wall-surface artwork such as bas-relief or tile mosaic. This sequential project strategy incorporates multiple sites within each cultural corridor into each commission, supporting the linear experiential sequence along the corridor. See Transit Stations.



PA2.2 Retaining Walls

Permanent Retaining Wall Design or Recurring Wall Features. Retaining wall sites are selected for unique, broad spanning views that accentuate the horizontality of the corridor and are approached as a series of sites as a single commission opportunity. The fluid extension of a singular commission contributes to the physical and visual continuity of the corridor. Integrated sculptural applications of retaining wall surfaces utilize permanent and sustainable materials. Distance and close proximity viewing experiences are considered equally. See Hardscape - H4.2.



PA2.3 Existing Structure Lighting

Permanent Light Installations at Existing Bridges and Tunnels. Visual continuity is emphasized through a consistent, identifiable lighting design application to existing bridges and tunnels within each cultural corridor. Lighting highlights railroad history and compliments the unique forms of structures, enriching the night time experience for users. See Lighting.





PA2.4
Signage Art

Temporary, Permanent Signage. Temporary signage projects are created in sequential works where advertising may be interchanged. Displayed in temporary materials, including vinyl printing, sequential works contribute to wayfinding, transit and geographical explorations of the corridor experience. Permanent historical signage may include embedded markers that contribute to the narrative of civic spaces through geographical relevance. Sequential markers span historically emphasized areas and focus on site specificity in broad ranging and more ephemeral applications. These applications include concrete stamping or tile replacement in concrete, granite or ceramic applications. Works do not interfere with the continuity of the trail. See Signage and Wayfinding.



PA2.5
Virtual Works

Temporary, Performative Virtual Works. Virtual public art works relate and respond to the historical and social context of the corridor and contribute to wayfinding and educational programs. Mobile device support should be integrated into signage and temporary site networking strategies. See Media Art - PA6.5.



PA2.6
Guideway

Temporary, Performative Art on the Guideway. Use of the future transit guideway provides additional temporary and performative project space during the initial development phase.



PA3 VENUES

Venues support a broad range of public art programs including temporary and performative arts. A network of permanent public art sites supports performative and temporary art by providing physical space for new and existing cultural producers and assets to contribute to the social fabric and experience of the corridor. This network offers a consistent, dedicated infrastructure of spaces as an identifiable amenity matrix for community driven engagement. Works at this scale are organized around an equitably distributed set of venues and support infrastructure in each of the cultural corridors.



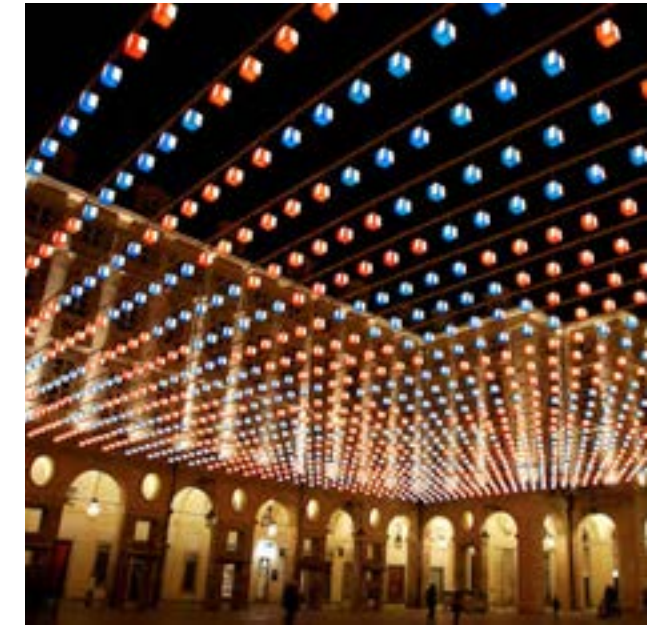
PA3.1 Physical Spaces

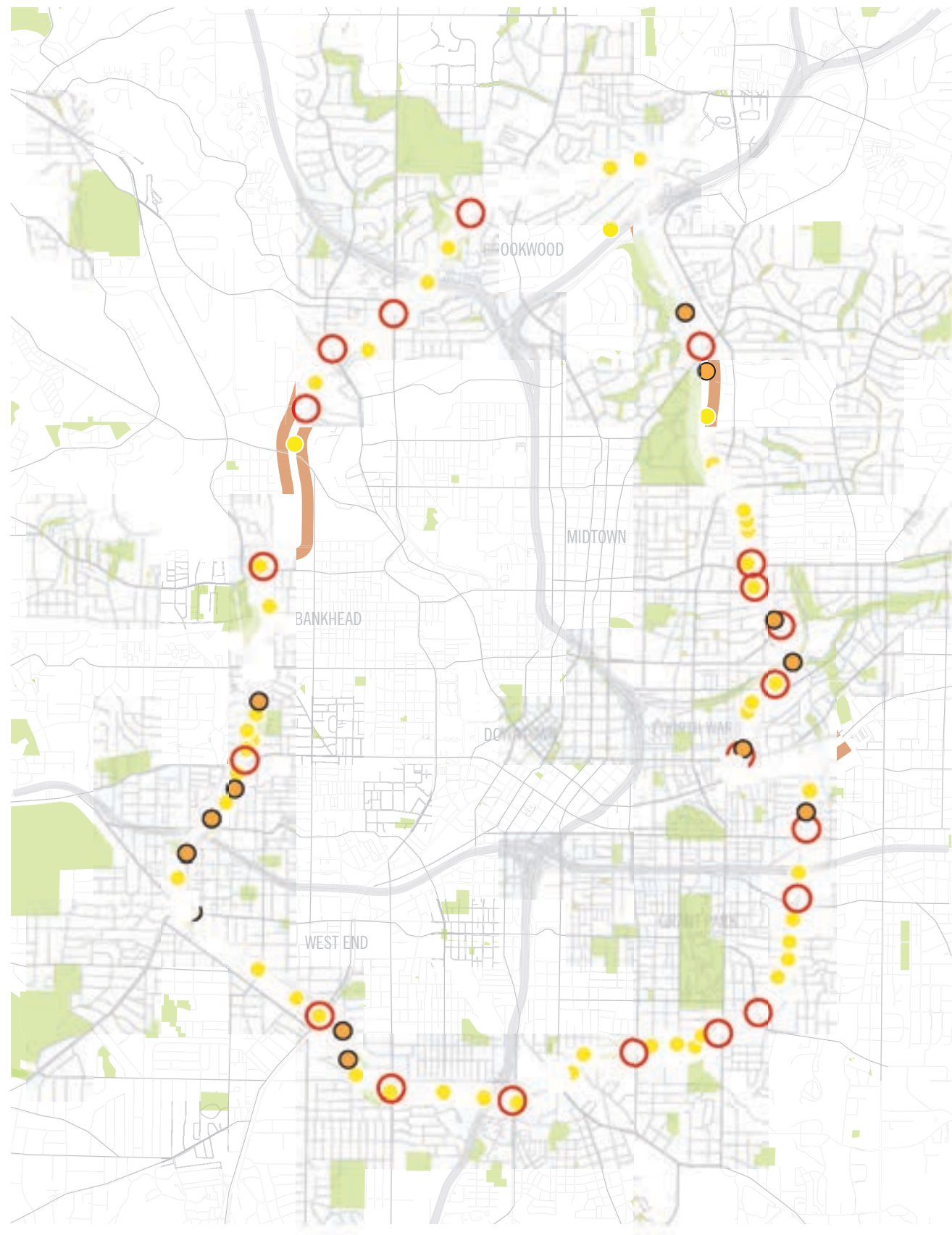
Physical Spaces. A range of art spaces that are equitably distributed platforms for small-scale temporary. See Dialogue - PA6.



PA3.2 Physical Support Infrastructure

Infrastructure – Physical Support Infrastructure. Supporting media, performance and community arts. See Dialogue - PA6.





public art
design

SMALL SCALE ART

Smaller scale public art amenities play a critical role through intimate site interventions, cultivating cultural dialogue at the local level, providing a fluid interpretation of place and encouraging public engagement in the ownership of civic spaces. These projects are less about the Atlanta BeltLine as a whole, and more about its relationship to specific communities, destinations or sites, or speak to other topics altogether.

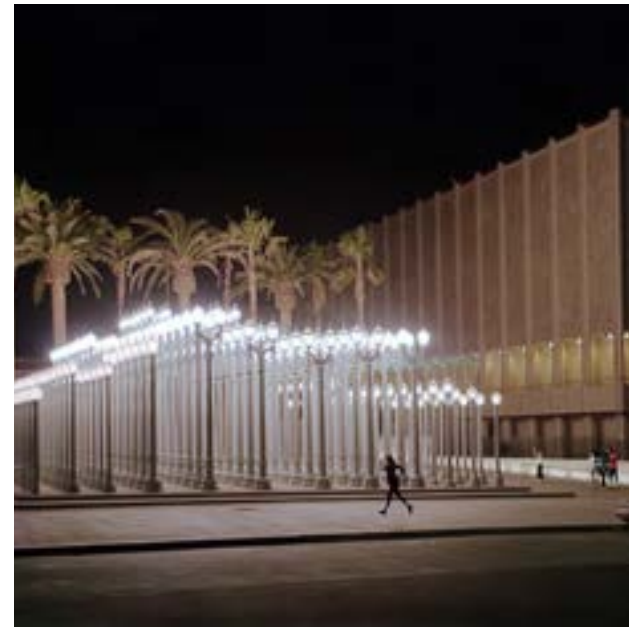


Diagram of Many, Small, Varied Opportunities



PA4 GATEWAYS

Gateways, which are visual and spatial connections between communities and their access points. Singular neighborhood gateways anchor community access points and develop a diverse intersection of community identity structures. The Atlanta BeltLine Spaces Program supports the development of these anchors through site selection and includes artists in the design phase of each project.



PA4.1 Minor Public Spaces

Freestanding or Integrated Site Works. Smaller, designated public spaces, such as plazas, pocket parks and access adjacencies create visual iconography around historical and cultural features integral to community and corridor identity relationships. Site works reflect unique geographies, their historical significance and place within the corridor, with opportunities for integrated and freestanding sculptural elements, ground maps, historical markers and memorials.



PA4.2 Minor Greenspaces

Permanent or Temporary Environmental Works. Environment arts present a range of permanent and temporary options within minor greenspace integrations. Works incorporate topological and natural materials in the spatial impact of the site. Interventions in the landscape take visual and physical accessibility into consideration as the work creates new discoveries and dialogue with natural surroundings. [Three Tree Hill, integrated greenspace projects, BeltLine Arboretum]



THRESHOLDS PA5

Thresholds provide unique transitional areas where public art impact announces the Atlanta BeltLine through sequential experience design on a more intimate scale. Threshold commissions emphasize the mobility of transition areas as an integral component of the corridor. Soundscapes, sequential text works and integrated lighting design are suggested applications.



PA5.1 Access Routes

Integrated Works at Stairs and Ramps. Permanent works of various types are focused on subtle, more ephemeral surface and spatial integrations. Horizontal surfaces such as concrete walkways and stair steps allow progressive designs to incorporate and sometimes modify continuity elements such as railings and ramps. Permanent Sound and Lighting projects emphasize the linearity of the transition between the Atlanta BeltLine and surrounding districts, highlighting the forward movement of the pedestrian. Temporary Signage projects (both integrated and freestanding) create evolving iconography at smaller access points, emphasizing placemaking strategies through stencil and professionally printed materials.



PA5.2 Bridges + Tunnels

Integrated Sound and Light Works (Sound – Permanent/Temporary). Integrated sound and lighting designs create linear site impact encompassing the pedestrian in unique and intimate experience. Mobility is an emphasis within the design constructs. Often the threshold between one landscape character room and another, bridges and tunnels can create thresholds with powerful experiential qualities.



PA6 DIALOGUE

Dialogue projects that activate the corridor through temporary creative expressions and civic driven programming. These works are considered in the Corridor Design because they speak to how people will occupy it, allowing informal, socially organized activities to create civic ownership of the corridor. Works at this scale utilize and respond to the design of the corridor, but do not always rely on prescribed temporary sites of the venue network or formal infrastructure. In their diversity, changeability and experimentation, they support the adventurous exploration of the corridor and are all Temporary and Performative in relationship to site-specificity and civic engagement.



PA6.1 Sculpture

Temporary Freestanding Sculpture. Works engage the community through a rotation of impact areas determined through the temporary siting network. Works should be selected with site specificity regarding site and content compatibilities, temporary destination development and Art on the Atlanta BeltLine programming initiatives.



PA6.2 Installation

Temporary Site-Specific Installations. Sites should develop a consistent, rotating set of interventions, supporting civic dialogue and a reinterpretation of place.

PA6.3 Lighting

Temporary lighting designs activate temporary sites in immersive and interactive experiences, placing emphasis on unique site characteristics and fluid spatial impact. A balanced distribution along the temporary site network should maintain temporary destination development. See Lighting.

PA6.4 Environmental Works

Temporary natural intervention opportunities in the temporary project category should underscore civic relationships to the natural environment and preserve a seasonally responsive sensitivity.





PA6.5 Media Art

Multimedia Sound design in public spaces relate to the mobility of the Atlanta BeltLine corridor through digital and natural mechanisms. *Video Projection* projects create an additional layer of time-based space, incorporating architectural impact and sequential experience design. New civic narratives reinforce the character of sites, taking advantage of existing structures while playing off of property adjacencies. Multidimensional impact should consider distance viewing as well as closer proximities. *Technology development in transit* include wayfinding and sequential design strategies, individually and over several station segments, providing a cohesive visual language.



PA6.6 Hybrid + Virtual Works

Interactive, participatory, mobile, gaming, wayfinding, educational. Participatory technologies present dynamic and innovative encounters, acknowledging the collapse of virtual and physical civic spatial relationships. Applications in mobile media design support wayfinding strategies and educational and historical placemaking, while taking a virtual approach to site interactions and spatial infrastructures.

PA6.7 Performance Art

Theatrical, Musical, Dance, Literary. The temporary site network creates an infrastructure to support each of the performing arts genres. Amphitheaters as well as multidisciplinary sites allow for interpretive, educational and historical performance collaborations to sustain a fluid cultural asset.

PA6.8 Community Organized Events

The temporary site network establishes a *broad network of spatial opportunities* where community groups can present civic events on a neighborhood and corridor scale.





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development interface

THE ATLANTA BELTLINE: TYPOLOGIES
REVISED 08/05/2013

► INTEGRATED SUSTAINABILITY: DEVELOPMENT INTERFACE

Energy & Climate: *Not applicable.*



Water Efficiency & Quality: The limitation of impervious surfaces and the use of permeable paving systems is recommended within the Atlanta BeltLine Overlay District for stormwater runoff reduction. In some cases, the Atlanta BeltLine may be able to accept stormwater from neighboring sites for management and treatment with BMPs within the corridor.



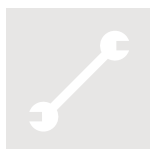
Soil & Habitat Quality: Prohibition of activities that degrade soil quality and stability are recommended within the Atlanta BeltLine Overlay District to protect the soils and habitats within the Atlanta BeltLine corridor.



Sustainable Materials, Design & Construction: Construction activities within the Atlanta BeltLine Overlay District are recommended to comply with Sustainable Sites Initiative Section 7 (Construction) to minimize waste, emissions and pollution. The Atlanta BeltLine Sustainability Guidelines will be made public to encourage others to follow suit with sustainable design and construction.



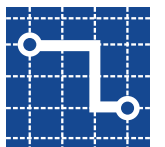
Sustainable Operations & Maintenance: *Not applicable.*



Community Health, Access & Equity: The Atlanta BeltLine promotes a fully permeable edge, to the extent possible, to increase access to the corridor and promote active living.



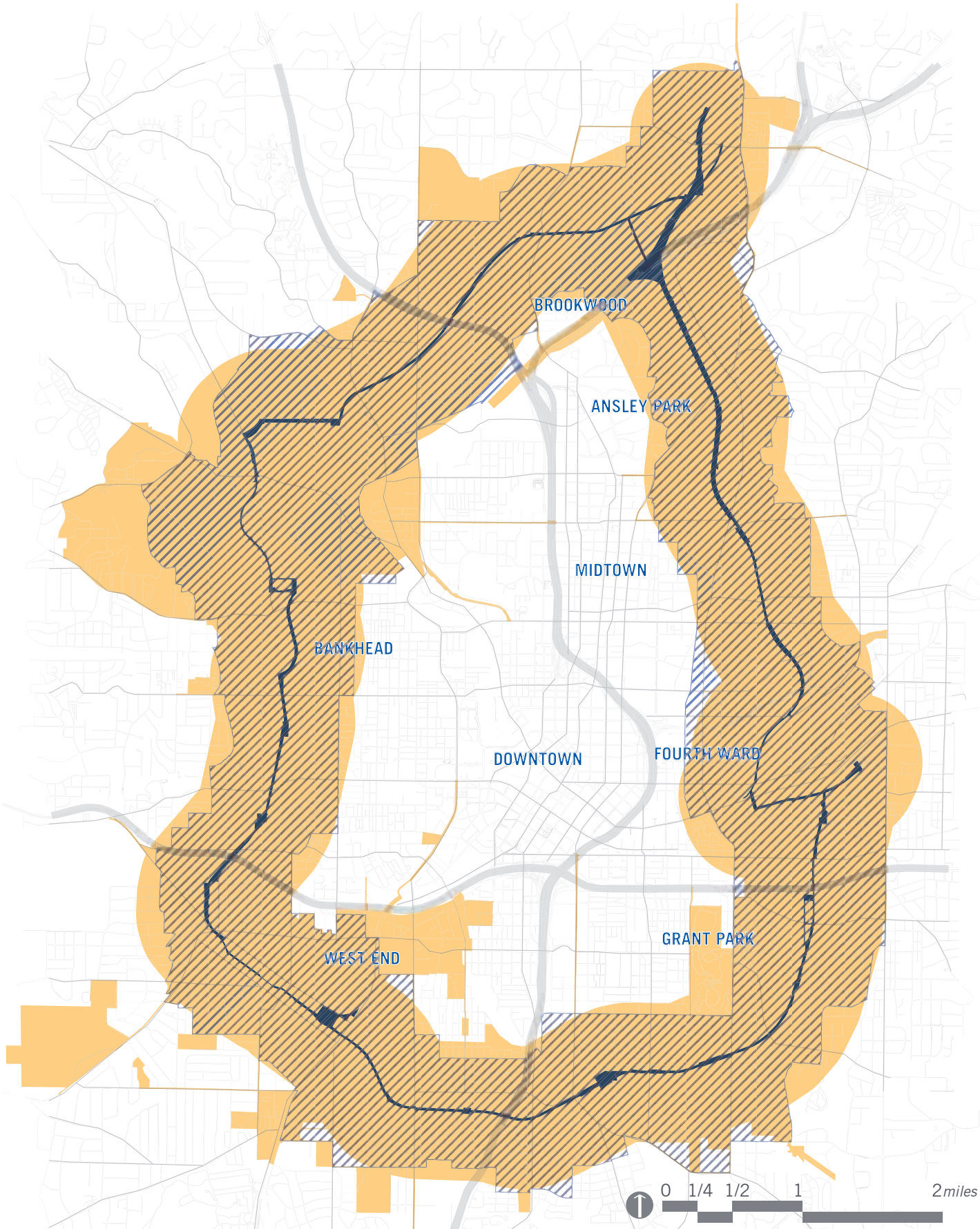
Connectivity & Smart Growth: The Atlanta BeltLine promotes a fully permeable edge, to the extent possible, to promote smart growth and use of alternative transportation. Mixed-use development that fronts the corridor with retail access is encouraged.



THE OVERLAY DISTRICT

The Atlanta BeltLine Overlay District includes parcels that are located within half-mile radius of the Atlanta BeltLine right-of-way. A half-mile distance is typically covered by ten minutes of walking and is considered to be a reasonable walking distance for an average person. The Atlanta BeltLine Overlay District is subject to additional design and review by the City of Atlanta Planning Department to encourage transit-oriented and pedestrian-friendly, mixed-use and mixed-income development around the Atlanta BeltLine corridor.

- Atlanta BeltLine Corridor Right-of-Way
- Atlanta BeltLine Planning Area
- Atlanta BeltLine Overlay District



INTERFACE CONDITIONS

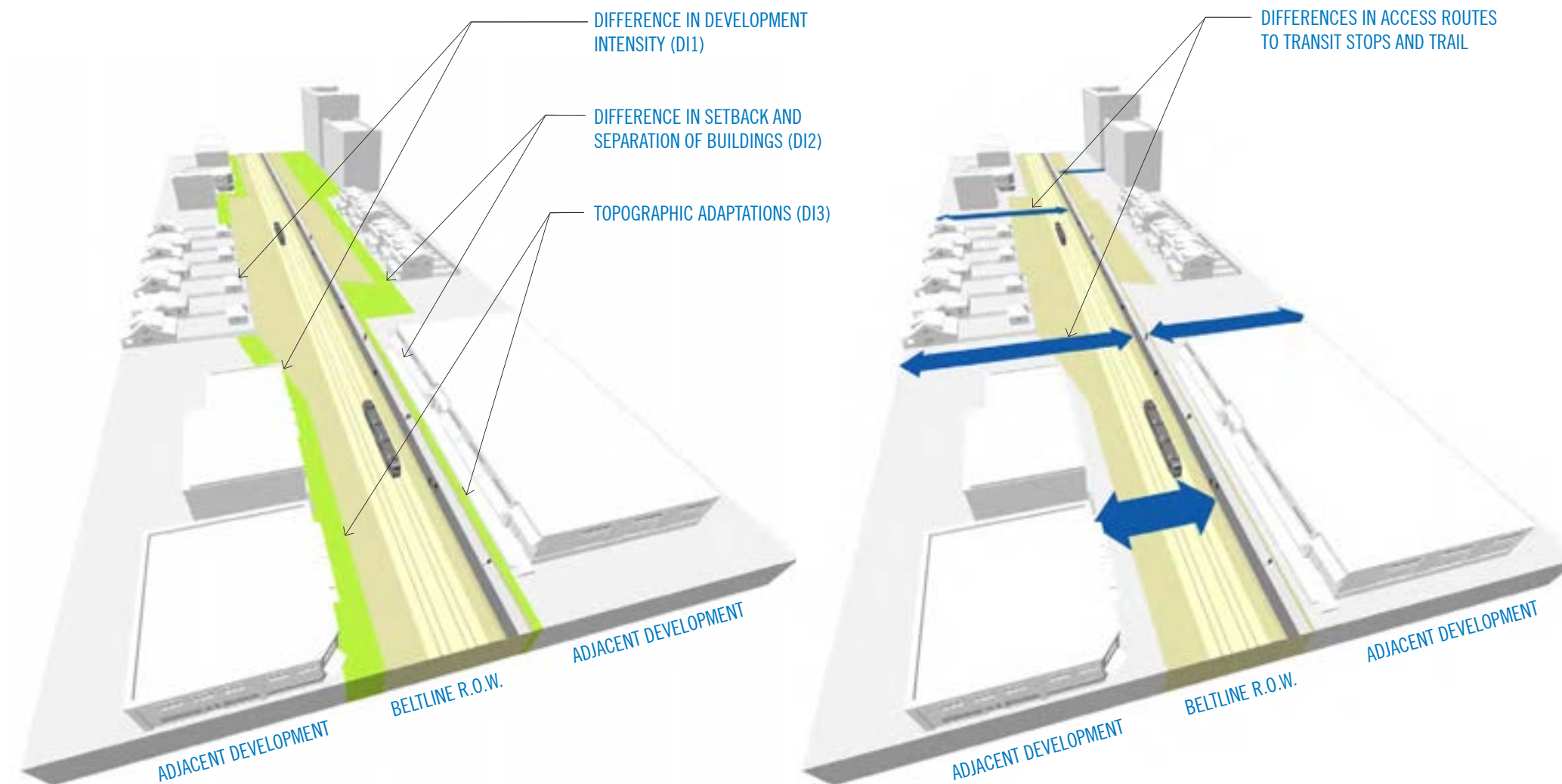
The number of variations generated by even a small number of adjacency conditions like development type, setback and topography is fairly large, and certainly any in-depth look at the physical reality of the Atlanta BeltLine corridor reveals a great number of interface conditions. This section organizes the primary issues to help direct what is likely to be a somewhat unique response to most adjacencies. There are two main objectives for Development Interface:

CORRIDOR ACCESS. The permeability and accessibility of the corridor edge is influenced by:

- DI1: Development Intensity
- DI2: Setback + Separation
- DI3: Topographic Adaptations

TRAIL AND TRANSIT ACCESS. The frequency, dimension and material of designed physical connections is outlined by:

- DI4: Trail + Station Access



CORRIDOR ACCESS

Permeability of the corridor edge

TRAIL + STATION ACCESS

Direct physical access to mobility structure

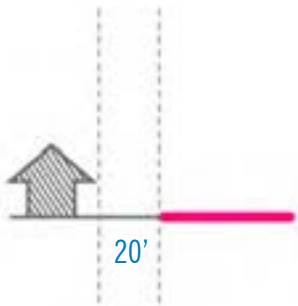
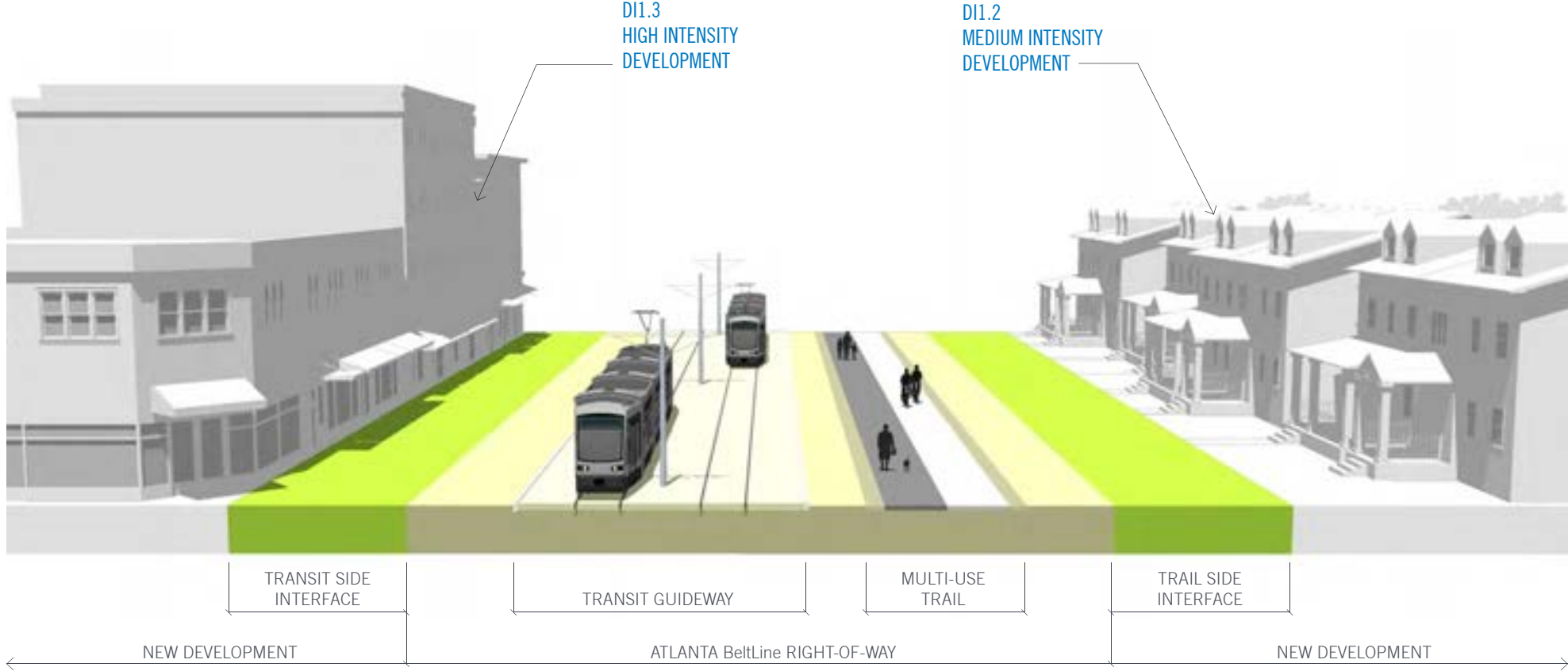


DI1 DEVELOPMENT INTENSITY

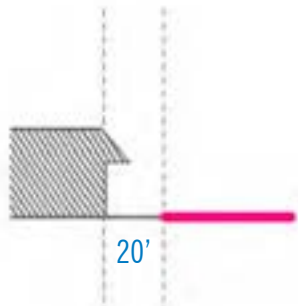
The intensity of adjacent development plays a role in the design of the corridor interface. Where densities are low and likely to stay low, like in single-family neighborhoods, the interface may simply be planted area consistent with the main corridor's design. Where densities are high, hardscapes and even café terraces may be permitted in addition to paved access walkways.

The following section defines the development interface along the Atlanta BeltLine for three levels of development intensities:

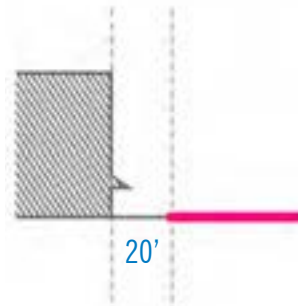
- Low Intensity Development
- Medium Intensity Development
- High Intensity Development



DI1.1
Low Intensity Development



DI1.2
Medium Intensity Development



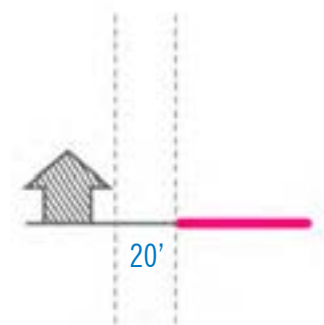
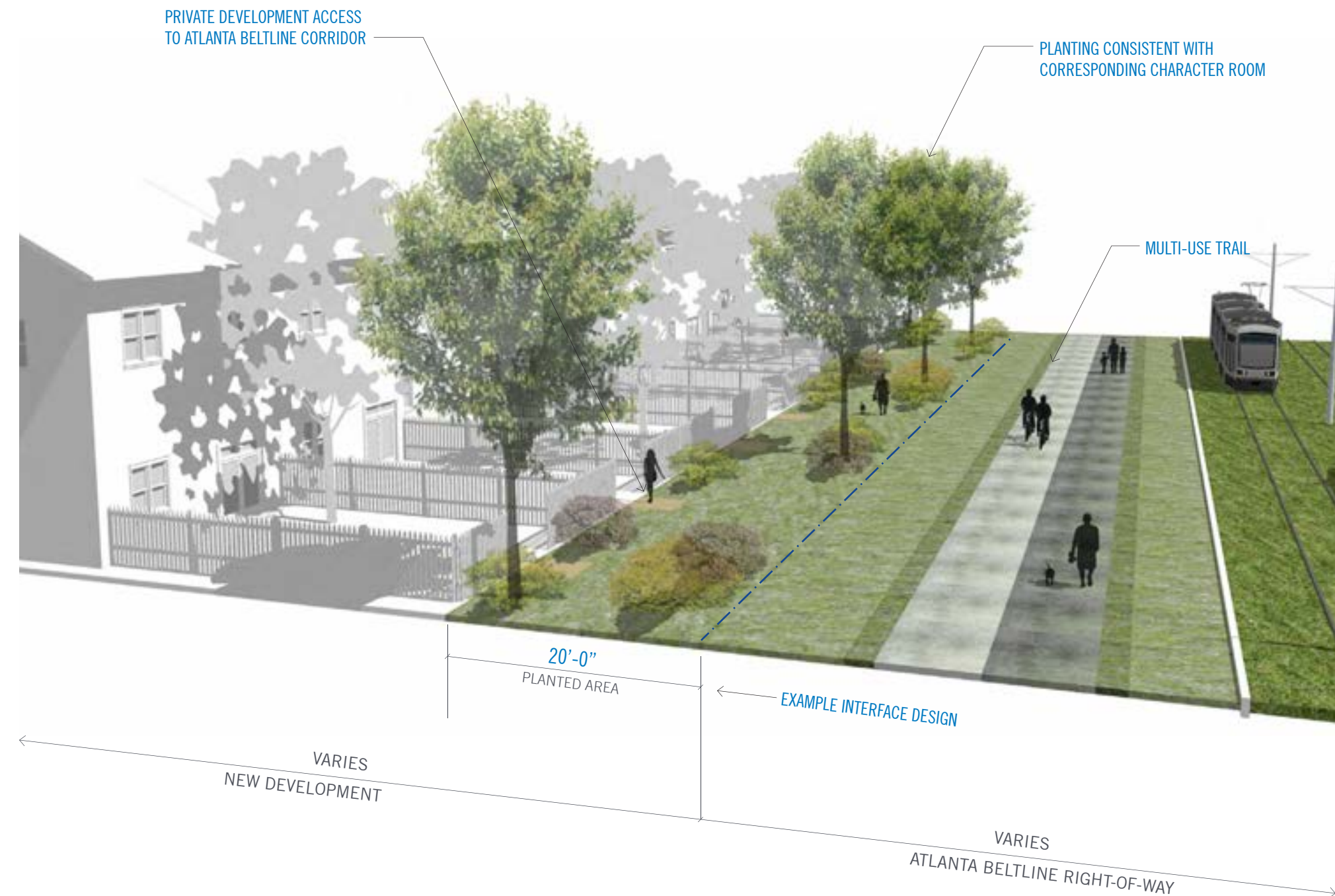
DI1.3
High Intensity Development



DEVELOPMENT INTENSITY

Low Intensity Development DI1.1

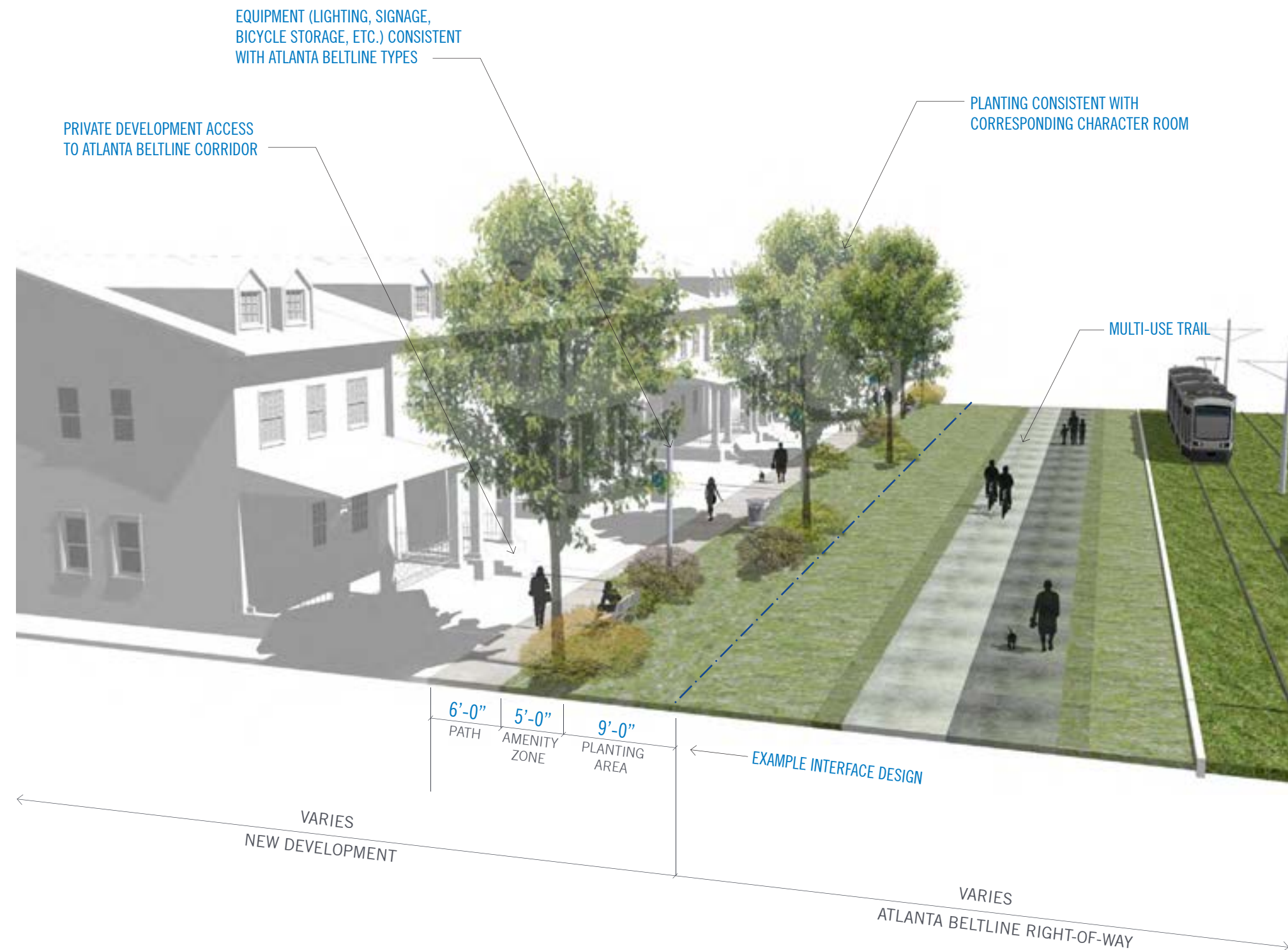
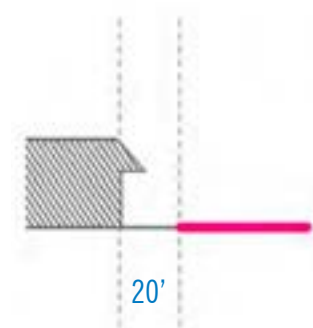
Access between the corridor and adjacent low-intensity development is encouraged but not physically defined by formal pathways. Where high usage may create desire lines over time, these may be managed by implementing soft-surface trail materials and design standards (See Hardscape-H2.2). Furniture, lighting and signage elements are not permitted in this zone; landscape plantings should match corridor typologies.



DEVELOPMENT INTENSITY

DI1.2 Medium Intensity Development

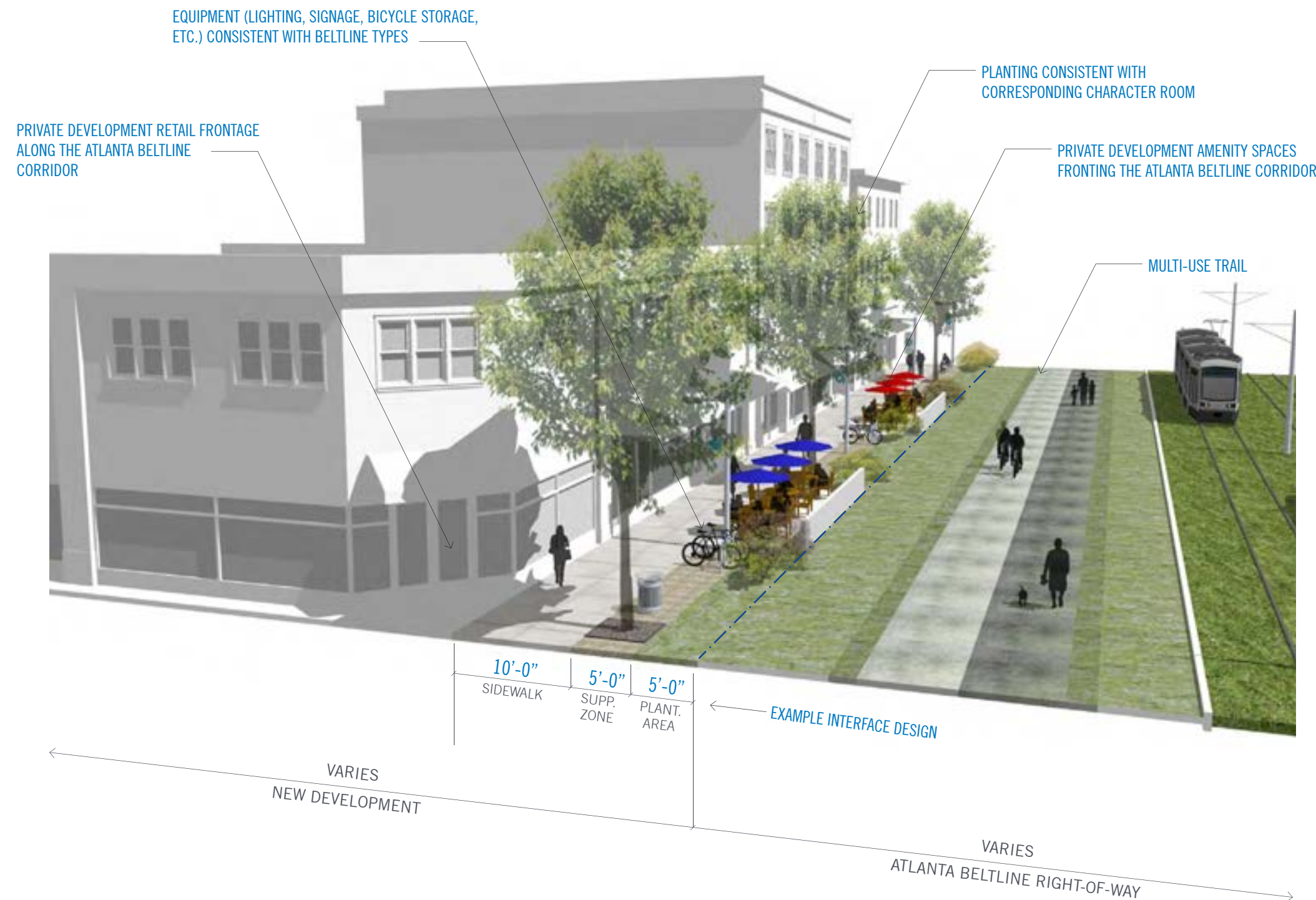
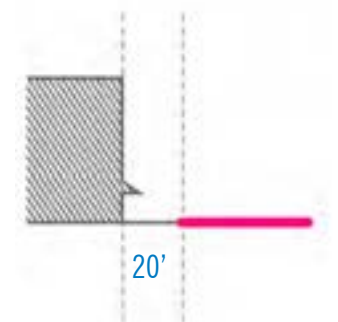
Access between the corridor and adjacent medium-intensity development is encouraged to utilize collecting pathways (whether soft or hard surface) in order to minimize trampling of plantings and avoid user conflicts on the trail (see Trail + Station Access - DI4). Furniture, lighting, signage landscape and hardscape elements in this zone should match corridor typologies.



DEVELOPMENT INTENSITY

High Intensity Development DI1.3

Access between the corridor and adjacent high-intensity development is encouraged to utilize collecting hard surface pathways in order to minimize trampling of plantings and avoid user conflicts on the trail (see Trail+Station Access - DI4). Furniture, lighting, signage landscape and hardscape elements in this zone should match corridor typologies. Where appropriate, café terraces and other social uses are encouraged to activate this zone, and in some unique cases where space permits, may be permitted on Atlanta BeltLine right-of-way as leasable space.

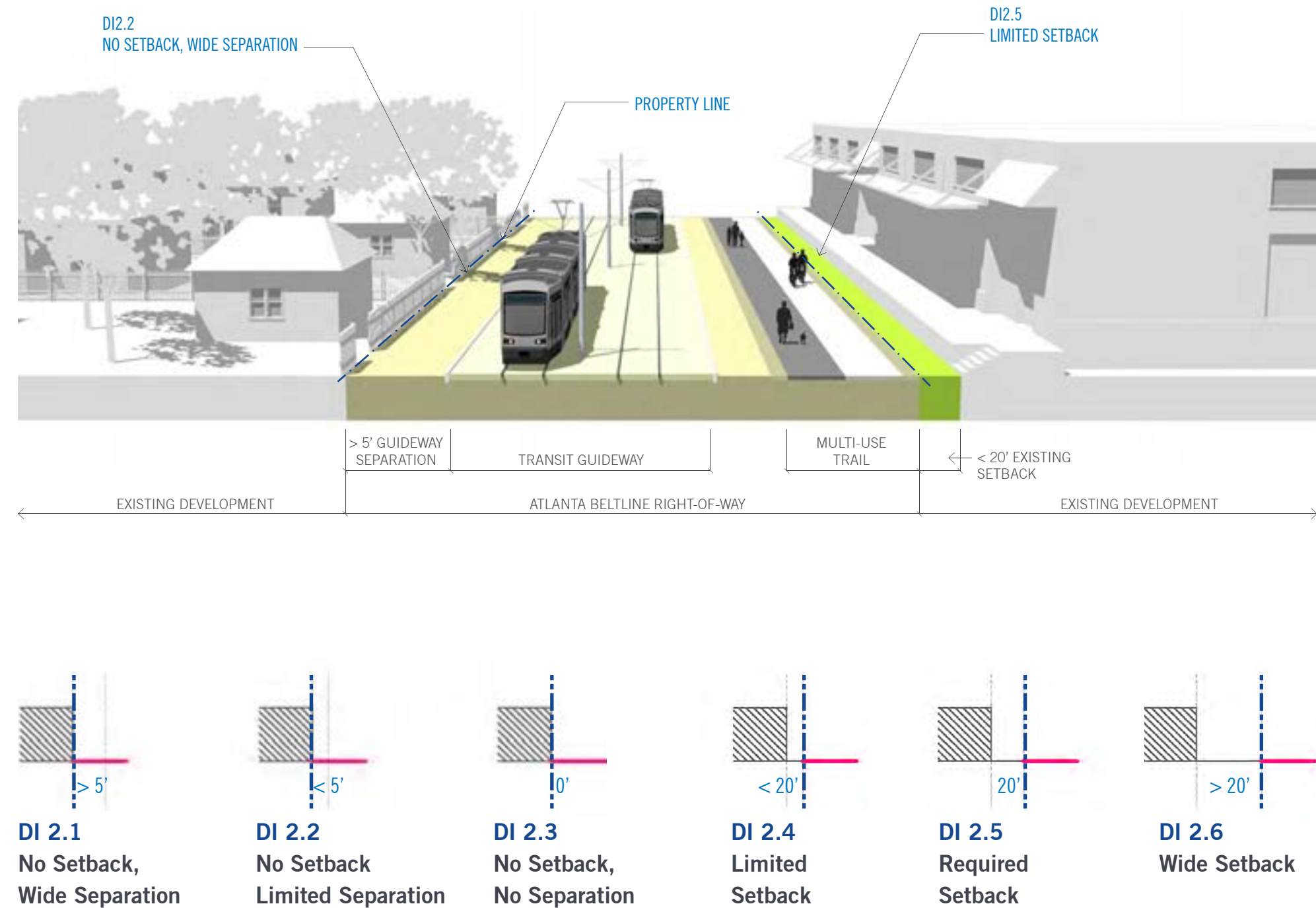


DI2 SETBACK + SEPARATION

Two interrelated issues, the setback of buildings from the right-of-way and the separation of adjacent buildings from the Atlanta BeltLine trail and transit guideway, play a large role in Development Interface. The Atlanta BeltLine Overlay Zoning District requires a 20' setback, so most new buildings will have adequate separation, even where the transit or trail may be tight to the property line. Existing buildings, however, along with most single-family lots, will likely never provide the 20' setback, and where conditions are tight, this will create challenges for corridor access.

The following section defines the development interface along the Atlanta BeltLine for six scenarios related to building setback and separation:

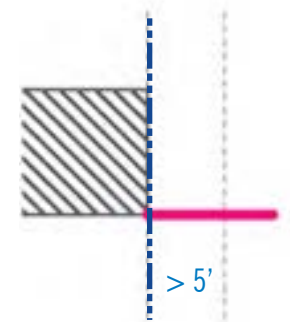
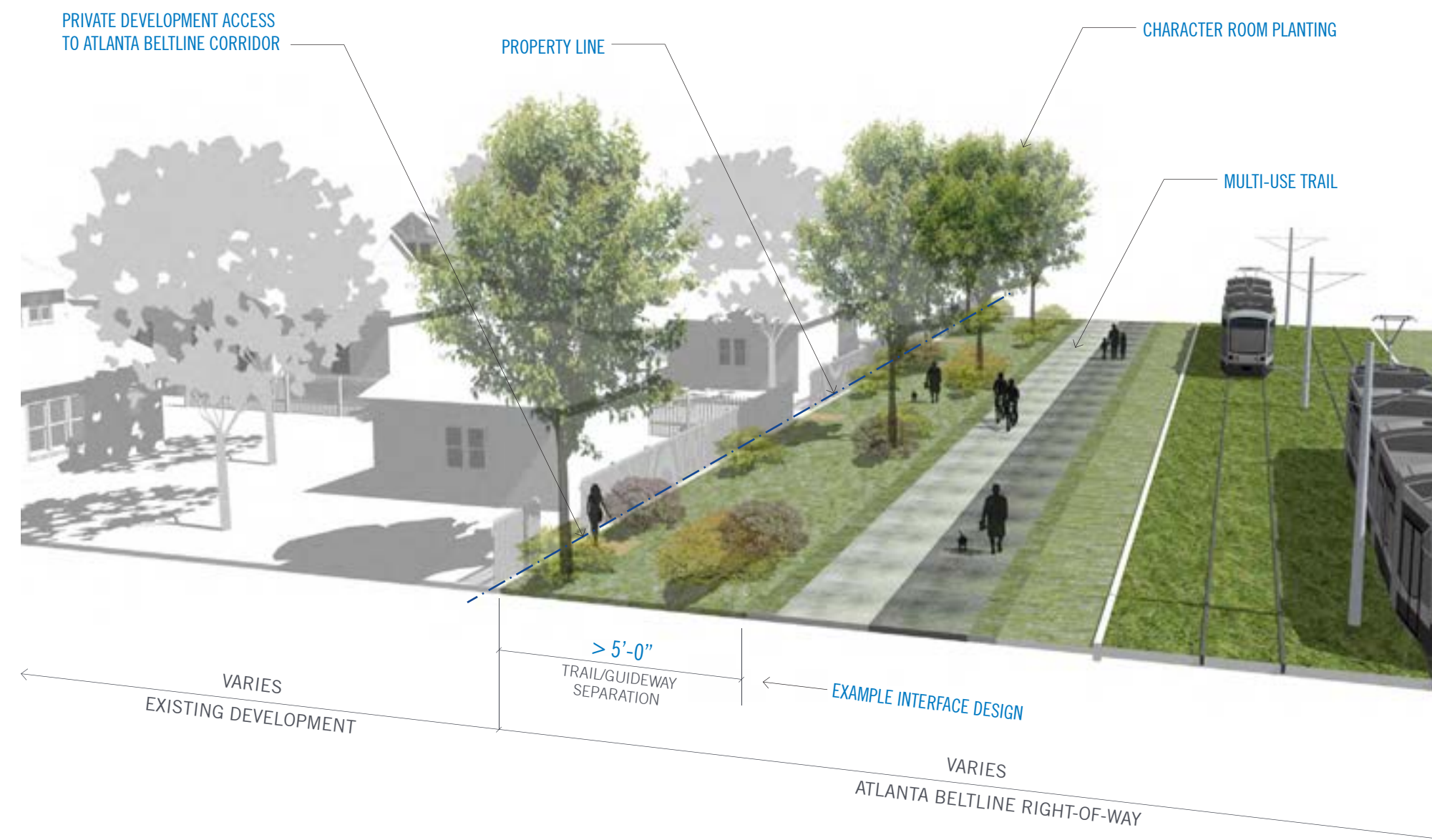
- No Setback; Wide Separation
- No Setback; Limited Separation
- No Setback; No Separation
- Limited Setback
- Required Setback
- Wide Setback



SETBACK + SEPARATION

No Setback; Wide Separation **DI2.1**

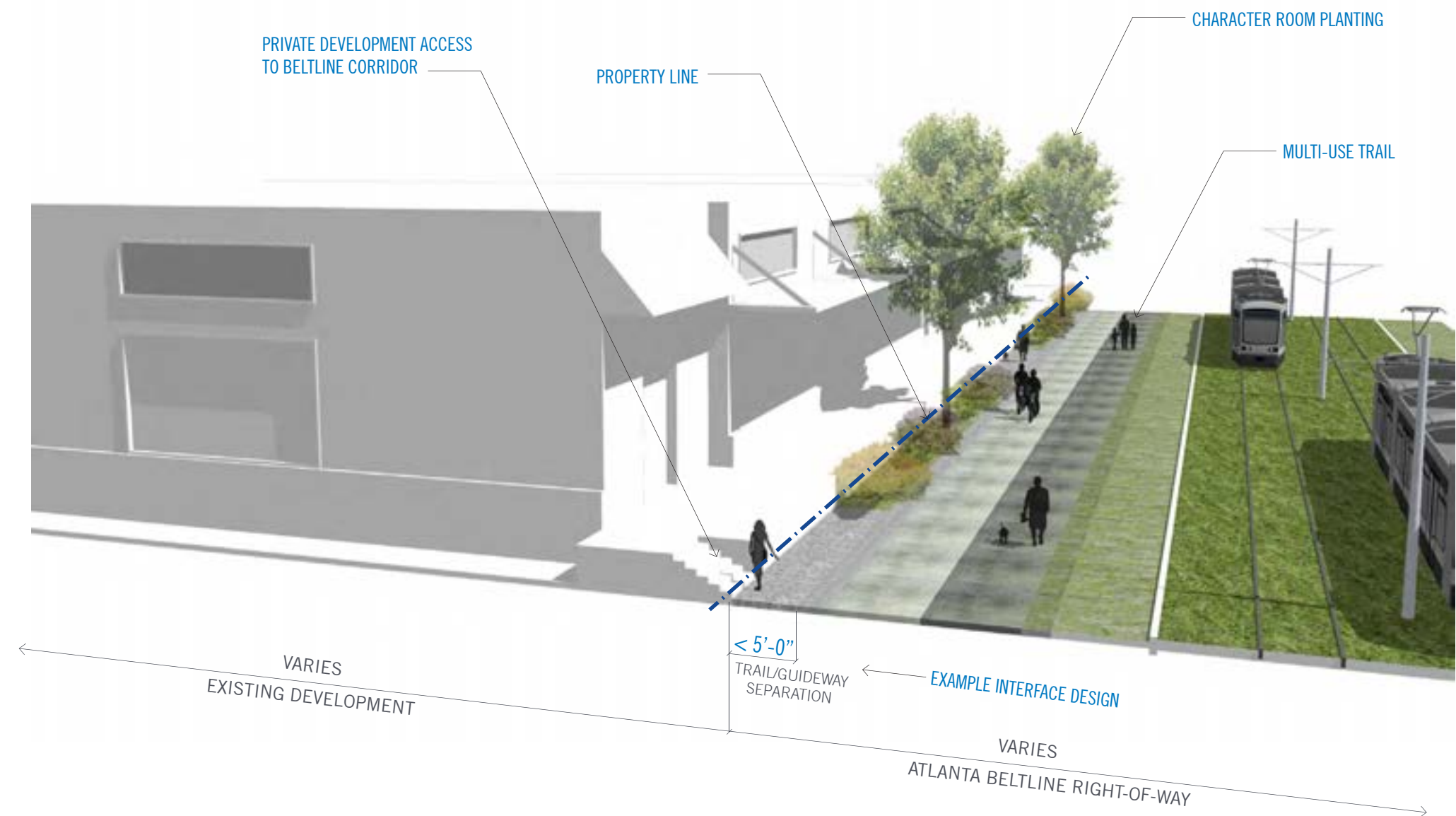
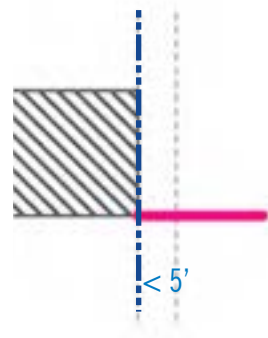
Where there no setback but still a wide physical separation between the adjacent property and the trail or transit greenway, the interface condition may require slopes or walls due to topographic conditions, but it will be primarily informed by its development intensity (see Development Intensity - DI1) as leasable space.



SETBACK + SEPARATION

DI2.2 No Setback; Limited Separation

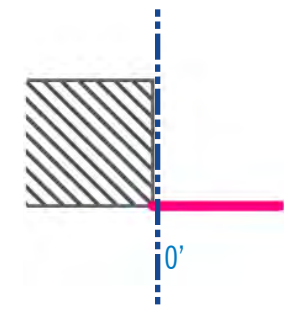
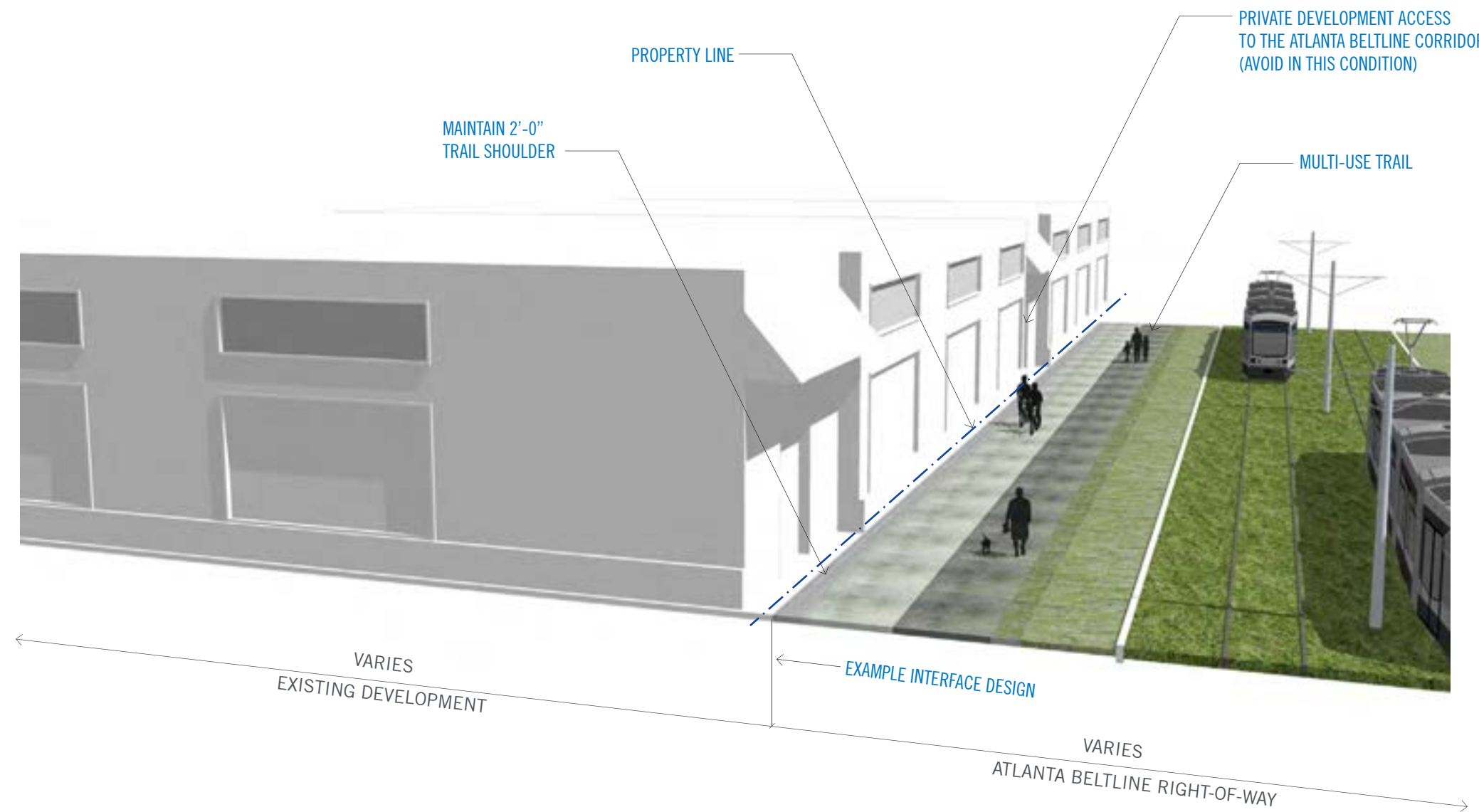
Where there is no setback and existing buildings are within 5' of the transit guideway or trail, offering limited physical separation, corridor access may also be limited by topographic conditions or the potential for dangerous user conflicts, especially on the transit side. Plantings are especially important in this zone to support a greenway experience in the corridor. Solutions may require use of railings or other vertical barriers and in these cases, elements should match corridor typologies as much as possible.



SETBACK + SEPARATION

No Setback; No Separation **DI2.3**

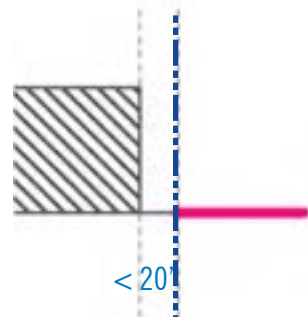
Where there is no setback and existing buildings are immediately adjacent to the trail or transit guideway, solutions will need to be developed on a case-by-case basis. Special considerations include potential user conflict where there is continuous access to the trail, emergency egress from adjacent buildings especially with outward-swinging doors, and generally dangerous conditions on the transit side. Solutions may require use of railings or other vertical barriers and in these cases, elements should match corridor typologies as much as possible, as leasable space.



SETBACK + SEPARATION

DI2.4 Limited Setback

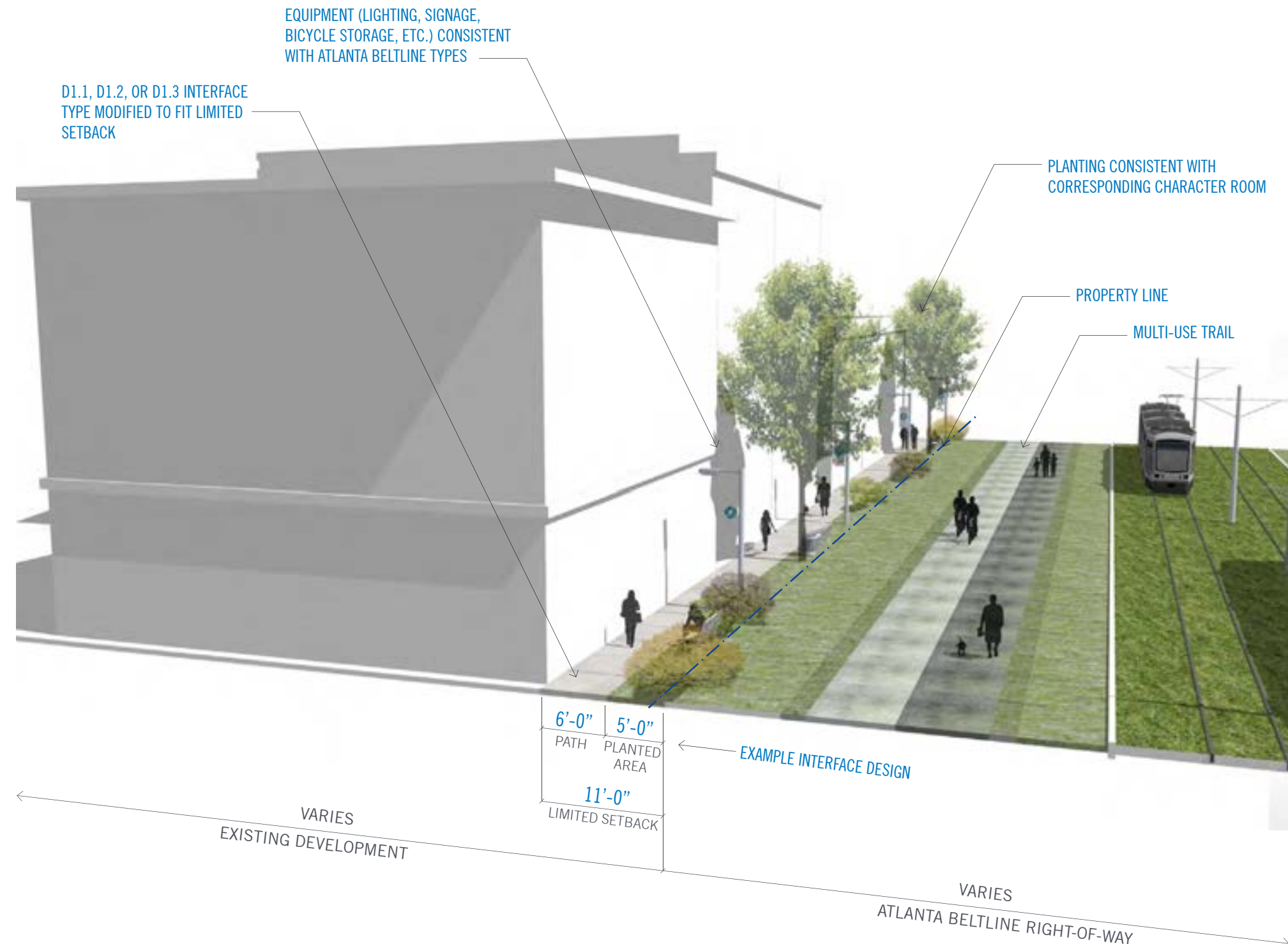
Setbacks provided by the Atlanta BeltLine Overlay District should be designed as an extension of the corridor. If collecting pathways are provided (see Development Intensity DI1), they should occur within the setback. All furniture, lighting, signage, landscape and hardscape elements in this zone should match corridor typologies and corridor design strategies, including the arboretum and applicable landscape character room.



DI2.5 Required Setback

See Limited Setback - DI2.4. Examples of this type can be seen in graphics for DI1.1- DI1.3.

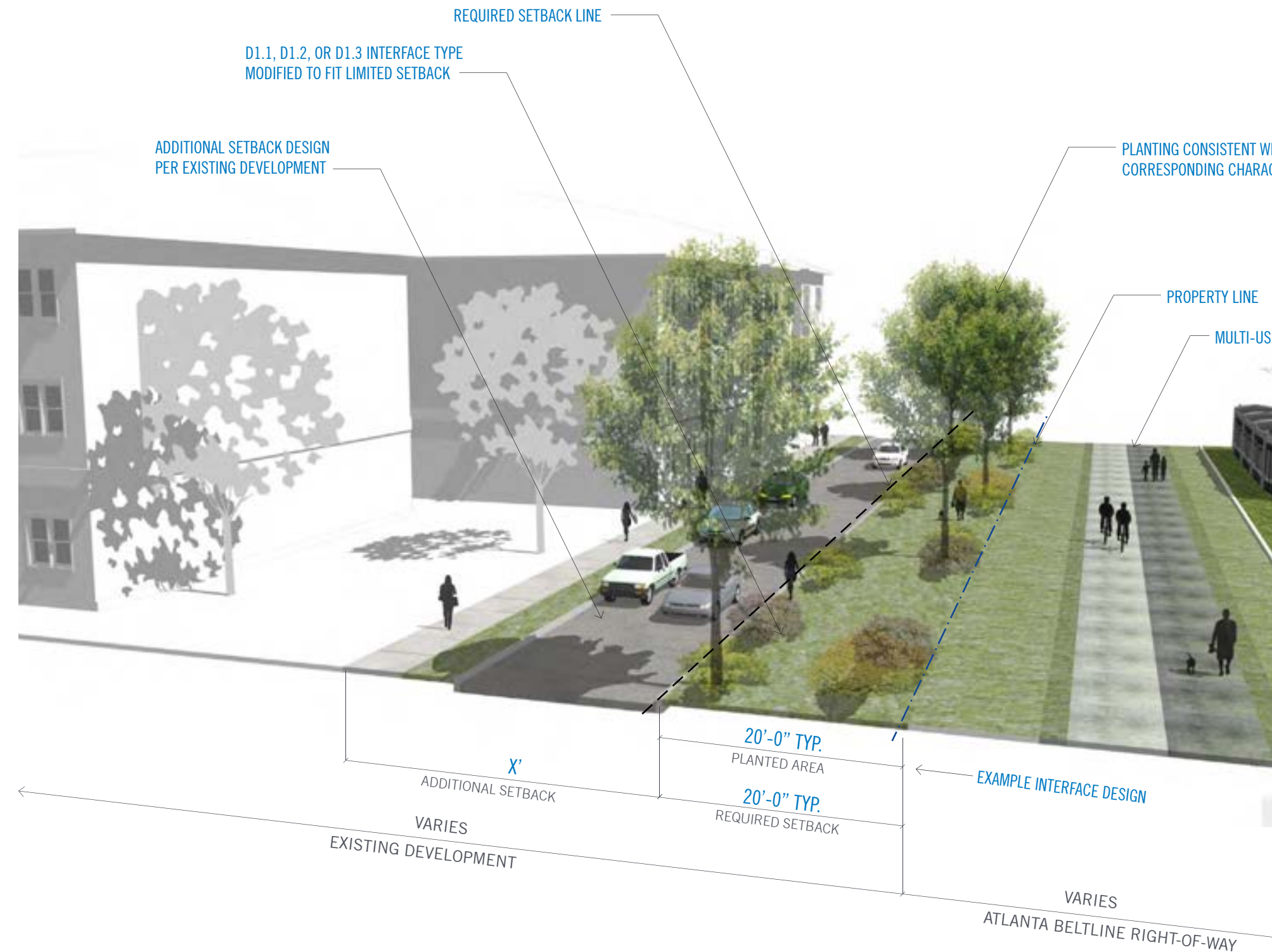
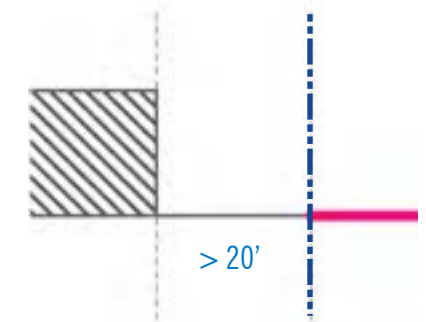
DI



SETBACK + SEPARATION

Wide Setback DI2.6

Where the setback between buildings and the corridor is greater than the required 20', the extent to which corridor design elements like furniture, lighting, signage and landscape should be utilized, needs to be drawn along a logical boundary, such as a parallel street, fence or bottom of the old railroad embankment. Note that parks and other greenspaces fall within this type, requiring a logical extent to be drawn (even subtly) to provide design differentiation between the corridor and park as leasable space.



DI3 TOPOGRAPHIC ADAPTATIONS

Direction based on Development Intensity and Setback + Separation must be further adapted to meet topographic conditions, which vary widely along the Atlanta BeltLine. Flat adjacencies will remain largely open for access, while steep conditions may limit public access. The following section defines four types of topographic adaptations of development interface:

DI3.1 No Grade Separation

No impact on access.

DI3.2 Minimum Grade Separation

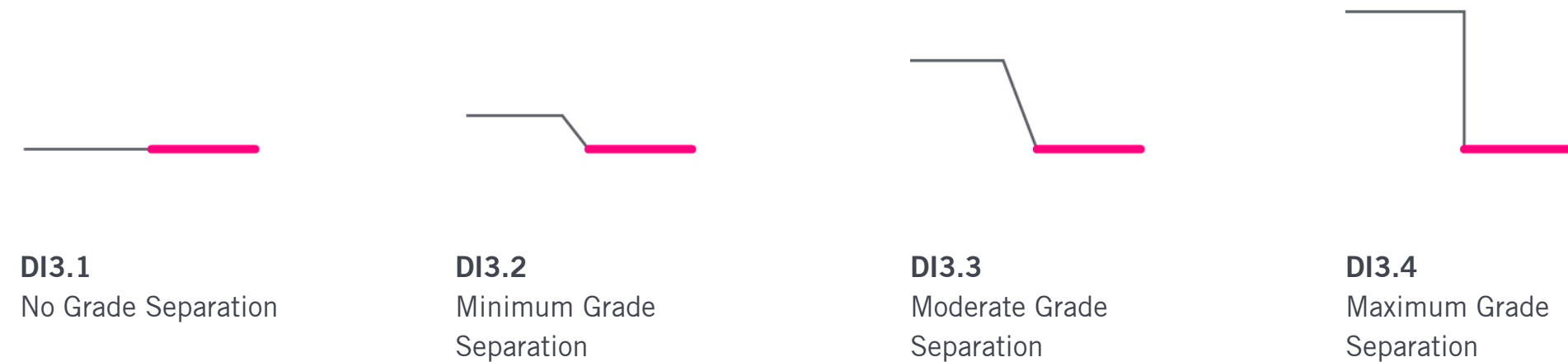
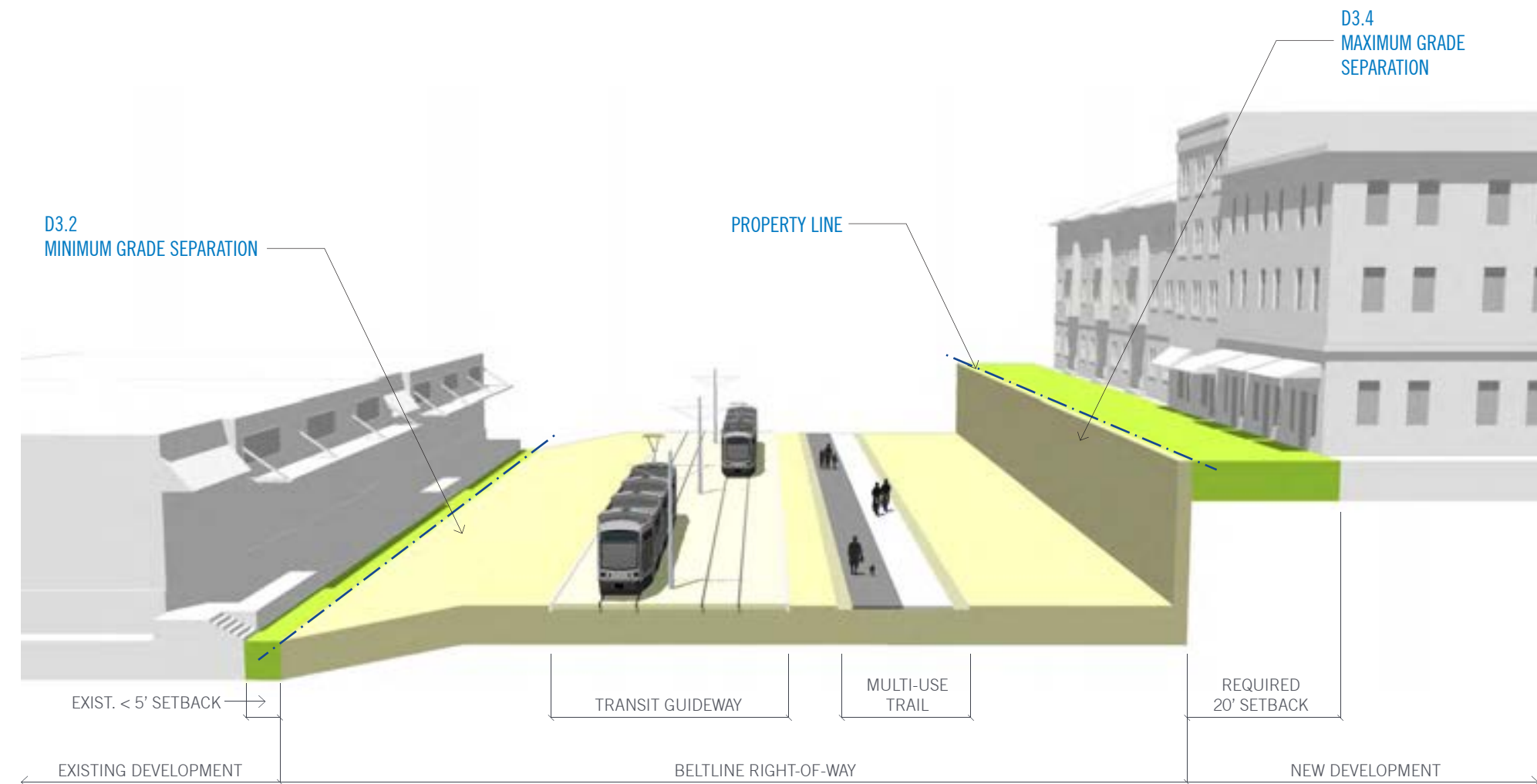
Little impact on access. Ramps and any slope stabilization or walls that may be required should utilize corridor typologies. Special consideration to management of desire lines may be necessary as even slight slopes may corral foot traffic.

DI3.3 Moderate Grade Separation

Ramps, stairs, walls and other design elements should utilize corridor typologies. Special consideration may be required to discourage walking along the transit guideway in order to avoid steeper slopes.

DI3.4 Maximum Grade Separation

Ramps, stairs, walls and other design elements should utilize corridor typologies. Slope stabilization and other “green” strategies are preferred over walls, but walls will likely be required at many interface conditions.



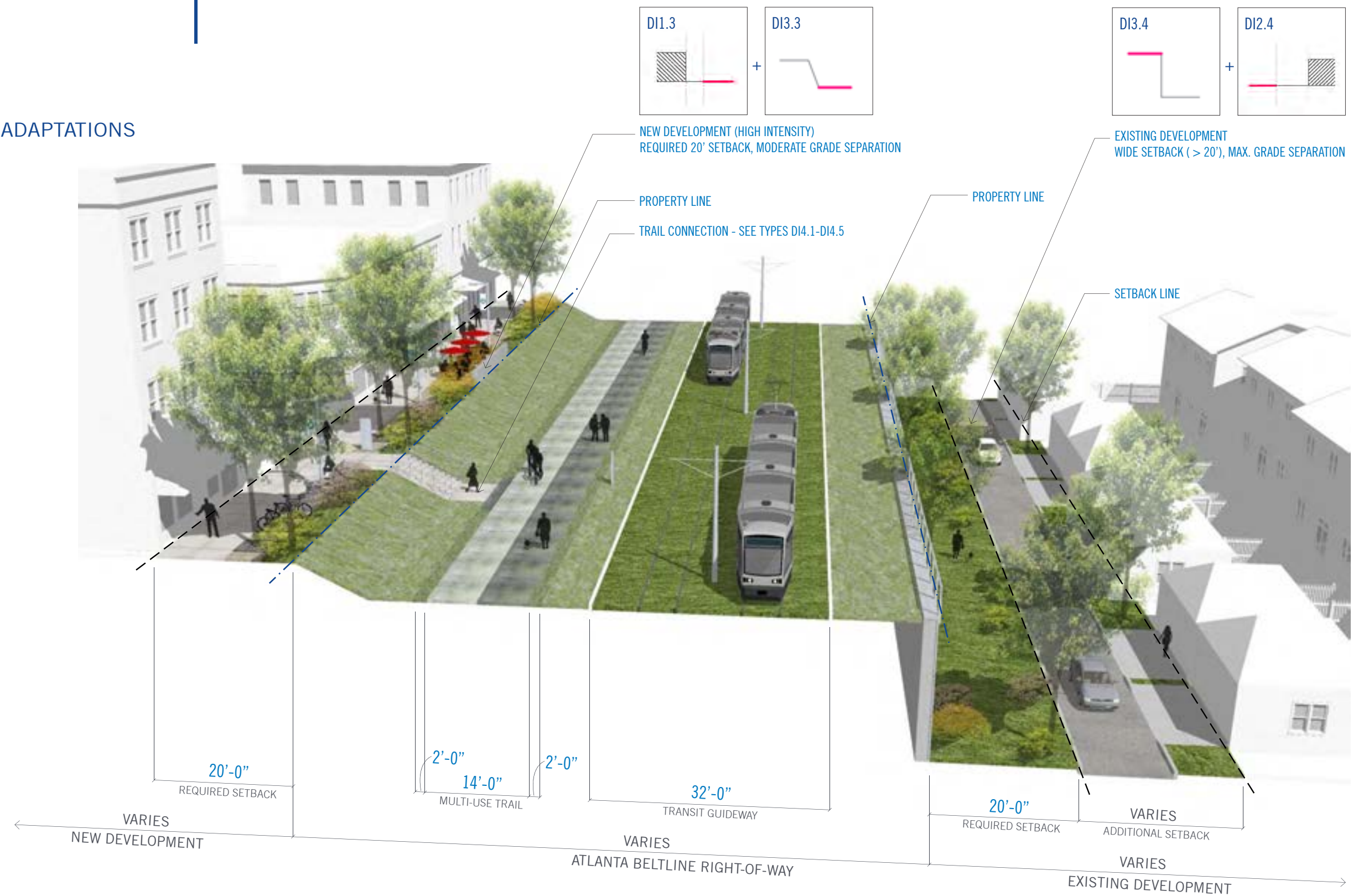
TOPOGRAPHIC ADAPTATIONS **DI3**



INTERFACE + GRADE ADAPTATION STUDY #1



DI3 TOPOGRAPHIC ADAPTATIONS





NEW DEVELOPMENT (HIGH INTENSITY)
REQUIRED 20' SETBACK, MAXIMUM GRADE SEPARATION

TOPOGRAPHIC ADAPTATIONS **DI3**

NEW DEVELOPMENT (MEDIUM INTENSITY)
REQUIRED 20' SETBACK, NO GRADE SEPARATION



INTERFACE + GRADE ADAPTATION STUDY #3

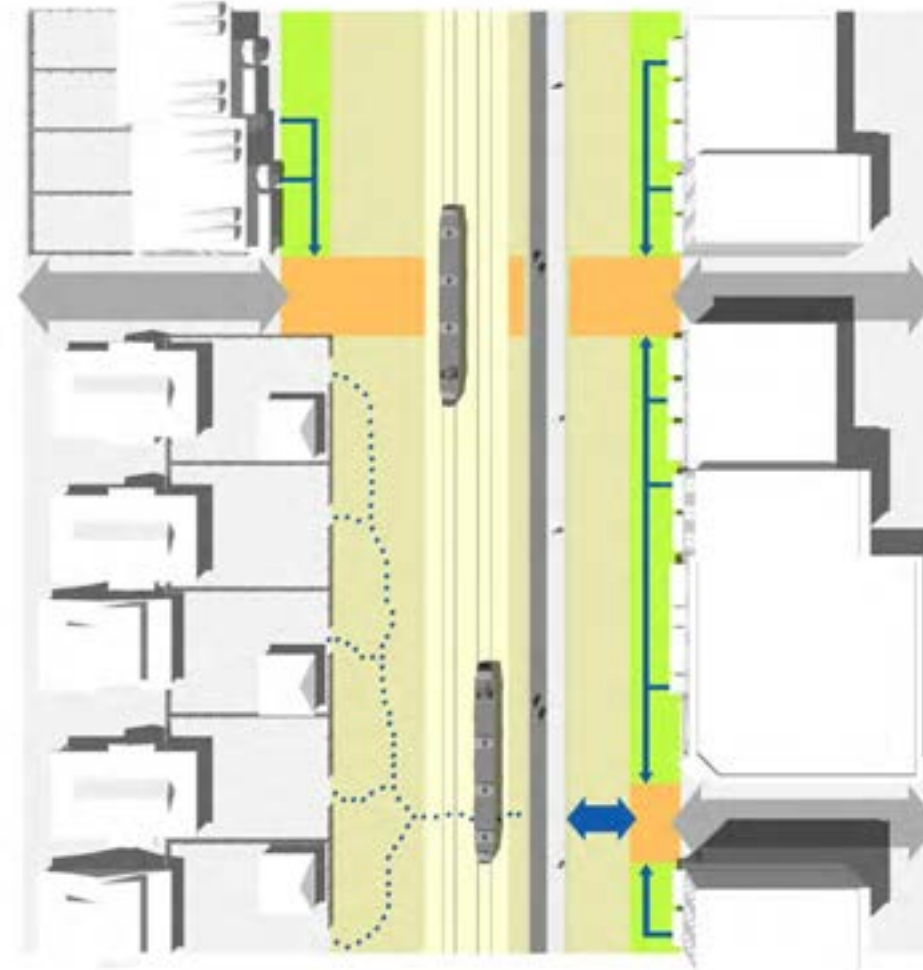


DI4 TRAIL + STATION ACCESS

Direct access to the Atlanta BeltLine Trail and transit stations is related to general corridor access. As the primary destinations for pedestrians and bicycles trying to get into the corridor and the primary route along which people will move, these elements should be the priority for the provision of access points. Secondary routes should be consolidated as much as possible to minimize user conflict on the trail and the number of crossings on the transit guideway. Formal access points to the trail and transit stations should connect directly to a public space or right-of-way. Formal access points with private gates should be avoided as much as possible.

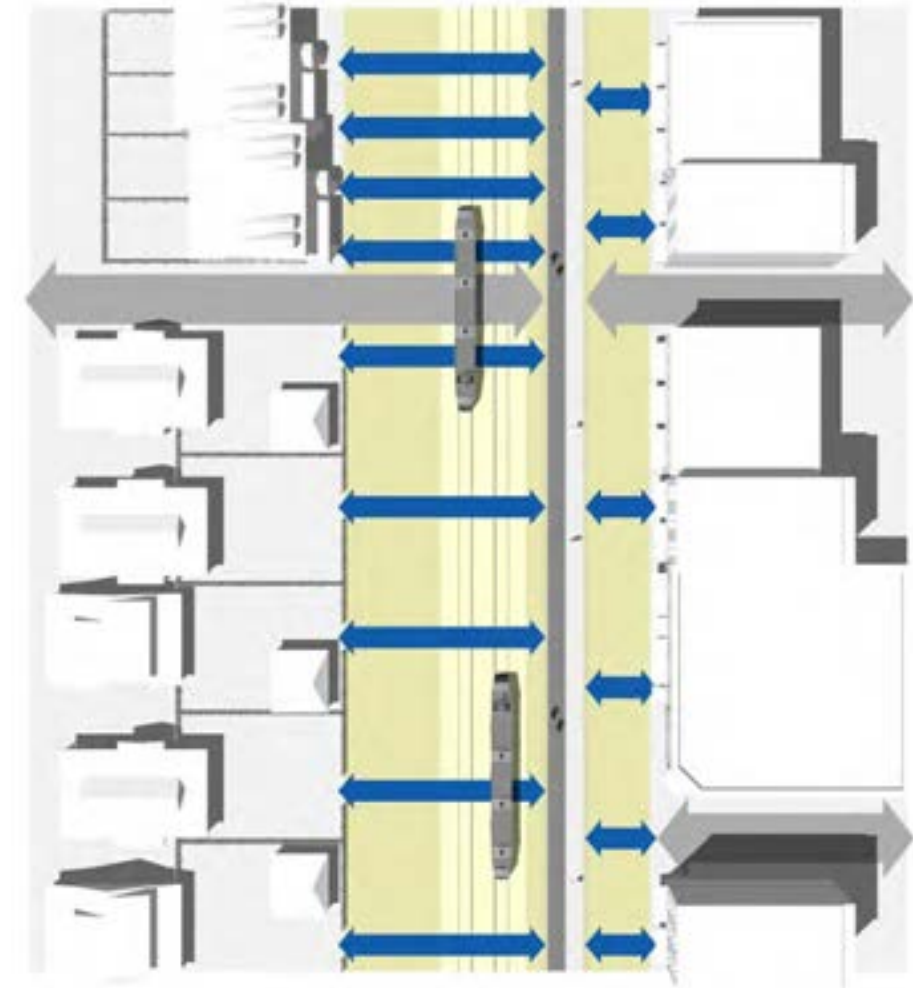
The following section defines six types of trail and station access:

- Intersecting Public Way
- Transit Stations
- Extreme Grade Separations
- Excessive “Block Sizes”
- High Intensity Development
- Freight Rail Interface



PREFERRED

Focus physical connections with the Atlanta BeltLine trail and stations at points that promote public access.



DISCOURAGED

Avoid individual trail and transit connections to every adjacent building/private development. Too many connections clutter the Atlanta BeltLine corridor and detract from its greenway character.

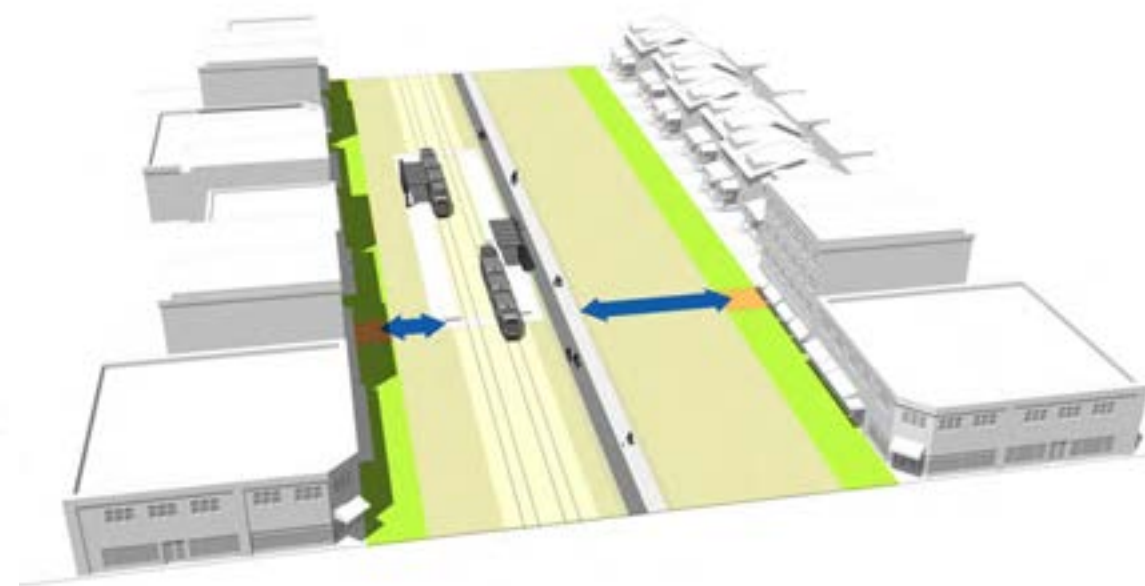


TRAIL + STATION ACCESS



DI4.1
Intersecting Public Way

Primary access points should connect the trail and transit stations to an intersecting or parallel public space or right-of-way, like a plaza, park or street. As the place where most people will enter the corridor, these should be the prioritized points of access.

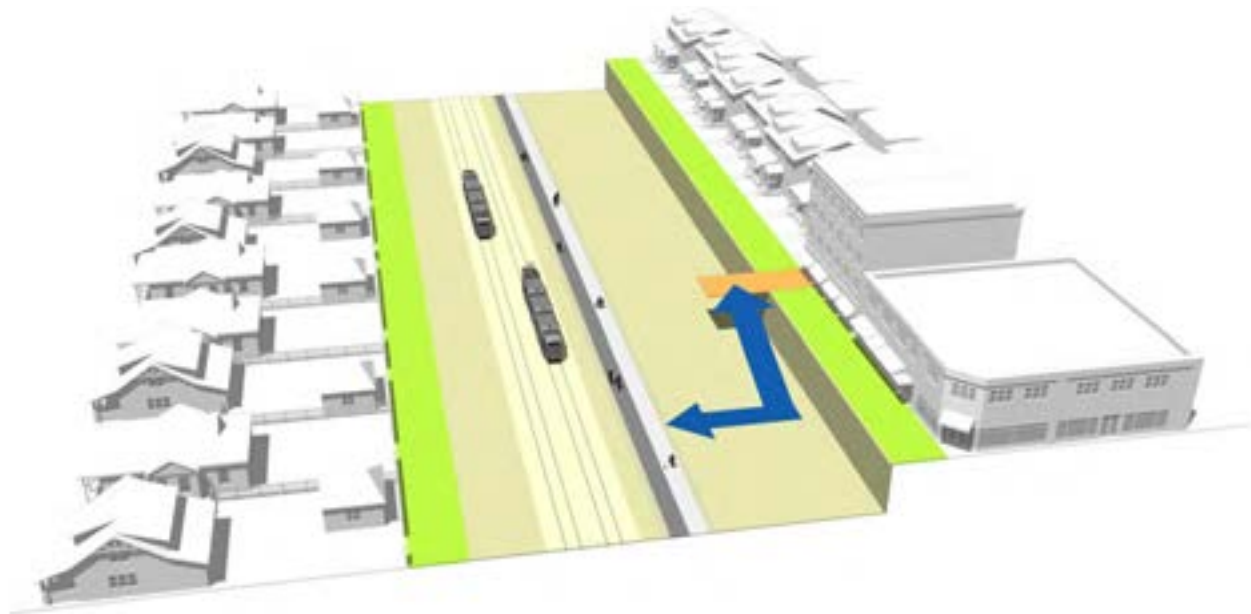


DI4.2
Transit Stations

Since stations are not only destinations but also formal and natural crossing points of the transit guideway, formal public access points and secondary routes should consolidate at station crossings.

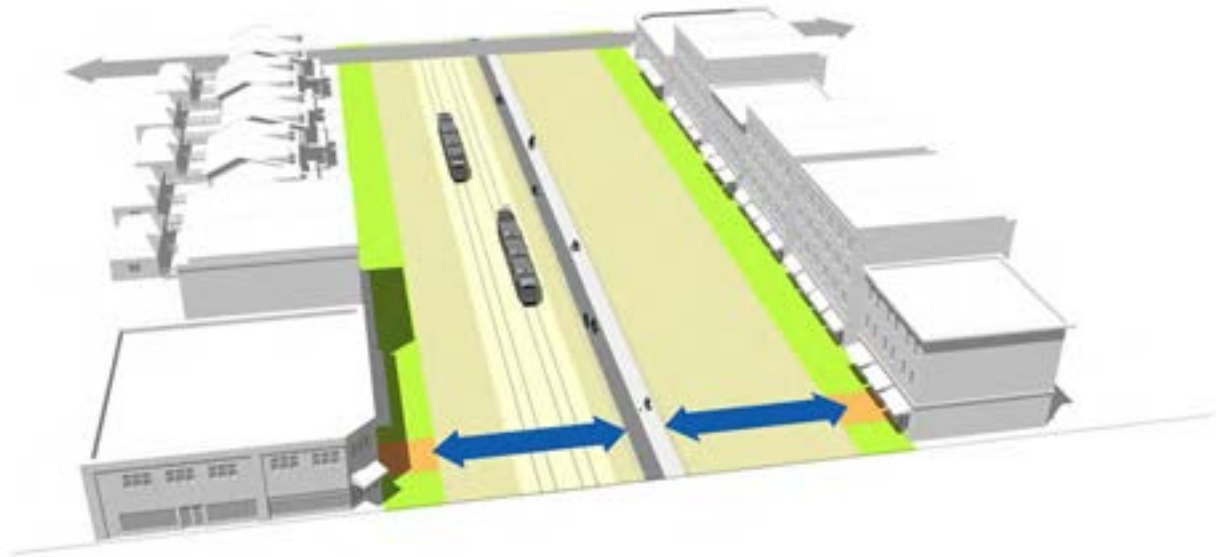


TRAIL + STATION ACCESS



DI4.3
Extreme Grade Separations

Extreme grade will require consolidation of routes to limited points of access.

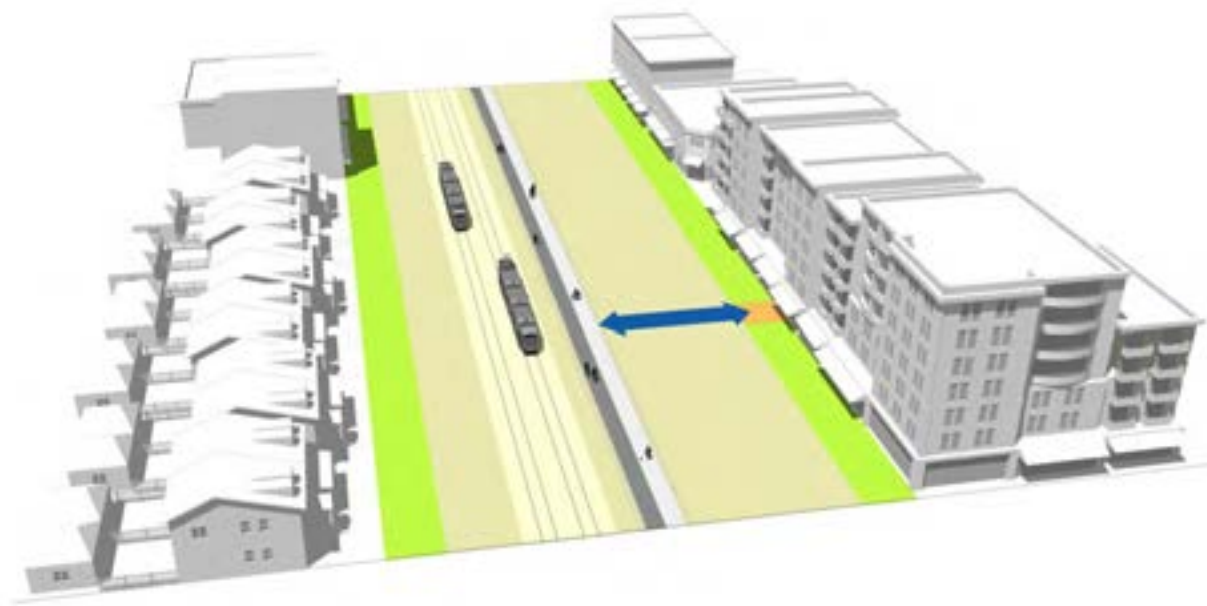


DI4.4
Excessive “Block Sizes”

Where the distance between public access is long due to insufficient public ways, new access points should be designed to anticipate and encourage development of new access routes.



TRAIL + STATION ACCESS



DI4.5
High Intensity Development

Where high intensity development faces the corridor, appropriate access should be accommodated but in exchange, development should provide through-access to a public right-of-way if present.

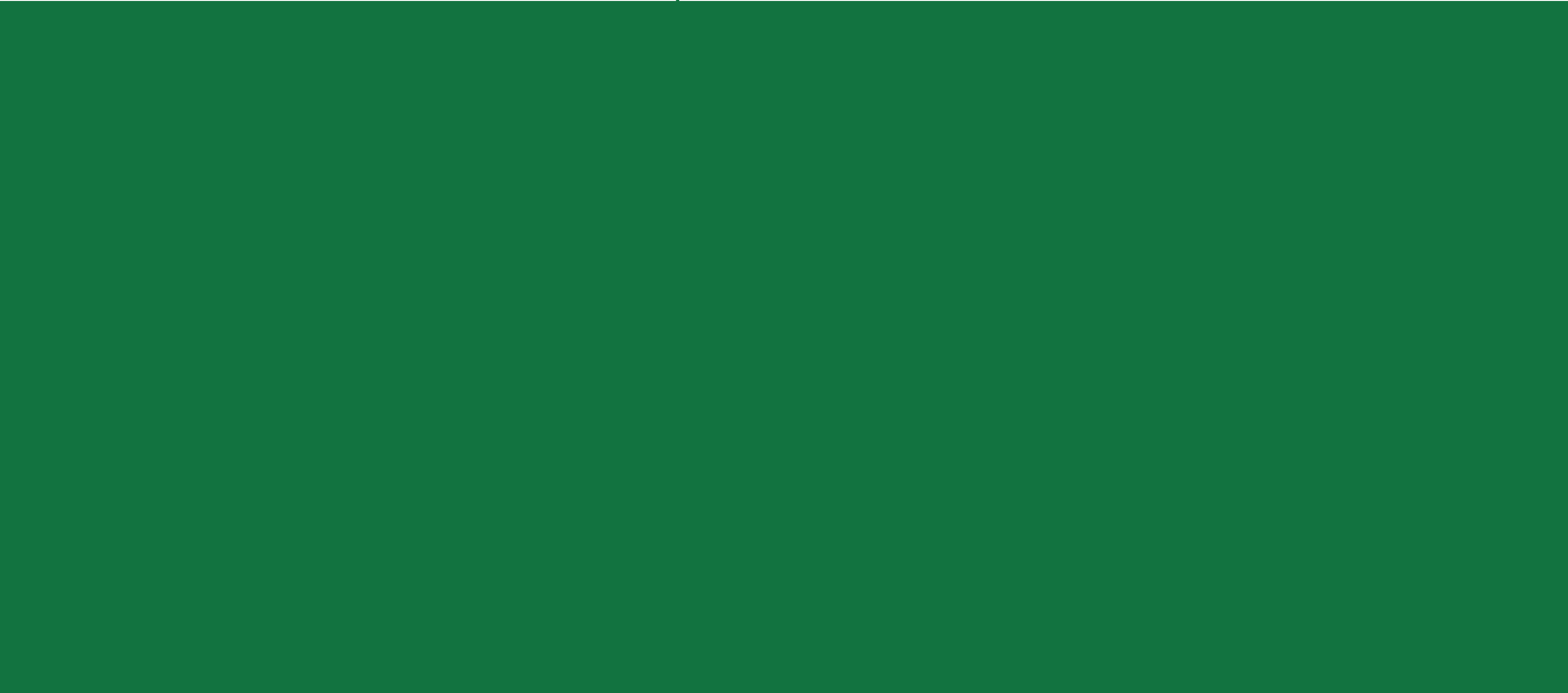
DI4.6
Freight Rail Interface

To be developed.





STREETSCAPES



STREETSCAPES
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Engaging directly the physical and cultural variety of the city’s neighborhoods, the streets that intersect with the Atlanta BeltLine will be upgraded to foster a pedestrian and bicycle-friendly environment. Street designs will reflect the variety of development contexts and right-of-way dimensions. As the primary entry points from adjacent communities into the corridor, the design of these connection points will support design continuity and contribute significantly to a recognizable identity for the Atlanta BeltLine.

streetscapes

► INTEGRATED SUSTAINABILITY: STREETSCAPES

Energy & Climate: The streetscape upgrades included within the Atlanta BeltLine Subarea master plans include provisions for improved bike and pedestrian connectivity as alternatives to the automobile. The inclusion of shade trees in these improved streets will help reduce urban heat island effect by cooling the asphalt, and reduce cooling loads in adjacent properties.



Water Efficiency & Quality: Best practices in stormwater management, including planting and pervious surfaces, will be implemented on upgraded streets to reduce the burden on City stormwater facilities and to prevent pollution and silting in area waterways.



Soil & Habitat Quality: *No significant impact.*



Sustainable Materials, Design & Construction: Street upgrades are recommended to comply with Sustainable Sites Initiative Section 7 (Construction) to minimize waste, emissions and pollution.



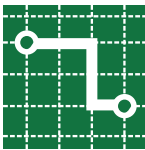
Sustainable Operations & Maintenance: Street upgrades are recommended to include utility undergrounding and improved access to utility for future repairs and maintenance. Use of permeable pavers, which are recommended for natural drainage, also facilitate the installation, repair, and removal of utilities with minimum impact to surface and streetscape.



Community Health, Access & Equity: The streetscape upgrades for the Atlanta BeltLine Subarea master plans will improve bike / pedestrian safety and accessibility, with potential improvements in community health. The ABI Community Benefit Guiding Principles (See Appendix) outlines requirements for the equitable distribution of community benefits throughout the Atlanta BeltLine Tax-Allocation District.



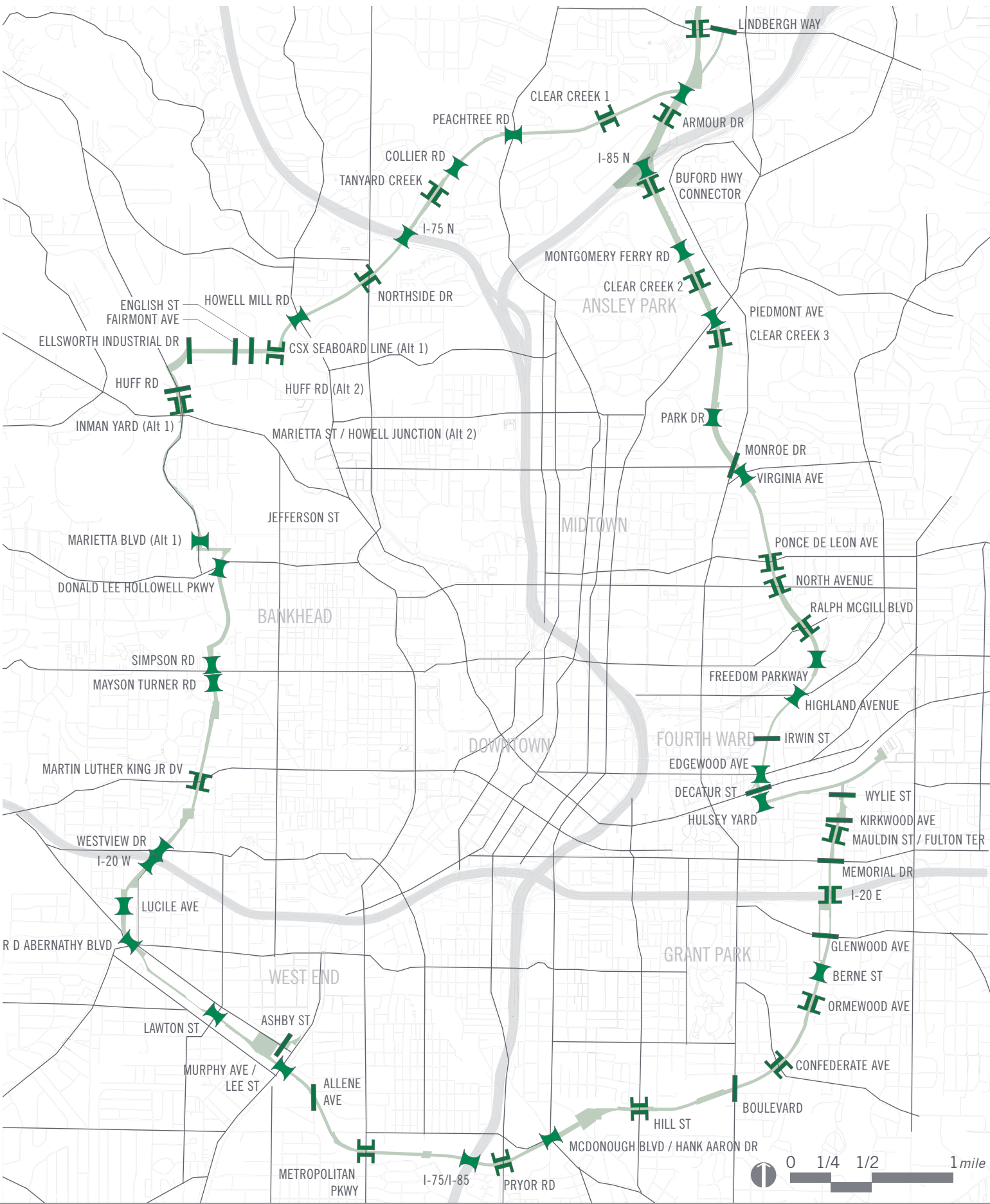
Connectivity & Smart Growth: The sustainable streetscape improvements outlined in this typology section are standards outlined in BeltLine Subarea master plans, which promote transit-oriented development, urban infill, street connectivity, and walkable urban environments in the Atlanta BeltLine study area. These standards designed to serve as a blueprint for streetscape improvements throughout the City of Atlanta.



EXISTING STREET CROSSINGS

Most of the existing street crossings are grade-separated, and of those that are at-grade, only a few are major city thoroughfares. For freight railroads, this is the most desirable condition, but for a public space, this presents many challenges for public access and compliance with the Americans with Disabilities Act. The goal for street access to the Atlanta BeltLine is to have an accessible route from each side of every street crossing, and to avoid the use of elevators. In addition to steep slopes and the long ramps required to meet the high vertical difference between street and railroad, many of the existing bridge abutments occupy the full width of the right-of-way, blocking easy access into the corridor from the street.

- BeltLine Corridor
- At-Grade Crossings
- Above Grade Crossings
- Below Grade Crossings



THE ATLANTA BELTLINE: TYPOLOGIES
REVISED 08/05/2013



STREET TYPES S1

Various street types are supported in the Corridor Design. They offer guidance on the creation of upgraded conditions to existing streets, while leaving specific dimension and material choices to match existing conditions for continuity along each street. They also guide the design of new street crossings. The following seven types provide a summary of those sections.



	AVENUES		BOULEVARDS		RESIDENTIAL STREETS		ALLEY
	S1.1 AV/MU-90	S1.2 AV/R-78	S1.3 BL/MU-112	S1.4 BL/R-112	S1.5 ST/MF-60	S1.6 ST/SF-50	S1.7 AL-20
Number of Lanes	2	2	4	2	2	2	1
Lane Width	11'	11'	11'	11'	10'	10'	12'
Bike Lanes	5' min	5' min	5' min	5' min	-	-	No
Sidewalk	8-10'	8-10'	8-10'	8-10'	5'	5'	No
Amenity Zone/ Planting Strip	6'	6'	5'	5'	5'	5'	4'
On-street Parking	7.5'	7.5'	7.5'	7.5'	7.5'	7.5' (one side)	No
Median	6'	-	12'	42'	-	-	No
Setback	-	-	-	-	-	-	5'
Right-of-way	90'	78'	112'	112'	60'	50'	20'
Utility	-	-	-	-	-	-	-



STREET TYPES

S1.1 Avenue/Mixed-Use (90' R.O.W)

AV/MU-90

- Two vehicular lanes
- Landscaped median
- Striped bike lanes on each side
- Parallel-parking, in pockets, on each side
- Sidewalks on both sides



S1.2 Avenue/Residential (78' R.O.W)

AV/R-78

- Two vehicular lanes
- Two-sided parallel parking
- Sidewalks on both sides



STREET TYPES

Boulevard/Mixed Use (112' R.O.W.) S1.3
BL/MU-112

- Four vehicular lanes, two in each direction
- Landscaped median
- Striped bike lane
- Parallel parking in pockets
- Sidewalks on both sides



Boulevard/Residential (112' R.O.W.) S1.4
BL/R-112

- Two vehicular lanes, one in each direction
- Landscaped median
- Striped bike lanes on each side
- Parallel parking, in pockets, on each side
- Sidewalks on both sides



STREET TYPES

S1.5 Street/Multi-Family (60' R.O.W)

ST/MF-60

Two vehicular lanes
Striped bike lanes on both sides
Two-sided parallel parking, in pockets
Sidewalks on both sides



S1.6 Street/Single Family (50' R.O.W)

ST/SF-50

Two vehicular lanes
One-sided parallel parking
Sidewalks on each side



ST



STREET TYPES



Alley (20' R.O.W.) S1.7
AL-20

Single vehicular lane
No on-street parking
No sidewalks

ST



ATLANTA BELTLINE CROSSINGS

The point at which the Atlanta BeltLine interfaces with public streets is possibly the most important point in the corridor for wayfinding and corridor identity. It is where people are most likely to enter and exit, and also the most visible part of the corridor, allowing people to orient themselves and the Atlanta BeltLine in different parts of the city. While every crossing is unique and has its own set of opportunities for plazas, public art or other features, consistency in use of Atlanta BeltLine materials, signage, lighting, furniture and other elements will help ensure that each crossing supports overall design continuity for the project. Each crossing type is shown here keyed with important design elements and other considerations.

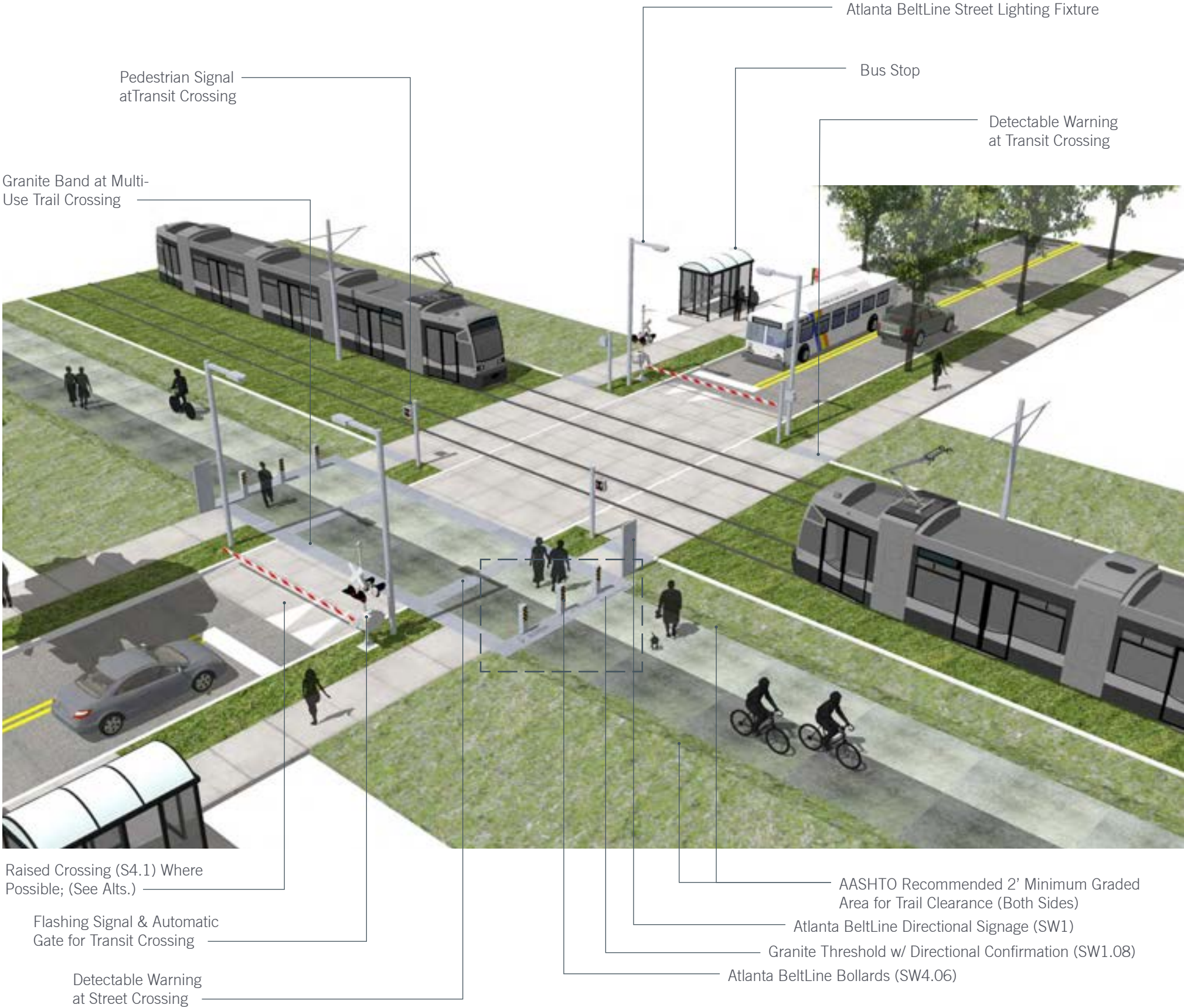
S2.1 At Grade Crossing

At-grade crossings have high visibility and high accessibility, offering convenient transfers and some of the best opportunities for usable public gathering space. Depending on traffic considerations, the ideal design for these crossings is a raised table as illustrated here. This will create a seamless and accessible surface for connecting between sidewalks, trail and adjacent transit stations. Because at-grade crossings are likely entrance points to the trail for maintenance and emergency vehicles, removable bollards should also be provided.



ATLANTA BELTLINE CROSSINGS

At Grade Crossing **S2.1**



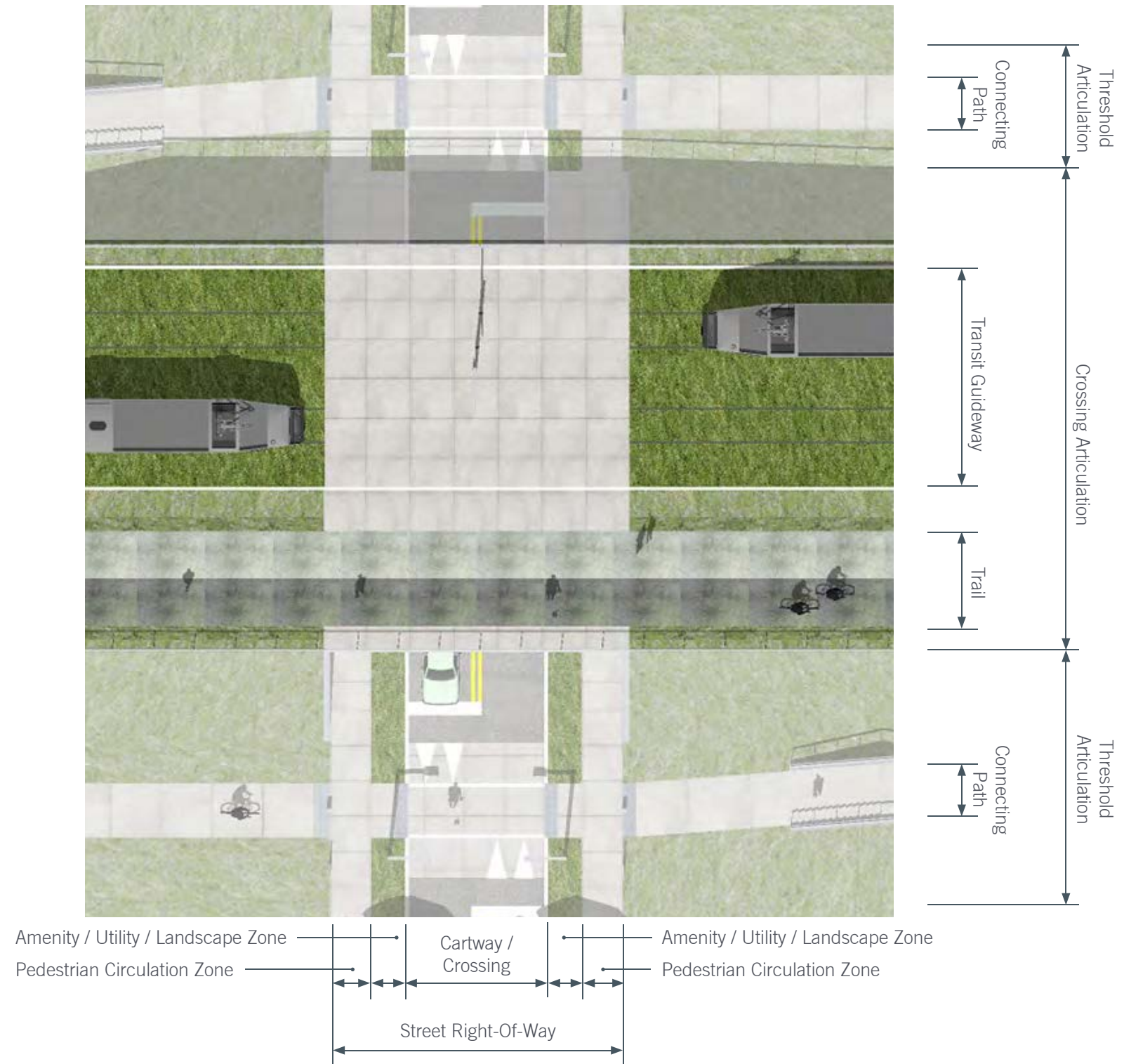
Granite Threshold Detail (SW1.08-similar)



ATLANTA BELTLINE CROSSINGS

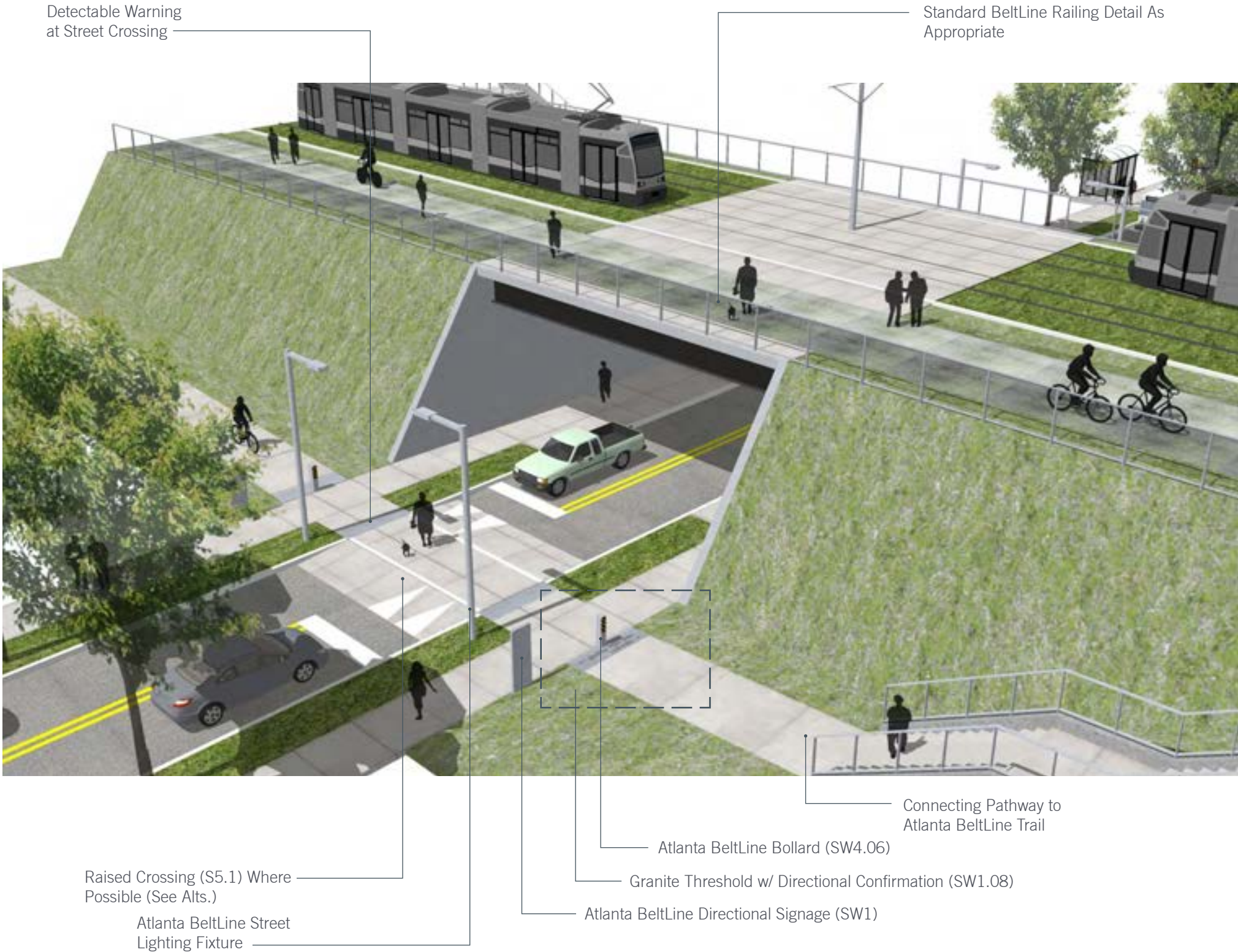
S2.2 Above Grade Crossing

Above-grade crossings have high visibility with sometimes limited accessibility, offering great assistance with visual identity for the Atlanta BeltLine, but creating difficulty getting physically up to the grade of the corridor. Depending on topography and the horizontal geometry of the intersection, the points at which ramps and stairs provide access to the corridor from the street may not occur immediately adjacent to the bridge. Raised street crossings are preferred at these points of entry, but where access points are not aligned across the street, elongated or separated raised crossings may be required. Other key challenges include the location of bus stop shelters and signage within the street right-of-way.



ATLANTA BELTLINE CROSSINGS

Above Grade Crossing **S2.2**



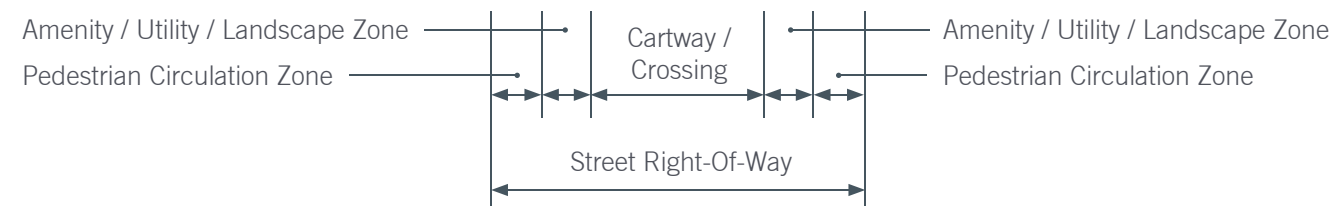
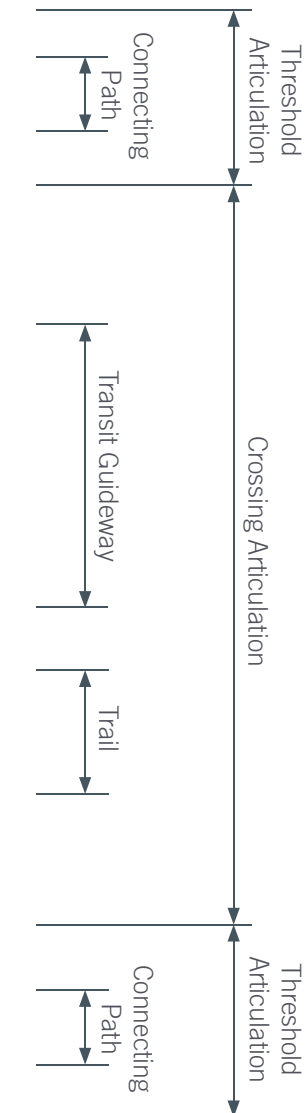
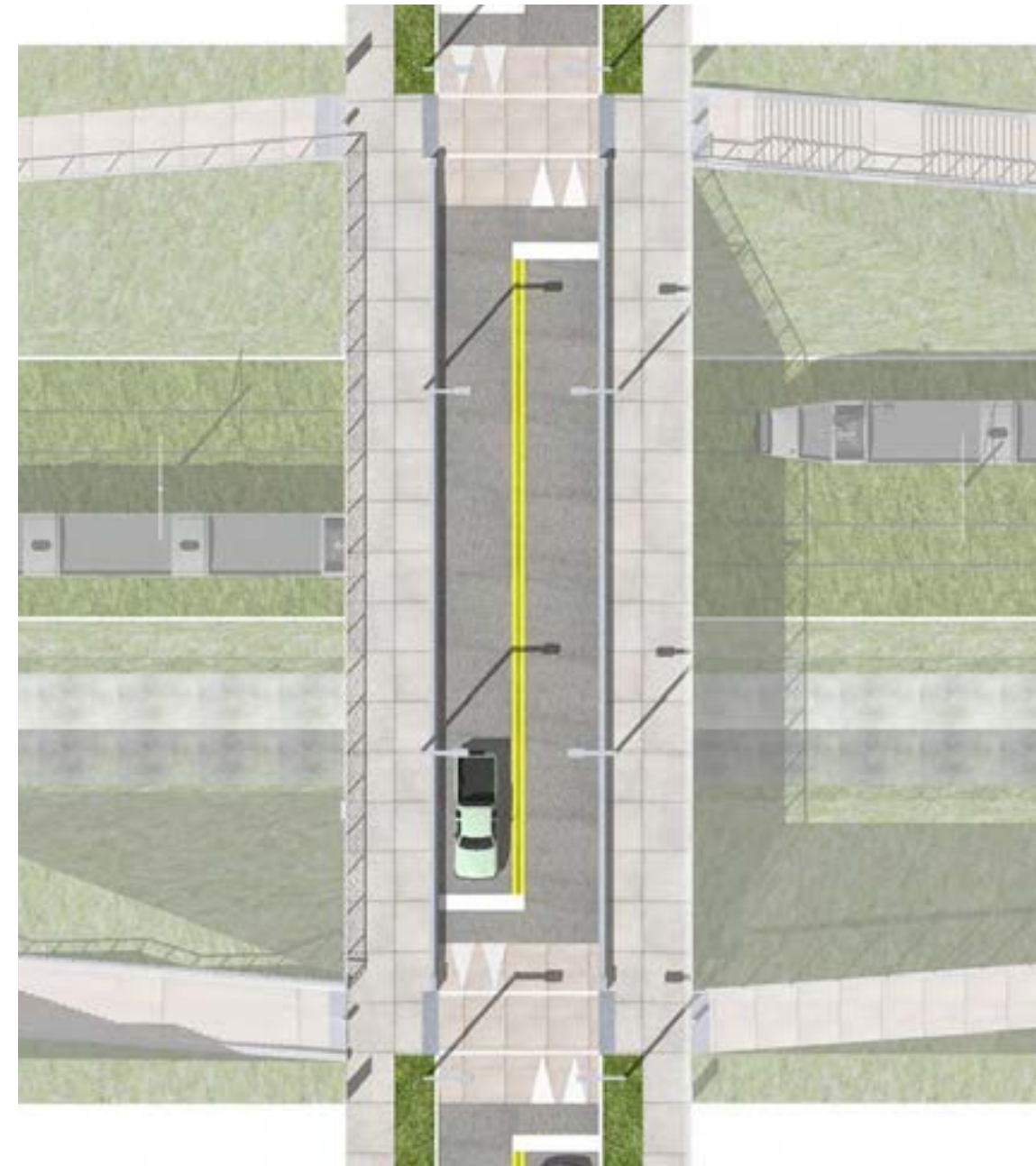
Granite Threshold Detail (SW1.08)



ATLANTA BELTLINE CROSSINGS

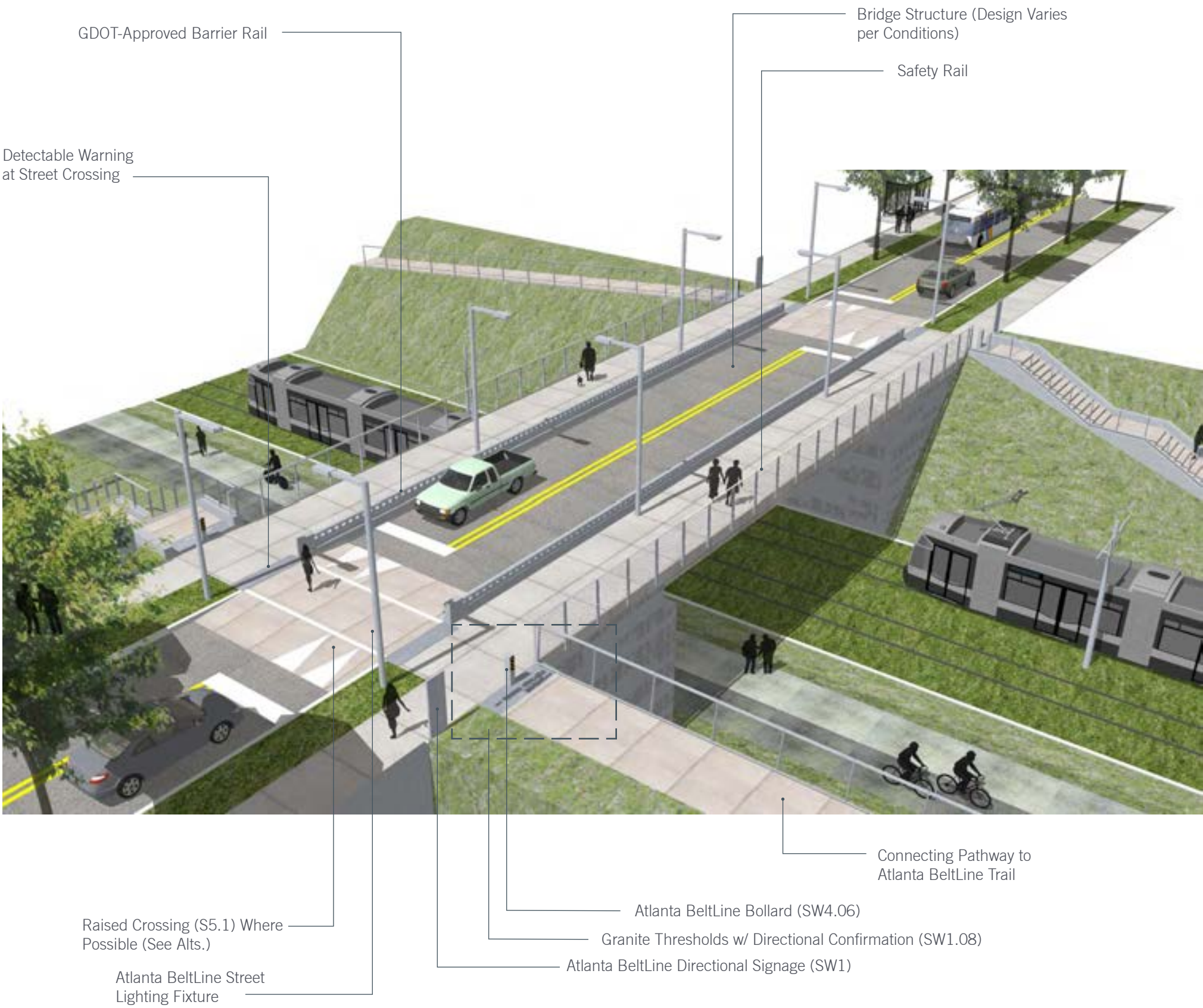
S2.3 Below Grade Crossing - Alt. A

Below-grade crossings have low visibility with sometimes limited accessibility. The biggest challenge for these crossings is that they may go unnoticed, offering little assistance with visual identity for the Atlanta BeltLine. At the same time they offer difficulty getting physically down to the grade of the corridor. Depending on topography and the horizontal geometry of the intersection, the points at which ramps and stairs provide access to the corridor from the street may not occur immediately adjacent to the overpass or tunnel. Raised street crossings are preferred at these points of entry, when appropriate. Where access points are not aligned across the street, elongated or separated raised crossings may be required.



ATLANTA BELTLINE CROSSINGS

Below Grade Crossing - Alt. A S2.3



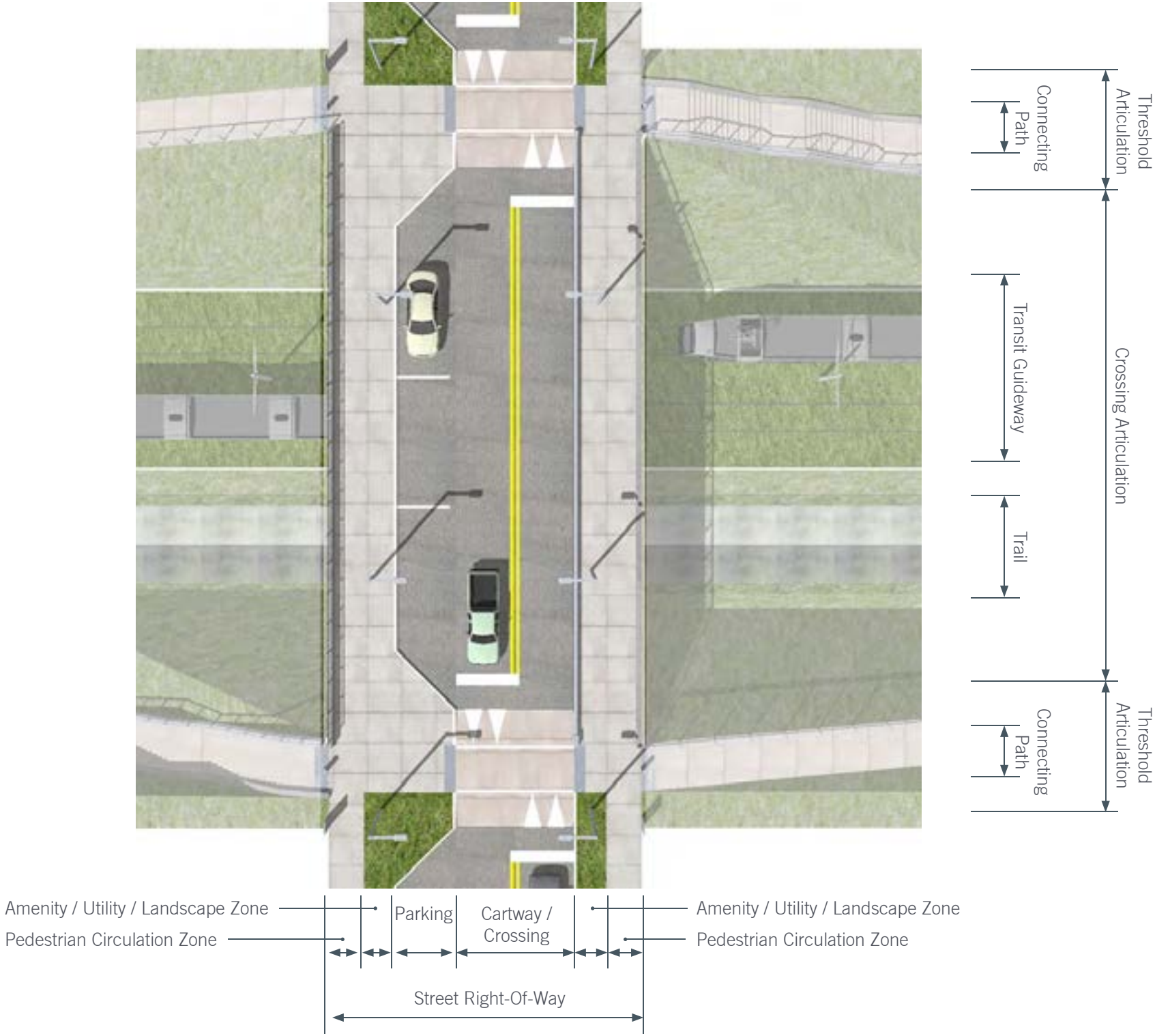
Granite Threshold Detail (SW1.08)



ATLANTA BELTLINE CROSSINGS

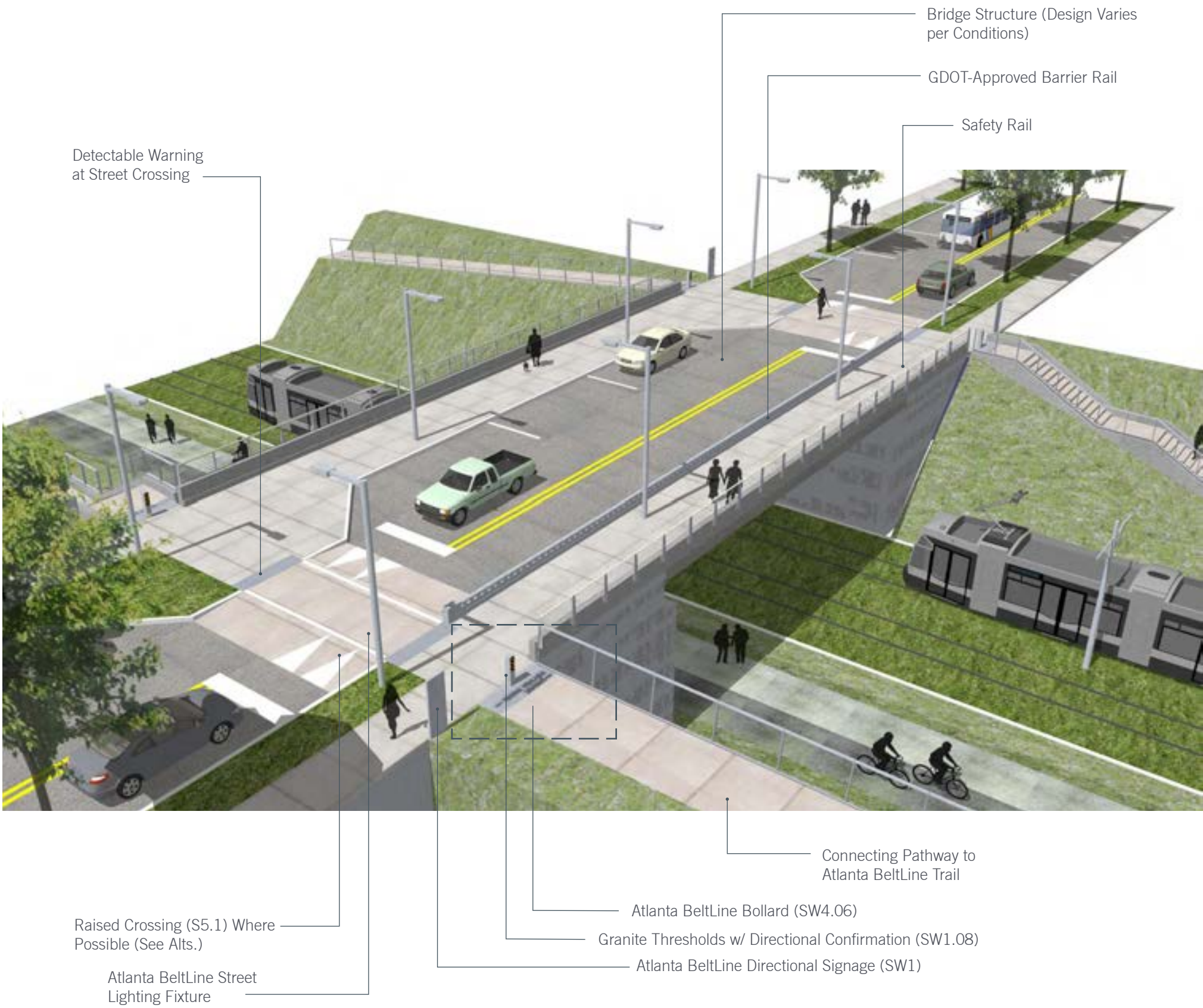
S2.3 Below Grade Crossing - Alt. B

Alternative B shows street parking on one side in lieu of the crash barrier.



ATLANTA BELTLINE CROSSINGS

Below Grade Crossing - Alt. B S2.3



Granite Threshold Detail (SW1.08)

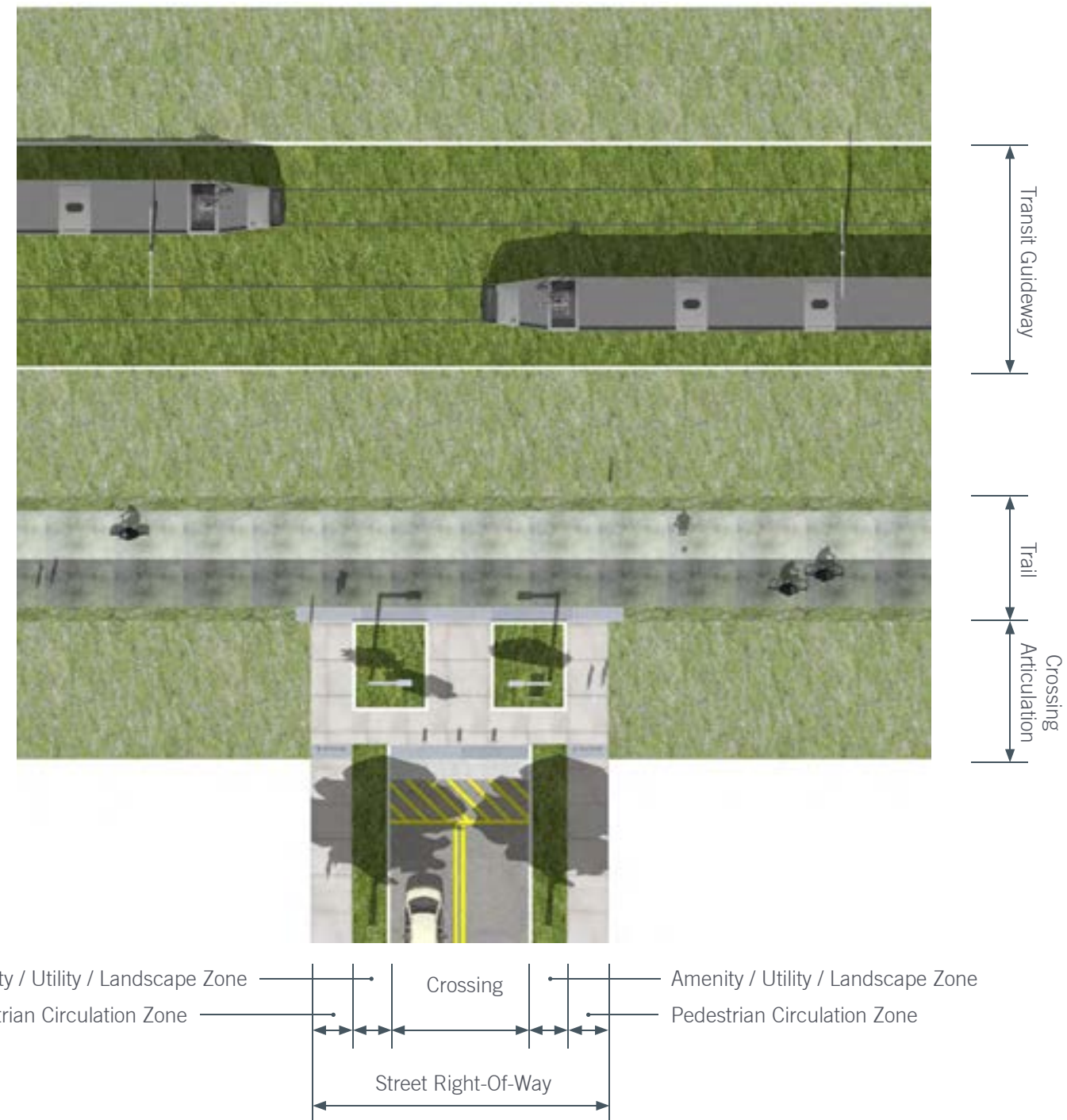


ATLANTA BELTLINE CROSSINGS

S2.4 Dead-End Connection

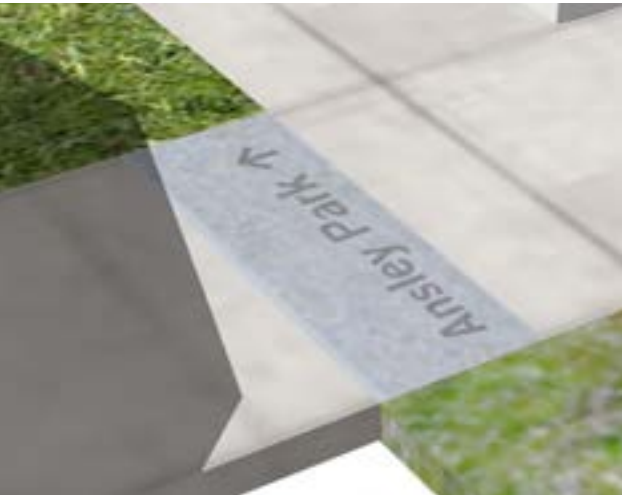
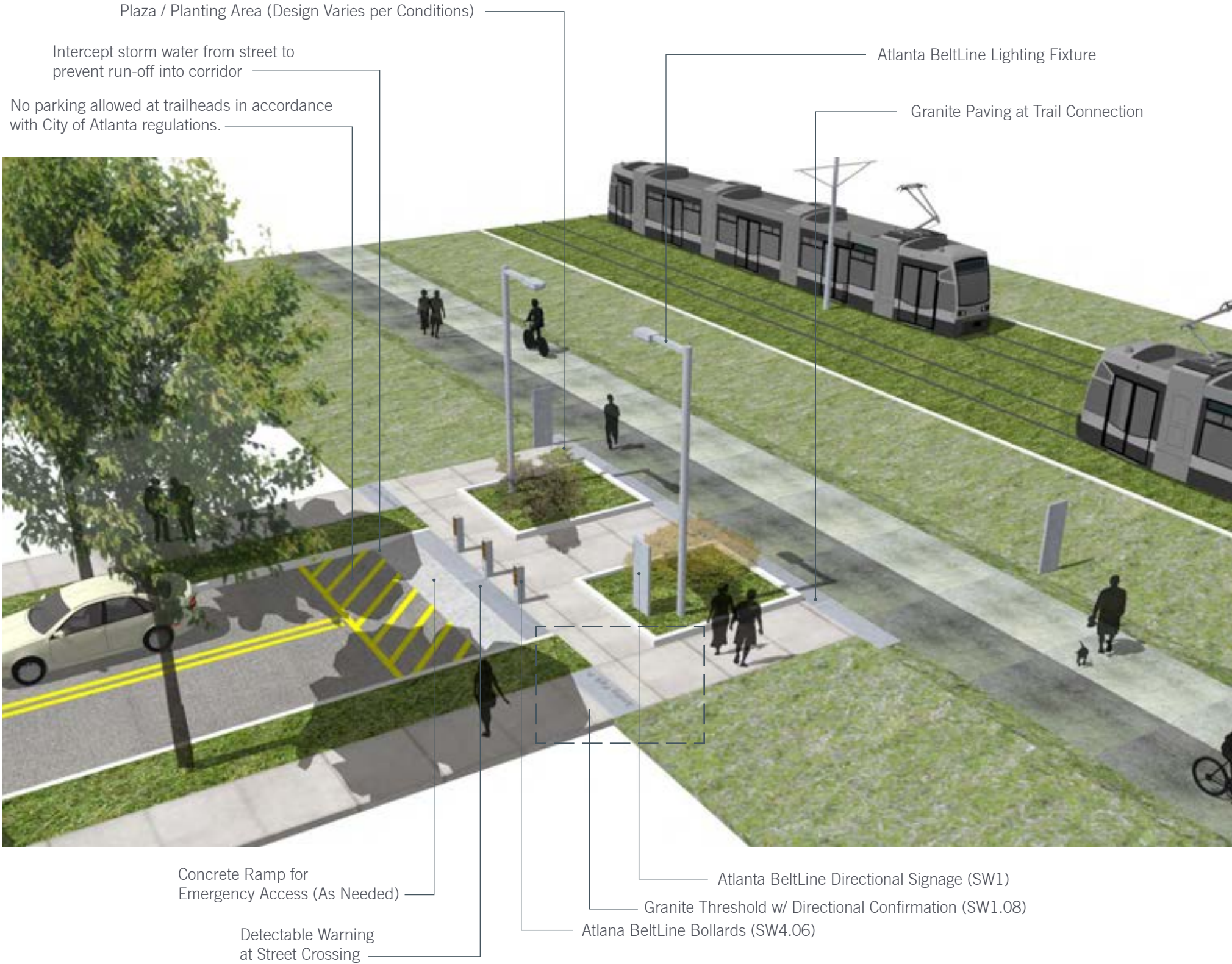
Dead-end connections vary in their degree of visibility and accessibility, but generally do provide opportunities for minor public gathering spaces, which may be especially helpful where the corridor itself is constrained. The specific design of the connection will depend highly on the physical conditions of each site, but generally speaking, there should be a seamless and accessible surface for connecting between sidewalks, trail and adjacent transit stations. Dead-ends that are also at-grade will be likely entrance points to the trail for maintenance and emergency vehicles, so removable bollards may be required.

Dead-end conditions longer than 100' to the nearest intersecting driveway should provide a 3-point turn-around subject to right-of-way constraints.



ATLANTA BELTLINE CROSSINGS

Dead-End Connection **S2.4**



Granite Threshold Detail (SW1.08-similar)

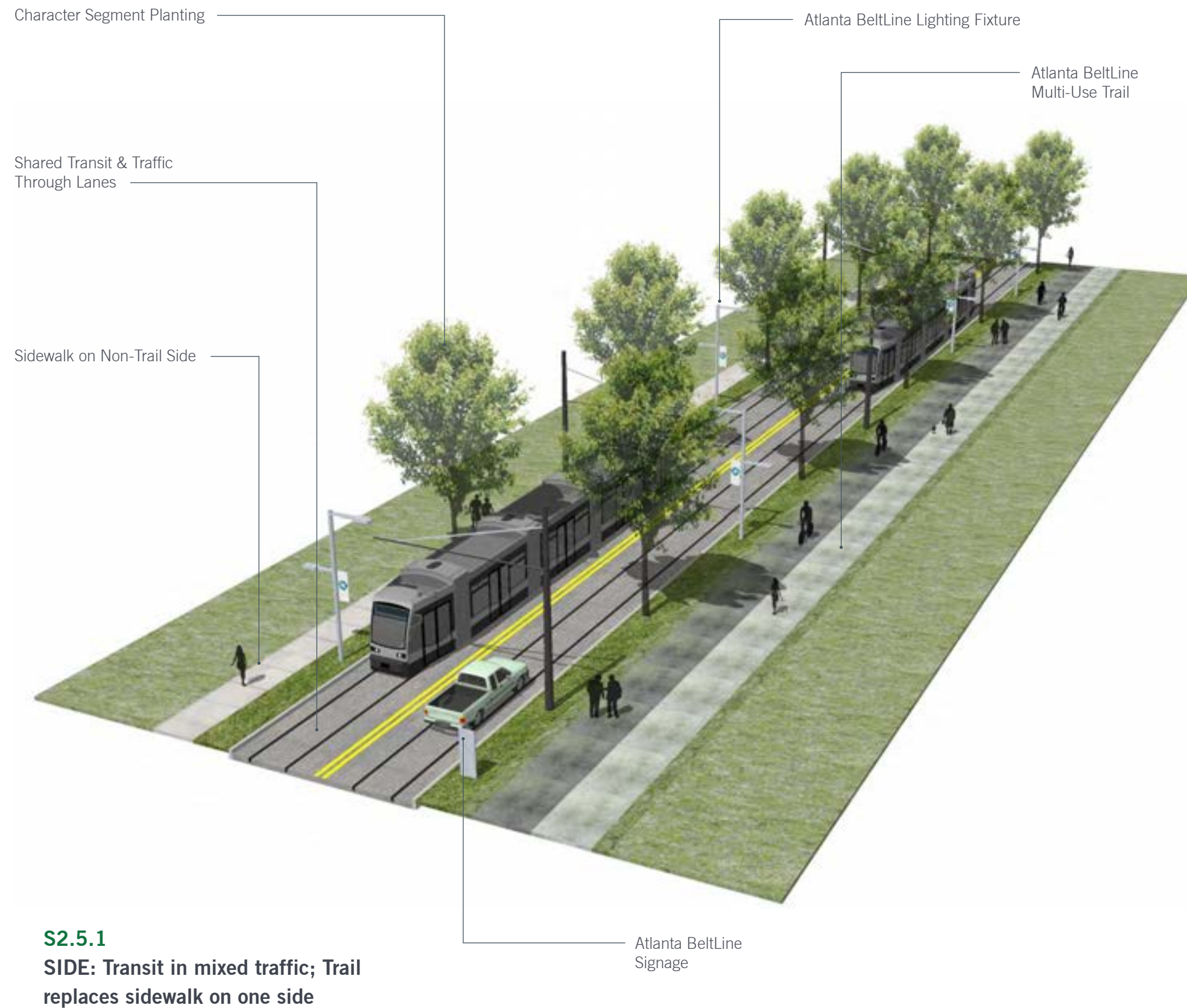


ATLANTA BELTLINE CROSSINGS

S2.5 Shared Right-of-Way

Segments of the Atlanta BeltLine that require its transit, trail or both components to share right-of-way with city streets present a particular challenge that can only be resolved with unique responses to specific conditions of each segment. With that said, any design should maintain the dimension and material of the mainline trail, utilize consistent typologies for signage, lighting, furniture and other elements.

Temporary solutions may consider other options.





S2.5.2
CENTER: Transit in median; Trail in
separate alignment



S2.5.3
SPLIT: Transit in mixed traffic; Trail in
separate alignment



S2.5.4
SPLIT: Transit in dedicated lanes; Trail
in sparate alignment



S2.5.5
SIDE: Transit adjacent to street; Trail in
separate alignment



S3 ATLANTA BELTLINE TRAIL CROSSINGS

The Atlanta BeltLine Trail's material and dimension continues across all at-grade street conditions. Ideally, this happens with a raised speed table, but traffic volume, stormwater and other conditions may at times require a street-level crossing.



S3.1
Atlanta BeltLine Trail on Speed Table





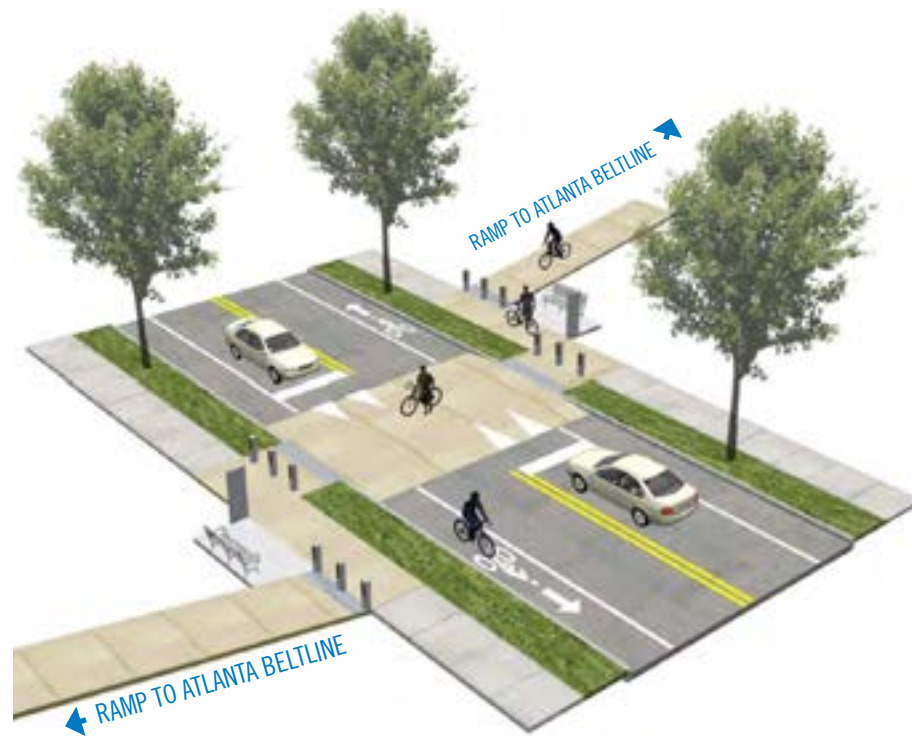
S3.2
Atlanta BeltLine Trail at Street-Grade Crossing



S4 BICYCLE/PEDESTRIAN ACCESS TO ATLANTA BELTLINE

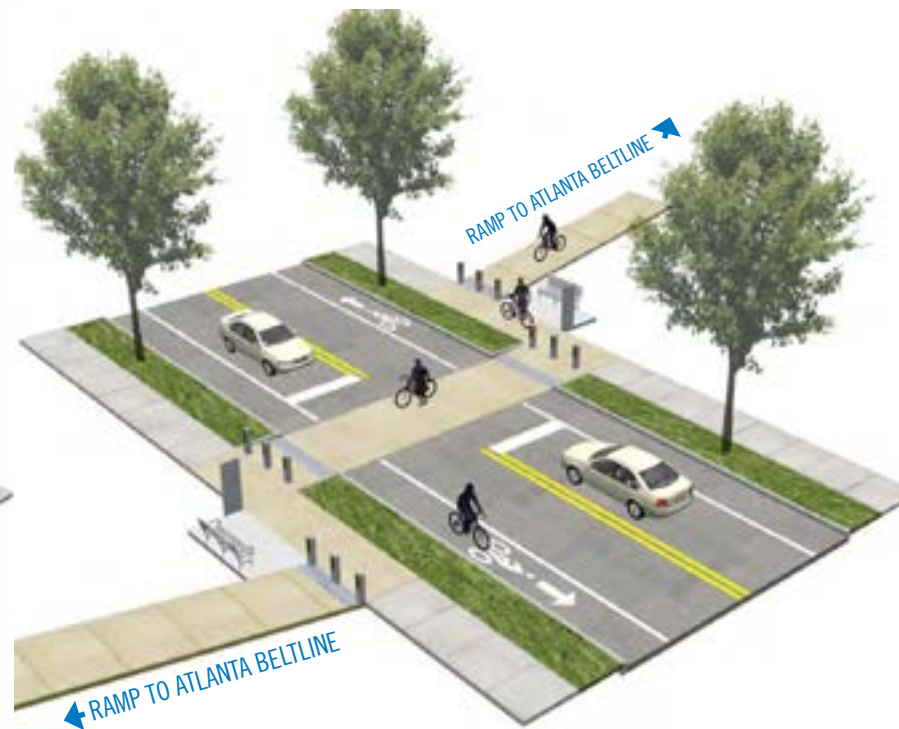
One of the challenges of designing access to the Atlanta BeltLine from city streets is the potential for user conflict between bicycles and pedestrians. Raised crossings are preferred, having the benefit of not only slowing vehicular traffic and providing a safe pedestrian crossing, but also accommodating the curb height for cyclists for a smooth lateral transition to the corridor.

Note: Alignment of crossing to access ramps and stairs varies per site conditions.

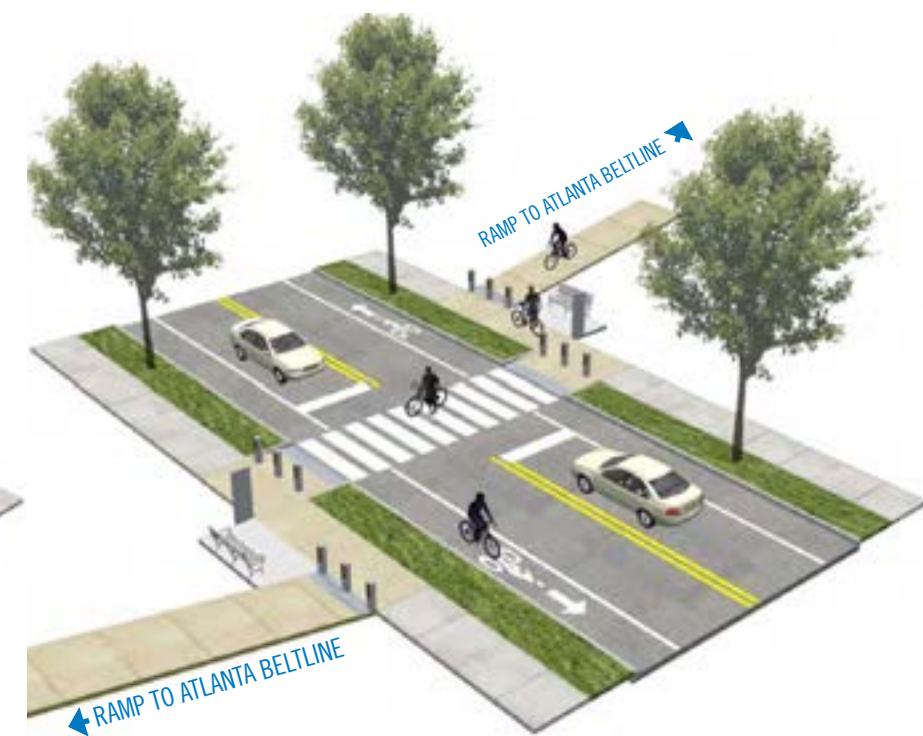


ST

S4.1
Crossing at Raised Speed Table



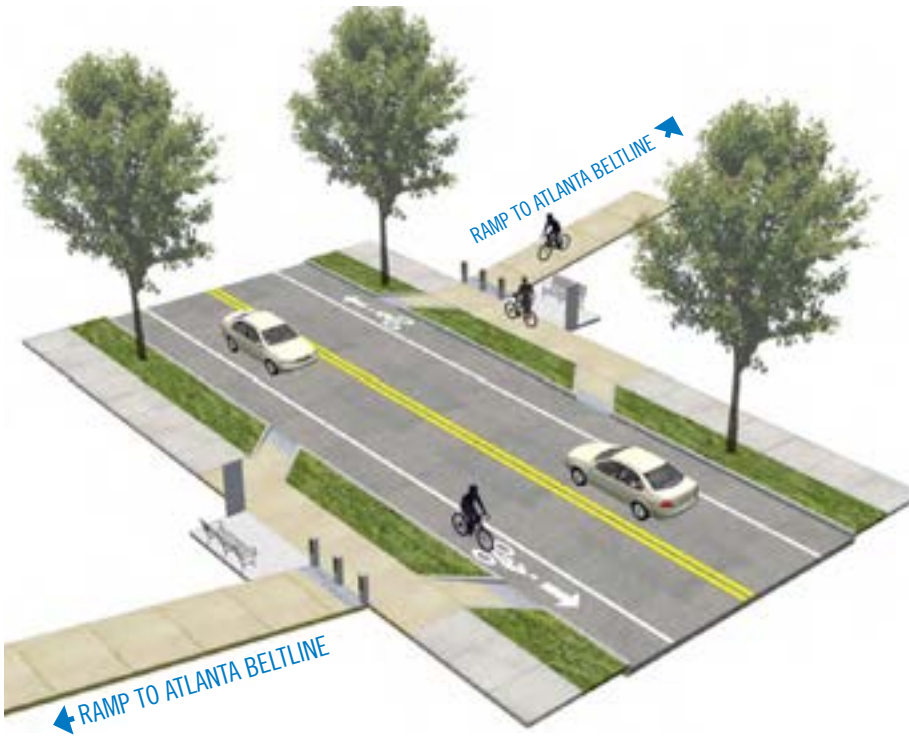
S4.2
Crossing at Street-Grade



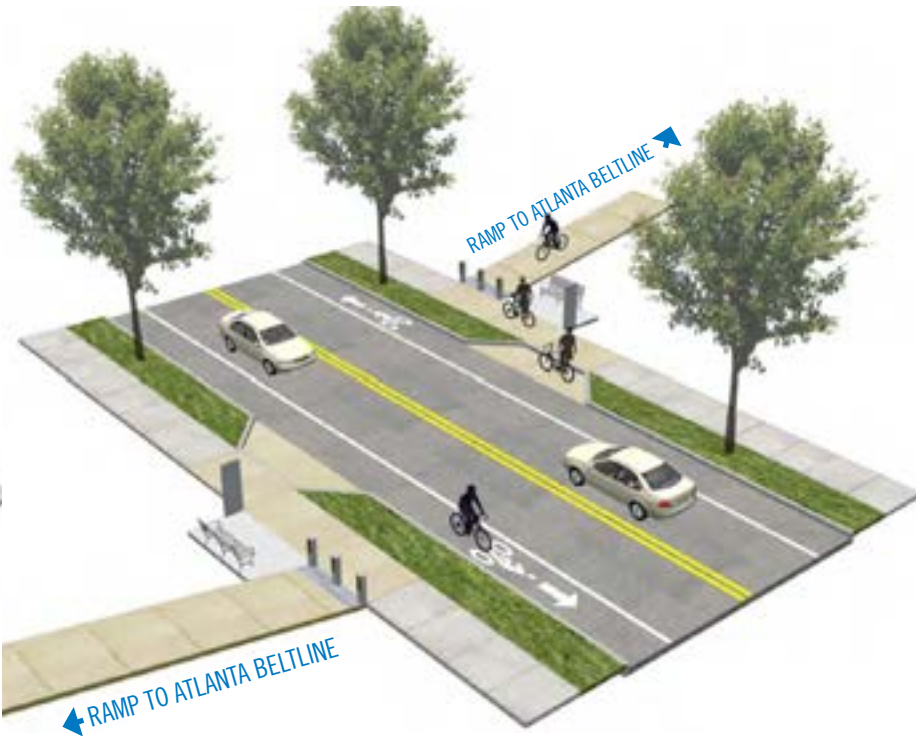
S4.3
Crossing at Striped Crosswalk



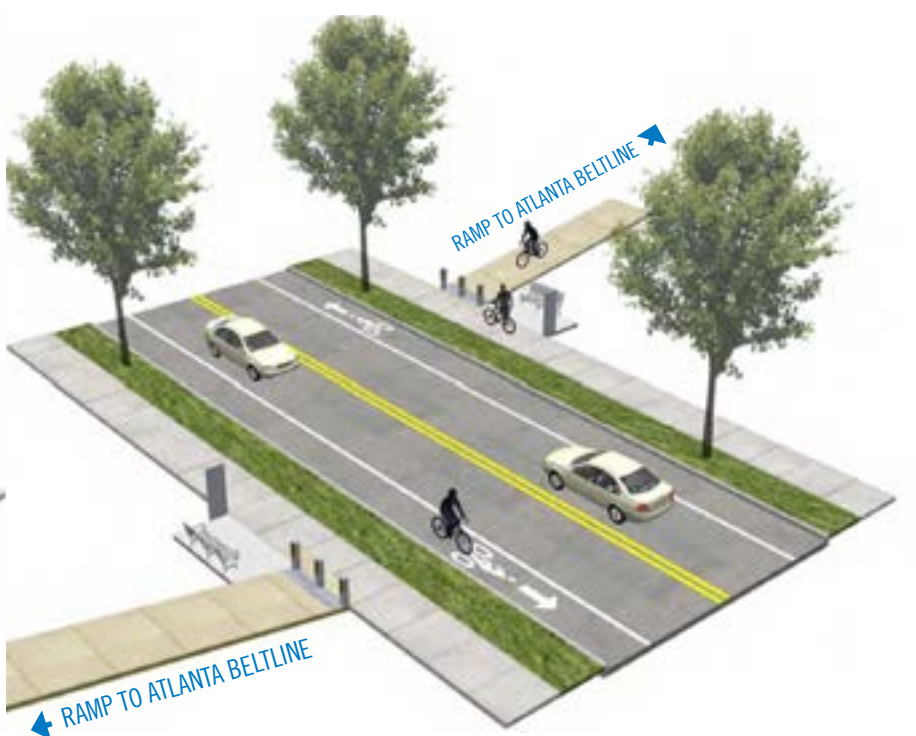
Note: Alignment of crossing to access ramps and stairs varies per site conditions.



S4.4
Bike Lane Access with Apron Ramp



S4.5
Bike Lane Access with Curbed Shoulder



S4.6
No Access to Cartway



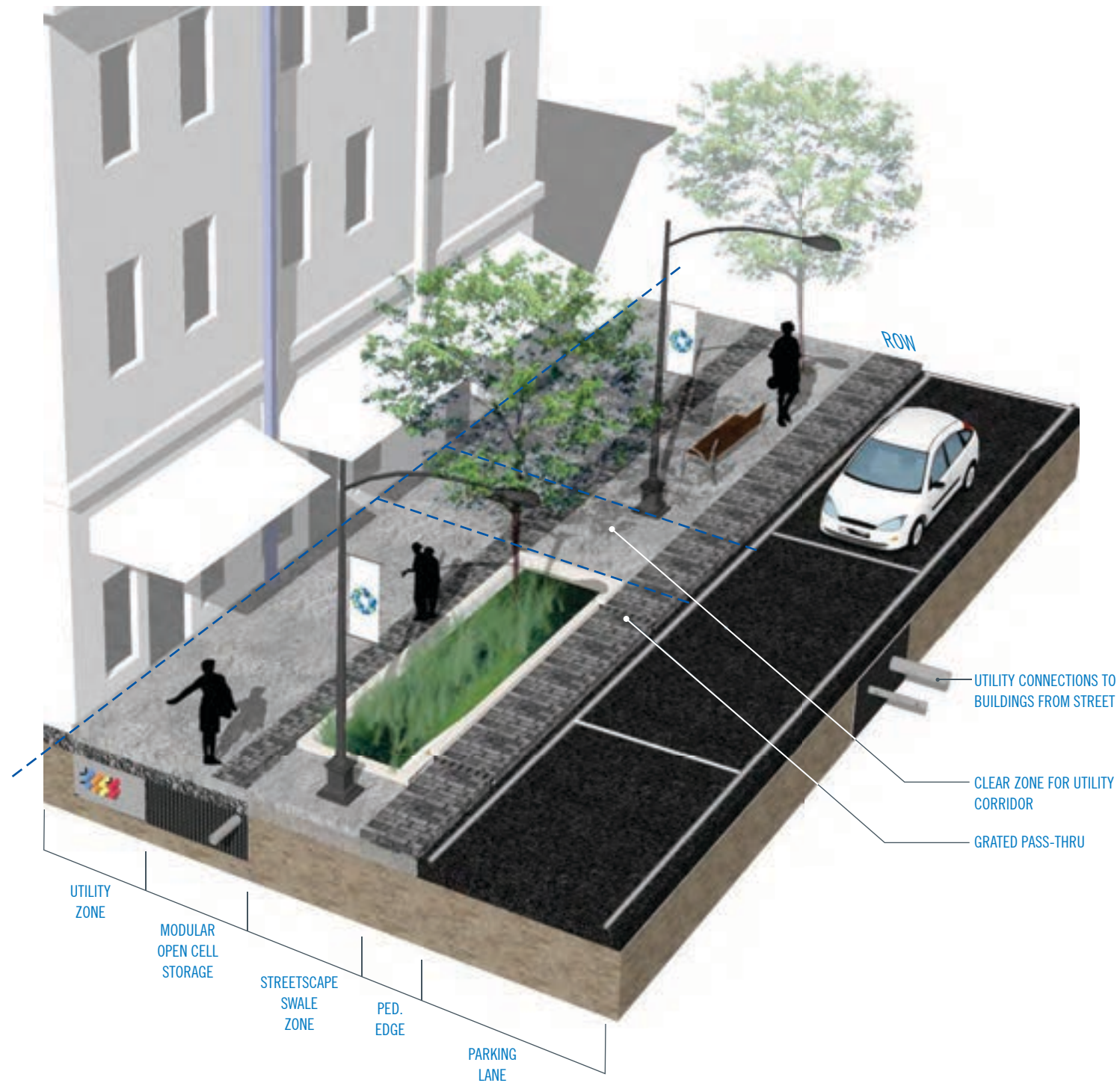
S5 GREEN STREETS

Green Street technologies provide water quality services (the first flush) not typically found associated with roadway drainage systems.

Green Street technologies are best suited to streets with slopes of 5% or less, however if streets are steeper, check dams can be utilized to slow and pool runoff. Space check dams at 25' minimum and reduce spacing as street grade increases. Receiving areas must be located so as to intercept roadway runoff and bypass excess runoff in larger storm events. Standard roadway drainage systems must still exist for larger storm events to collect the bypass runoff. Green Street planters should fully infiltrate collected runoff within 24 hours.

S5.1 Integrated Green Street

When a curb lane or parallel parking lane is not available, but appropriate space exists beyond the curb line, green streets planters can be integrated into the sidewalk/streetscape in place of traditional tree and landscape planting zones (Typically 6 to 8' between the curb and sidewalk is necessary).



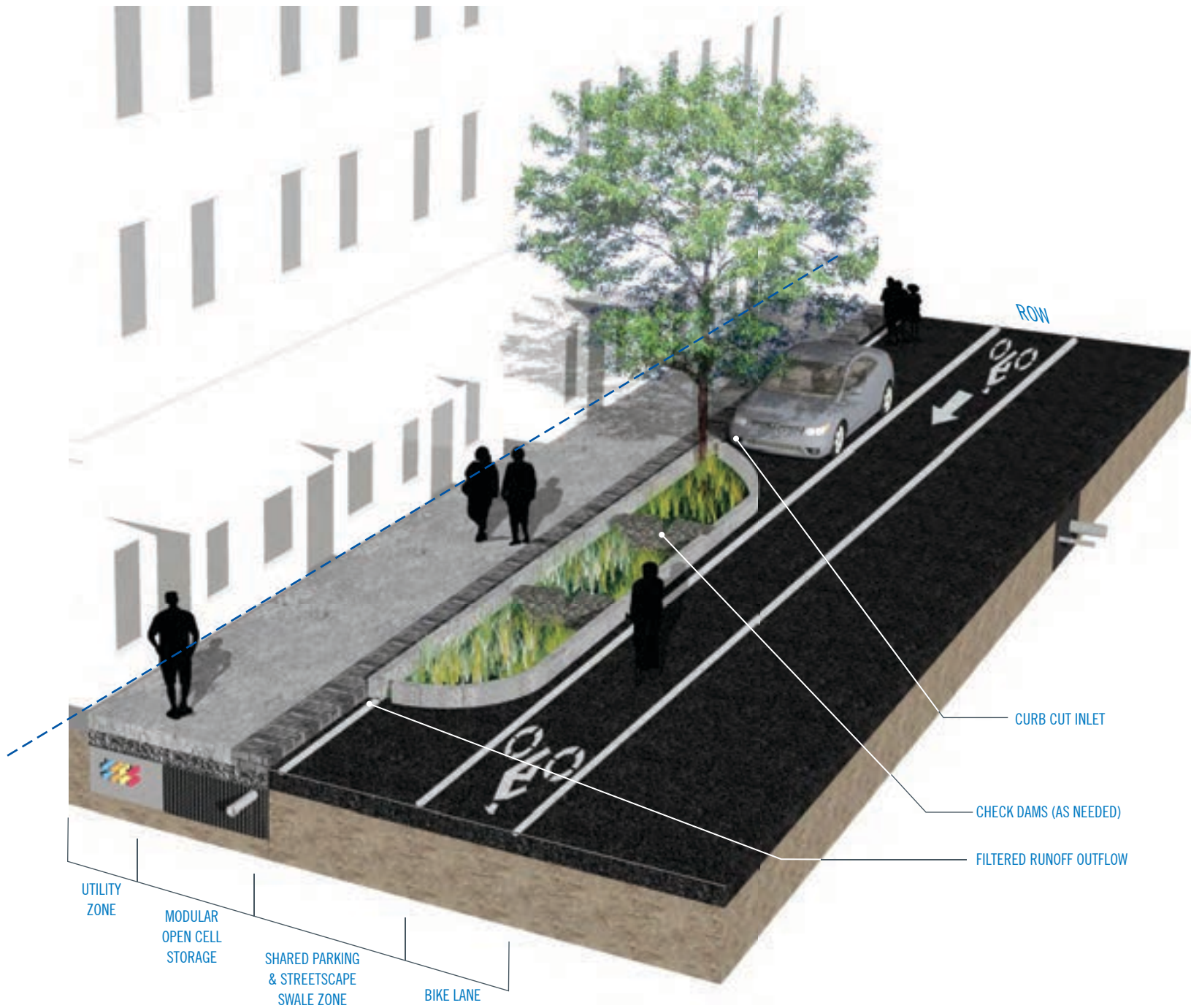
S5.2
Curb Extension

Stormwater runoff from the street can be managed at landscaped stormwater filtration areas created by extending the curb into the street or by transforming part of the curb lane or parallel parking lane.

Additional methods for on-site stormwater management at street intersections include:

- Intersection Rain Gardens: At street crossings in which streets intersect at angles other than 90 degrees, large wedges or islands of pavement are often the result.
- Retrofit or Simple Green Street: existing planted streetscape zones can be excavated and retrofitted with proper plant material, soils, and check dams.
- One Green Street planter approximately equivalent to the size of one parallel parking space can provide water quality for the first flush for up to 6X the length of the planter for a single lane of roadway.

See also: L5.6 - L5.10 Landforms and Stormwater Capacity







THE ATLANTA BeltLine:
typologies

MATERIALS

3



PERKINS
+ WILL



materials

- ◆ Local Material
& Recycled Content



M1
CONCRETE, LIGHT SANDBLAST
*Integrally-colored decorative concrete paving
with light sandblast finish*

Use: Atlanta BeltLine Trail, Inner*

- Gray portland cement w/
maximum 20% fly-ash content &
- 50% Granite aggregate ◆
Locally-available, dark gray (#89)
- Non-fading gray color pigment
(Scofield - Landmarks Gray)
- Light sandblast finish
- Clear acrylic sealer



M2
CONCRETE, MEDIUM SANDBLAST
*Integrally-colored decorative concrete paving
with medium sandblast finish*

Use: Atlanta BeltLine Trail, Outer*

- Gray portland cement w/
maximum 20% fly-ash content &
- 50% Granite aggregate ◆
Locally-available, dark gray (#89)
- Non-fading gray color pigment
(Scofield - Landmarks Gray)
- Medium sandblast finish
- Clear acrylic sealer



M4
CONCRETE, CAST-IN-PLACE

Uses: Connector trails (non-BeltLine)
Ramps to trail
Concrete sidewalks
Concrete integral curbs / gutters

- Gray portland cement w/
maximum 20% fly-ash content &
- Locally-sourced granite aggregate ◆
- Medium broom finish, perpendicular to
direction of trail

* The concrete trail is single-pour and saw-cut at center. The “Inner Trail”, on the inner side of the Atlanta BeltLine circle, is sandblasted to a different degree than the “Outer Trail” to produce a two-tone effect.





M5
CRUSHED-STONE - TYPE A1 & A2

- Uses: Ground cover in non-planted areas, Plazas, Walkways
- Crushed granite stone, warm gray, locally-sourced ◆
 - 100% passes through Sieve No. 4
 - Natural, non-toxic, non-staining, odorless, environmentally-safe stabilizer powder consisting of 95% Psyllium (Type A1 only)
 - Aluminum edging used in all conditions to contain crushed stone



M6
CRUSHED-STONE - TYPE B

- Uses: Ground cover in non-planted areas, Under Bridges
- Crushed granite stone, warm gray, locally-sourced ◆
 - 100% passes through Sieve No. 2"
 - Aluminum edging used in all conditions to contain crushed stone



M7
CRUSHED STONE - TYPE C

- Uses: Plazas, Walkways
- 1/4" to 1/2" Mini Rockmart SlateScape nuggets ◆
 - Aluminum edging used in all conditions to contain crushed stone



M8
ELBERTON GRANITE - THICK STONE

- Uses: Wall Veneer, capstone
- Elberton granite thick stone, medium grain, 10" x 30" and 5" x 15" nominal size, 3" nominal thickness for wall veneer, 4" nominal thickness for capstone ◆
 - 3 finishes: Honed, split-face and thermal (honed and split-face on wall veneer; honed on face of capstone with thermal top)



materials

- ◆ Local Material
- & Recycled Content



M9
ELBERTON GRANITE - UNIT PAVER

- Uses: Stairs, plazas, trail connections, detectable warning pavers, tactile warning pavers
- Elberton granite, medium grain, dimensions vary ◆
 - Thermal finish
 - Mortar setting bed includes aggregate, cement and lime extracted, harvested (or recovered), as well as manufactured from within 500 mile radius of project site ◆ &
 - Grout includes aggregate and cement extracted, harvested (or recovered), as well as manufactured from within 500 mile radius of project site ◆ &



M10
ELBERTON GRANITE - CURB STONE

- Uses: Vertical curb, sloped edging, flush edging, curb transition pieces
- Elberton granite, medium grain, 6" nominal thickness at top, depth varies ◆
 - Top surface sawn, front and back faces split
 - Cement mortar includes aggregate, cement and lime extracted, harvested or recovered, as well as manufactured from within 500 mile radius of project site ◆ &
 - Meets City of Atlanta streetscape standards



M11
STAINLESS STEEL - RAILING

- Uses: Stairs, ramps, bridges, barriers at fill walls
- Stainless steel decorative railing with stainless steel mesh infill
 - Brackets, flanges, and anchors: stainless steel
 - Stainless steel mesh infill: stainless steel wire rope joined with stainless steel ferrules; Carl Stahl DecorCable X-Tend Mesh or Equal
 - Mesh aperture dimensions: type I 2mmx100mm, type II 2mmx50mm
 - Perimeter finishing: closed loops with loose ferrules for "sewn-on" installation method
 - Direction of mesh: horizontal mesh direction for rectangular frame shapes; diagonal mesh direction for staircases

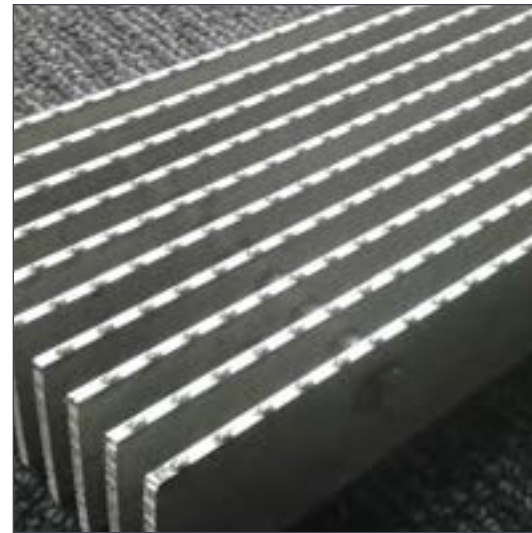




M12
STAINLESS STEEL - CABLE

Uses: Safety Railing (secondary stair, ramps, walkways), Safety Fence

- Stainless steel cable railing and attachment hardware; Carl Stahl DecorCable or equal



M13
STAINLESS STEEL - BAR GRATING

Uses: Elevated Primary Stairs and Elevated Primary Ramps

- ADA compliant, slip-resistant stainless steel bar grating



M14
ALUMINUM - BAR GRATING

Uses: Elevated Primary Stairs and Elevated Primary Ramps

- ADA compliant, slip-resistant stainless steel bar grating



M15
CHAIN LINK - FENCE

- Uses: Utility fence, replacement fence; barrier fence at top of cut wall
- Chain link fence fabric
 - Steel wire fabric: a diameter of 0.148 inch
 - Mesh size: 2 inches
 - Polymer-coated fabric, black color
 - Posts and rails: line post 2.375 inches in diameter
 - Polymer coating, black color
 - Polymer-coated steel wire
 - Swing gates: gate leaf width 36 inches



M16
MEADOW GRASSES
& NATURALIZED AREAS

- Uses: As specified, along Atlanta BeltLine corridor
- Seeds and plugs adapted to the Southeastern region whose provenance is known to be North Carolina, Florida, Virginia, Georgia, South Carolina, Tennessee, Alabama, or Mississippi ◆
 - Manufactured topsoil ◆
 - Cover crop
 - Organic Land Care
 - Integrated pest management (IPM) compliant to NOFA Standards for Organic Land Care



M17
TREES AND SHRUBS

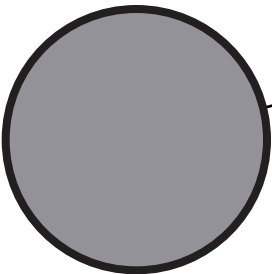
- Uses: As specified, along Atlanta BeltLine corridor
- Purchase trees from approved local nurseries ◆
 - Manufactured topsoil ◆
 - Organic Land Care
 - Integrated pest management (IPM) compliant to NOFA Standards for Organic Land Care
 - Commercial grade complete organic fertilizer
 - Organic mulch: 50% ground / shredded bark, 50% compost ◆



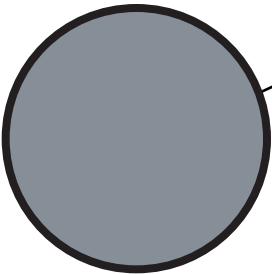
materials
colors

colors for painted steel surfaces

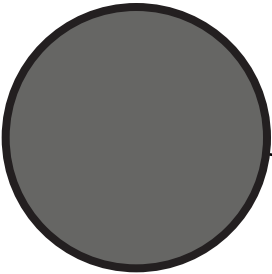
Metropolitan Grey



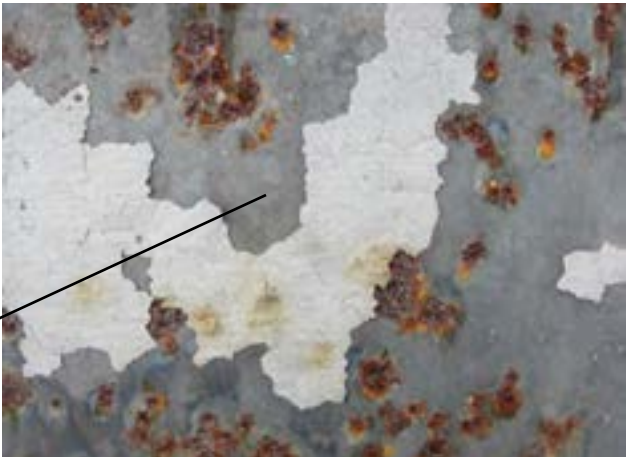
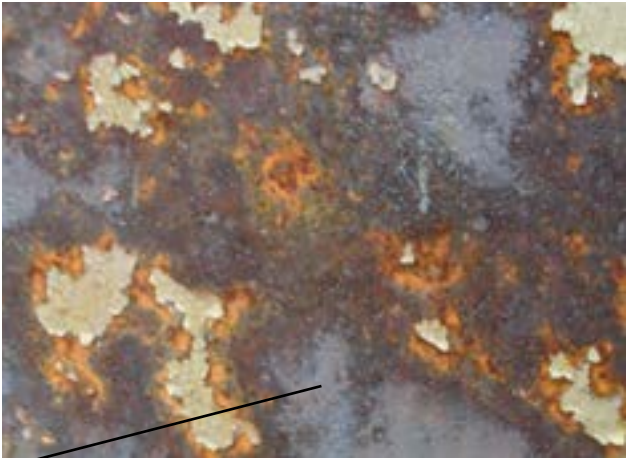
Hill Grey



Ponce de Leon Grey

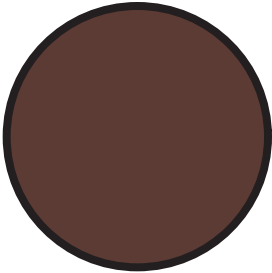


apparent historic colors

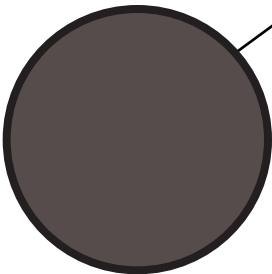


rust colors

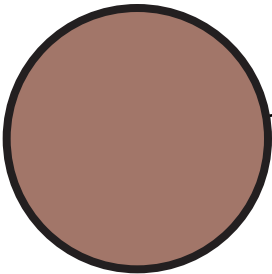
Deep Rust



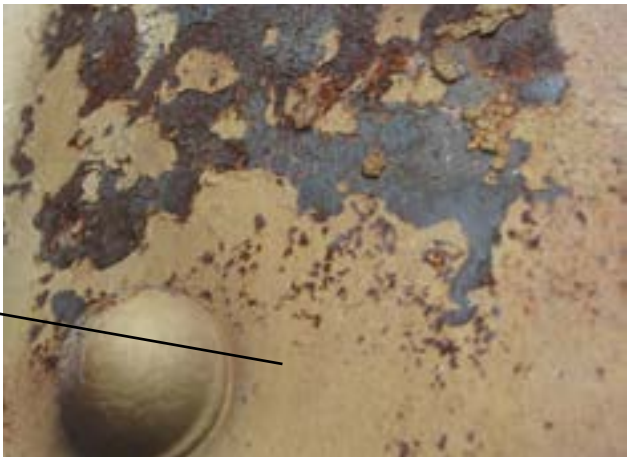
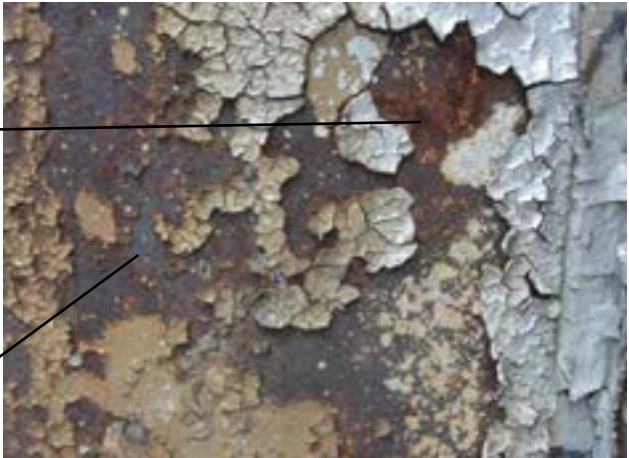
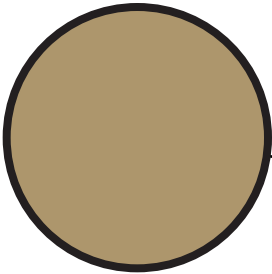
Dry Rust



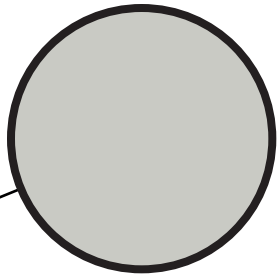
Weathered Rust



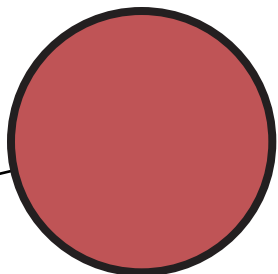
Rust-Stained Silver



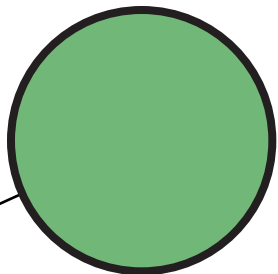
recent colors



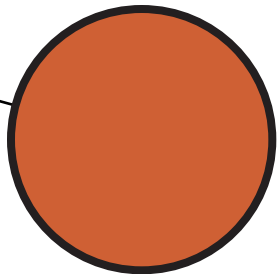
Seventy-Four Silver



Ormewood Red

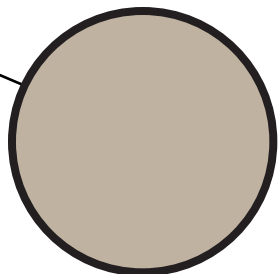


GDOT Green

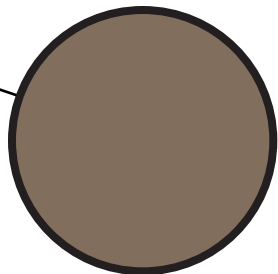


North Avenue Orange

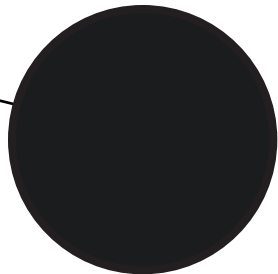
related railroad colors



Sand Brown



Wood Tie Brown



Utility Black





THE ATLANTA BeltLine:
typologies



PERKINS
+ WILL



SUSTAINABILITY

4

Introduction

The Atlanta BeltLine Corridor Design, which is outlined in this typology document, is a product of integrated design. The holistic design approach is coupled with an iterative design process with input from critical stakeholders and experts reflecting the best green design practices and knowledge of the day. Sustainability considerations such as water and energy-saving features and the durability of materials are critical drivers of each design decision, along with economic, cultural and aesthetic concerns. The ultimate goal is to meet, and where possible, to exceed the CoA and ABI's sustainability guidelines.



City of Atlanta Sustainability Plan¹

► MAYOR'S CHARGE:

- To ensure that the City of Atlanta becomes one of the top ten sustainable cities in the US
- To motivate and support community efforts that improve the quality of life of the citizens of Atlanta by enhancing the quality of their environment while supporting jobs and long term economic growth
- To create and encourage a community dedicated to environmental sustainability through innovative leadership
- To commit to continual improvement in sustainability practices
- To lead by example through the development and implementation of policies and activities that support environmental sustainability

► Guiding Principles

Economic Development Rationale: Use sustainability leadership to increase Atlanta's "Competitive Advantage" by positioning Atlanta as a magnet for talent and a model for the country.

Quality of Life Rationale:

Energy security

Ensure multiple reliable, affordable, local, and renewable energy sources.

Air & climate quality

Enhance citizens' health, maintain clean air, and stabilize contributions to climate change.

Water security

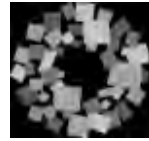
Ensure availability of high quality water

Land quality

Preserve and maintain plentiful natural lands and green spaces

Resource security

Eliminate wasteful resource uses



Atlanta BeltLine Sustainability Plan

► VISION

As a critical component of the City's redevelopment plans, the Atlanta BeltLine will support best in class sustainability leadership by the City by proactively identifying and implementing solutions to Atlanta's environmental and economic challenges, leading the way for the City's efforts.

The Atlanta BeltLine infrastructure will be built to provide positive social, economic, and environmental benefits to the City of Atlanta and its residents.

► Guiding Principles

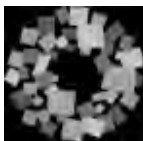
- Deliver projects to the City which advance the state of environmentally-sensitive (and ultimately sustainable) City-owned infrastructure, with a specific emphasis on reducing electricity and potable water usage
- Use Atlanta BeltLine projects as test bed for new technologies and approaches where appropriate
- Proactively seek and implement distributed power generation opportunities throughout the Atlanta BeltLine redevelopment area
- Support sustainable building practices through integrated master planning and policies to support the City's green building ordinance²
- Integrate and coordinate public and private realms to create a holistic solution to economic, environmental and social issues
- Develop infrastructure that can be adequately maintained post construction to the benefit of ABI, COA, and the community.
- Create a walkable environment via paths and streetscapes. Create spaces where people want to go and environments that enhance the experience and get people out of cars.
- Educate stakeholders on the social, environmental and financial benefits of sustainability
- Increase mobility options
- Support Community Benefits principles

1. Source: City of Atlanta Sustainability Plan (October 15, 2010). City of Atlanta, Office of Sustainability. <http://www.atlantaga.gov/mayor/sustainability.aspx>.
2. Adopted by the City Council on December 1, 2003, the City of Atlanta Sustainable Development Design Standards call for the integration of "green and/or sustainable building principles and practices into the design, construction, and operation of all City facilities, and City-funded projects to the fullest extent possible." A minimum of LEED™ Silver rating is required for new construction and renovations over 5,000 SF or \$2 million in project cost.



As one of the first signatories to the U.S. Mayors Climate Protection Agreement, the City of Atlanta (CoA) has pledged to reduce its emissions by 7% below 1990 levels by 2012. With its 1300 acres of new or expanded green space, 33-miles of trails and 22-mile transit loop, the Atlanta BeltLine is a great step for the City in meeting its sustainability goals outlined in the City of Atlanta 2010 Sustainability Plan.

The Atlanta BeltLine contributes to Atlanta's sustainable future in the following concrete ways:



City of Atlanta Sustainability Goals³

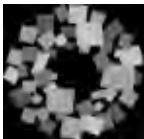
BeltLine's Contribution

Transportation	Promote the expansion of public transit, including the continued development of the Atlanta BeltLine and the implementation of the Atlanta Streetcar projects and focusing on improving neighborhood connectivity	Atlanta BeltLine's 22-mile-long pedestrian-friendly transit loop will connect 45 intown neighborhoods and link with the existing MARTA and proposed streetcar systems
Fleet Fuels	Reduce petroleum fuel consumption by 10% by 2015 by those municipal departments with the greatest levels of fuel usage and have a city fleet composed of 15% alternative fueled vehicles in 2012	N/A.
Climate Change	Reduce greenhouse gas emissions within the City of Atlanta's jurisdiction by 25% by 2020, 40% by 2030, and 80% by 2050	Atlanta BeltLine will reduce greenhouse gas emission by reducing vehicle-miles traveled (VMT) in areas served by BeltLine Trails and Transit, helping the City of Atlanta to reach to its goal of 80% GHG reduction and 100% conformance with the EPA's Air Quality index by 2050.
Water Conservation	Reduce system leakage by 50% by 2015	The streetscape improvements within the Atlanta BeltLine Tax-Allocation District and Redevelopment Area will include utilities upgrades. The Atlanta BeltLine corridor will be landscaped using native or native-adapted plants, adding no additional irrigation load to the City's water resources.
Water Quality	To restore and maintain water quality standards by enforcing regulations, complying with federal, state and local laws and coordinating watershed protection strategies throughout City government	Atlanta BeltLine will help improve the water quality in Atlanta waterways through integrated management of stormwater within the Atlanta BeltLine corridor, and where possible, in adjoining streets and parklands. It will act as a catalyst for remediation of 1,100 acres of brownfields ⁴ within the 6,500 acre Atlanta BeltLine TAD , a necessity for the improvement of ground water quality. The new Historic Fourth Ward Park, with its two-acre stormwater detention lake that is designed to prevent the episodic flooding of area buildings, is an excellent example of the tangible contributions of the Atlanta BeltLine to water quality issues in the City of Atlanta.





City of Atlanta Sustainability Goals³



BeltLine's Contribution

Air Quality	Improve Atlanta's air quality such that over 50% of days qualify as good according to the EPA's Air Quality Index by 2015, 60% by 2020, 75% by 2030, and 100% by 2050.	Atlanta BeltLine will reduce greenhouse gas emission by reducing vehicle-miles traveled (VMT) in areas served by BeltLine Trails and Transit, helping the City of Atlanta to reach to its emission reduction goals.
Waste	Reduce, reuse and recycle 30% of the city residential waste by 2013, 50% by 2015, 90% by 2020	N/A. The Atlanta BeltLine landscape is low-maintenance; all organic waste from landscape maintenance will be composted at a local facility.
Greenspace	Provide a minimum of 10 acres of greenspace per 1,000 residents, protect and restore the City's tree canopy in order to meet a target to 40% coverage, create and maintain a park system that promotes and supports sustainable development, implement landscaping and facility renovations that reduce energy demand and maintenance costs	The Atlanta BeltLine will increase available green space in the city by 40 percent and expand access to green space with its 33-mile long trail system.
Energy	Reduce the total energy use for existing municipal operations by 15% by 2020, 40% by 2030, and 80% by 2050; renewable energy 5% of total municipal use by 2015	The Atlanta BeltLine corridor provides opportunities for small-scale distributed energy generation within the infrastructure, such as photovoltaic panels mounted on transit station canopies.
Local Food Systems	Bring local food within 10 minutes of 75% of all residents by 2020.	Not feasible within the Atlanta BeltLine corridor, due to the limited right-of-way.

3. Source: City of Atlanta Sustainability Plan (October 15, 2010). City of Atlanta, Office of Sustainability. <http://www.atlantaga.gov/mayor/sustainability.aspx>.
4. "Brownfield Remediation," Atlanta BeltLine Website. <http://www.BeltLine.org/BeltLineBasics/BrownfieldRemediation/tabid/1801/Default.aspx>





ENERGY & CLIMATE

ABI Guidelines for Energy & Climate

1. Minimize the carbon footprint of BeltLine operations through the use of energy-efficient technologies, on-site energy production and green-energy purchase.
2. Maintenance and construction activities shall strive to be carbon-neutral, where possible.
3. Avoid high-albedo materials and provide shading landscapes to minimize contribution to urban heat-island effect.
4. Encourage and promote the use of BeltLine trails and transit as an alternative to the automobile through thoughtful design of facilities, access points and services, and public education and awareness campaigns.

Integrated Sustainability

A regional ecosystem analysis of Atlanta by American Forests concludes that Atlanta's economic growth has come at the price of too many trees being replaced by too many buildings, surface roads and parking lots,¹ with significant negative consequences for stormwater management and air quality in the City of Atlanta. The study concludes that maintaining and restoring tree cover is an effective way to improve the environment.

The reforestation of the Atlanta BeltLine corridor will contribute to the City of Atlanta's emission reduction goals and reduce its carbon footprint through carbon sequestration. The new canopy will lower surface and air temperatures along the Atlanta BeltLine corridor and in surrounding areas by providing shade and evapotranspiration. Trees will also help shade existing and new buildings along the Atlanta BeltLine, reducing cooling loads. Concrete and grass, specified for the trail and the transit guideway respectively, are low-albedo alternatives to asphalt which contributes to urban heat-island effect.

The Atlanta BeltLine trails and transit will offer alternative transportation options to current and future residents in forty-five intown neighborhoods, helping the City of Atlanta reach to its goal of 80% GHG reduction and 100% conformance with the EPA's Air Quality index by 2050. The Atlanta BeltLine subarea master plans include bike and pedestrian improvements for streets in the Atlanta BeltLine study area, paving the way for a greener Atlanta.

In addition to specifying energy-efficient fixtures for lighting and interactive displays, the Atlanta BeltLine typologies present numerous opportunities for on-site renewable energy generation to minimize energy use.

¹ 2001. "Urban Ecosystem Analysis Atlanta Metro Area". American Forests. http://www.americanforests.org/downloads/rea/AF_Atlanta.pdf



Landscape Typologies L1-L6

Reforestation of the Atlanta BeltLine Corridor



Atlanta BeltLine Trails and Transit provide alternatives to the car



Transit Station Typology - The station canopy has thin-film photovoltaics for on site energy generation.



ENERGY & CLIMATE

Environmental Issues Addressed

- ✓ Carbon footprint reduction
 - ✓ Energy-Efficiency
 - ✓ On-site Renewable Energy Production
 - ✓ Green Energy Purchase
 - ✓ Green-house gas (GHG) Emissions Reduction
 - ✓ Vehicle-miles traveled (VMT) Reduction
- ✓ Urban Heat Island Effect Reduction
- ✓ Cooling / Heating Load Reduction

Other Environmental Issues

- Maintenance Vehicle Emissions
- Embodied Energy of Materials
- Performance Monitoring
- District Heating / Cooling
- Education & Outreach

Related Metrics



- 4.10. Use vegetation to minimize building heating requirements
- 4.11. Use vegetation to minimize building cooling requirements
- 4.12. Reduce urban heat island effects
- 7.6. Minimize generation of greenhouse gas emissions and exposure to localized air pollutants during construction
- 8.4. Reduce outdoor energy consumption for all landscape and exterior operations
- 8.5. Use renewable sources for landscape electricity needs
- 8.7. Minimize greenhouse gases and exposure to localized air pollutants during landscape maintenance activities
- 8.8. Reduce emissions and promote the use of energy-efficient vehicles
- 9.1. Monitor performance of sustainable design practices



- SLL Credit 3. Reduced auto dependence
- SLL Credit 4. Bike network and storage
- GIB Credit 9. Heat island reduction
- GIB Credit 11. On-site renewable energy sources
- GIB Credit 13. Infrastructure energy efficiency
- NPD Credit 14. Tree lined and shaded streets

Resources

- NOTE: LIST IN PROGRESS
- Energy Star Program Requirements for Solid State Lighting Luminaires

See Appendix for:

- Guidelines
- Atlanta BeltLine Maintenance Guidelines
 - Atlanta BeltLine Community Benefit Guiding Principles



WATER EFFICIENCY
& QUALITY



ABI Guidelines for Water Efficiency & Quality

1. Surpass City stormwater management requirements by 10% and identify lowest lifecycle cost management solution for parks and trails
2. Limit potable water use to human health needs (drinking water, hand washing). No potable water to be used for toilets or irrigation
3. At least seventy-five percent of the site vegetated area must be composed of native plants, in compliance with SSI, Credit 4.7

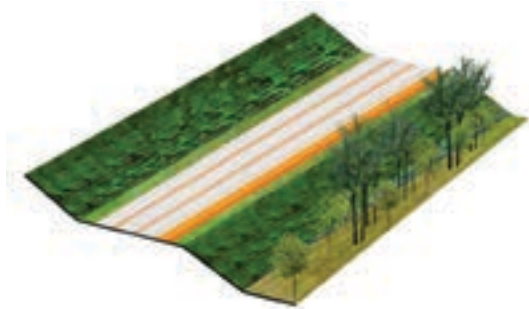
Integrated Sustainability

The typological design of the Atlanta BeltLine corridor integrates best sustainable practices in landscape design and stormwater management to create a working landscape focused on water efficiency and quality.

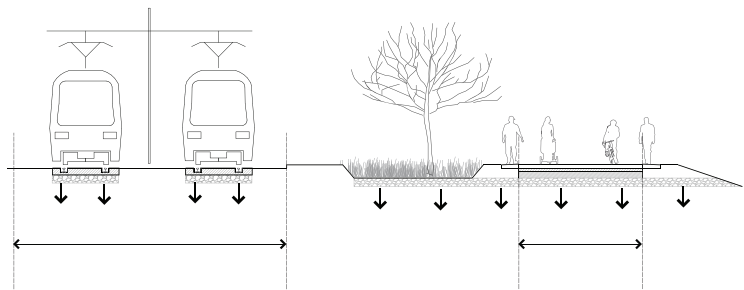
The Atlanta BeltLine landscape is native or native-adapted and does not require irrigation past the period of establishment. Opportunities for rainwater capture exist at key locations, such as transit stations. Water collected on-site can be used in public toilets, should those be included in the Atlanta BeltLine program in the future.

The amount of paved, impervious surfaces are limited to the minimum required by the Atlanta BeltLine program, to minimize stormwater runoff. Where allowed by corridor width, green embankments are specified for engineered slopes to allow stormwater infiltration. Biofiltration swales are recommended to collect and filter stormwater on-site, minimizing the Atlanta BeltLine's burden on the City's stormwater infrastructure. Limitation of impervious surfaces is also recommended for BeltLine Overlay District.

Materials and coatings specified for the stations are non-toxic and will not leach into the ground water.



Landscape Typology L16 - Green embankments filter stormwater on-site



Landscape Typology L17 - Vegetated swale



Environmental Issues Addressed

- ✓ Irrigation-Free Landscaping
- ✓ Reduction of Permeable Surfaces
- ✓ Stormwater Runoff Control
- ✓ Stormwater Pollution Prevention
- ✓ Bio-Filtration
- ✓ Sediment Control
- ✓ Floodplain Protection
- ✓ Brownfields Remediation

Other Environmental Issues

- Wetlands Protection (n/a)
- Water-Efficiency of Fixtures (n/a)
- Rainwater Capture
- Greywater Recycling
- Performance Monitoring
- Education & Outreach

Related Metrics



* Prerequisites

- 1.2. Protect floodplain functions*
- 1.3. Preserve wetlands*
- 3.1. Reduce potable water use for landscape irrigation by 50% from established baseline*
- 3.2. Reduce potable water use for landscape irrigation by 75% from established baseline
- 3.3. Protect and restore riparian, wetland and shoreline buffers
- 3.4. Rehabilitate lost streams, wetlands and shorelines
- 3.5. Manage stormwater on site
- 3.6. Protect and enhance on-site water resources and receiving water quality
- 3.7. Design rainwater / stormwater features to provide a landscape amenity
- 3.8. Maintain water features to conserve water and other resources
- 7.1. Control and retain construction pollutants*
- 9.1. Monitor performance of sustainable design practices



- SLL Prereq. 3. Wetland and water body conservation
- SLL Prereq. 5. Floodplain avoidance
- SLL Credit 2. Brownfield redevelopment
- SLL Credit 6. Steep slope protection
- GIB Credit 4. Water-efficient landscaping
- GIB Credit 8. Stormwater management

Resources

NOTE: LIST IN PROGRESS

- Maryland Stormwater Design Manual (2000)
- Low Impact Development Center
- Chicago Alleys Program Handbook
- Center for Watershed Protection

See Appendix for:

Guidelines

- Atlanta BeltLine Maintenance Guidelines
- Atlanta BeltLine Community Benefit Guiding Principles





ABI Guidelines for Soil & Habitat Quality

1. Restore and maintain a healthy ecosystem along the Atlanta BeltLine corridor composed of native, or native-adapted plantings that provide habitat for urban wildlife
2. Educate Atlanta BeltLine users on the value of urban habitats and the rich ecology of the Atlanta ecoregion
3. Use native plants in at least seventy-five percent of the site vegetated area, in compliance with SSI, Credit 4.7

Integrated Sustainability

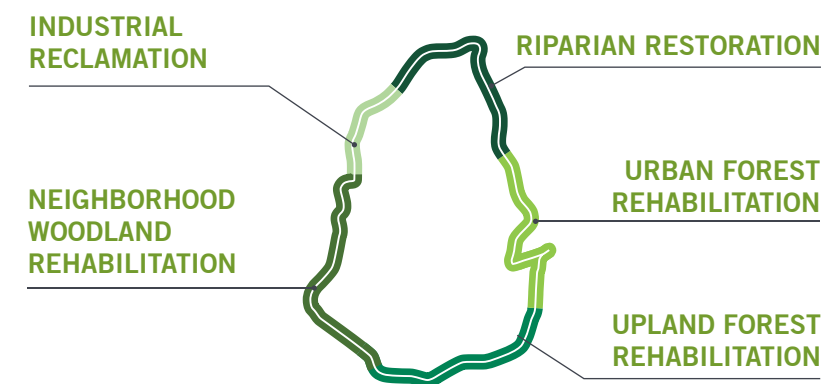
The Atlanta BeltLine landscape typologies calls for the restoration of a native ecosystem within the Atlanta BeltLine corridor, large sections of which are recovering from decades-long kudzu overgrowth. The native, and native-adapted plants that are specified for the corridor create the [Atlanta BeltLine Arboretum](#), with species and forms that are appropriate to Atlanta and are expected to perform well within its various microclimatic conditions.

The plant palette specified for the Atlanta BeltLine corridor is site-specific and ecologically rich. When mature, the thousands of trees planted for the Atlanta BeltLine urban forest will provide year-long or seasonal habitat for resident or migrating species and serve as an ecological corridor between existing habitats.

The landscaping efforts will be necessarily accompanied by a soil restoration program. The Atlanta BeltLine Maintenance Guidelines (See Appendix) calls for an organic landscape care program that will establish and maintain a living, healthy soil along the entire Atlanta BeltLine corridor. A public education campaign and Overlay District requirements can be used to prevent activities harmful to soil and habitat quality, such as heavy pesticide use, in areas adjoining the corridor.

Materials selected for the Atlanta BeltLine hardscape, transit stations, furnishings and lighting fixtures are non-toxic and will not leach chemicals into the soil or negatively impact the landscape and the wildlife along the Atlanta BeltLine corridor. New structures within the corridor, including transit stations and new bridges and tunnels, are being designed to minimize potential conflict between wildlife and transit. Fully-shielded luminaires will be installed, where possible, to minimize negative impacts on nocturnal environments, and resident and migrant wildlife.

The public art along the Atlanta BeltLine presents a unique opportunity to educate Atlantans and visitors on the Atlanta BeltLine Arboretum and the rich urban ecosystems within the City of Atlanta, endearingly named the “City in a Forest.”



The Atlanta BeltLine Arboretum



Environmental Issues Addressed

- ✓ Soil Restoration and Management
- ✓ Soil Pollution Prevention
- ✓ Brownfields Remediation
- ✓ Slope Protection and Erosion Control
- ✓ Native / Native-Adapted Landscaping
- ✓ Sustainable Control of Invasives
- ✓ Habitat Restoration
- ✓ Nocturnal Environments Protection

Other Environmental Issues

- Imperiled Species Protection (N/A)
- Education & Outreach

Related Metrics



* Prerequisites

- 1.4. Preserve threatened or endangered species and their habitats*
- 4.1. Control and manage known invasive plants found on site*
- 4.2. Use appropriate, non-evasive plants*
- 4.3. Create a soil management plan*
- 4.4. Minimize soil disturbance in design and construction
- 4.5. Preserve all vegetation designated as special status
- 4.6. Preserve or restore appropriate plant biomass on site
- 4.7. Use native plants
- 4.8. Preserve plant communities native to the ecoregion
- 4.9. Restore plant communities native to the ecoregion
- 4.13. Reduce the risk of catastrophic wildfire
- 5.9. Support sustainable processes in plant production
- 7.1. Control and retain construction pollutants*
- 7.2. Restore soils disturbed during construction*
- 7.3. Restore soils disturbed by previous development
- 9.1. Monitor performance of sustainable design practices



- SLL Prereq. 2. Imperiled species and ecological communities
- SLL Prereq. 3. Wetland and water body conservation
- SLL Credit 2. Brownfield redevelopment
- SLL Credit 6. Steep slope protection
- SLL Credit 7. Site design for habitat or wetland and water body conservation
- SLL Credit 8. Restoration of habitat or wetlands and water bodies
- SLL Credit 9. Long-term conservation management of habitat or wetlands and water bodies

Resources

NOTE: LIST IN PROGRESS

- Georgia Native Plan Society
- UGA Cooperative Extension
- NOFA Standards for Organic Land Care
- NOFA Organic Lawn / Turf Handbook

See Appendix for:

Guidelines

- Atlanta BeltLine Maintenance Guidelines
- Atlanta BeltLine Community Benefit Guiding Principles
- SSI Credit 4.7





ABI Guidelines for Green Materials, Design & Construction

1. Compliance with the Atlanta BeltLine Typologies is required to ensure consistent and uniform approach to design and construction
2. Materials for the Atlanta BeltLine corridor should be selected through a lifecycle analysis, considering the ecological footprint of the material from cradle-to-grave
3. The Atlanta BeltLine shall use and upgrade existing infrastructure within the corridor to the extent possible.
4. Ninety-percent or more of Atlanta BeltLine corridor materials must be regionally sourced in compliance with SSI, Credit 5.7.
5. All wood used within the Atlanta BeltLine corridor must be come from non-threatened tree species in compliance with SSI, Prerequisite 5.1.
6. Any enclosed facilities must be designed to meet one higher LEED standard than City ordinance requires¹
7. All construction activities must comply with SSI Construction Prerequisites 7.1 and 7.2.

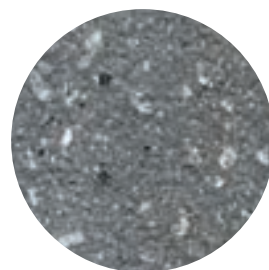
¹ The City of Atlanta currently requires LEED™ Silver level certification for new construction or renovations of those city facilities or city-owned buildings that are over 5,000 SF or \$2 million in project cost.

Integrated Sustainability

The Atlanta BeltLine Sustainability Guidelines require compliance with portions of LEED™-NC and Sustainable Sites Initiative (SSI) green landscape guidelines to ensure that the Atlanta BeltLine corridor will be built with green materials and follow best practices available in green construction.

Selection of materials for the Atlanta BeltLine Corridor is driven by life cycle assessment, which takes into account the cumulative impact of the material to the environment during manufacture, distribution, installation, use, repair and maintenance, and disposal or recycling. Locally sourced and manufactured materials and materials with recycled content and that are recyclable are given precedence. Durability and ease-of-maintenance (See Green Operations & Maintenance) is another major consideration for materials selection. The Atlanta BeltLine trails, for example, will be constructed with durable concrete specified to contain recycled flying ash. Crosswalks, plazas and walls will be built using locally sourced granite. Plantings and landscape materials will be locally sourced.

The Atlanta BeltLine typologies presented in this document are the product of an integrated design. Sustainability considerations ranging from material selection to community health and wellbeing are weighed, along with program goals and physical and economical constraints, during an iterative and interdisciplinary design process. Transit Stations, for example, feature a modular architecture that allows each station to be easily adapted to its context. The design consolidates program elements into the least amount of parts, minimizing material use. The windscreen, for example, doubles as a public-art element while the station canopy serves to generate solar energy.



(Left) **Durable concrete with local and recycled content** - BeltLine trails
(Right) **Local Elberton granite** - walls, plaza paving, stone curbs
(Below) **Samples of native plantings** - Clockwise, from left to right:
Southern Oak (*Quercus Falcata*), White Oak (*Quercus Alba*),
Mountain Mint (*Pycnanthemum Incanum*), and Little Bluestem
(*Schizachyrium Ccoparium*)



Environmental Issues Addressed

- ✓ Locally Sourced and Manufactured Materials
- ✓ Recycled Content in Materials
- ✓ Recyclable Materials
- ✓ Modular and Flexible Design
- ✓ Construction Pollution Reduction
- ✓ LEED™ Certification

Other Environmental Issues

- Site Selection (N/A for BeltLine corridor)
- Certified Wood Products (N/A)
- Performance Monitoring

Related Metrics



* Prerequisites

- 2.1. Conduct a pre-design site assessment and explore opportunities for site sustainability*
- 2.2. Use an integrated site development process*
- 5.1. Eliminate the use of wood from threatened tree species*
- 5.3. Design for deconstruction and disassembly
- 5.4. Reuse salvaged materials and plants
- 5.5. Use recycled content materials
- 5.6. Use certified wood
- 5.7. Use regional materials
- 5.8. Use adhesives, sealants, paints and coatings with reduced VOC emissions
- 5.9. Support sustainable processes in plant production
- 5.10. Support sustainable practices in materials manufacturing
- 7.1. Control and retain construction pollutants*
- 7.4. Divert construction and demolition materials from disposal
- 7.5. Reuse or recycle vegetation, rocks and soil generated during construction
- 7.6. Minimize generation of greenhouse gas emissions and exposure to localized air pollutants during construction
- 9.1. Monitor performance of sustainable design practices



- GIB Prereq. 4. Construction activity pollution prevention
- GIB Credit 6. Existing building reuse
- GIB Credit 7. Minimized site disturbance in design and construction
- GIB Credit 15. Recycled content

Resources

NOTE: LIST IN PROGRESS

- EPA Life Cycle Analysis
- Georgia Stone Industries, Inc.

See Appendix for:

Guidelines

- Atlanta BeltLine Maintenance Guidelines
- Atlanta BeltLine Community Benefit Guiding Principles
- SSI Prerequisites 5.1, 7.1, and 7.2 and Credit 5.7

Research

- Key Sustainability Items.
- BeltLine Technologies - Initial Options Matrices
- Sustainability Aspects of Concrete and Asphalt
- Asphalt and Reinforced Concrete Pavement – Key Points





ABI Guidelines for Green Operations & Maintenance

1. All operations and maintenance activities must comply with the Atlanta BeltLine Maintenance Guidelines

Integrated Sustainability

All typological elements within the Atlanta BeltLine Corridor are selected for durability and ease of maintenance through life-cycle assessment. The typological design ensures ease of assembly, disassembly, repair and replacement. The plantings specified for the Atlanta BeltLine are native, or native-adapted and require little or no maintenance.

The Atlanta BeltLine Maintenance Guidelines (see Appendix) specifies sustainable methods and protocols for soil / plant management, pest management, disease control, graffiti prevention / removal, cleaning and repair of walls, walkways and railings. Solid waste will be managed in accordance with LEED-ND GIB Credit 16, to minimize the amount of waste deposited in landfills.

Reduction and recycling of waste is another critical component of sustainable operations. All organic waste generated from landscape maintenance must be composted at a local facility. Training of city employees responsible for maintenance of the Atlanta BeltLine corridor is critical to ensuring the sustainability of operations.

Beyond the Atlanta BeltLine corridor, streetscape upgrades within the Atlanta BeltLine study area are recommended to include utility undergrounding and improved access to utility for future repairs and maintenance.



GREEN OPERATIONS
& MAINTENANCE

Environmental Issues Addressed

- ✓ Low Maintenance Materials and Design
- ✓ Sustainable Landscape Management
- ✓ Solid Waste Management
- ✓ Green Cleaning

Other Environmental Issues

- Green Procurement
- Low-Energy Maintenance Vehicles
- Workforce Training
- Performance Monitoring

Related Metrics



* Prerequisites

- 5.2. Maintain on-site structures, hardscape and landscape amenities
- 8.1. Plan for sustainable site maintenance*
- 8.2. Provide for storage and collection of recyclables*
- 8.3. Recycle organic matter generated during site operations and maintenance
- 9.1. Monitor performance of sustainable design practices



GIB Credit 16. Solid waste management

Resources

NOTE: LIST IN PROGRESS

- US Composting Council
- City of Atlanta, Parks and Maintenance Standards

See Appendix for:

Guidelines

- Atlanta BeltLine Maintenance Guidelines
- Atlanta BeltLine Community Benefit Guiding Principles

Research

- Sustainability Aspects of Concrete and Asphalt
- Asphalt and Reinforced Concrete Pavement – Key Points





ABI Guidelines for Community Health, Access & Equity

1. Design, implementation, and operation and maintenance of the Atlanta BeltLine must comply with the [Atlanta BeltLine Community Benefit Guiding Principles](#) to ensure equitable distribution of benefits.
2. Optimize interface between public and private spaces for unhindered access to parks and trails
3. Design for all ages and abilities to allow for a positive experience for all citizens
4. Remediate or contain environmental health hazards to minimize risk of future health effects

Integrated Sustainability

Community Engagement

Atlanta's BeltLine, Inc. (ABI) has a community engagement framework that is designed to keep Atlanta residents informed and actively engaged in the Atlanta BeltLine's creation so that the Atlanta BeltLine reflects the aspirations of its many neighborhoods and communities. The framework consists of:

- Tax Allocation District Advisory Committee (TADAC)
- BeltLine Affordable Housing Advisory Board (BAHAB)
- Community Representative on ABI Board of Directors
- ABI Community Engagement Advocate Office
- Atlanta BeltLine Quarterly Briefings
- Atlanta BeltLine Study Groups

Established by the Atlanta City Council as part of the Citizen Participation Framework, the [Atlanta BeltLine Study Groups](#) create a forum –open to all– where Atlantans can engage in the Atlanta BeltLine process. The Study Groups have been instrumental in the preparation of the [Atlanta BeltLine Subarea Master Plans](#), which will be integrated into the city's Comprehensive Development Plan and become part of future Five Year Work Plans¹.

Access & Equity

The ABI Community Benefit Guiding Principles (See Appendix) outlines requirements for the equitable distribution of community benefits throughout the Atlanta BeltLine Tax-Allocation District. The Atlanta BeltLine trail and transit stations are ADA-compliant and are designed to ensure the safety of BeltLine users. Plazas and overlooks are provided, where possible, to provide views and social gathering spaces.

¹ Atlanta BeltLine: Community Engagement Overview: <http://www.BeltLine.org/BeltLineBasics/CommunityEngagement/CommunityEngagementOverview/tabid/1829/Default.aspx>.

Community Health, Safety, and Well-being

The Atlanta BeltLine will improve Atlantans' quality of life by providing walkable communities and opportunities for active recreation, as concluded in the [Atlanta BeltLine Health Impact Assessment Study](#)².

The Atlanta BeltLine will create a linear park that connects 40 of Atlanta's parks, including more than 1,200 acres of new greenspace and improvements to approximately 700 acres of existing greenspace. The thousands of trees planted for the Atlanta BeltLine corridor will clean the air by removing dust, particulates and absorbing ozone, carbon monoxide, sulfur dioxide and other pollutants. They will provide shaded zones for passive and active recreation and encourage healthy activities such as walking.

The transit option will reduce auto dependence in the City of Atlanta, with potential health impacts due to increase walking and reduced air pollution. The streetscape upgrades for the Atlanta BeltLine Subarea master plans will improve bike / pedestrian safety and accessibility, with potential improvements in community health.

The lighting of the Atlanta BeltLine corridor will extend the use hours of the Atlanta BeltLine park and transit spaces beyond daylight hours to maximize community benefits. The types and location of lighting fixtures are determined to ensure the safety and security of all BeltLine users from early morning joggers to late-night workers biking back home.

² Ross, Catherine L. 2007. "Atlanta BeltLine Health Impact Assessment". Center for Quality Growth and Regional Development, Georgia Institute of Technology, p.99-108.



Environmental Issues Addressed

- Health and Wellbeing
- ✓ New Transit and Bike Networks
 - ✓ Walkable Communities
 - ✓ Safety and Security
 - ✓ Light and Noise Reduction
 - ✓ Clean Air and Water
 - ✓ Brownfields Remediation
 - ✓ Place-making
- Access
- ✓ ADA compatibility and Universal Design
 - ✓ Access to Recreation and Parks
 - ✓ Access to Alternative Transportation
- Equity
- ✓ Community Outreach and Involvement
 - ✓ Affordability and Mixed-Income Neighborhoods
 - ✓ Environmental Justice
 - ✓ Equitable Distribution of Community Benefits

Other Environmental Issues

- Urban Farming / Local Food Production (N/A)
- Access to Fresh Food (N/A)
- Performance Monitoring

Related Metrics



* Prerequisites

- 2.3. Engage Users and Other Stakeholders in Site Design
- 5.8. Use adhesives, sealants, paints and coatings with reduced VOC emissions (also in Green Design)
- 6.1. Promote equitable site development
- 6.2. Promote equitable site use
- 6.3. Promote sustainability awareness and education
- 6.4. Protect and maintain unique cultural and historic places
- 6.5. Provide for optimum site accessibility, safety and wayfinding
- 6.6. Provide opportunities for outdoor physical activity
- 6.7. Provide views of vegetation and quiet outdoor spaces for mental restoration
- 6.8. Provide outdoor spaces for social interaction
- 6.9. Reduce light pollution
- 8.6. Minimize exposure to environmental tobacco smoke
- 8.7. Minimize greenhouse gases and exposure to localized air pollutants during landscape maintenance activities
- 9.1. Monitor performance of sustainable design practices



- SLL Credit 2. Brownfield redevelopment
- SLL Credit 3. Reduced auto dependence
- SLL Credit 4. Bike network and storage
- SLL Credit 5. Housing / jobs proximity
- NPD Prereq. 1. Walkable streets
- NPD Credit 9. Access to civic and public facilities
- NPD Credit 10. Access to recreational facilities
- NPD Credit 11. Visibility and universal design
- NPD Credit 12. Community outreach and Involvement
- NPD Credit 13. Local food production
- GIB Credit 17. Light pollution reduction

Resources

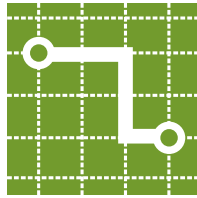
- Project for Public Spaces
<http://www.pps.org>
- United States Access Board
<http://www.access-board.gov/>
- Institute for Human Centered Design
<http://www.adaptenv.org/>
- Centers for Disease Control and Prevention - CDC Healthy Community Design
<http://www.cdc.gov/healthyplaces/>
- Healthy Kids, Healthy Communities, Robert Wood Johnson Foundation (RWJF)
<http://www.healthykidshealthycommunities.org/>
- Environmental Justice Resource Center, Clark Atlanta University
<http://www.ejrc.cau.edu/>

See Appendix for:

Guidelines

- Atlanta BeltLine Maintenance Guidelines
- Atlanta BeltLine Community Benefit Guiding Principles





ABI Guidelines for Connectivity & Smart Growth

- 1. Enhance connectivity for pedestrians and cyclists using best practices in Complete Streets design.
- 2. Optimize interface between public and private spaces for unhindered

Integrated Sustainability

The Atlanta BeltLine encourages transit-oriented, compact development, adaptive reuse and urban infill along the entire corridor and improves connectivity between intown neighborhoods. Catalyzing new development in formerly abandoned, empty or industrial lands with access to transit, the Atlanta BeltLine will counter sprawl in the Atlanta metropolitan area.

The hardscape typologies include specifications for spurs, ramps and stairs that allow the Atlanta BeltLine to connect, where possible, to existing pedestrian and bike networks, transit nodes and the city street network. Mixed-use development that engages the corridor with retail access is encouraged.



Environmental Issues Addressed

- ✓ Transit-Oriented Development
- ✓ Brownfields and Grayfields Redevelopment
- ✓ Mixed-Use and Mixed-Income Communities
- ✓ Adaptive Reuse
- ✓ Transit Option

Other Environmental Issues

- Street Connectivity

Related Metrics



* Prerequisites

- 1.5 Select brownfields or greyfields for redevelopment
- 1.6 Select sites within existing communities
- 1.7 Select sites that encourage non-motorized transportation and use of public transit
- 9.1 Monitor performance of sustainable design practices



- SLL Prereq. 1. Smart location
- SLL Credit 3. Reduced auto dependence
- NPD Prereq. 2. Compact development
- NPD Prereq. 3. Connected and open community
- NPD Credit 3. Mixed use neighborhood centers
- NPD Credit 4. Mixed-income communities
- NPD Credit 5. Reducing parking footprint
- NPD Credit 6. Street network
- NPD Credit 7. Transit facilities
- GIB Credit 6. Historic resource preservation and adaptive reuse

Resources

- Connect Atlanta Plan
<http://www.connectatlantaplan.com/>
- Atlanta BeltLine Subarea Master Plans
<http://www.BeltLine.org/ResourceLibrary/Planning/tabid/1824/Default.aspx>
- National Complete Streets Coalition
<http://completestreets.org/>
- Urban Throughfares Manual
<http://www.cnu.org/streets>
- Smart Growth America
<http://www.smartgrowthamerica.org/>
- Center for Transit-Oriented Development, Reconnecting America
<http://www.reconnectingamerica.org/public/tod>
- Mixed-Income Transit-Oriented Development Action Guide
<http://www.mitod.org/>

See Appendix for:

Guidelines

- Atlanta BeltLine Maintenance Guidelines
- Atlanta BeltLine Community Benefit Guiding Principles





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+ WILL

