







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 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 along the route as well as various community initiatives will also impact the design. A dozen other studies are 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 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 railroads, 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 strong design.

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 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.

DESIGN FRAMEWORK

22 Miles of Variety, 22 Miles of Continuity

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 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.

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 guide pilgrimages to the latest Anish Kapoor sculpture or Kathryn Gustafson garden without repeating those same ideas for 22 miles and without losing its own overarching identity to those signature spaces or elements. 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, it 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 Belt-Line home, living in greater densities within its redeveloped districts.

SYSTEMS ANALYSIS MATRIX

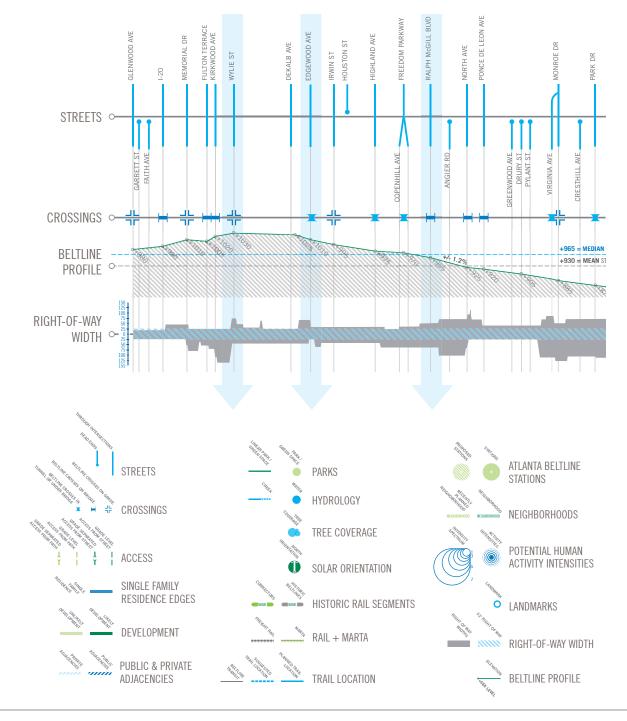
How to read this map:



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.

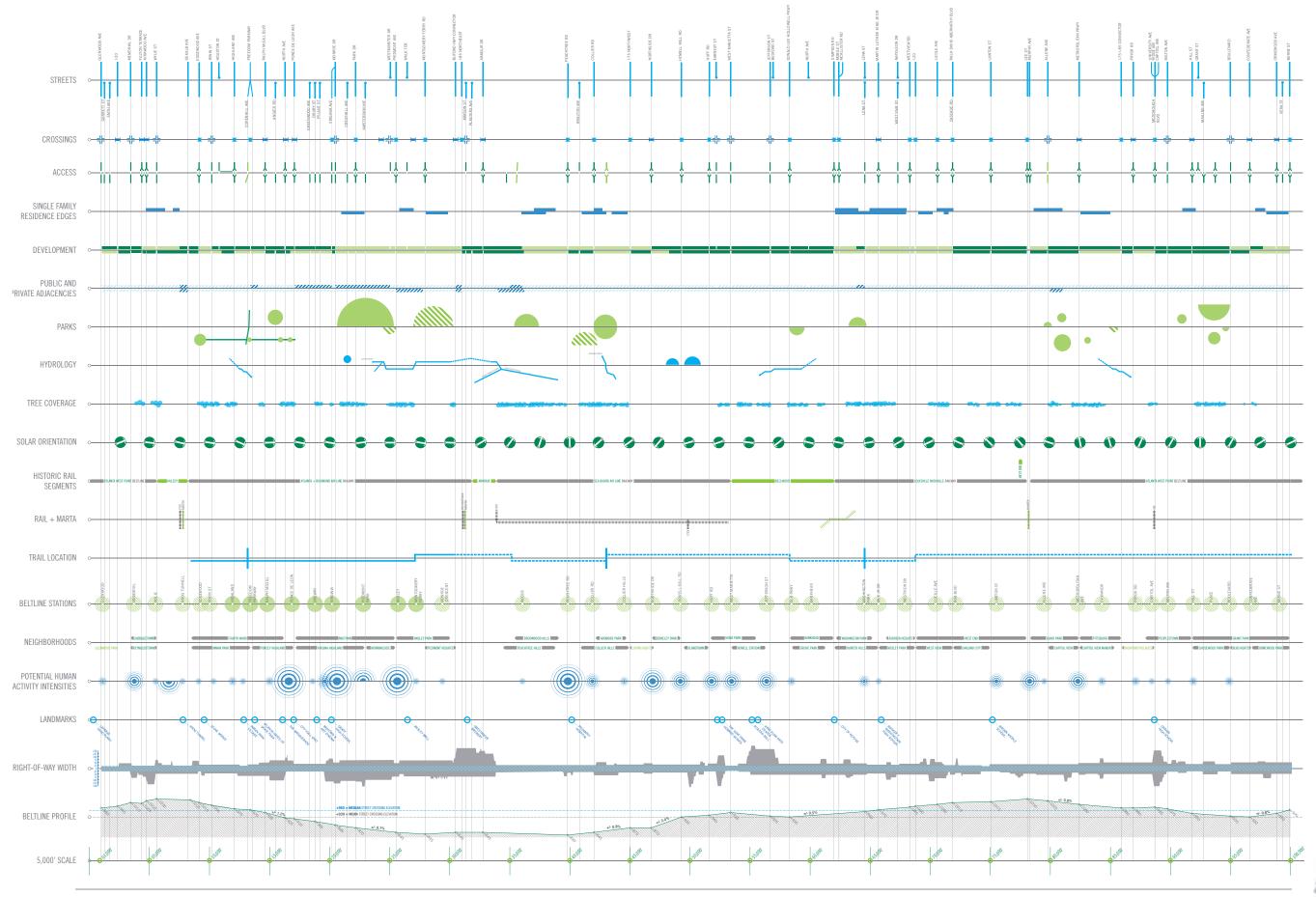
The vignette, at right, for example, illustrates the different types of crossings, elevation profile and right-of-way widths that make up the BeltLine between Glenwood Ave and Park Drive. Taking a reading vertically at the three highlighted points shows that the BeltLine intersects at grade with Wylie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





Systems Analysis Matrix Key

REVISED 04/05/2012





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HISTORY

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.



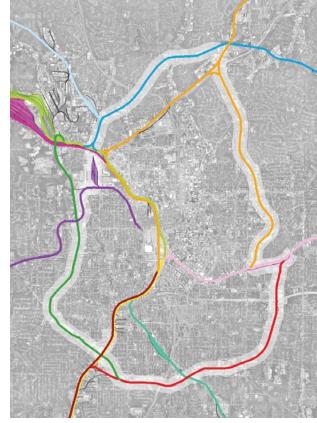


Historic BeltLines of Atlanta Seaboard Air Line Railway

Atlanta West Point BeltLine

Lousville & Nashville Railroad BeltLine

Atlanta & Richmond Air Line Railway

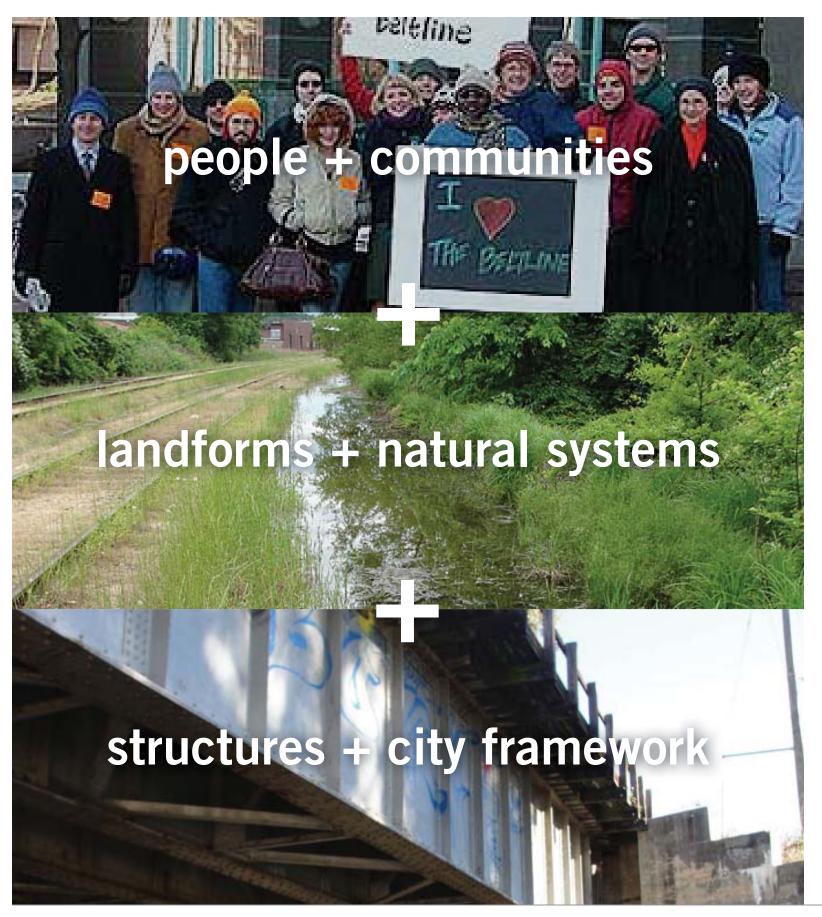




After intense analysis of existing conditions, followed by continuous updates throughout the initial phases of preliminary design, key lessons were extracted as the basis for the formation of the Design Framework. They are listed here under three categories:

- 1. People and Communities,
- 2. Landforms and Natural Systems,
- 3. Structures and 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



PRESERVE IDENTITY

Neighborhood identity is strong in Atlanta's neighborhoods, especially those intown communities that flank either side of the Atlanta BeltLine route. Each has distinct place names, history, landmarks, destinations, development opportunities and culture of involvement. Often this identity is reflected in identity signage, with particular investment in 'street sign toppers'. 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

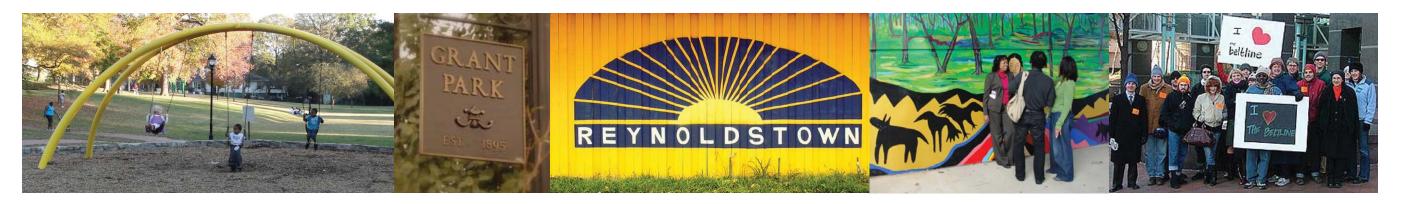
Communities along the Atlanta BeltLine have developed a strong grassroots movement in support of the Atlanta BeltLine, and generally have a highly engaged public forum through neighborhood associations and the Neighborhood Planning Units. There is an informal comraderie between the intown neighborhoods 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.



PEOPLE + COMMUNITIES



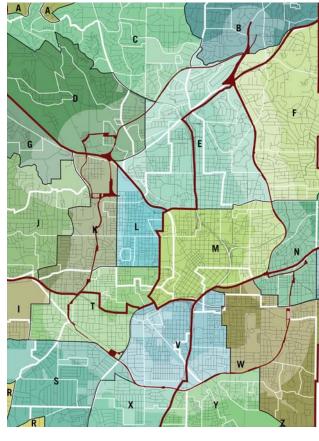
BUILD MOMENTUM

Community awareness has been heightened around the Atlanta BeltLine, surfacing many ideas and questions such as "How will the Atlanta Belt-Line shape my everyday life, my community and my city?"

ENCOURAGE INTERACTION

The Atlanta BeltLine encourages community interaction by providing biking and walking trails, unique landscapes, public art forums, historic destinations and interpretation, public spaces including transit stops, and it anticipates the dynamics of many more activities evolving over time.

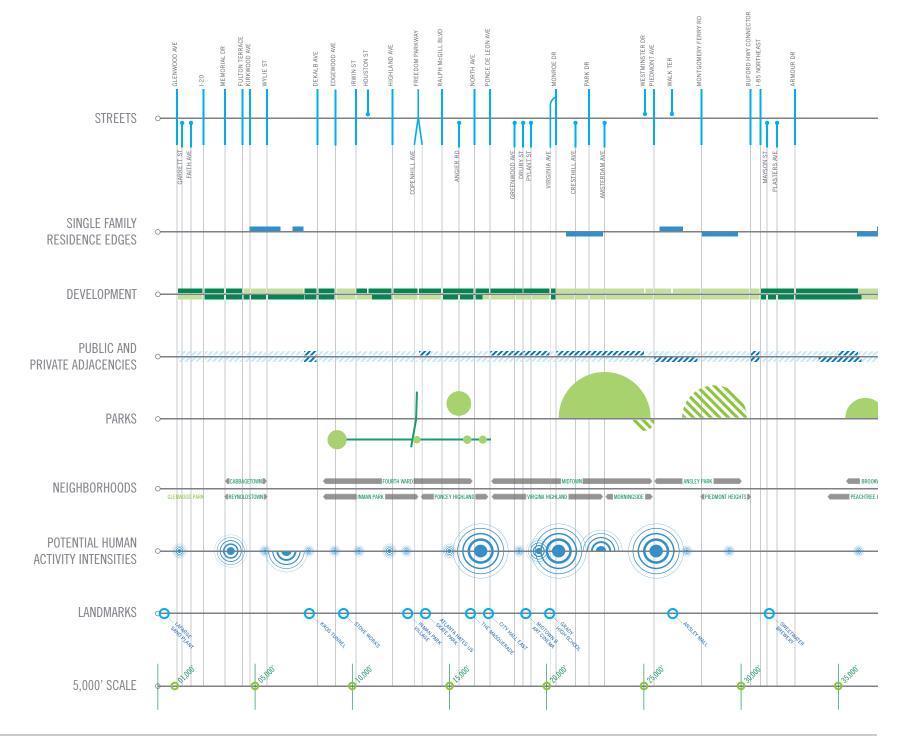
Political Boundaries



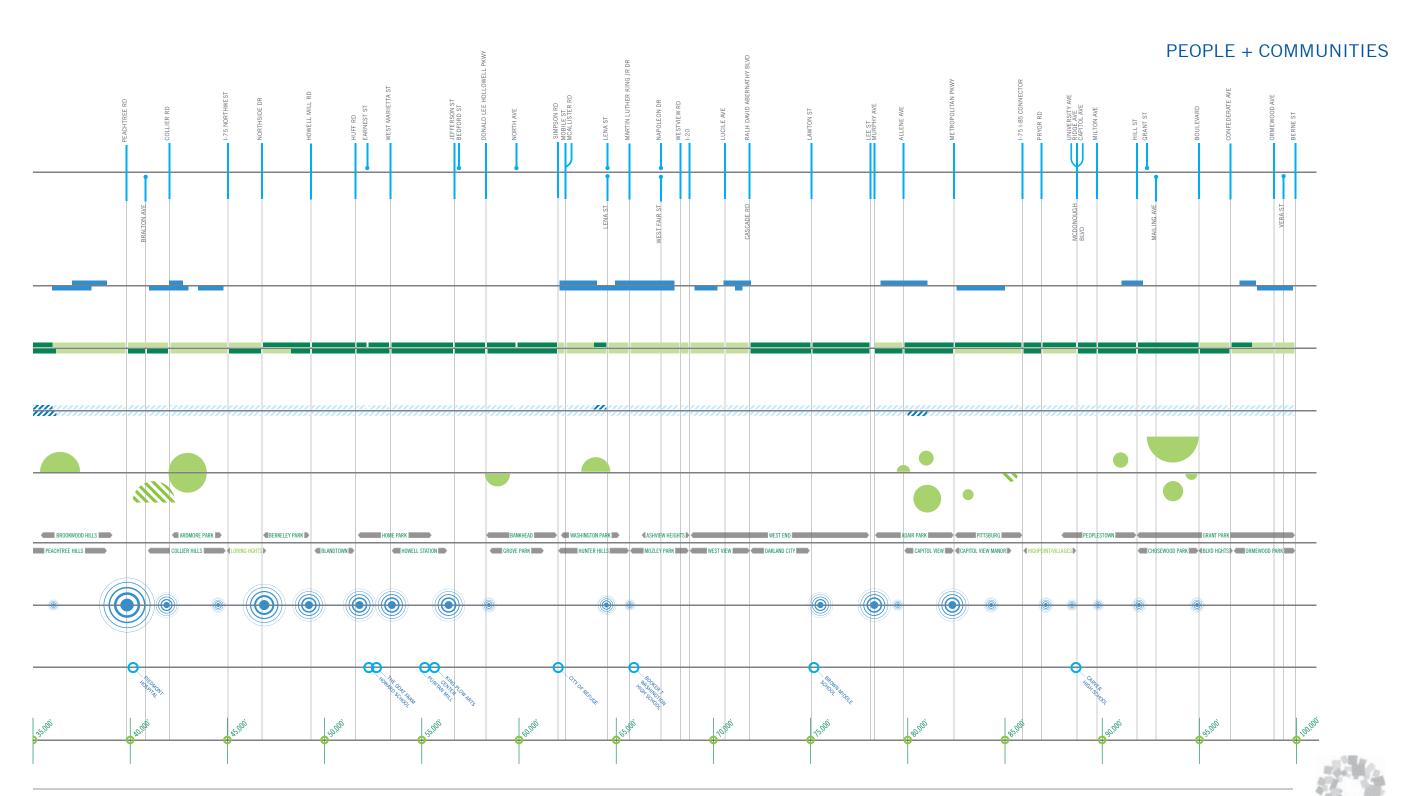


PEOPLE + COMMUNITIES









LANDFORMS + NATURAL SYSTEMS









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.

"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.

UNIQUENESS

With railroads mostly out of service, the Atlanta BeltLine offers a unique physical space for public occupation, unlike anything else in the city.

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 PROTECTION

Edge conditions for linear corridors like the Atlanta BeltLine are especially challenging. Not only do 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), but they also have the additional challenge of fending off kudzu and other invasive species from adjacent properties.

LINEAR EDGE

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.

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. Stormwater surges in particular cannot be resolved within the Atlanta BeltLine project itself, only mitigated as much as the site will allow.

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. These invasive plants thrive in disturbed conditions, so without a long-term management strategy they will certainly also thrive in a redeveloped corridor.



LANDFORMS + NATURAL SYSTEMS

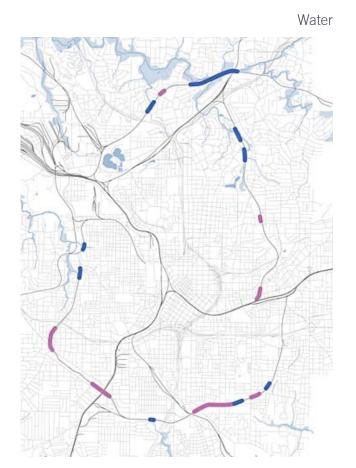


STORMWATER

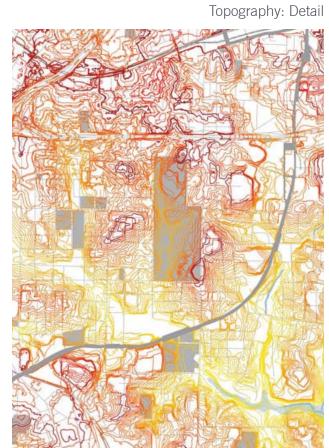
Because of the linear nature of these railroad corridors and the typical grading condition that historically kept the tracks from ponding, stormwater, mostly originating on adjacent properties, tends to run in a linear fashion along the tracks until it has points of escape, frequently into a city street.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

CHANGING LANDSCAPE

The character of the railroads are constantly changing due to increasing public use (interim trails, temporary summer art program), as well as seasonal color and the fast growth of kudzu, grasses and other existing plants.







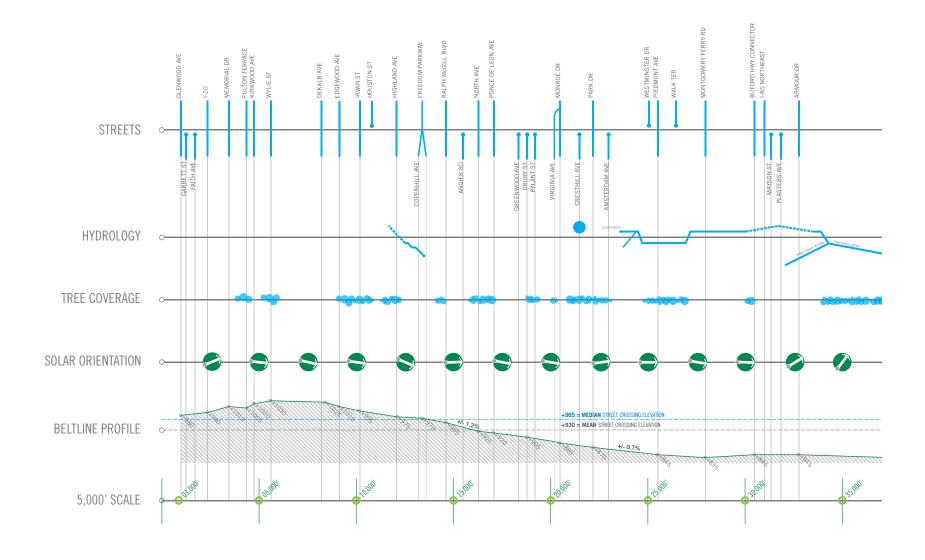


design framework

analysis

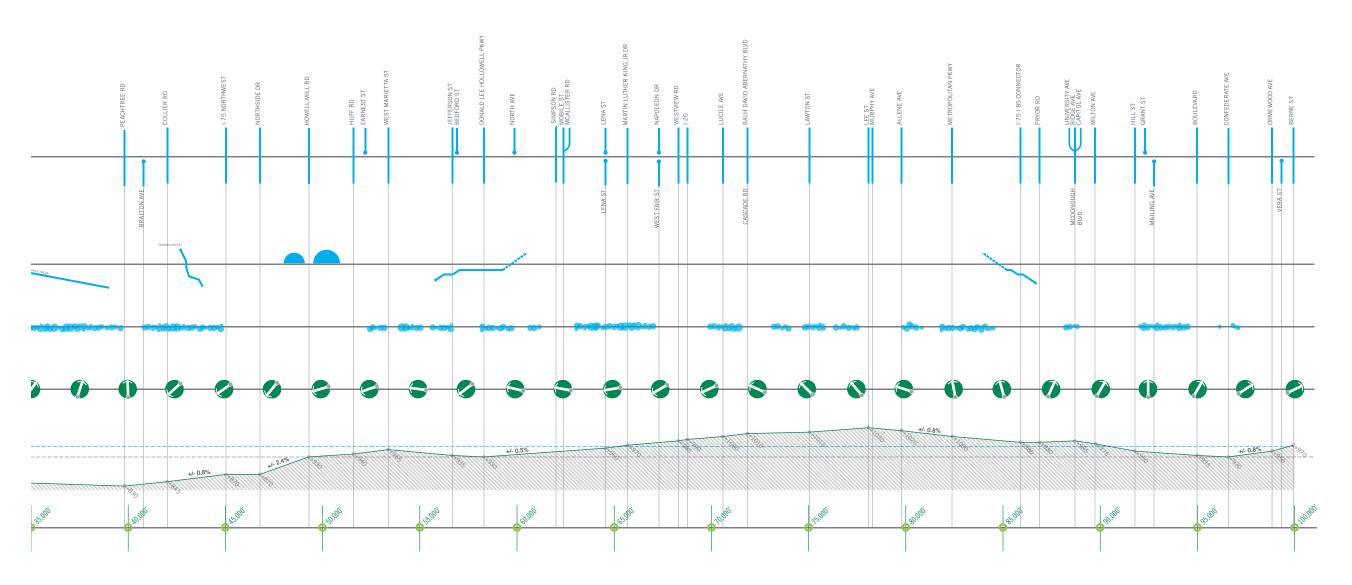
LANDFORMS + NATURAL SYSTEMS







LANDFORMS + NATURAL SYSTEMS





CITY GRID

Decisions made during the growth of the city over the last 100 years – especially the alignments for railroads, streets and highways – cut across the belt lines, contributing to spatial segmentation.

SLICING

The belt line railroads slide fairly easily through the city making important connections for both trip origins and destinations.

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.

BACK-DOOR

The existing back-door condition of these railroads creates challenges for access and visibility in most areas.

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.

RAILROAD SYSTEM

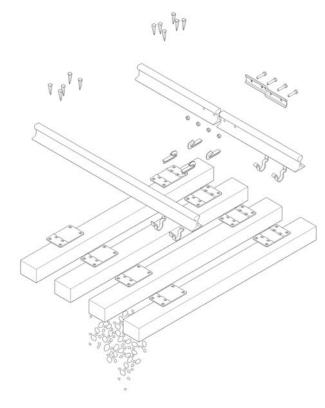
With a relatively small set of parts, a railroad creates a simple, unifying and powerful infrastructure system.

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.

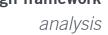
USER CONFLICTS

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 intimacy and social interaction.



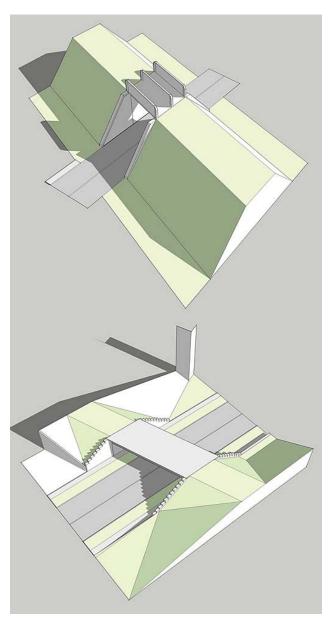
Railroad Structure



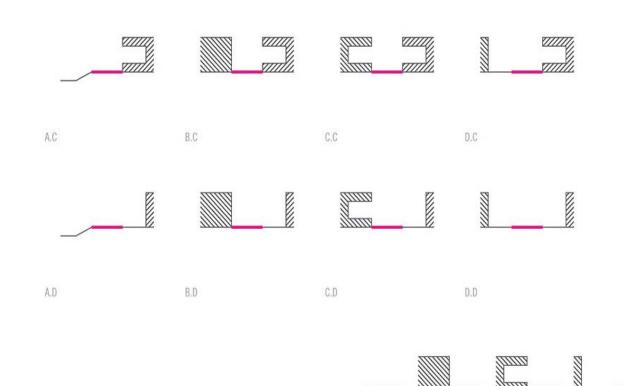








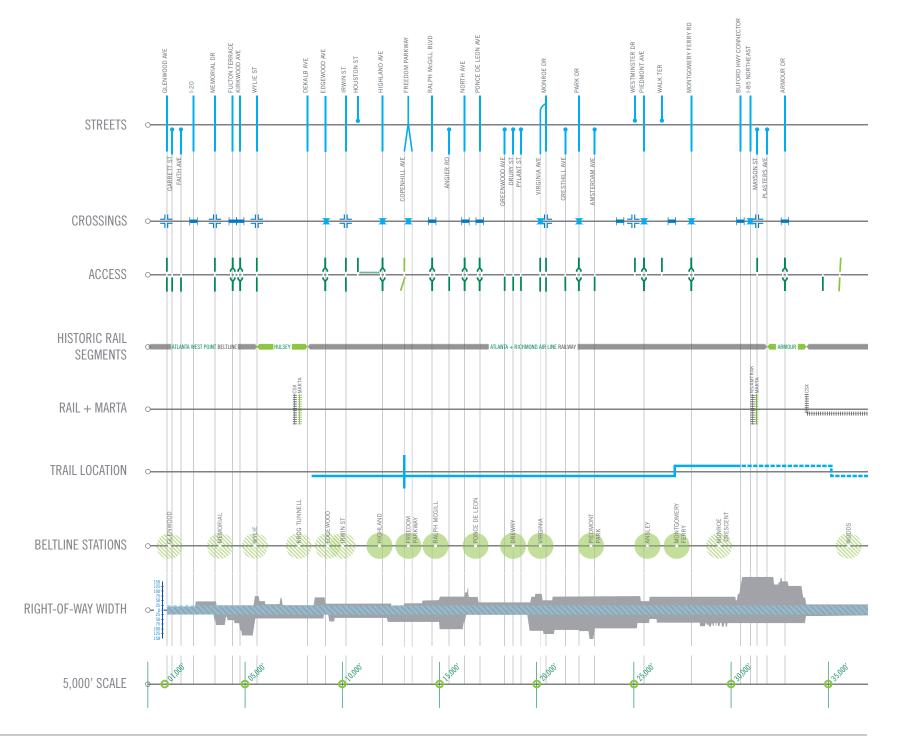
Street crossings and Streetscapes



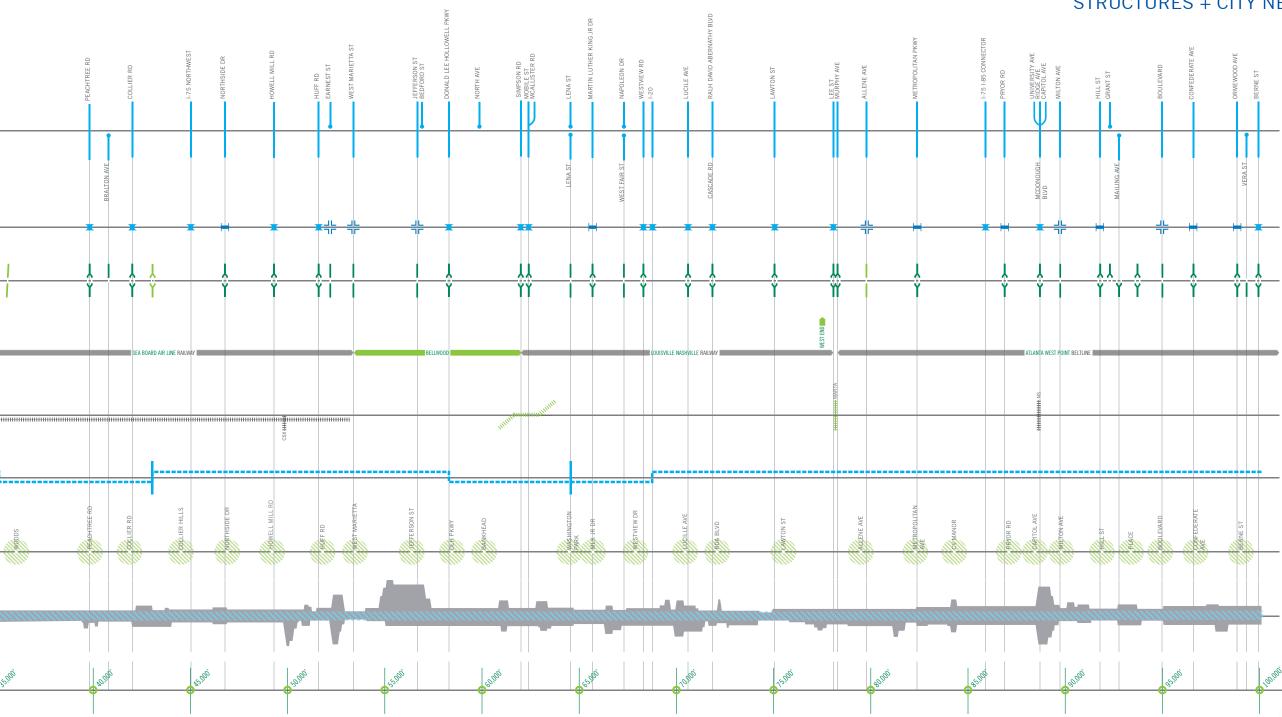
Building Adjacencies











DESIGN DRIVERS

Two sets of conclusions were extracted from this 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. Last 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. Multi Re-use
- 3. Threshold
- 4. Performance
- 5. Phased Buildout

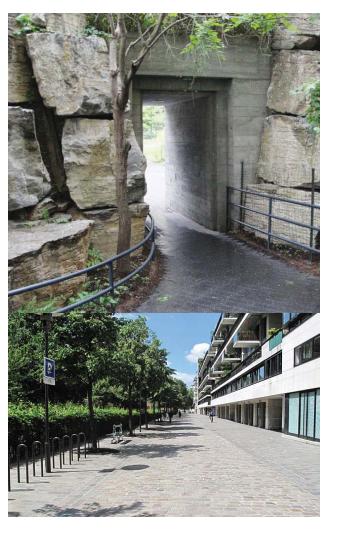
The design drivers attempt to capture the aspects of the project's vision that are specifically relevant to its physical design and integrate these into the Design Framework. These Drivers interact with one another, each shifting its emphasis and adjusting its intensity relative to each design task. 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 for a new set of infrastructure and a signature public meeting ground;
- ✓ Promote both mobility and destination;
- ✓ 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;
- ✓ Reconcile its goal of clarity with confusing adjacencies and existing conditions.



ORGANIZING STRATEGY

Also extracted from the Analysis is the Organizing Strategy for 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 delineate an Organizing Strategy that is inspired by the conditions of the Atlanta BeltLine today. It leverages the existing spatial variety of the corridor into the basis for design variety, and takes the repetition and identity of the railroad infrastructure as inspiration for design continuity.

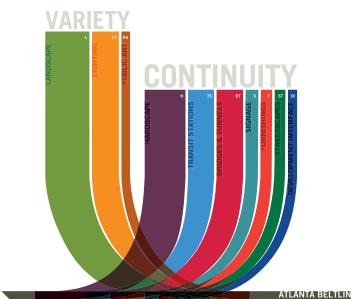




- ✓ Support existing habitat and the generation of biodiversity;
- ✓ Optimize its performance through a sustainable approach to energy, water, light and local materials
- √ Where possible, contribute to broader sustainability goals and opportunities beyond its right-of-way.



- ✓ 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.



EXISTING VARIETY

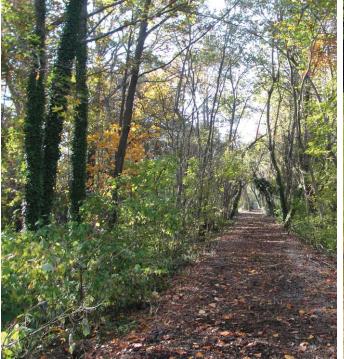
Unlike Atlanta's mainline railroads that have a relatively uniform experience following the ridge routes into downtown, the belt lines slice across the Georgia Piedmont, engaging a rich variety of spatial environments. They cut across hills and valleys, generating embankments and other modified landforms, 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.













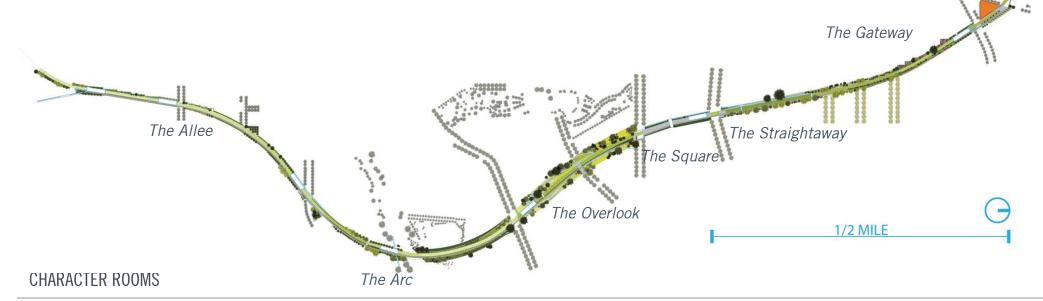
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PROPOSED VARIETY





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 Belt-Line 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.





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 land-scape of the city.





THE ATLANTA BELTLINE: TYPOLOGIES REVISED 04/05/2012

PROPOSED CONTINUITY

Maintaining this kind of continuity is essential as the Atlanta BeltLine is transformed for its new public purpose, creating a coherent overarching idenpublic space.

tity 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. While Variety is guided by the Typologies but is de-

signed largely during subsequent design phases, Continuity elements are defined significantly by the Typology scope of work. Decisions must be made early in the overall design process so that they can inform the physical design and layout of the corridor. This includes a large family of elements incorporated to create an overall design identity, and physically in the corridor, many elements are needed to accommodate the entire new program.

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









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



THE ATLANTA BELTLINE: TYPOLOGIES REVISED 04/05/2012

design framework

organizing strategy

ORGANIZING STRATEGY MATRIX

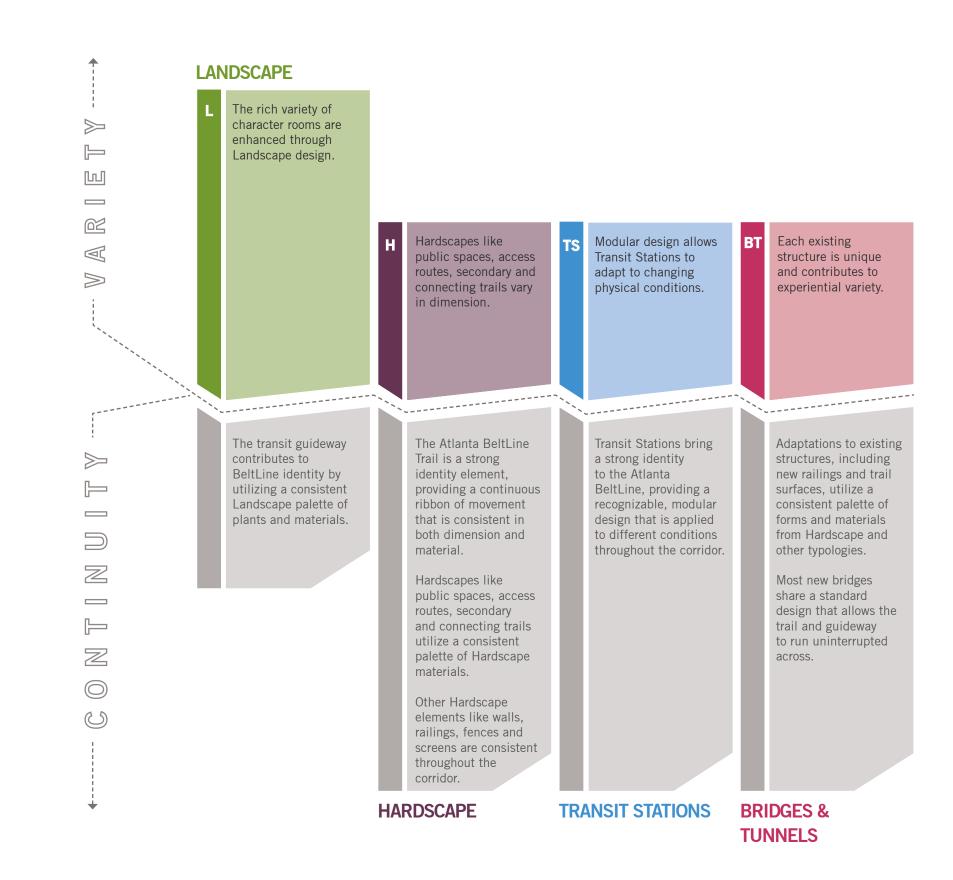
The Organizing Strategy plays out significantly in the Typologies of the Atlanta BeltLine Corridor Design. This matrix outlines how each Typology contributes to both experiential variety —led primarily by Landscape, Lighting and Public Art— and design continuity, which is defined by Hardscape, Transit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

Variety elements

- Landscape
- Lighting
- Public Art

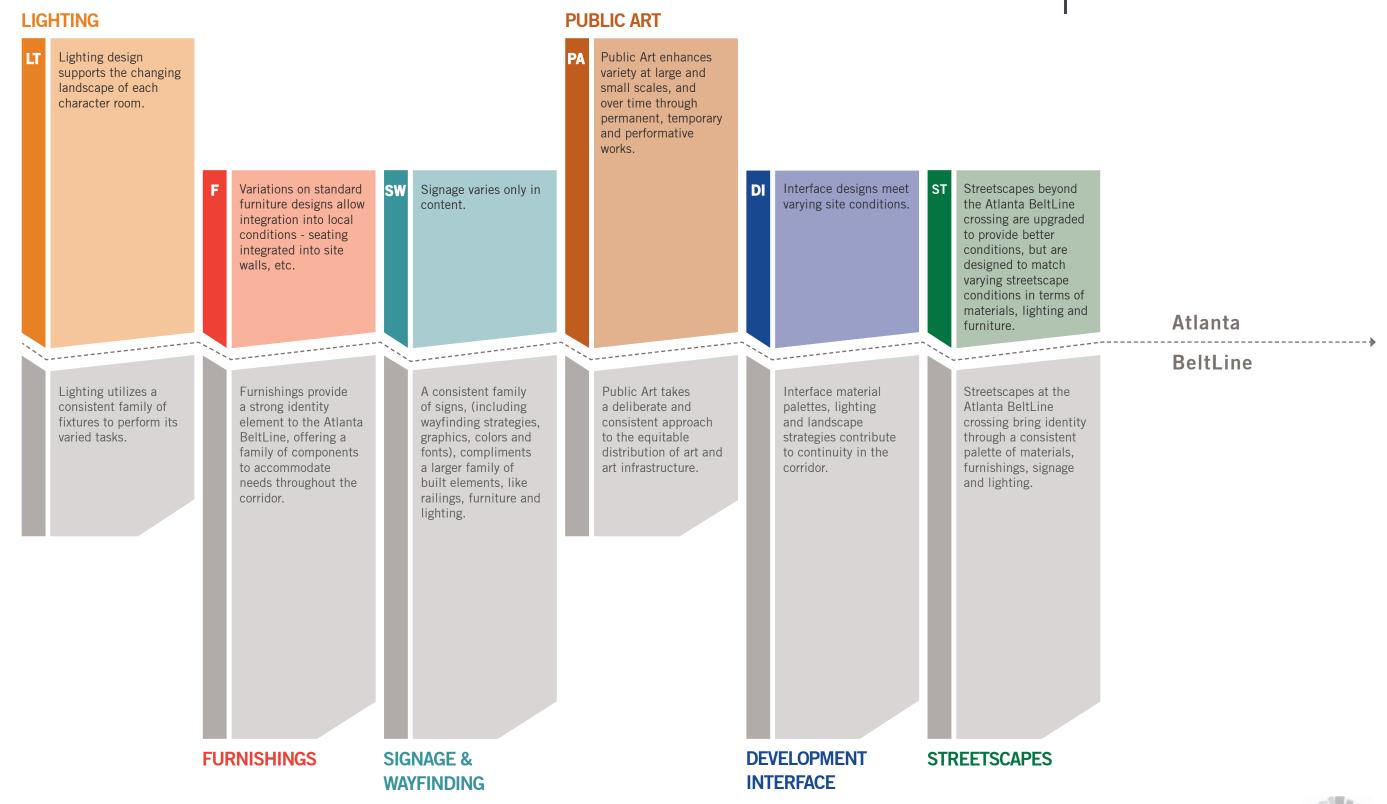
Continuity Elements

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





organizing strategy







LANDSCAPE









TYPOLOGIES

2

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 topography designed to accommodate the new program of the corridor, a softly vegetated ground plane (the "floor"), 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 to the public landscape of the corridor, including furnishings, lighting and signage, it is these primary layers that will most define the experience of the Atlanta BeltLine as a signature public landscape 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 are geowebs 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.



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



Green 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 Belt-Line 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.

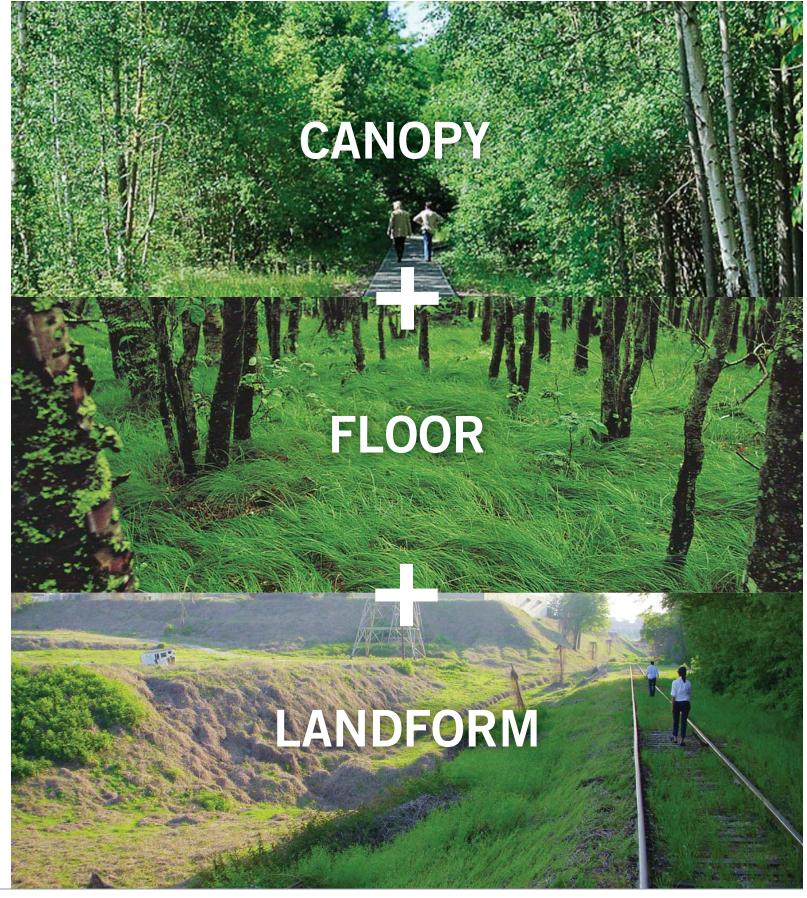




A SITE-SPECIFIC, LAYERED FRAMEWORK

The existing landscape of the Atlanta BeltLine is at once dramatically intimate (with its average width of 100 ft) and impressively big (its 22-mile length offering the possibility to experience a large-scale urban landscape that is fully immersive).

The design of the landscape for the Atlanta Belt-Line, therefore, seeks to emphasize these two scales, the intimate and the extensive, without minimizing the unique qualities of the historic rail corridor landscape. To this end, the landscape design utilizes a framework of three "layers"—1) canopy, 2) floor and guideway, and 3) landform— with each layer contributing to 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.





CANOPY TRAIL + TRANSIT (SEE HARDSCAPE + STATION TYPOLOGIES) **GREEN GUIDEWAY + FLOOR** LANDFORM + STORMWATER CAPACITY AND COMPARED BY AND ASSESSMENT OF THE PARTY OF THE PARTY

A SITE-SPECIFIC, LAYERED FRAMEWORK

The design strategy for these three landscape layers —canopy, floor and landform— operates at two scales. At the scale of the full corridor, the primary grading is gentle and consistent to accommodate the requirements of the future transit line, and the floor and canopy layers reinforce a large-scale continuous landscape character. At a more intimate scale, signature earthworks and distinctive planting organizations and species are utilized to create a legible series of "rooms" that are specific to the neighborhoods or site conditions in which they are located. By operating at these two scales, the Atlanta BeltLine will become a landscape that is as mixed and varied as it is comprehensible.

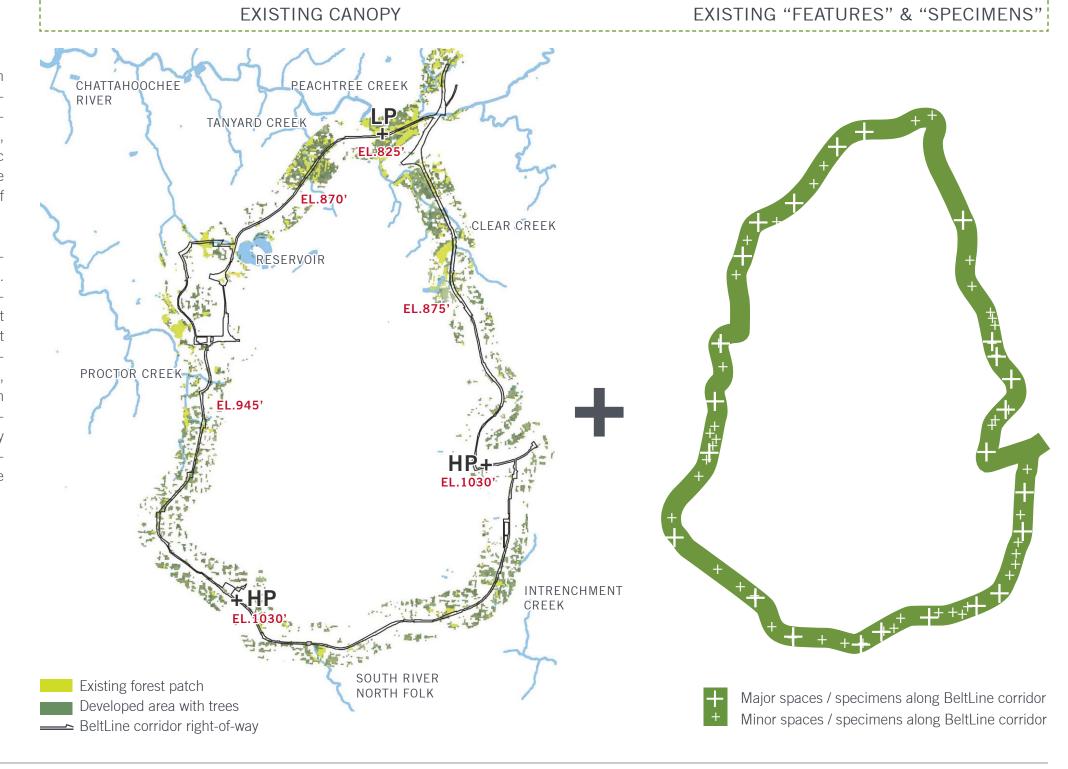




ATLANTA BELTLINE ARBORETUM: A BIG-SCALE, LAYERED CANOPY

When fully realized, the Atlanta BeltLine will be an unprecedented 22-mile "arboretum" —an elaborately curated, 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.

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 two-scales: at the scale of the City, with an attempt to preserve, restore or create a continuous large-scale forest canopy with ecological significance, and at the scale of Atlanta's neighborhoods, with an attempt to create site specific settings or environments within which symbolic and culturally significant tree species might be curated to embed historical narratives into the Atlanta BeltLine experience.





CONTINUOUS CANOPY: REFORESTATION STRATEGY

VARIED CHARACTER "ROOMS" & DESTINATIONS

INDUSTRIAL RECLAMATION

Character:

- Industrial
- Most degraded conditions in the corridor
- Sparse canopy cover

Approach:

- Early successional tree plantings
- Phyto-remediation techniques
- Tree plantings of hardy species

RIPARIAN RESTORATION

Character:

- Lowland area
- Largest and most intact woodland area in corridor

Approach:

- Restoration of Piedmont lowland plant communities
- Stream restoration

URBAN FOREST REHABILITATION

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

UPLAND FOREST REHABILITATION

Character:

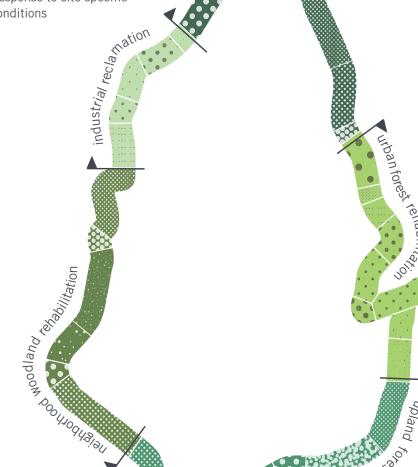
- High topography
- Degraded conditions

Approach:

• Rehabilitation of Piedmont upland forest plant communities

CHARACTER ROOM ATTRIBUTES

- Neighborhood scale
- Cultural and historical expressions
- Response to site specific conditions



NEIGHBORHOOD

WOODLAND REHABILITATION

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

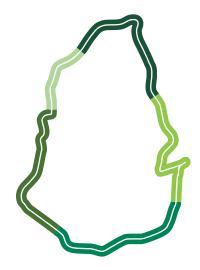


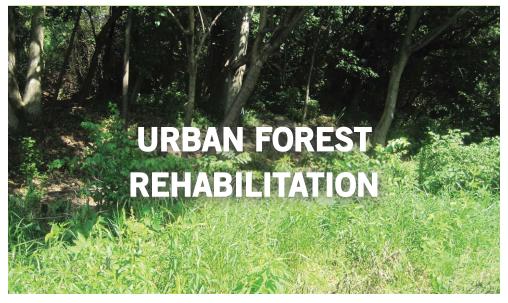
The Atlanta BeltLine is divided into five canopy reforestation segments based on overall character:

- □ Riparian Restoration
- □ Urban Forest Rehabilitation
- □ Upland Forest Rehabilitation
- □ Neighborhood Woodland Rehabilitation
- □ Industrial Reclamation

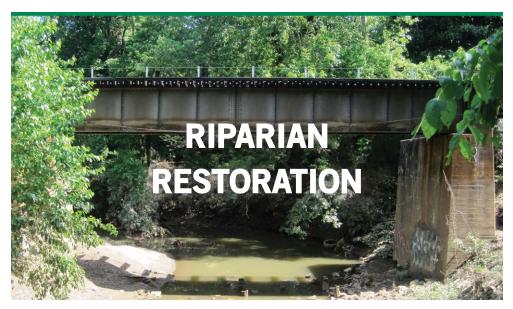
In order to realize this vision, three different approaches will be utilized depending on the corridor conditions: restoration, rehabilitation, and reclamation.

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. On the opposite end of the spectrum from restoration, 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.

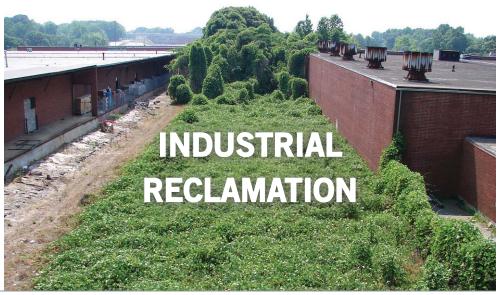










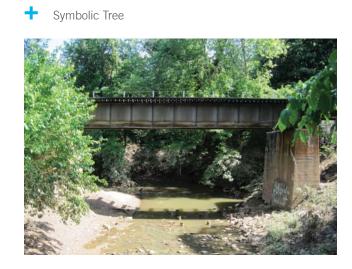




THE ATLANTA BELTLINE: TYPOLOGIES

Riparian Restoration L1.1

	TALL CA	NOPY	MID - CANOPY		UNDERSTORY		
DRY	Loblolly Pine	Pinus taeda					
	Spruce Pine	Pinus glabra			Two-winged Silverbell	Halesia diptera	
	Yellow-Poplar	Liriodendron tulipifera			+ Carolina Silverbell	Halesia tetraptera	
	+ Sycamore	Platanus occidentalis					
ш	Cherrybark Oak	Quercus pagoda					
UR	Swamp Chestnut Oak	Quercus michauxii	Sweetbay Magnolia	Magnolia virginiana			
S	Willow Oak	Quercus phellos	Overcup Oak	Quercus lyrata			
SIOW	Southern Linden	Tilia heterophylla	Black Gum	Nyssa sylvatica	Deciduous Holly	Ilex decidua	
2	Water Hickory	Carya aquatica	Walnut	Juglans nigra	River Birch	Betula nigra	
	Bitternut Hickory	Carya cordiformis			+ American Hornbeam	Carpinus caroliniana	
	Nuttall Oak	Quercus nuttalli	Hackberry	Celtis occidentalis	Horse Sugar	Symplocos tinctoria	
	Shumard Oak	Quercus shumardii					
			Green Ash	Fraxinus pennsylvanica			
			Pop Ash	Fraxinus pennsylvanica Fraxinus caroliniana	American Styrax	Styrax americanus	
			Sweetgum	Liquidambar styraciflua	American Bladdernut	Staphylea trifolia	
			Southern Catalpa	Catalpa bignonoides	Paw Paw	Asimina triloba	
WET	American Elm	Ulmus americana	+ Red Maple	Acer rubrum	Hazel Alder	Alnus serrulata	



Canopy Palette

Canopy Palette

L1.2 Urban Forest Rehabilitation

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

+ Symbolic Tree

Upland Forest Rehabilitation L1.3

ATLANTA BELTLINE CANOPY

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



Canopy Palette

Canopy Palette

L1.4 Neighborhood Woodland Rehabilitation **UNDERSTORY** TALL CANOPY MID - CANOPY Pignut Hickory Mockernut Hickory Carya alba **DRY** Carya glabra Pin Oak Cedrus deodara Quercus palustris Deodar Cedar Cedrus libani Northern Red Oak Cedar of Lebanon Quercus rubra Post Oak Quercus stellata Yellow-Poplar Liriodendron tulipifera + American Holly Ilex opaca Dawn Redwood Metaseguoia MOISTURE Yellowwood Cladrastis kentukea glyptostroboides Red Buckeye Aesculus pavia Yellow Buckeye Aesculus flava Flowering Dogwood Cornus florida Horsechestnut Bigleaf Magnolia Magnolia macrophylla Aesculus hippocastrum + Symbolic Tree Kousa Dogwood Cornus kousa Carya illinoinensis Pecan + Serviceberry Amelanchier arborea Black Gum Nyssa sylvatica Ginkgo Ginkgo biloba Walnut Juglans nigra Southern Linden Tilia heterophylla American Beech Fagus grandifolia Nuttall Oak Quercus nuttalli Shumard Oak Quercus shumardii + Willow Oak Overcup Oak Quercus phellos Quercus lyrata Witch-Hazel Sugar Maple Acer saccharum Hamamelis virginiana **WET** Japanese Maple Acer palmatum American Elm Ulmus americana

Industrial Reclamation L1.5

TALL CANOPY		MID -	MID - CANOPY		UNDERSTORY	
Y — Shortleaf Pine	Pinus echinata	Sand Hickory Eastern Redcedar	Carya pallida Juniperus virginiana	Eastern Redbud Flatwoods Plum	Cercis canadensis Prunus umbellata	
+ Loblolly Pine	Pinus taeda	Osage Orange	Maclura pomifera	Sourwood	Oxydendrum arboreum	
Bluff Oak	Quercus austrina	Black Cherry	Prunus serotina	Post Oak	Quercus stellata	
Southern Red Oak	Quercus falcata	+ Black Locust	Robinia pseudoacacia			
_		Chestnut Oak	Quercus prinus			
_		Sand Post Oak	Quercus margaretta			
_		Blackjack Oak	Quercus marilandica			
		Poplar	Populus deltoides x nigra	Chaste Tree	Vitex agnus-castus	
- + Ginkgo	Ginkgo biloba	Kentucky Coffee Tr		Virginia Pine	Pinus virginiana	
_	annigo brioba	Rentality Correct III	aynmociaads aloicas	Southern Crabapple	Malus angustifolia	
_				Japanense Crabapple	Malus floribunda	
_				Allegheny Chinkapin	Castanea pumila	
_				American Fringe Tree	Chionanthus virginicus	
_						
_						
- - Т		Willow	Salix species	Littlehip Hawthorn	Crataegus spathulata	



Canopy Palette

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 wherein the quality, character and arrangement of plantings play a defining role in creating a diversity of experiences. Given the thin average width of the Atlanta BeltLine corridor - and clearance requirements of the Transit guideway - the space available for tree plantings is often limited. Careful selection of tree specimens, mixing of trees with varied canopy size and adjusting typical tree spacing dimensions - are some of the techniques that will be required to make for rich and varied spatial experiences along the Atlanta BeltLine.







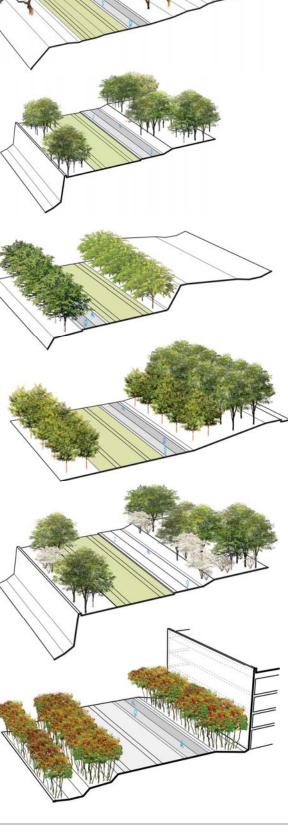
L2.2

FOREST CLUMPS









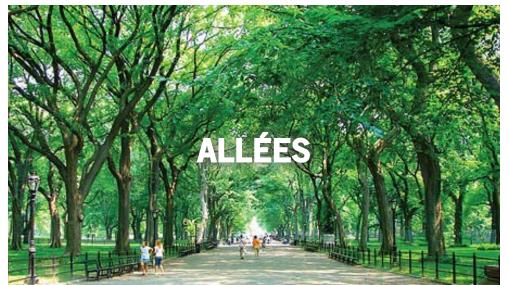


L2

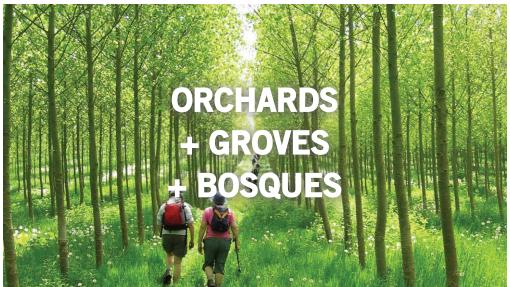
CANOPY CHARACTER "ROOMS"

With its 22-mile length - it is possible to create extremely varied experiences along the Atlanta Belt-Line corridor. The following organizational techniques for tree plantings, therefore, are identified for their extreme spatial variety and difference in character or "feel". For each type of canopy form or "room" —a broad list of tree species are recommended for their individual forms, relative uniformity of silhouette, growing heights and branching structure— all of which support different expressions when planted individually or in groupings. The design intent being to draw out as much spatial difference as possible within the often narrow limits of the R.O.W.





SPECIMENS + CLEARINGS







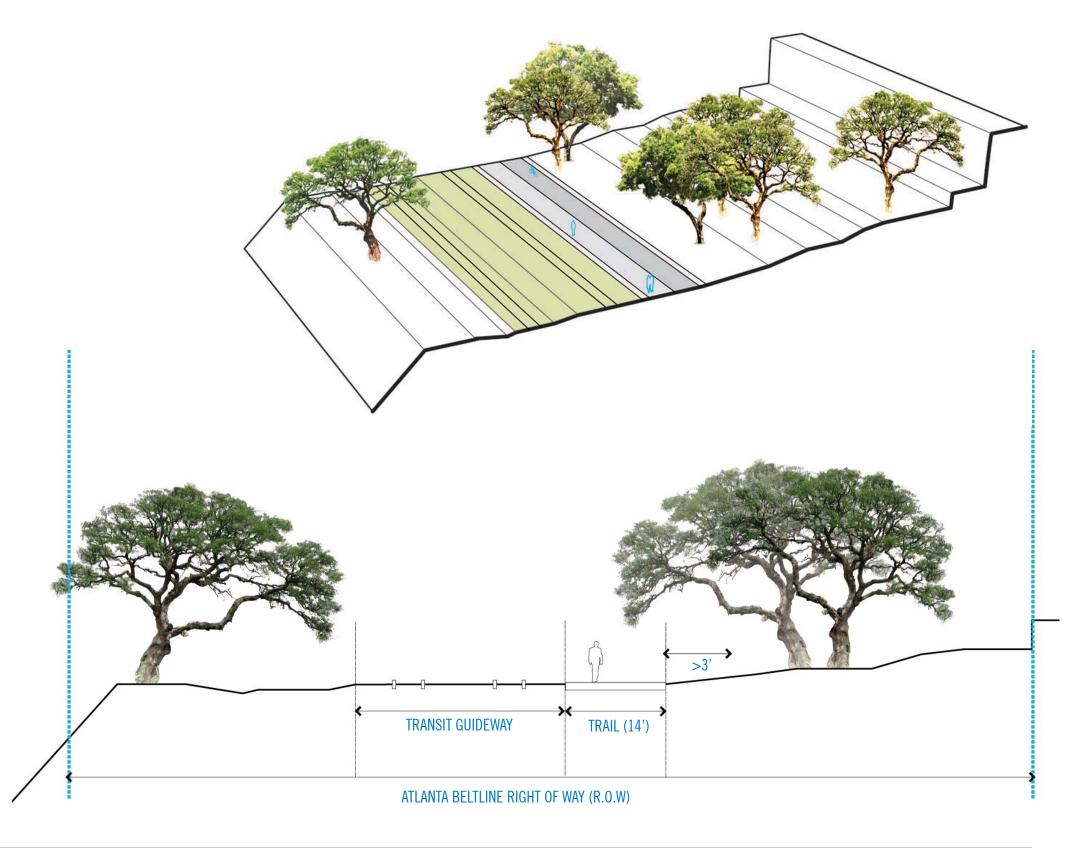


THE ATLANTA BELTLINE: TYPOLOGIES REVISED 04/05/2012

L2.1 Specimens + Clearings

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 - one with meadows and clearings dotted with the striking silhouettes of trees that provide a dynamic foreground to the City views.

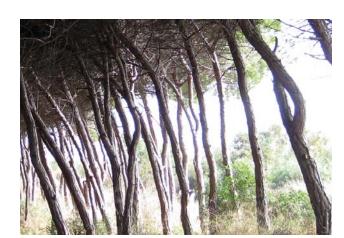




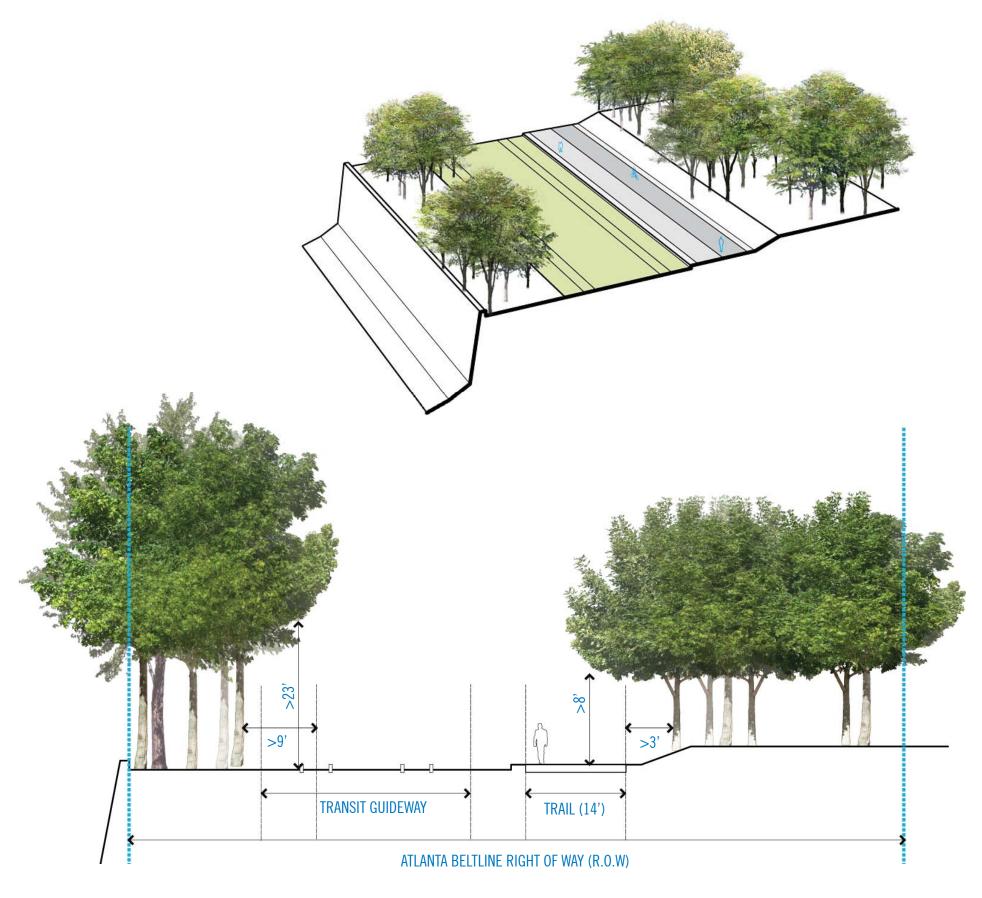


Forest Clumps L2.2

To create an planting settings that have a 'naturalized' quality, or have a feeling of an 'interior' environment (something to walk 'into'), trees (one to 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.



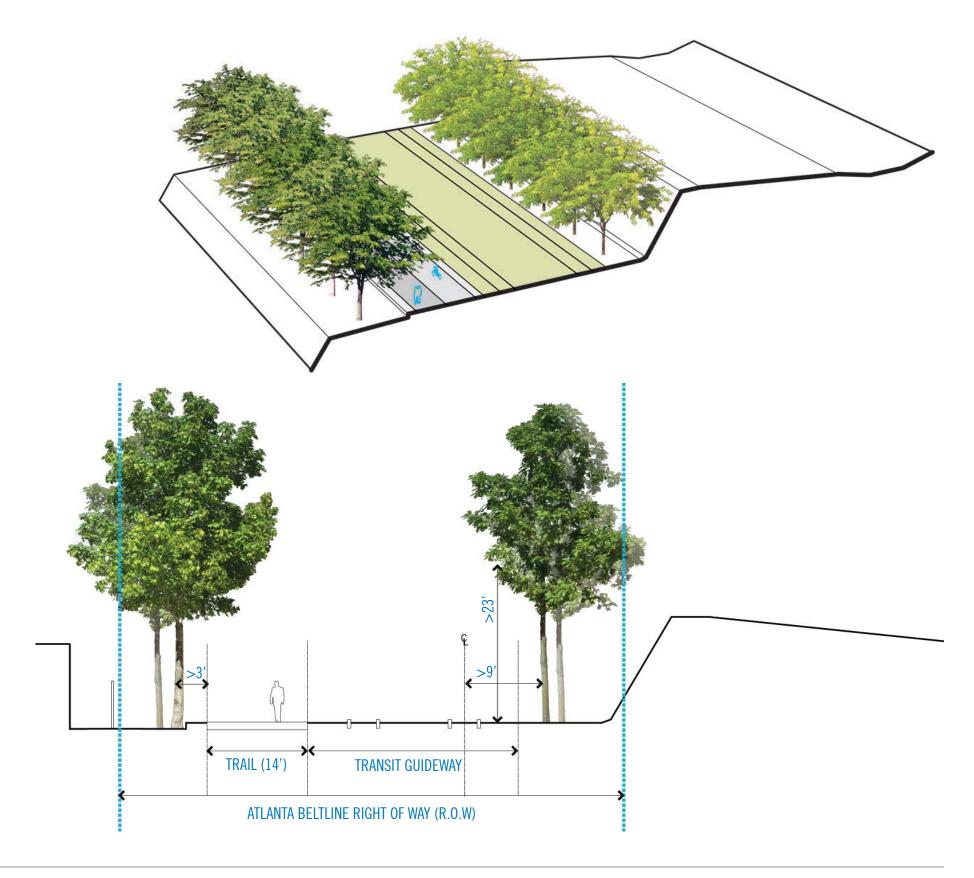




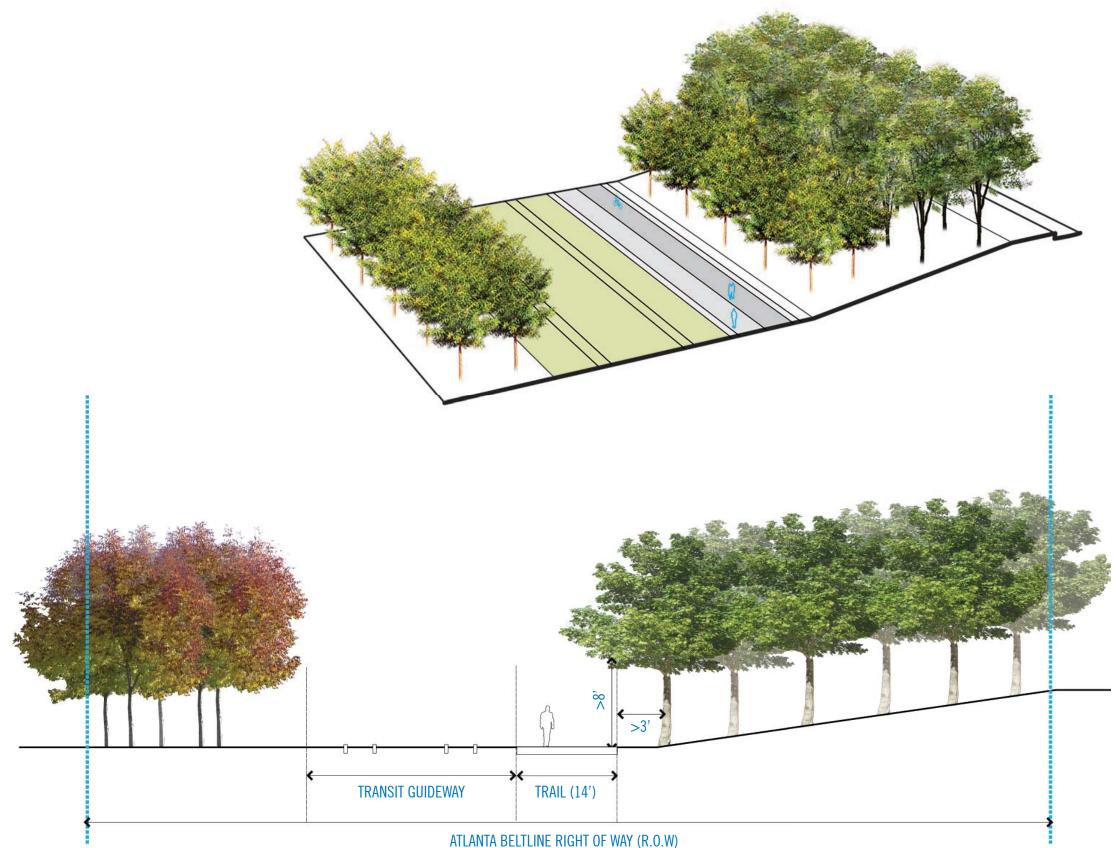
L2.3 Allées

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 - through the creation of allées. These narrow conditions can be 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 - allée species 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.









Orchards + Bosques + Groves L2.4

Within primary 'plaza' spaces, within wide sections of the corridor 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.



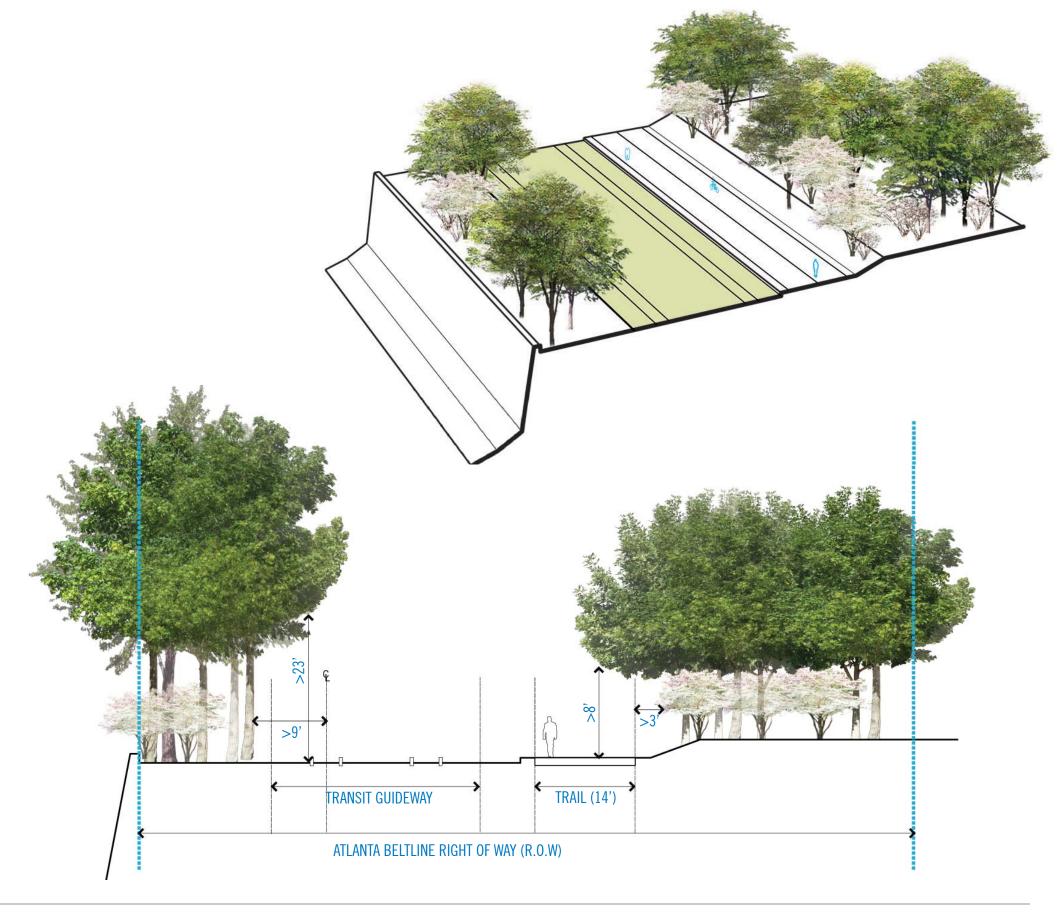


L2.5 Flowering Understory

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.







landscape

design

Similar to forest clumps, thickets are densely planted clusters of mixed trees and shrubs - too dense to walk within, as the individual species are often intertwined and tangled. As a planting technique, however, thickets provide an extreme type of planting environment: they are intensely textural, capable of creating intimate and immersive spaces in narrow conditions - while simultaneously providing significant screening of adjacent parcels.

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





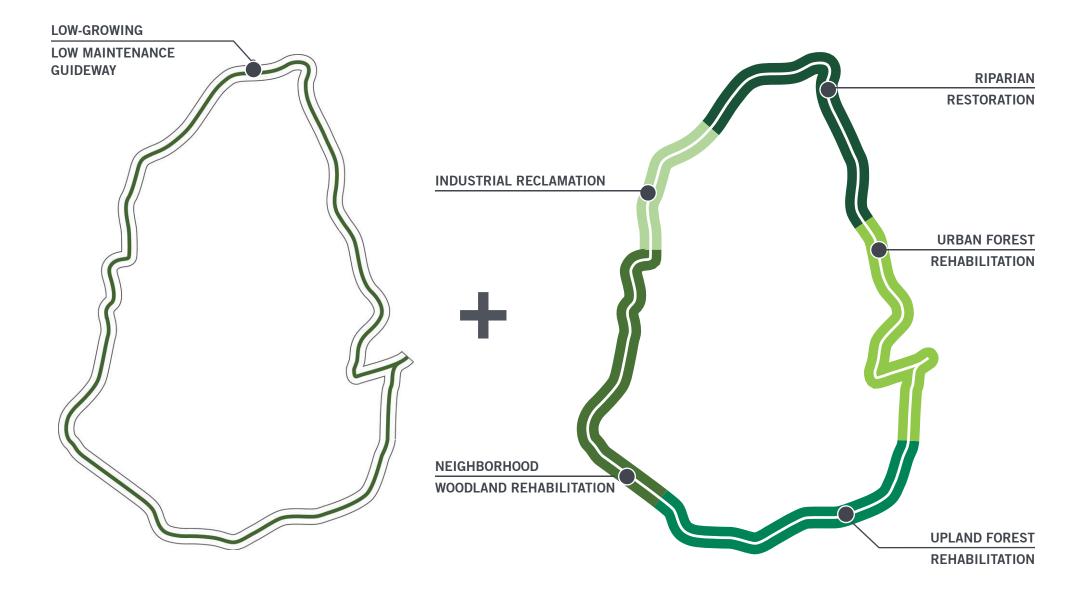
.3 GREEN GUIDEWAY & FLOOR

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'-type settings. With landscape character as a primary driver of the design, the Atlanta Belt-Line will 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 largely 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".

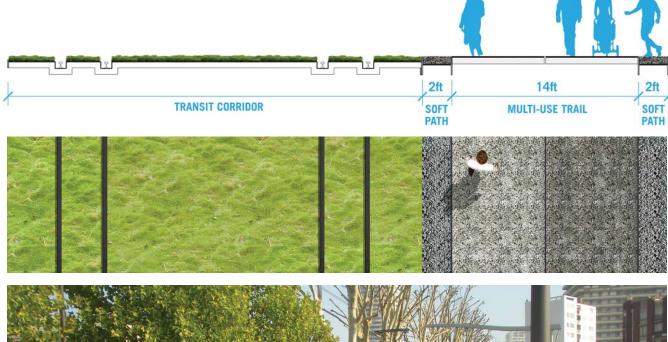
A CONTINUOUS, GREEN GUIDEWAY

A VARIED, VEGETATED FLOOF

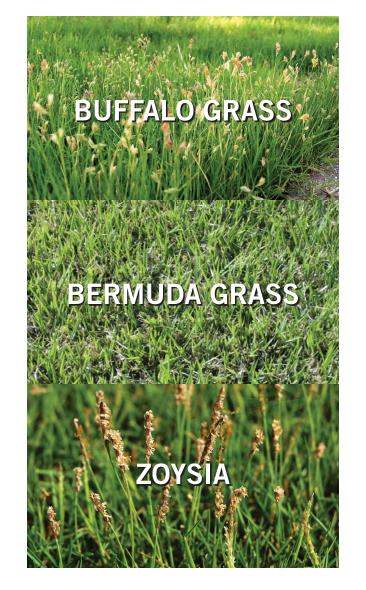












GREEN GUIDEWAY & FLOOR L3

As a model of 21st Century green infrastructure—a 'green machine'— the Atlanta BeltLine Guideway will be a vegetated one: utilizing low-growing, low-input, low-maintenance and drought tolerant grasses, the green guideway will significantly reduce stormwater run-off and decrease capital expense, while increasing 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: specify triploid
 Bermuda grass hybrids with sterile seeds are specified to prevent spread)
- Zoysia grass Zoysia japonica
 Recommended cultivars: Jamur and El Toro

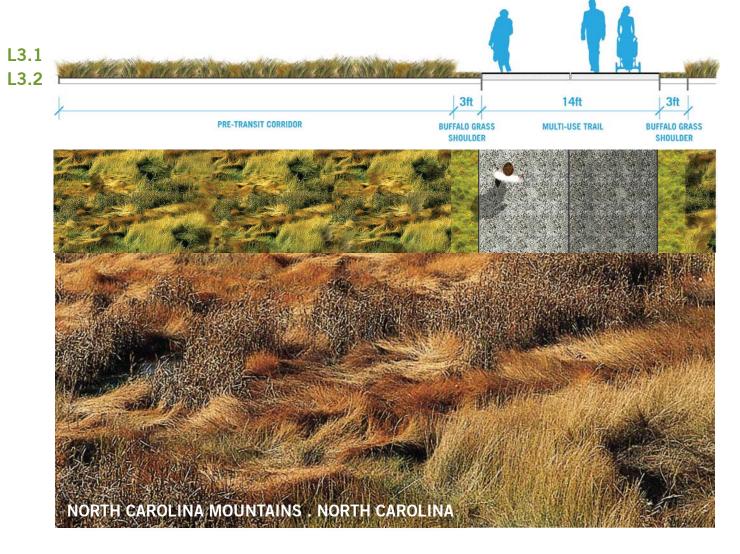
L7 GREEN GUIDEWAY

Low-growing, low-input, low-maintenance and drought tolerant grasses are recommended: Bermuda grass, Buffalo grass (native), and Zoysia grass.



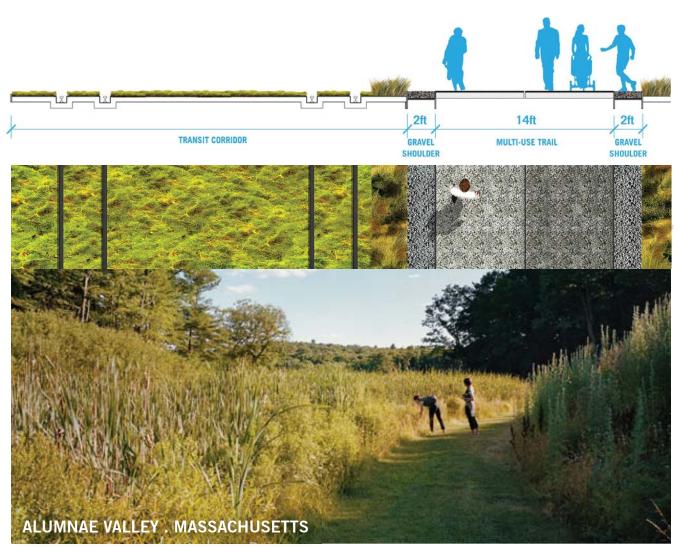
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GREEN GUIDEWAY & FLOOR





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



L2.2 TRANSIT + "DRY" FLOOR

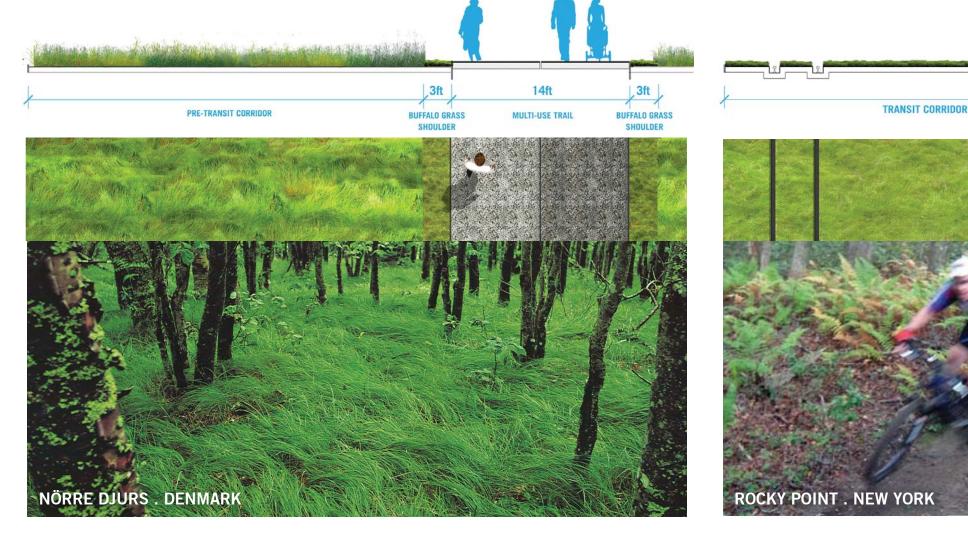
With the introduction of transit, low-growing, sun tolerant grass species will replace the taller growing, warm season grasses within the guideway.



GREEN GUIDEWAY & FLOOR

MULTI-USE TRAIL

2ft SOFT PATH





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.

L2.4 TRANSIT + "MOIST" FLOOR

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



L4 SHRUBS & FLOOR PALETTE

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



REVISED 04/05/2012

THE ATLANTA BELTLINE: TYPOLOGIES REVISED 04/05/2012

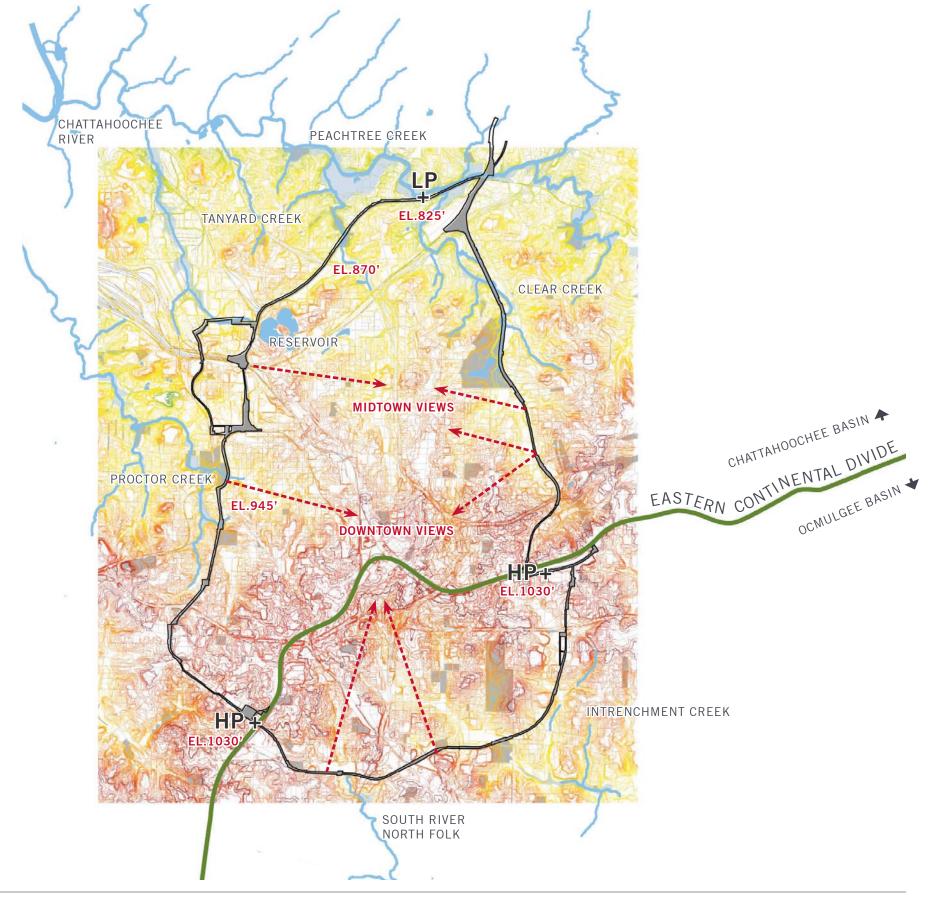
EASTSIDE TRAIL

LANDSCAPE CHARACTER

LANDFORMS & STORMWATER CAPACITY

Engineered topography is a defining site characteristic of the Atlanta BeltLine. More specifically, engineered landforms will be 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 through eastern continental divide and rolling piedmont, crossing over streets and passing through tunnels along the way. In addition - the new BeltLine corridor will involve ADA compliant entry ramps carved into the corridor's side-slopes, extensive stormwater retention swales, and engineered walls and slopes that will support the widened cross-section of the corridor to 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.

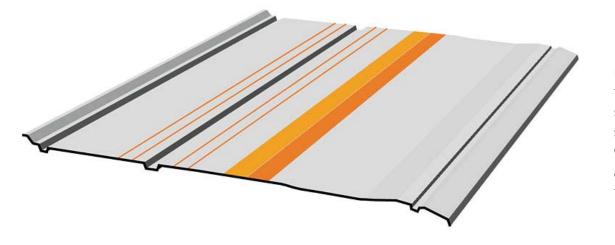
New landforms of the Atlanta BeltLine are site specific and shaped for: 1) high-performance: engineered guideway, stable slopes + stormwater management and 2) dynamic experience: graceful, accessible trail and ramp design.



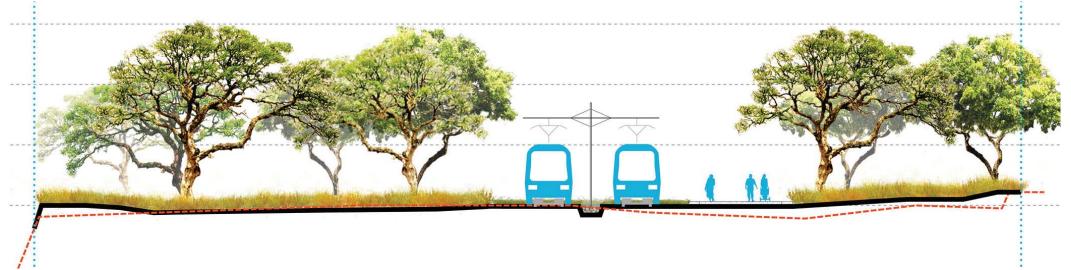


LANDFORMS & STORMWATER CAPACITY

Flat Right-of-Way L5.1



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.







landscape

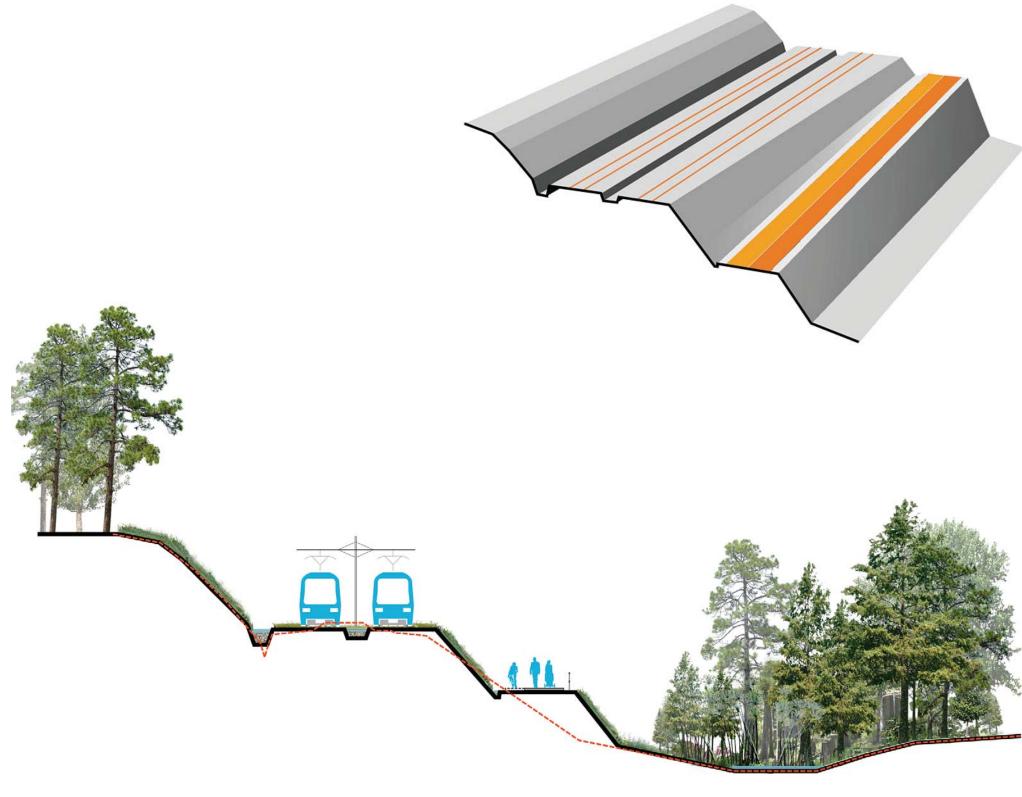
design

LANDFORMS & STORMWATER CAPACITY

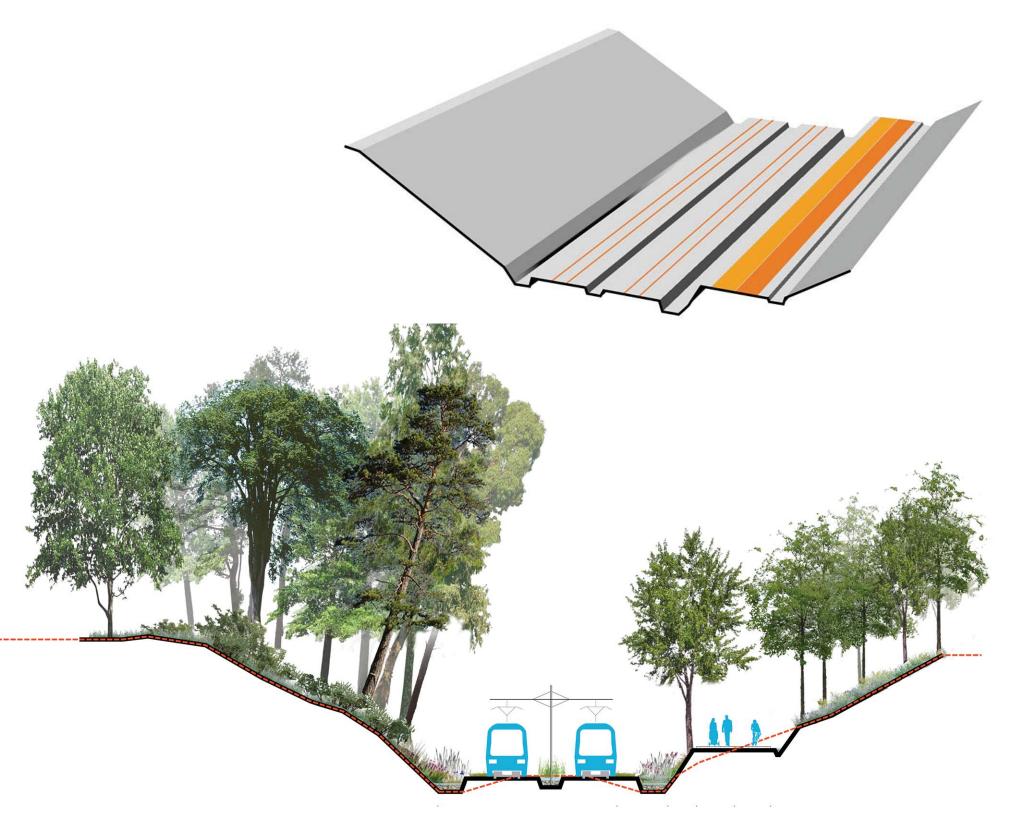
L5.2 Embankments

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.









LANDFORMS & STORMWATER CAPACITY

Sunken Corridors L5.3

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 or 'wet-woods'. Placement of the trail should maximize potentials for an experience of an 'interior' landscape, a place removed from the City.

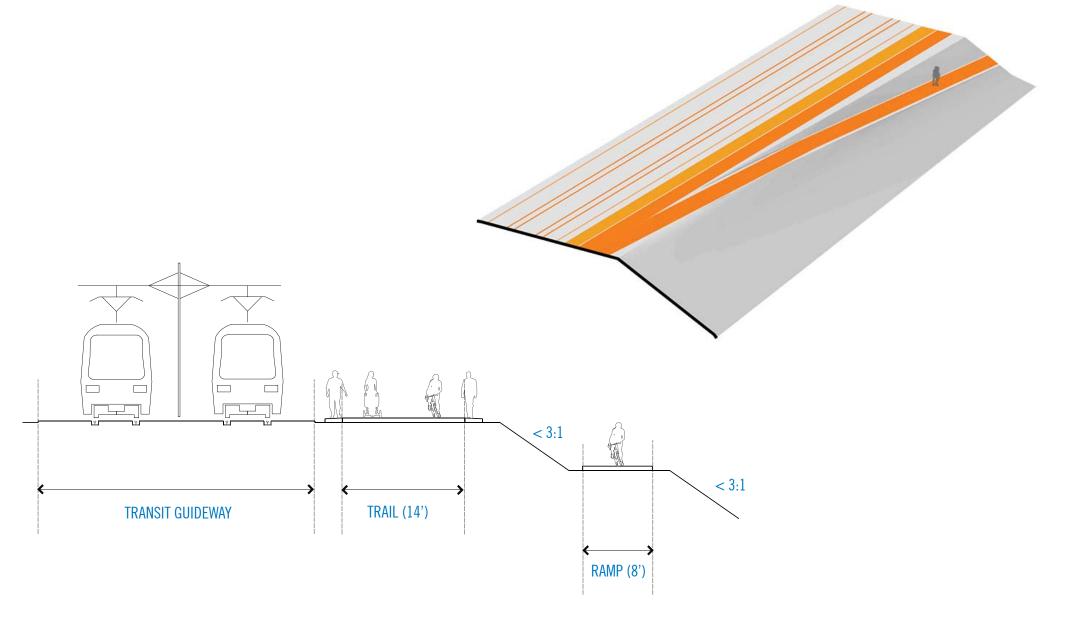




LANDFORMS & STORMWATER CAPACITY

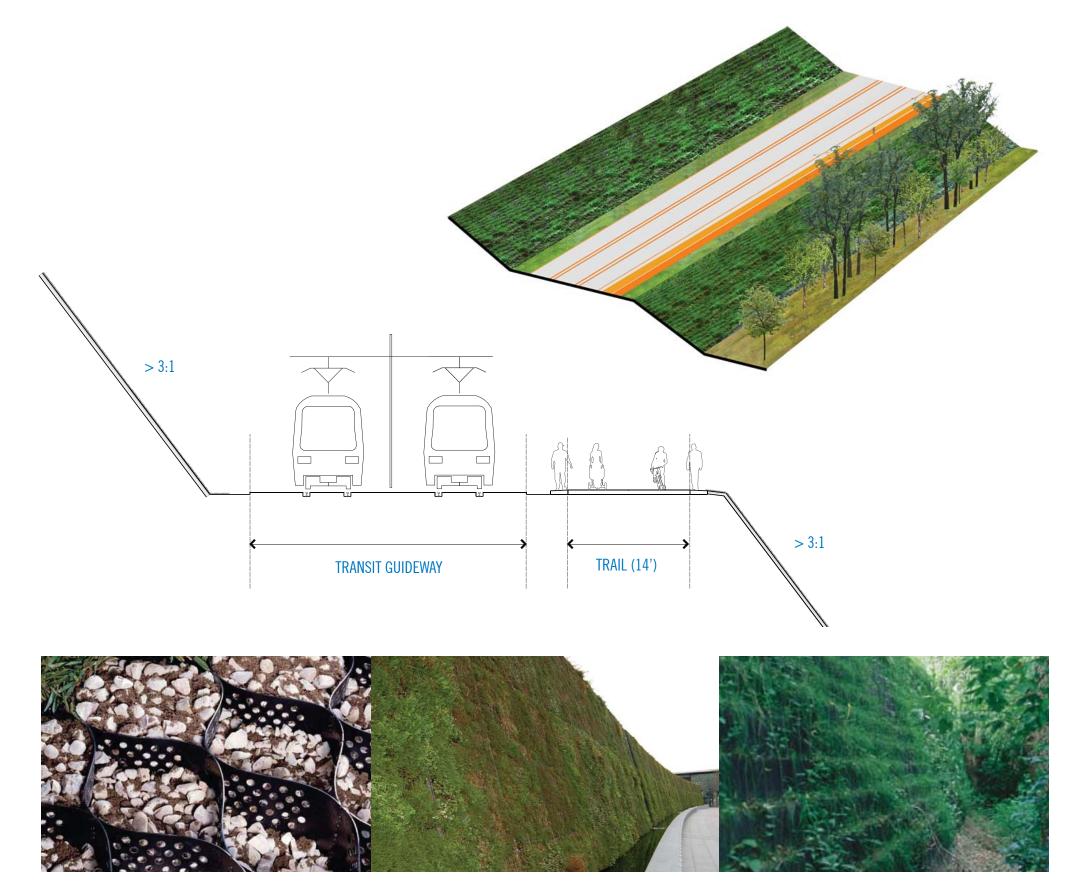
L5.4 Access Ramps

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.









landscape

design

LANDFORMS & STORMWATER CAPACITY

Green Embankments / Soft Walls L5.5

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.



design

LANDFORMS & STORMWATER CAPACITY

L5.6 Vegetated Swales

Vegetated Swales, or Bioswales, are implemented to maintain flow and improvewater quality. Runoff from trail may be conveyed / infiltrated in adjacent filter strips or swales. Swales or rocky conveyances will lead to a down-gradient discharge point. To the extent possible, planting should be texturally consistent with adjacent floor and used as a buffer to control runoff and increase infiltration.







landscape

design

LANDFORMS & STORMWATER CAPACITY

Stone Bladders L5.7

In hardscaped areas (plazas, transit stations) runoff will be conveyed / infiltrated in stone bladders or trench drains and conveyed to a down-gradient discharge point, wherein vegetation can increase infiltration and improve water quality. For large paved surfaces, when practical, porous pavements can be used to increase infiltration.



TRAIL (14')



TRANSIT GUIDEWAY

landscape

design

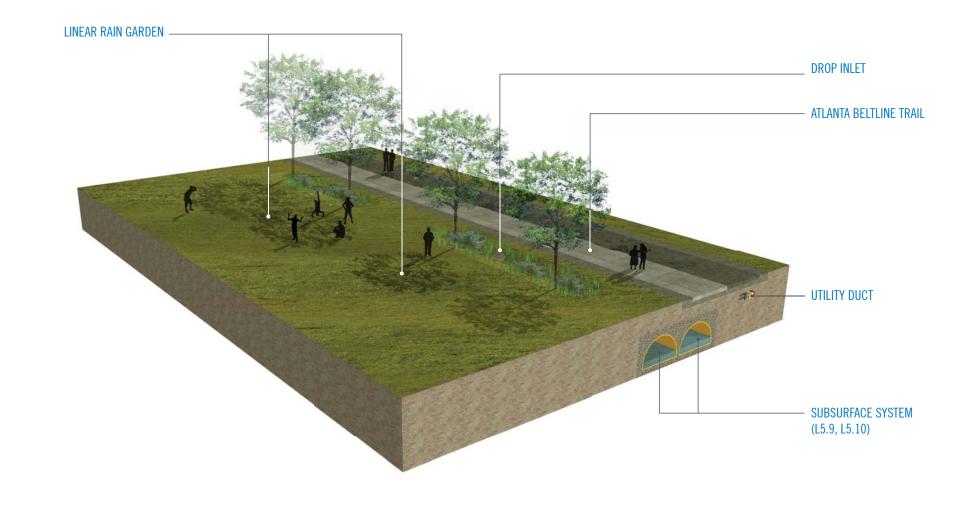
LANDFORMS & STORMWATER CAPACITY

L5.8 Rain Gardens

Rain Gardens shall be utilized when larger open spaces are available adjacent to trail surfaces. Runoff from trail surfaces should be directed to the rain garden to provide water quality through the reduction of Total Suspended Solids (TSS). Rain Gardens can act as forebays to larger detention systems.

The minimum dimensions for a raingarden is 10' wide by 20' long, with a 1:2 width-to-lenth ratio. Contributing drainage areas should be between 0.5 and 2 acres, but up to 5 acres maximum. Rain Gardens are not recommended for slopes that are greater than six percent.







design

landscape

Subsurface Conveyance & Detention L5.9

& STORMWATER CAPACITY

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.

Stormwater collected in a vegetated bioswale (L5.6) or stone bladder (L5.7) is directed to one or any combination of three subsurface systems:

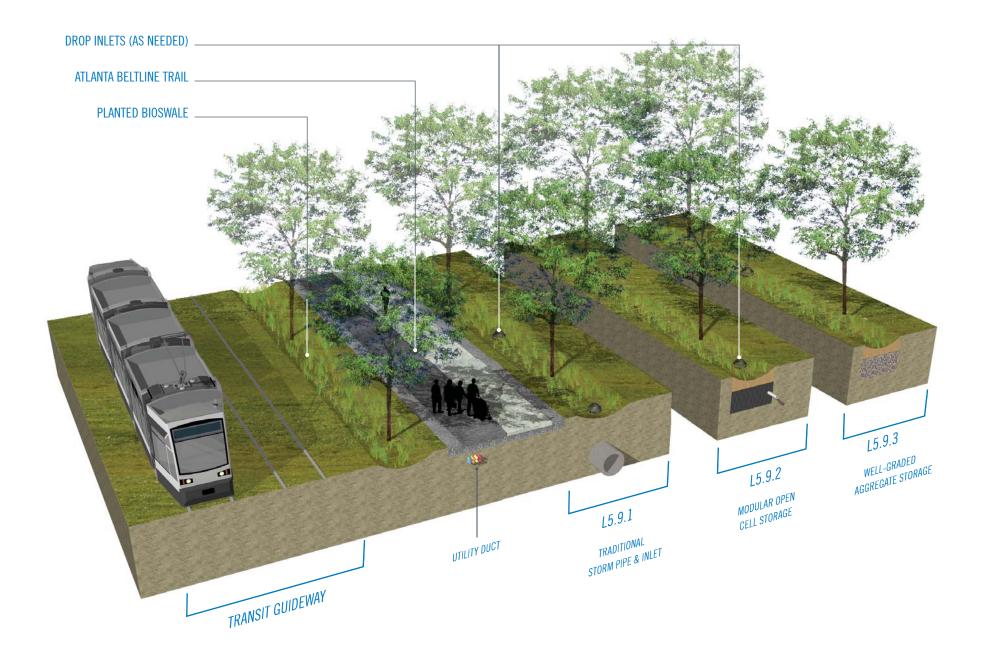
L5.9.1 Traditional Storm Pipe & Inlet
 L5.9.2 Subsurface Detention:

 Modular Open Cell Storage

 L5.9.3 Subsurface Detention:

 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.



L5.9.1 Traditional Storm Pipe & Inlet

The traditional drop inlet and pipe system conveys stormwater to off-site stormwater facilities.

L5.9.2 Subsurface Detention: Modular Open Cell Storage

Modular Open Cell Storage allows for the detention and infiltration of up to 95% of stormwater runoff in a subsurface system. This option can be installed in conjunction with a traditional storm pipe & inlet (L5.8.1.) to convey runoff for larger storm events to other detention areas within the Atlanta BeltLine corridor or to the city stormwater system.

L5.9.3 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 (L5.8.1.) to convey runoff for larger storm events to other detention areas within the Atlanta BeltLine corridor or to the city stormwater system.

landscape

design

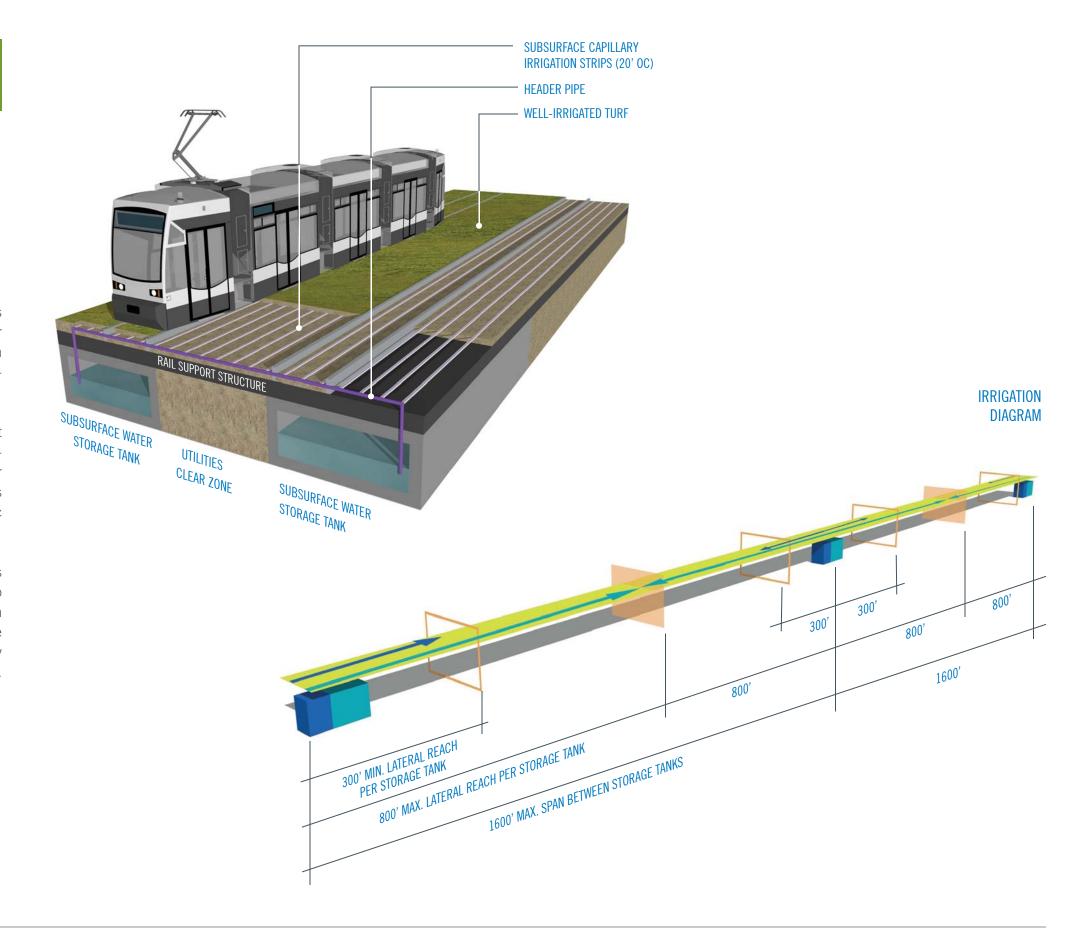
LANDFORMS & STORMWATER CAPACITY

L5.10 Subsurface Cisterns & Capillary Irrigation System

Subsurface Cisterns can be established at intervals along the BeltLine corridor to collect stormwater runoff for reuse as irrigation. Zones may be from 300 to 800 in length allowing up to 1600 feet between storage chambers.

Runoff maybe collected from the trail, the transit guideway, or in certain instances through partnerships with adjacent property owners. Stormwater chambers may be sized to provide weeks or months worth of irrigation supply as needed within specific zones along the corridor.

The Subsurface Capillary Irrigation System reduces water volumes by more than 50% as compared to traditional rotor head systems. This system can be run at anytime without interfering with surface uses, and damage to the system is significantly reduced by the elimination of surface components.



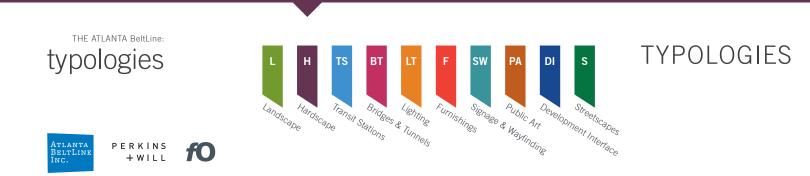


REVISED 04/05/2012



HARDSCAPE

2



HARDSCAPE

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integrated Sustamasinty. Har

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Besides the landscape character, one of the most defining and visible elements of the corridor will be the Atlanta BeltLine Trail. Along with the transit guideway, the trail is the most continuous feature and the primary connective element: a multi-use, fully accessible trail that 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 places, 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.



Green Materials, Design & Construction: Hardscape materials specified for the Atlanta Belt-Line 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.



Green 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

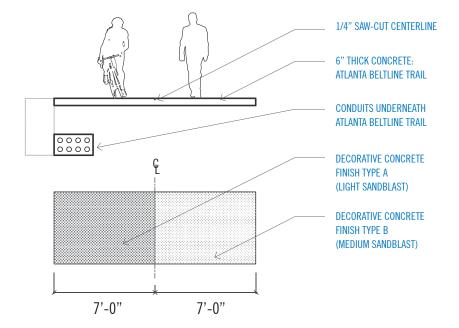
H1.1 Atlanta BeltLine Trail

H1.2 Atlanta BeltLine Trail with Soft Shoulder

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, 14ft wide multi-use cast-in-place concrete trail, with 2ft "soft" shoulders on either side. The concrete for the trail is mixed with a charcoal color admixture. local granite and marble aggregate and mica. The centerline of the trail is saw-cut and the two sides of the trail are treated with different degrees of sandblast —one heavy, 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 more textured side of the trail (the heavy sandblast) is always on the inner side of the Atlanta BeltLine - signally the direction of Atlanta's center even when the City is not visible from the corridor.

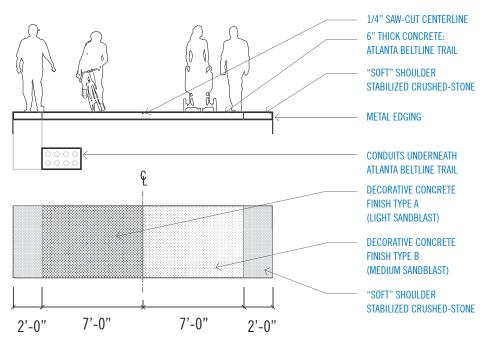






Two-texture, split-lane: Single Pour, Saw-Cut Centerline Charcoal color admixture Light Sandblast Finish (1/2) Medium Sandblast Finish (1/2)





H1.2
Atlanta BeltLine Trail with Soft Shoulder

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 (1/2) with metal edging

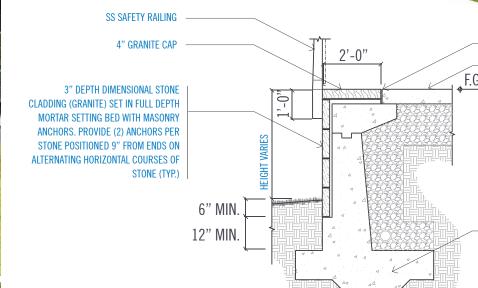


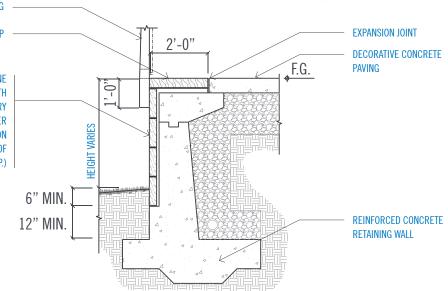
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ATLANTA BELTLINE TRAIL

Atlanta BeltLine Trail H1.3 **Adjacent to Wall**







H1.3 Atlanta BeltLine Trail Adjacent to 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 (1/2) with metal edging

Elberton Granite block (1/2 @ Wall)





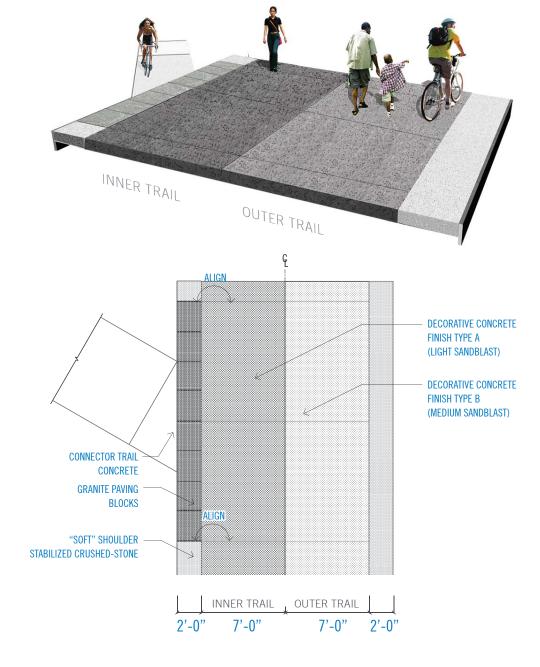
ATLANTA BELTLINE TRAIL

H1.4 Spurs / Connectors

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 (the granite replaces the stabilized crushed-stone).

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 Belt-Line Trail and shoulder is maintained.

Where trail crossings are required (to access transit stations or adjacent places), a detail for a consistent, 6-ft wide band of pre-cast concrete paving blocks is provided.



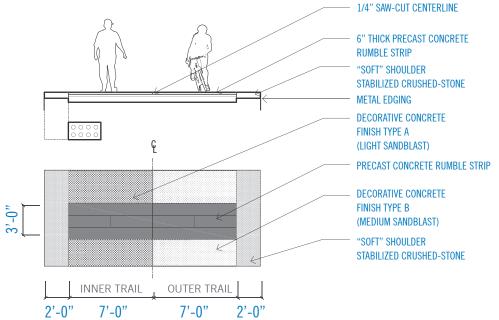
H1.4 **Spurs / Connectors**

Connecting trails: Uniform, light-colored concrete.

Spurs: Granite paving blocks replace crushed-stone shoulder at threshold.

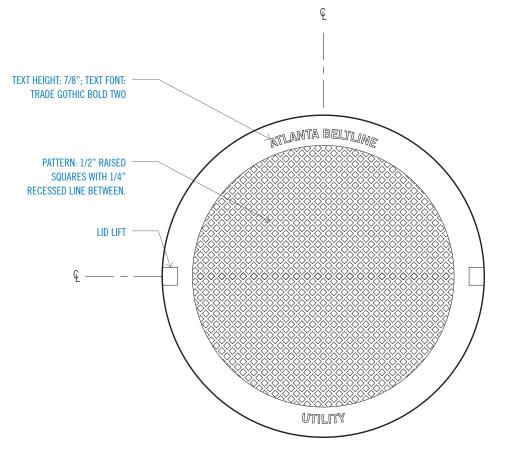








Precast concrete, full width of trail; Color Admixture, low aggregate content; Regular scoring imprint for texture; Centerline aligns with trail centerline.



H1.7 Manhole Cover

ATLANTA BELTLINE TRAIL

Detective 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, where the primary trail passes through primary social places.

Because of the high frequency of crossings and 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 designed with precast concrete with minimum aggregate and regularized scoring imprints to create the textural "rumble" surface.

Manhole Cover H1.7

i

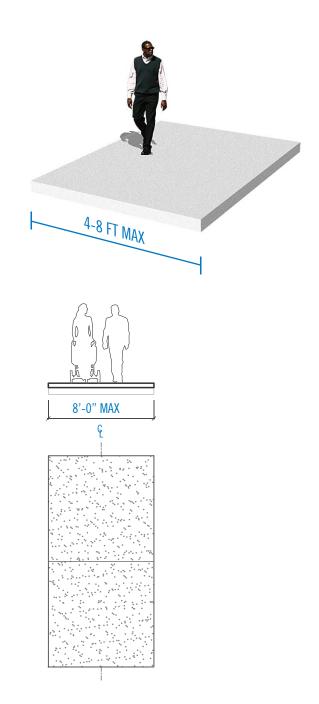


H2 OTHER CONNECTING TRAILS

H2.1 Connecting Typical Trails & Ramps H2.2 Soft Trails

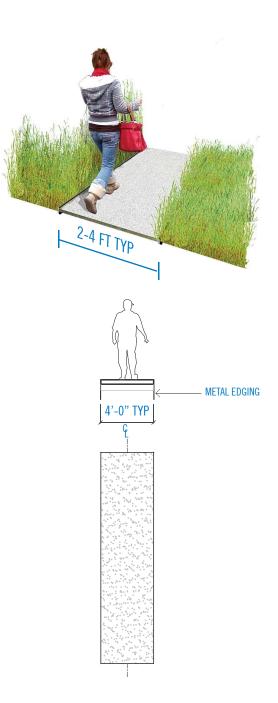
Because of the large number of connecting trail conditions, the design of the connectors is recommended to utilize a consistent light- colored concrete. In this way, there will be visual consistency and coherence to the overall corridor, rather than an ad hoc and random arrangement of miscellaneous trails. In the event that the material or designs of the connecting trails are not consistent, the granite shoulder "spur" serves as a transition or threshold material, whereby 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 stone screening trails provide important secondary connections.



H2.1 Connecting Typical Trails & Ramps

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



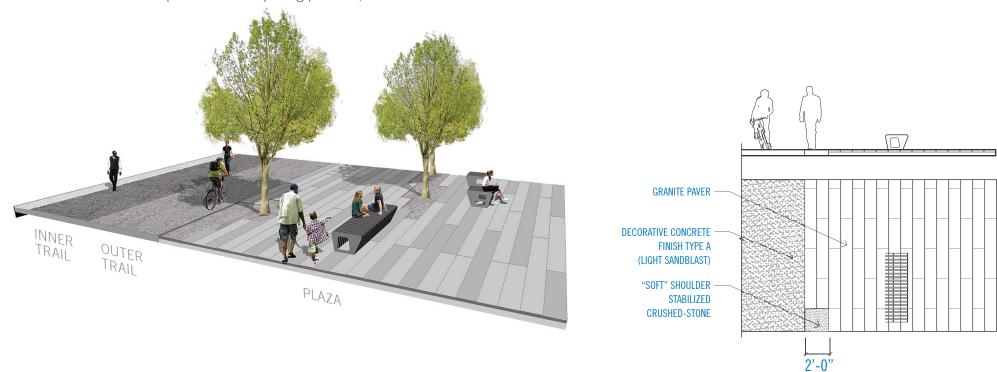
H2.2 Soft Trails

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

REVISED 04/05/2012

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.

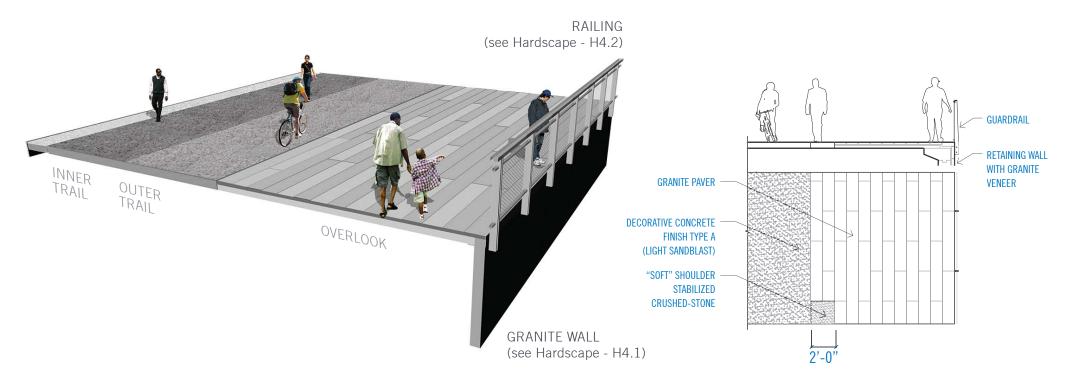
hardscape *design*



PLAZA & OVERLOOKS H3

Plazas H3.1

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



Overlooks H3.2

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

Н



H4 STRUCTURES

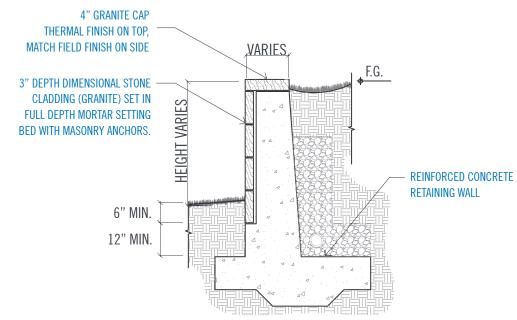
H4.1 Retaining Walls

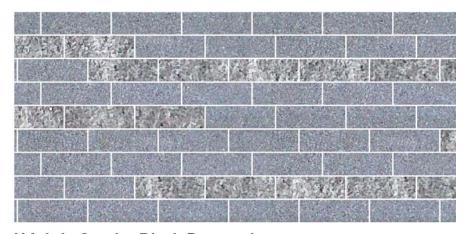
Retaining walls along the Atlanta BeltLine Trail utilize locally-sourced granite block, uniformly sourced. Cut-walls within the Atlanta BeltLine are distinguished from fill-walls facing the city by the use of thermal and polished-finish stone, respectively. Split-face stone blocks are used on both walls to create a lateral pattern reminiscent of the rhythm of railroad ties.

Elberton Granite thick stone ashlar veneer; 30" x 10" nominal size, 3" nominal thickness; Thermal, Polished, Honed, Split-Face Finishes;

Elberton Granite Cap Stone; 4" thickness; thermal finish on top; match field finish on side.

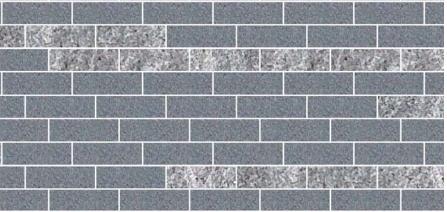






H4.1.1 Granite Block Pattern 1

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



H4.1.2 Granite Block Pattern 2

POLISHED GRANITE BLOCK WITH SPLIT-FACE GRANITE BLOCK ACCENTS



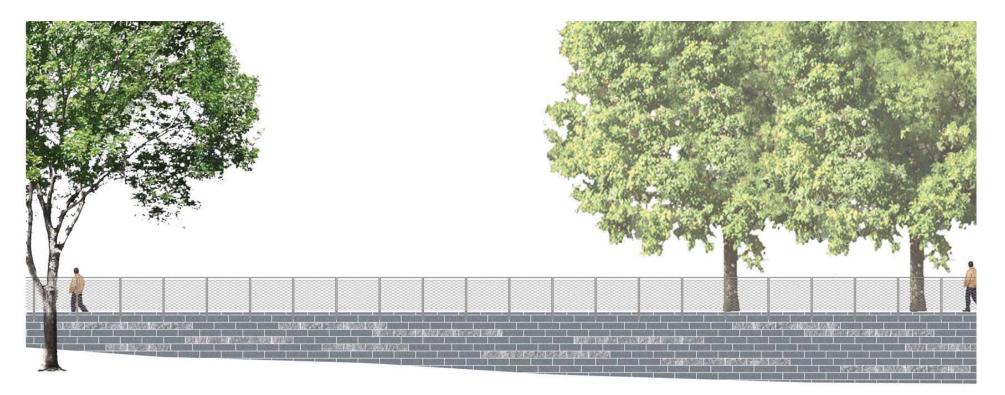
H4.1.3 Granite Block Pattern 3

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





CUT WALL WITH HONED / SPLIT OPTION



FILL WALL WITH POLISHED / SPLIT OPTION

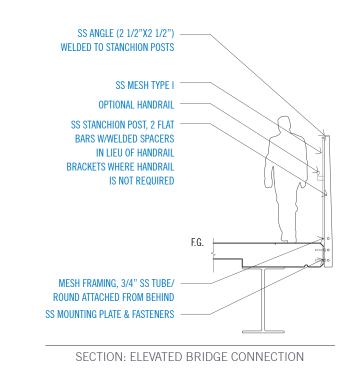


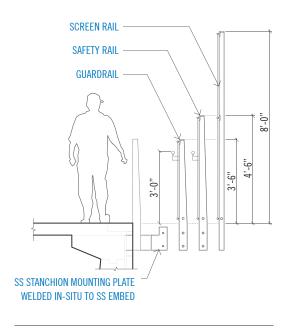
hardscape

design

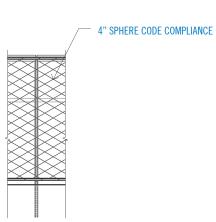
STRUCTURES

H4.2 Railings





SECTION: AT-GRADE CONNECTION

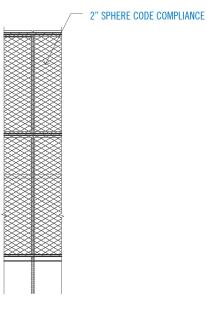


H4.2.1 Railing - Mesh Type A

Railings and Rail posts: Stainless steel, #4 brush finish

Mesh infill:

Stainless steel mesh, with maximum 4" vertical opening

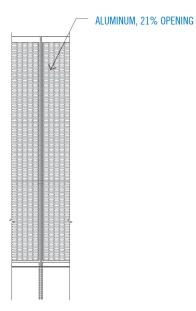


H4.2.2 Railing - Mesh Type B

Railings and Rail posts:
Stainless steel, #4 brush finish

Mesh infill:

Stainless steel mesh, with maximum 2" vertical opening



H4.2.3
Expanded Metal Screen

Aluminum expanded metal screen 21 % open area





STRUCTURES

Stairs H4.3

With the many grade separated entrances along the corridor, a number of conditions require ramps and/or stairs. Stairs are provided when space does not allow for accessible ramps at each street corner. For those conditions with only a few feet of elevation change, cast-in-place stairs are recommended. For those conditions that involve significant elevation change and steep grades, elevated steel stair structures are recommended as an alternative to stone or concrete retaining features. With the elevated structures, the soft qualities of the corridor landscape can extend beneath the structures, thereby increasing the presence of vegetation within the Atlanta BeltLine.

H4.3.1 At-grade Primary Stairs

REVISED 04/05/2012

Risers and treads: Granite with landing that links into shoulder; Railings and Rail posts: Stainless steel, #4 brush finish Mesh infill: Stainless steel mesh, with maximum 4" vertical spacing.

H4.3.2 At-grade Secondary Stairs

Risers and treads: Granite with landing that links into shoulder; Railings and Rail posts: Stainless steel, #4 brush finish Mesh infill: Stainless steel mesh, with maximum 4" vertical spacing.



hardscape

design

STRUCTURES

H4.3 Stairs





H4.3.3 Elevated Primary Stairs

Risers and treads: Coated Steel;
Railings and Rail posts: Stainless steel, #4 brush finish
Mesh infill: Stainless steel mesh, with maximum 4" vertical spacing.

H4.3.4 Elevated Secondary Stairs

Risers and treads: Coated Steel;
Railings and Rail posts: Stainless steel, #4 brush finish
Mesh infill: Stainless steel mesh, with maximum 4" vertical spacing.





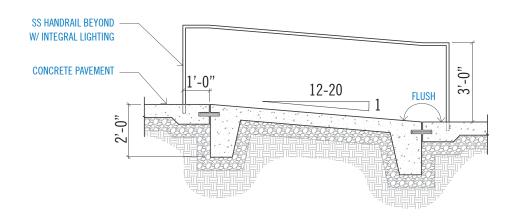




STRUCTURES

Ramps H4.4

With the many grade separated entrances along the corridor, a number of conditions require ramps and/or 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, elevated steel ramp structures are recommended as an alternative to stone or concrete retaining features. With the elevated structures, the soft qualities of the corridor landscape can extend beneath the structures, thereby increasing the presence of vegetation within the Atlanta BeltLine.



H4.4.1 At-grade Ramps

Cast-in-place concrete ramp, with landing that links into shoulder; Stainless steel handrail.

H4.4.2 At-grade Ramps Adjacent to Walls

Cast-in-place concrete ramp, with landing that links into shoulder; Stainless steel handrail.



hardscape

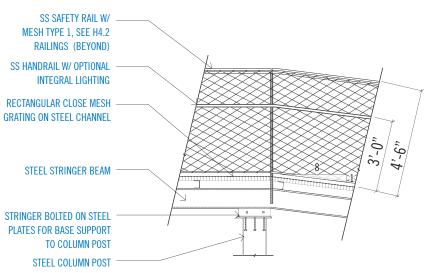
design

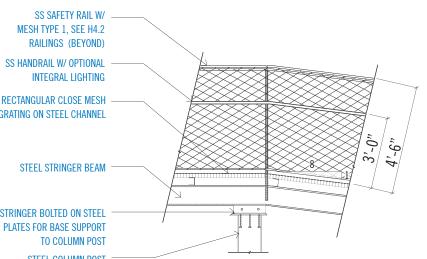
STRUCTURES

H4.4 Ramps









H4.4.3 **Elevated Ramps**

Ramp surface: Galvanized metal. Railings and Rail posts: Stainless steel, #4 brush finish Mesh infill: Stainless steel mesh, with maximum 4" vertical spacing.

H4.4,4 **Elevated Ramps Adjacent to Walls**

Ramp surface: Galvanized metal. Railings and Rail posts: Stainless steel, #4 brush finish Mesh infill: Stainless steel mesh, with maximum 4" vertical spacing.

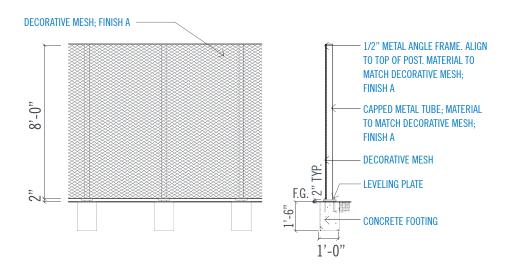


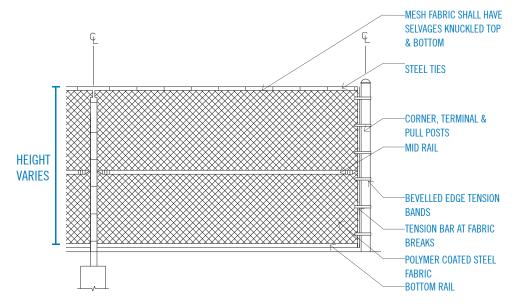
THE ATLANTA BELTLINE: TYPOLOGIES REVISED 04/05/2012

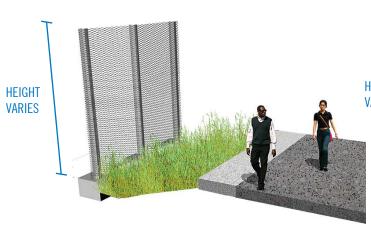
STRUCTURES

H4.5 Screens & Fences

When limited space does not allow for the use of vegetation to screen adjacent parcels, architectural fences or screens shall be used. When located adjacent to the Atlanta BeltLine Trail or primary public spaces, these fences or screens can also serve as identity features incorporating signature graphic information.









H4.5.1 Screen Type-A

Screen Mesh: Expanded Steel; Screen Posts: Steel.



H4.5.2 Screen Type-B

Coated chain-link fence



THE ATLANTA BELTLINE: TYPOLOGIES REVISED 04/05/2012

TRANSIT STATIONS









TYPOLOGIES

2

TRANSIT STATIONS

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 - **Integrated Sustainability: Transit Stations**
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- **▶** DESIGN
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 - **TS3 Access Components**
 - **TS4 Shelter Components:**
 - TS4.1 Columns
 - TS4.2 Canopy
 - TS4.3 Ticketing
 - **TS5 Planting Components**



As one of 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 landscape, hardscape, signage, lighting, and furnishings typologies while embedding opportunities for variety 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 onsite 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.



Green 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.



Green Operations & Maintenance: The typological design and materials of the Atlanta Belt-Line transit stations ensures ease of repair and maintenance. The Atlanta Belt-Line 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

Atlanta BeltLine Transit Stations are sited based upon a myriad of conditional factors. Currently, stations are roughly placed a half mile apart from one another, yet the track alignment combined with the right-of-way width and topographic conditions determine the platform's actual placement. In addition, these elements also help dictate which of the two platform types are site appropriate; side or central platform.

The preferred vehicle technology will ultimately determine the true dimensional constraints of the transit station and its associated built components, but the typological elements provided herein are designed, in most instances, using the minimal construction clearances and preferred program elements directed by the project team to date.

The map at right shows the proposed location of over forty transit stations along the Atlanta BeltLine. The exact location of stations will be determined at a later date.

The siting conditions of the transit line within the corridor can be described as spacious, moderate, or compressed. The spacious condition can accommodate a transit station with passenger platform at center, while a station with side platforms can be used at other locations.

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
- Ashby Station
- Boone Station*

^{*} Green Line only, at proposed new MARTA Station

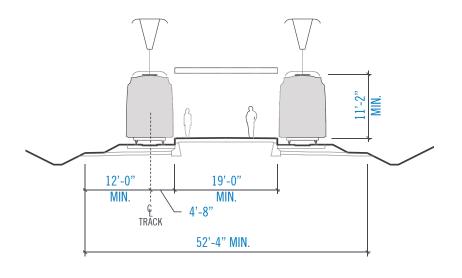


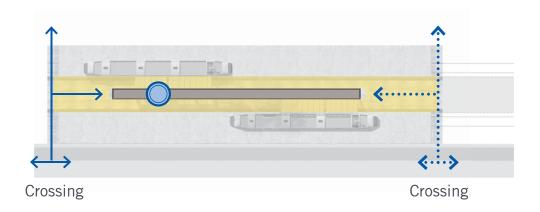




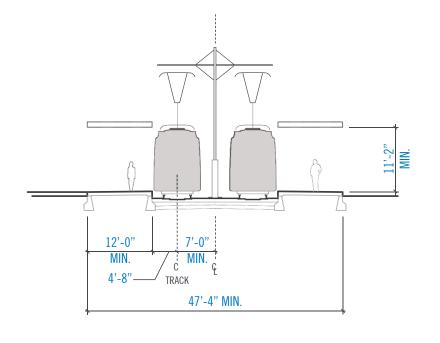
REVISED 04/05/2012

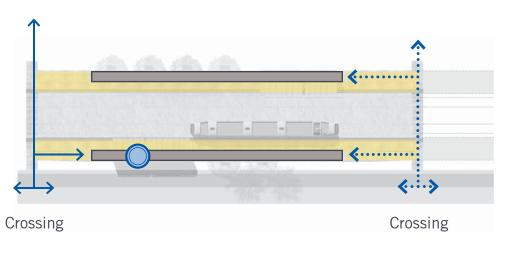
Central Platform





Side Platform





Circulation Zone
Supplemental / Planting Zone
Ticketing Shelter

→ Primary / Accessible Route

··· Secondary Route

STATION ENVELOPE & ACCESS ROUTES

Typologically, the transit station envelope is based on the tolerances shown here to accommodate both Light Rail and Streetcar technologies. The critical minimal clearances listed were developed using national standards and precedent studies. Most notable are the station footprint and sectional dimensions, which determine the transit guideway alignment within the corridor as well as the station shelter size, so as to accommodate different transit vehicle capacities. It should be noted that the true dimensions of the transit station and its associated structures are contingent on the actual transit technology chosen and inevitably 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. Since each station will be uniquely placed based on site conditions mentioned earlier in this section, the primary access route will be contingent on the platforms relationship to the street, Atlanta BeltLine trail, adjacent development, or combination thereof. Furthermore, 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. It is with this understanding, the platforms have been zoned to help determine the placement of plantings, shelters, and other program elements in hopes minimizing user conflict between passengers entering and existing transit vehicles.



CAPACITY EXTENSIONS

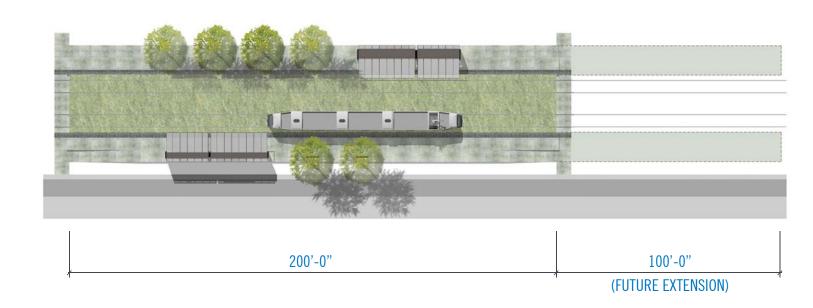
The Central Platform footprint carries with it the ability to accommodate a maximum of three transit vehicles; allowing the platform to expand as needed for increased ridership. This platform type takes up more area than that of the Side Platform, and is not preferred in areas where the corridor width is compressed.

CENTRAL PLATFORM



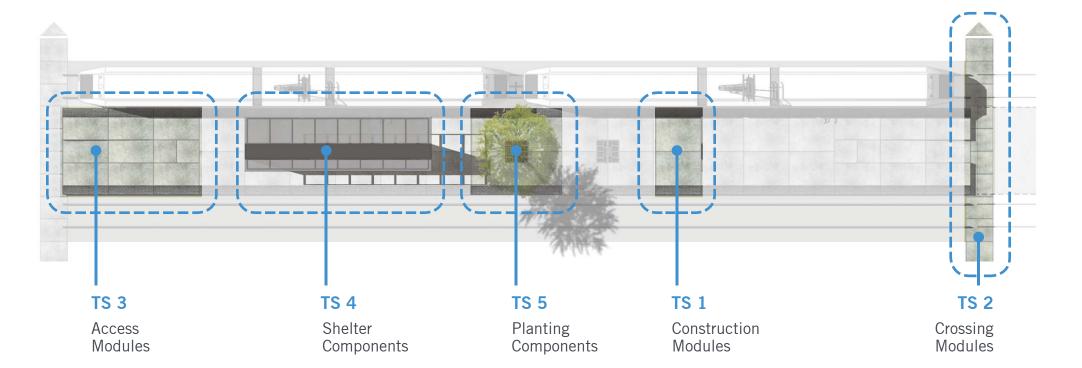
The Side Platform footprint carries with it the ability to accommodate a maximum of three transit vehicles; allowing the platform to expand as needed for increased ridership.

SIDE PLATFORM



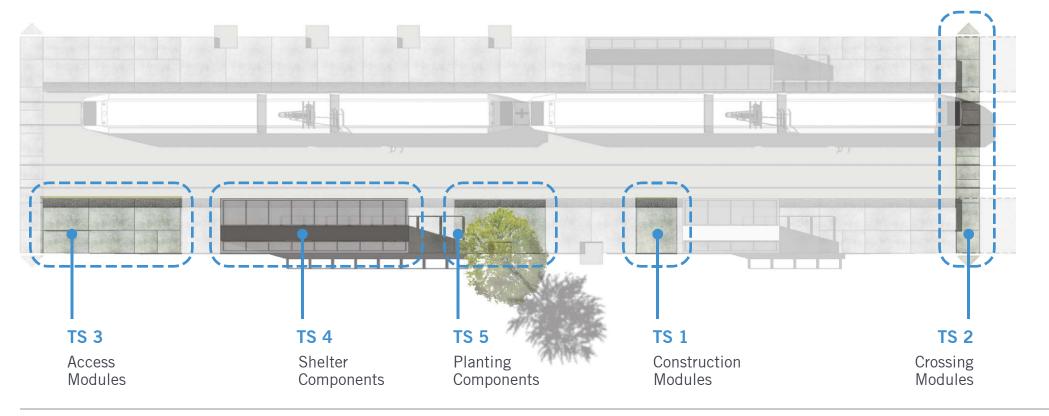
transit stationsdesign

See also: FURNISHINGS, for transit station furnishings. SIGNAGE, for transit station signage.



PLATFORM PROGRAM

CENTRAL PLATFORM



SIDE PLATFORM



101



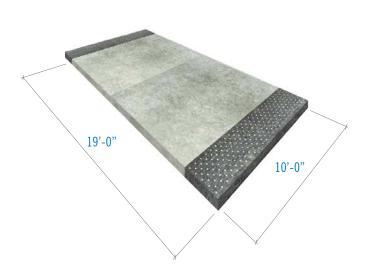
transit stations

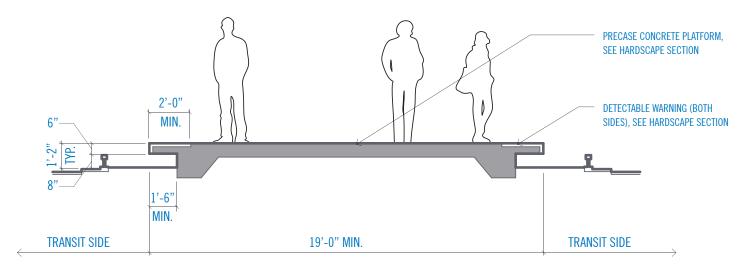
design

Both platform types are conceived to act as a system of precast concrete panels that will interlock and integrate utility conduits and piping as needed. Materially, giving a more sophisticated control of construction and finishing tolerances. The platform edge parallel to the transit guideway is to be compliant with the American with Disabilities Act requirement to incorporate a detectable warning detail. This edge is also expressed through cantilevering it over the adjacent landscape; giving the platform a 'lighter' appearance on the site and reinforce the general design intent to heighten its' users experience to the rich landscape character beyond.

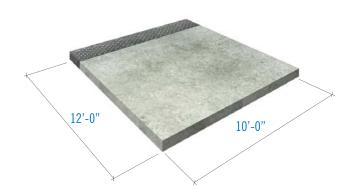
TS1 CONSTRUCTION MODULES

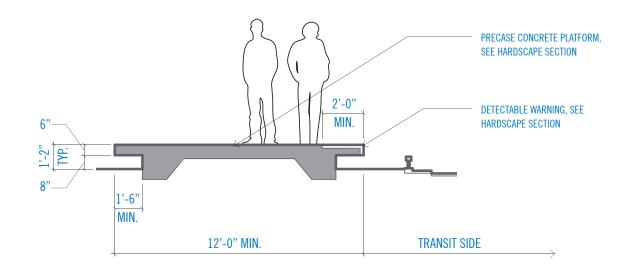
TS1.1 **Construction Module Central Platform**





TS1.2 **Construction Module Side Platform**





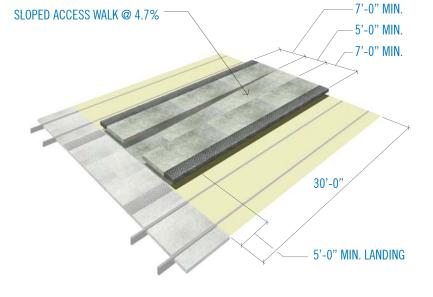
Each transit platform will be accessed using the two distinct routes shown here. Crossings will be at the end of each platform; with one needing to connect to the Primary Access Route (ADA compliant path). In addition, anytime a pedestrian path intersects with the transit guideway, a detectable warning detail is required. Since each platform is elevated to create a more flush transition to and from the transit vehicle, a sloped walk is used to mitigate the elevation change and also required at the end of each platform.

TS 3.1

Access Module - Central Platform

transit stationsdesign

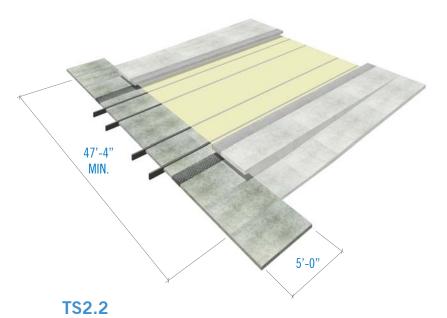
CROSSING TS2 & ACCESS MODULES TS3



Central Platform

TS2.1 TS3.1

TS 2.1
Crossing Module - Central Platform

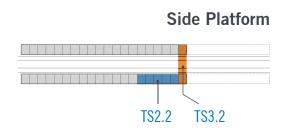


SLOPED ACCESS WALK @ 4.7%

7'-0" MIN.

5'-0" MIN. LANDING

TS3.2
Access Module - Side Platform



TS

Crossing Module - Side Platform

transit stations

design

TS4 SHELTER COMPONENTS

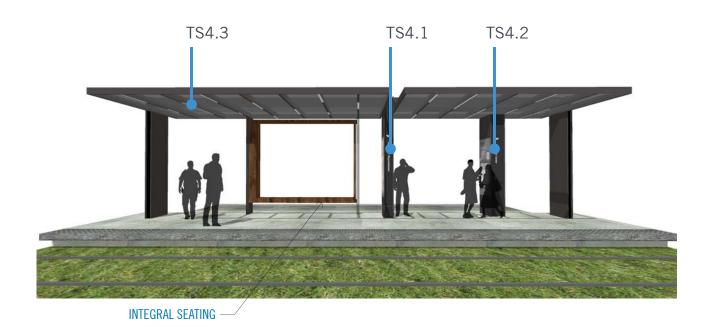
The transit shelter design developed a formal strategy to deliberately organize essential platform elements; in turn reducing platform clutter to help minimize transit user conflict and maximize the adjacent landscape character.

SIDE PLATFORMS



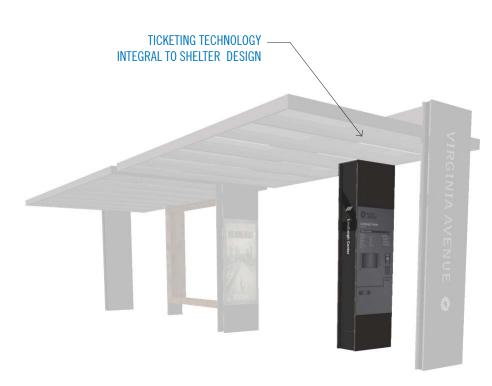
CENTRAL PLATFORMS







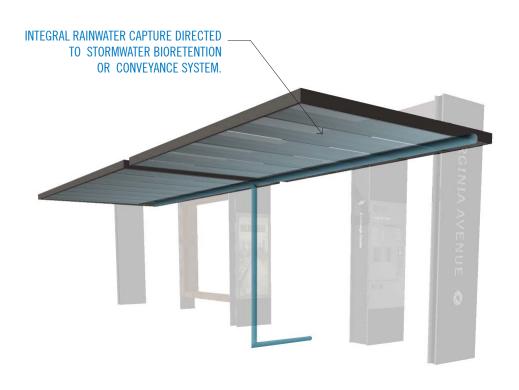


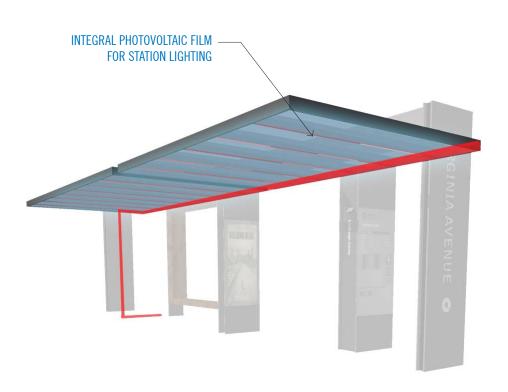


Ticketing



SHELTER COMPONENTS **TS4**



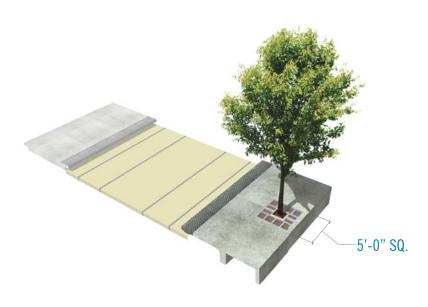


TS4.3.1 Canopy: Rainwater Capture

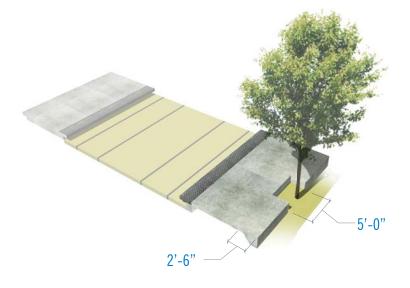
TS4.3.2
Canopy: On-Site Solar Energy Generation

TS5 PLANTING COMPONENTS

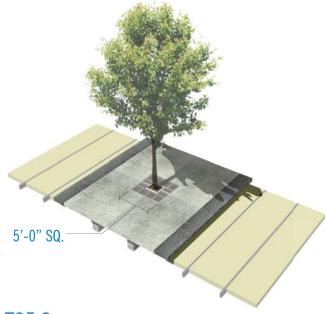
In general, the transit platform area is limited due to its constrained width and requirement to house a number of transit dependant program elements. So, there are limited opportunities for plantings on the platform itself. Below are some strategies creating an additional platform module designed to incorporate tree plantings while minimizing any reduction to the platform area in hopes of reducing potential transit user conflicts as they enter and exit the transit vehicle. Given the constrained area for planting trees, structural soil cells should be used to maximize soil volume.



TS5.1
Side Platform Planter 1



TS5.2
Side Platform Planter 2



TS5.3
Central Platform Planter



transit stations

design

STATION PROTOTYPES

The transit shelter design developed a formal strategy to deliberately organize essential platform elements; in turn reducing platform clutter to help minimize transit user conflict and maximize the adjacent landscape character. Additional text to support preferred shelter type (PENDING).

Side Platform

Side Platform with Vertical Circulation (optional)

Side Platform as In-Street Condition

Center Platform

Center Platform with Vertical Circulation



transit stations

design

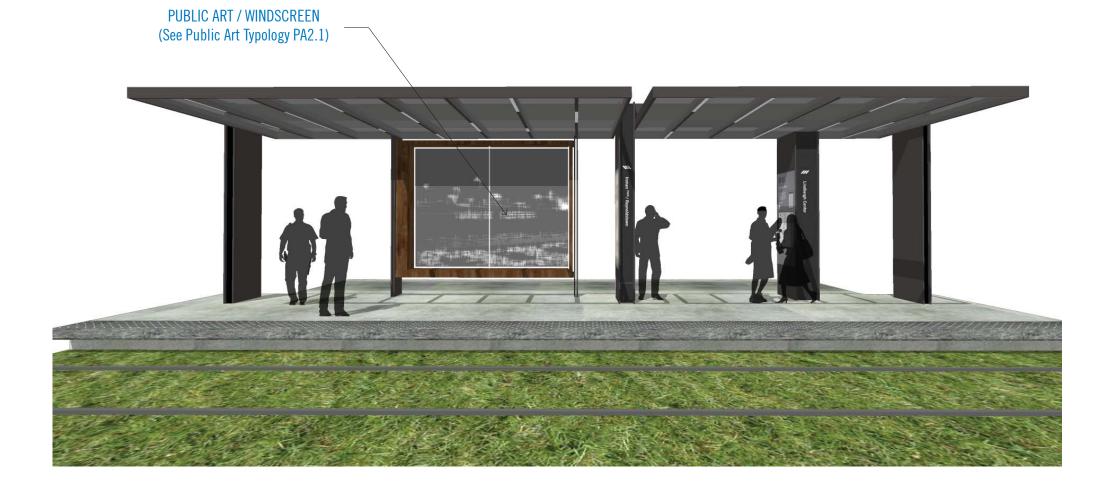
STATION PROTOTYPE B



INTEGRAL SEATING



STATION PROTOTYPE B





STATION PROTOTYPE B



STATION PROTOTYPE B





BRIDGES & TUNNELS



BRIDGES & TUNNELS

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▶ PREMISE

Integrated Sustainability: Bridges & Tunnels

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- **▶** DESIGN
 - **BT1** Bridge Adaptations
 - BT1.1 Trail Bridge Adaptation: Full Railing
 - BT1.2 Trail Bridge Adaptation: Partial Railing
 - BT1.3 Trail Bridge Adaptation: Safety Railings
 - **BT2 Tunnel 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 Tunnels**
 - **BT4.1** New Standard Combined Tunnel
 - **BT4 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. At exceptional conditions like long spans or proximity to historic resources, new feature structures will have greater flexibility in their design.

bridges &tunnels

► INTEGRATED SUSTAINABILITY: BRIDGES & TUNNELS

Energy & Climate: Bridges and Tunnels do not have high energy demands. 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.



Green 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.



Green 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.





While all existing bridges and underpasses / tunnels will need some modification to support the Atlanta BeltLine program, a large number of existing structures will need to be rebuilt or augmented, as shown at right.

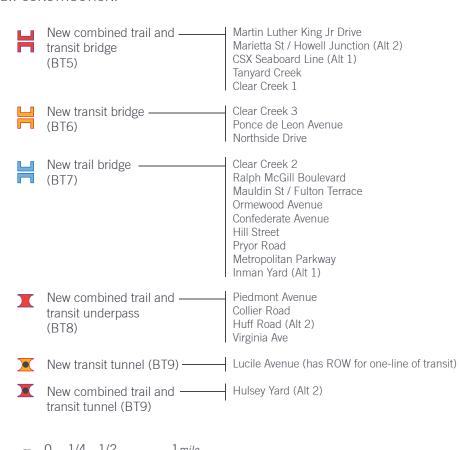
Atlanta BeltLine corridor

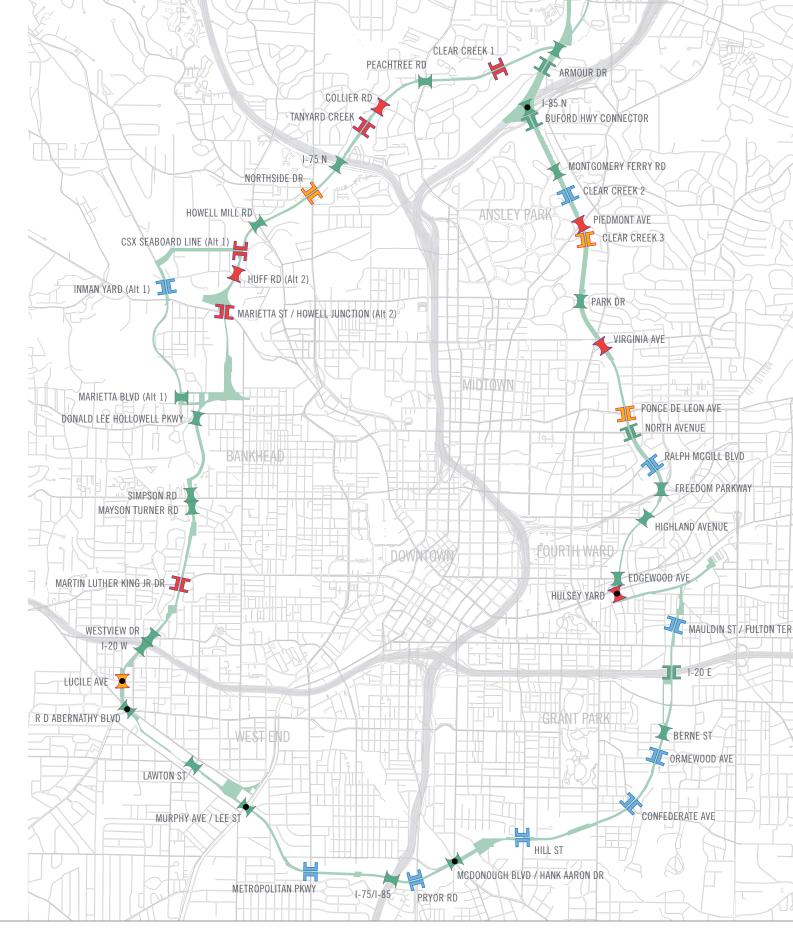
Atlanta BeltLine on existing bridge

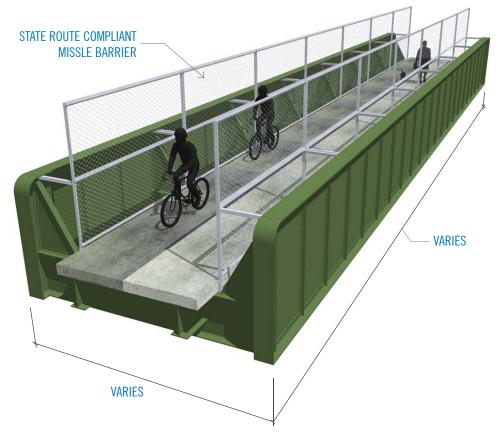
Atlanta BeltLine in existing underpass

Atlanta BeltLine in existing tunnel

NEW CONSTRUCTION:







BT1.1
Trail Bridge Adaptations: Full Railing



Bridge over Ponce de Leon Ave, a state route, will be adapted with state-route compliant missle barrier



BT1.2
Trail Bridge Adaptations: Partial Railing



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

BRIDGE ADAPTATIONS BT1

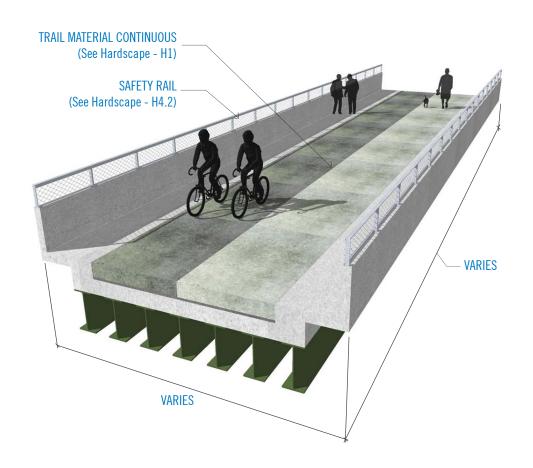
Because all of the existing structures on the Atlanta BeltLine are uniquely designed, each requires individual attention during the preliminary design and subsequent phases, addressing questions of both structural and cosmetic rehabilitation. Except as designated in the public art program, the following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

- a. Existing stone, brick, concrete and similar materials will be refurbished with respect to their original condition and modified or upgraded as structural needs require.
- b. 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 the following color palette, derived from an assessment of historic railroad colors along the corridor.





BT1 BRIDGE ADAPTATIONSBT2 TUNNEL ADAPTATIONS





BT1.3Trail Bridge Adaptations: Safety Railings



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

BT2Tunnel Adaptations



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

Standard Bridge conditions, which are the most frequent in the corridor, will support design continuity by imposing elegant, discrete, lightweight structures that accommodate their programmatic requirements, adjusting to span requirements but otherwise deferring to the character and conditions of the corridor. The relatively few conditions requiring designs for New Feature Bridges (typically long spans), and New Tunnels (which are so few as to not be typological), will support experiential variety by offering special design solutions to solve unusual conditions.

APPROXIMATELY 61'-0" MIN. CLR REQUIRED TO ELIMINATE SAFETY SEPARATING TRANSIT GUIDEWAY

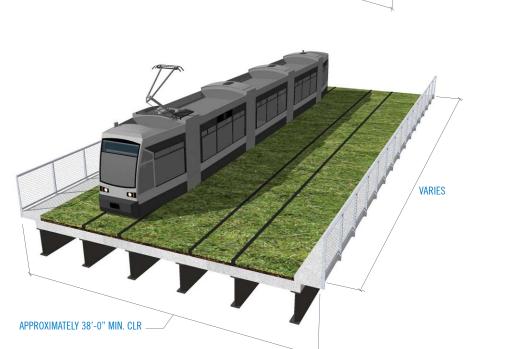
& TRAIL.

bridges & tunnels

design

NEW STANDARD BRIDGES BT3

BT3.1



New Standard Combined Bike/ Ped and Transit Bridges

VARIES

BT3.2

New Standard Transit Bridges



SAFETY RAIL (see Hardscape - H4.2)

TRAIL MATERIAL CONTINUOUS (see Hardscape - H1)

(see Landscape - L3)

SAFETY RAIL (see Hardscape - H4.2)

(see Landscape - L3)

PLANTED TRANSIT GUIDEWAY CONTINUOUS

PLANTED TRANSIT GUIDEWAY CONTINUOUS

BT3 NEW STANDARD BRIDGES

BT3.3 New Standard Trail Bridges

New Standard Trail Bridges within the corridor and the new interventions on adapted bridges will support design continuity along the Atlanta BeltLine consistent with other new elements like structured ramps, stairs and transit canopies.

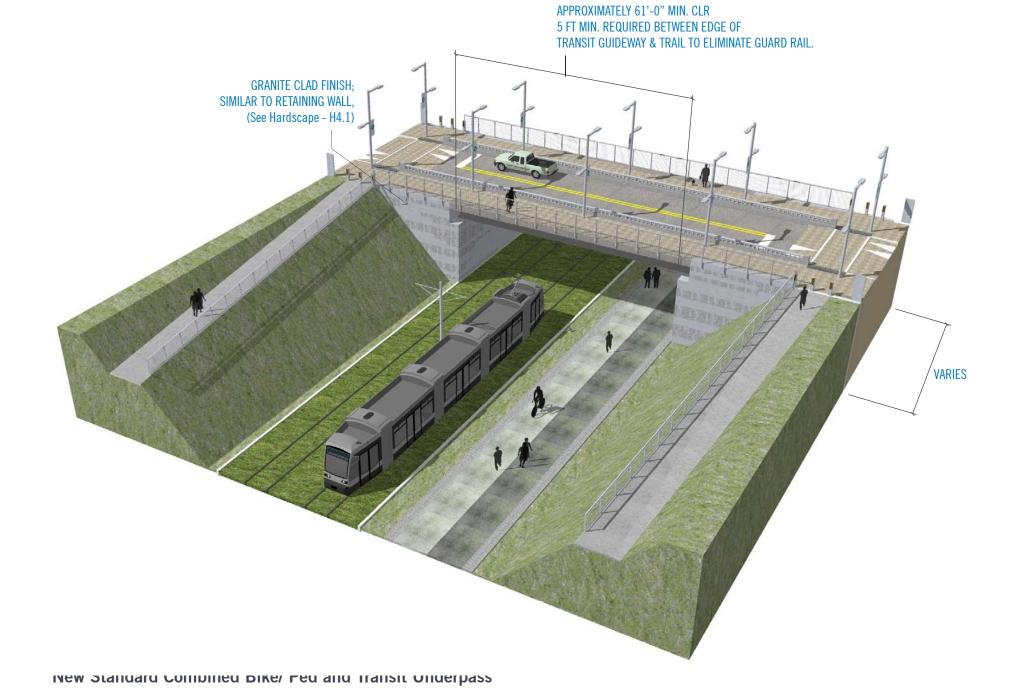
- a. The design and surface quality of the Atlanta BeltLine Trail (see Hardscape H1) will continue uninterrupted across new and adapted bridges.
- b. The dimension of the Atlanta BeltLine Trail (see Hardscape H1) can only be changed in order to appropriately adapt to existing structures.
- c. Railings will match an appropriate variation of the railing shown in Hardscape H4.2.
- d. 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.
- e. 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.





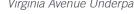


NEW STANDARD UNDERPASSES **BT4**





Virginia Avenue Underpass





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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.

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



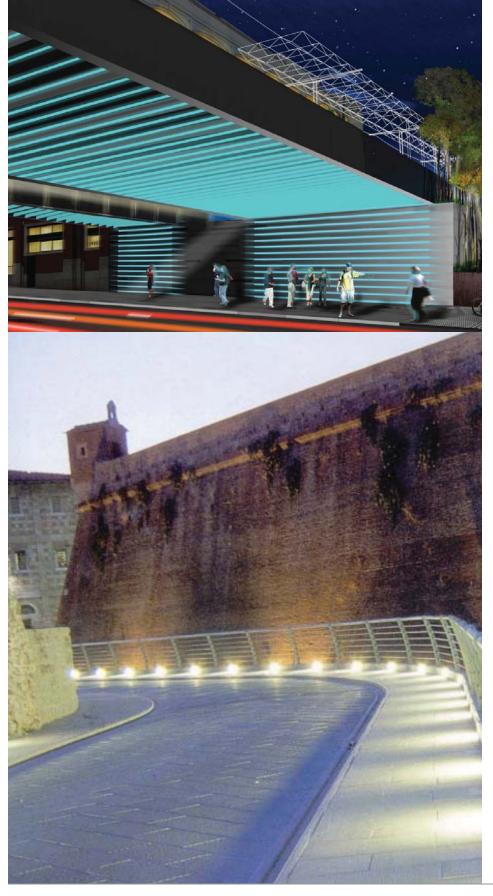








THE ATLANTA BELTLINE: TYPOLOGIES REVISED 04/05/2012





LIGHTING







TYPOLOGIES

2

LIGHTING

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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.

► 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.



Green 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.



Green 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.







A GLOWING RHYTHM OF LIGHT



□ CONDITIONS

The trail has varied conditions in regard to occupancy and "eyes on the trail." In some sections the areas may not be well populated, in others there is residential, commercial and industrial development alongside. For this reason, lighting fixtures should be optimized for low maintenance; 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.

This document proposes typical approaches that can be applied to varied uses, adjacencies and landscape types along the entire length of the corridor in line with the landscape and amenity design typologies.

Distinct lighting applications will coordinate with character rooms and specific programmatic uses.

□ INTENT

Illumination for safety and a sense of security is a high priority to encourage the highest volume of use on the trail.

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 standardize the lighting levels consistently throughout the trail. 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 of the wall (reflecting onto the trail) or from the wall (mounting an area-light luminaire onto the wall).

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 lighting levels.

Special areas such as entrances and underpasses will also be enhanced by composed lighting elements.

□ CONTROL

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.

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).

□ LAMP SOURCE

The typologies are based on the newly available (2011) Cosmopolis lamp which is high performance, energy efficient, and can be electronically controlled. Unless noted otherwise Cosmopolis 60w, metal hallide 70w, or LED equivalent sources are to be used for the Atlanta BeltLine standard pole-mounted luminaires.



A fixture family with pole-mounted luminaires of three scales will be utilized over the entire trail, and is the "standard" lighting fixture type. The standard pole is used in two different heights—High and Low—depending on conditions and requirements. Additionally a dual-level pole luminaire is suggested for areas that include two conditions: for example trail and plaza, trail and guideway.

LT1 AREA LIGHTING

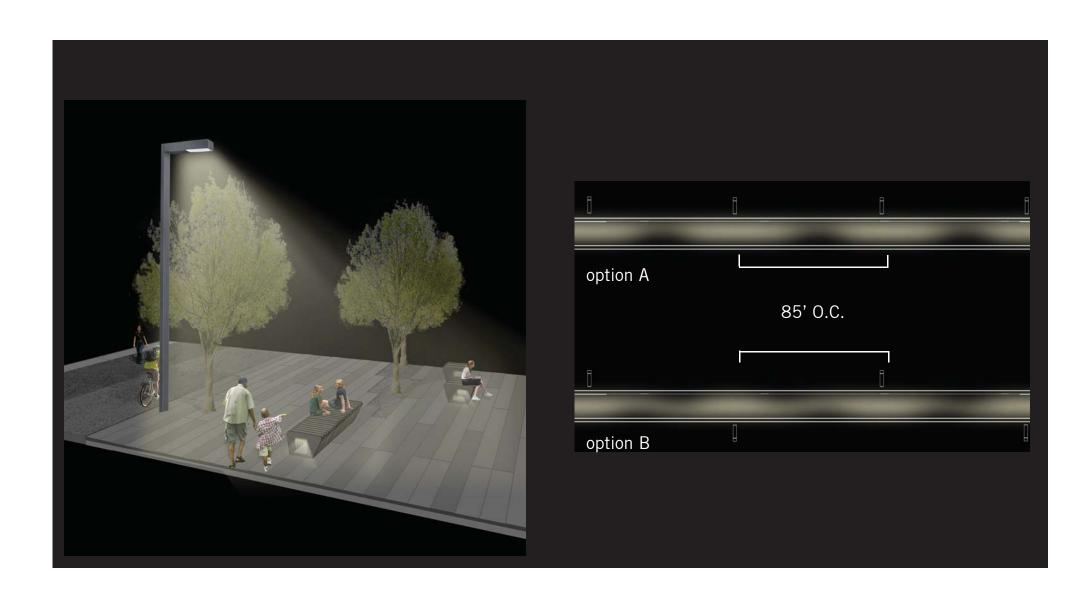


LT1.1

High Pole **Dual Level Pole**



AREA LIGHTING LT1



The High Pole will be used in more open trail conditions. The lamp source should be dimmable.

Varied pole heights and spacings are available to future lighting designers to allow for flexibility and site specificity of design.





LT1 AREA LIGHTING



LT1.3

Low Pole

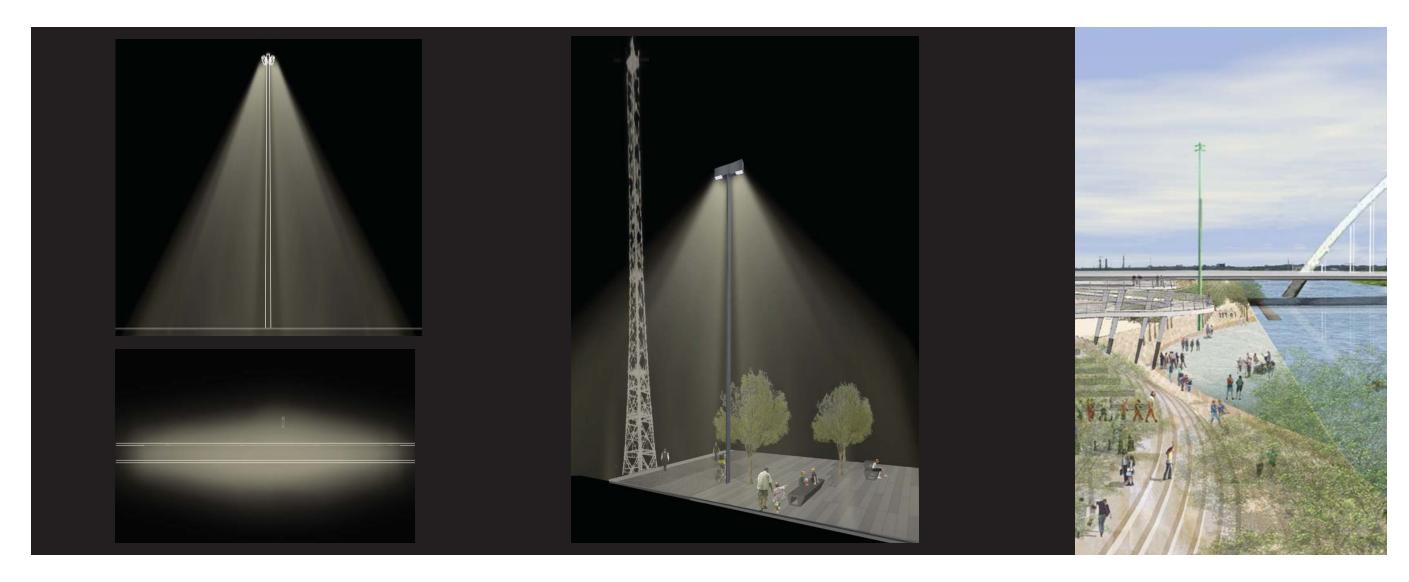
Height: 15' - 0"; Lamp: Cosmo - 60w

The Low Pole will be used in more intimate trail conditions. The lamp source should be dimmable.



REVISED 04/05/2012

AREA LIGHTING LT1



LT1.4

Flood Pole

Height: 50' - 0"; Lamp: (2) 400w MH

The high-mast Flood Pole will only be installed in industrialized areas that have transmission poles, or other mast towers that presumably will remain for 10 years or more. There are optical and light control accessories that can be utilized to reduce glare for this approach.



LT1 AREA LIGHTING



LT1.5

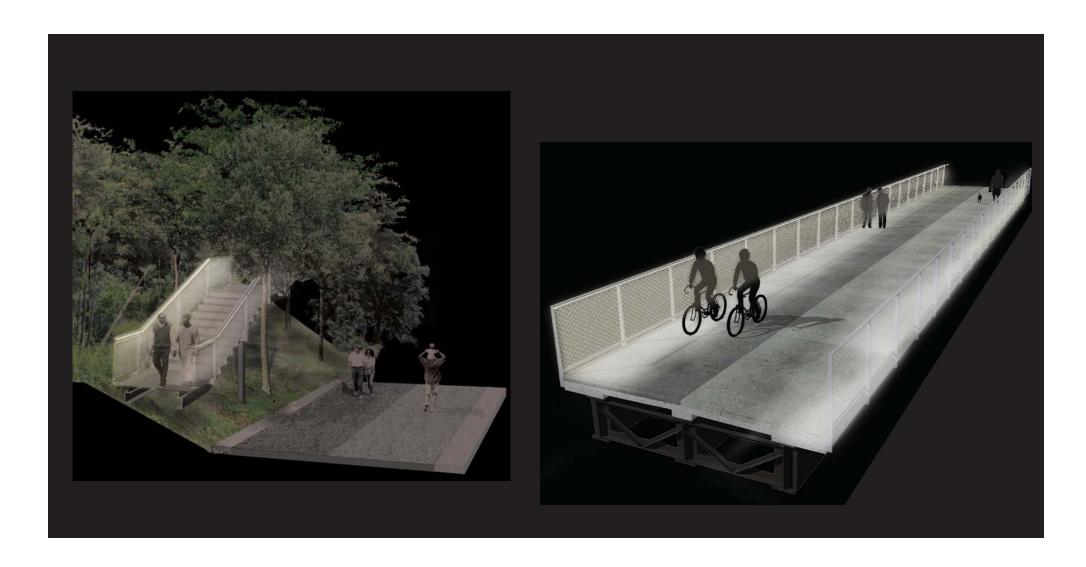
Handrail Lighting

Standard sources: Tubular fluorescent and LED.

When applicable integrated hand-rail lighting is to be used instead of pole-mounted area lighting.

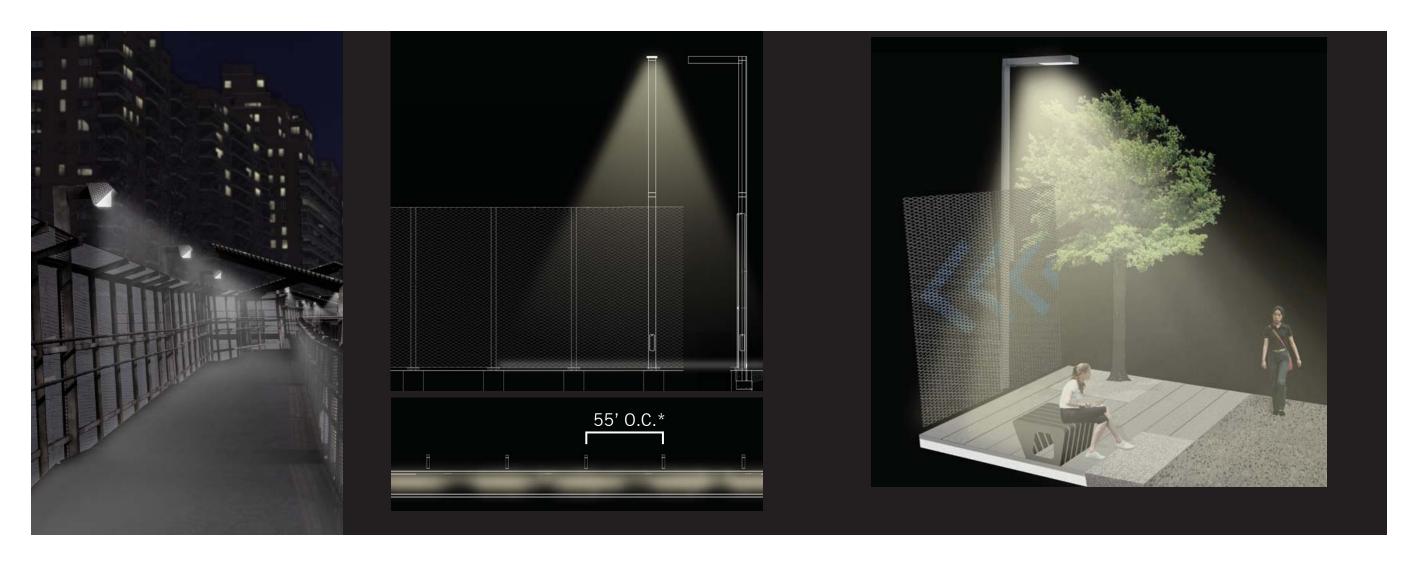


AREA LIGHTING LT1



Stairs and ramps will 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.

LT2 SPECIAL AREA LIGHTING



LT2.1

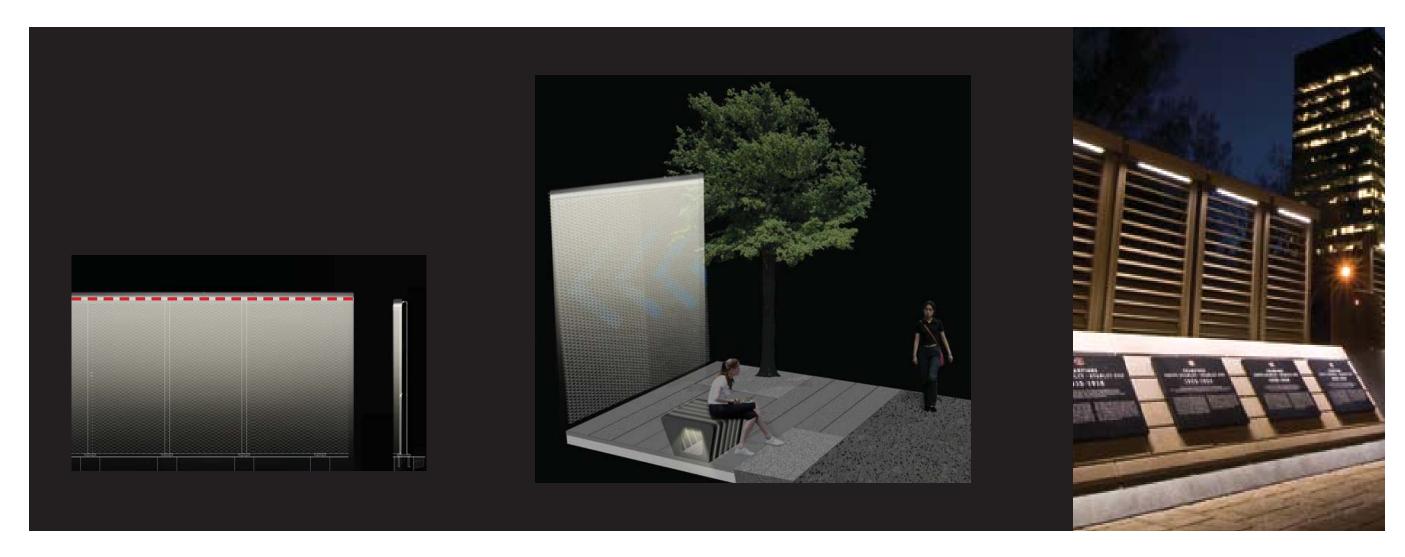
Fence-Mounted

Height: 15' - 0"; Lamp: Cosmo - 60w Selected BeltLine pole luminaire (see LT1-LT3) to be integrally mounted into fencing.



^{*} Based on typical pole spacing. Coordinate with wall length and facade design and pattern.

SPECIAL AREA LIGHTING LT2



LT2.2

Fence-Integrated

Integrated linear lighting such as fluorescent or LED to cap off fence so to graze surface. Continuous linear run integrated into the top of fence.



LT2 SPECIAL AREA LIGHTING



LT2.3

Wall-Mounted

Height: 15' - 0"; Lamp: Cosmo - 60w

Utilizing the selected L1.3 luminaire, a bracket shall be designed to mount the lighting fixture to retaining walls.

* Wall fixture spacing based on typical pole spacing. Coordinate with wall length and facade design and pattern.



SPECIAL AREA LIGHTING LT2



LT2.4

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 to be determined by aesthetic and proportional studies.



Integrating lighting fixtures into furnishings, illuminating trees, and low-level curb lighting provide an enrichment to the composition of hard and soft trail components in designated areas such as plazas. Benches and trees are considered opportunities for illuminated features on the Atlanta BeltLine trail 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.

LT3 ACCENT LIGHTING



LT3.1

Seating-Integrated

Lighting types to be designed integrally with 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.

ACCENT LIGHTING LT3



LT3.2 Curb Lighting



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LT3 ACCENT LIGHTING

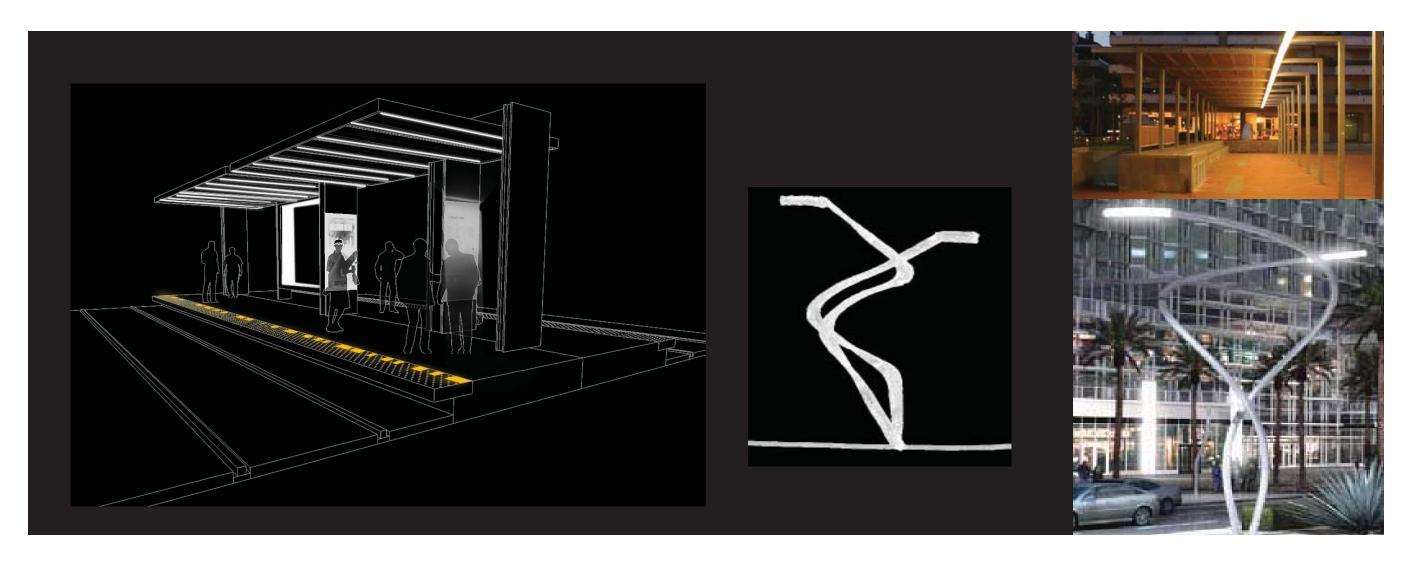


LT3.3

Tree Uplight

It is recommended that tree-uplights of the type that protrude from the ground-plane (rather than flush) are used.

TRANSIT STATION & GUIDEWAY LIGHTING LT4



Transit shelters will be illuminated to emphasize architectural forms. These nighttime amenities are envisioned to be welcoming points of reference. After dark, the

canopy shelter provides an illuminated space to gather and to provide comfortable, welcoming places to wait for transportation. Under-platform markers or beacons

LT4.1
Station Canopy Lighting

LT4.2 Signature Entrance Pole

identify the shelter and platform from afar, and can signal approaching trains.

lighting

design

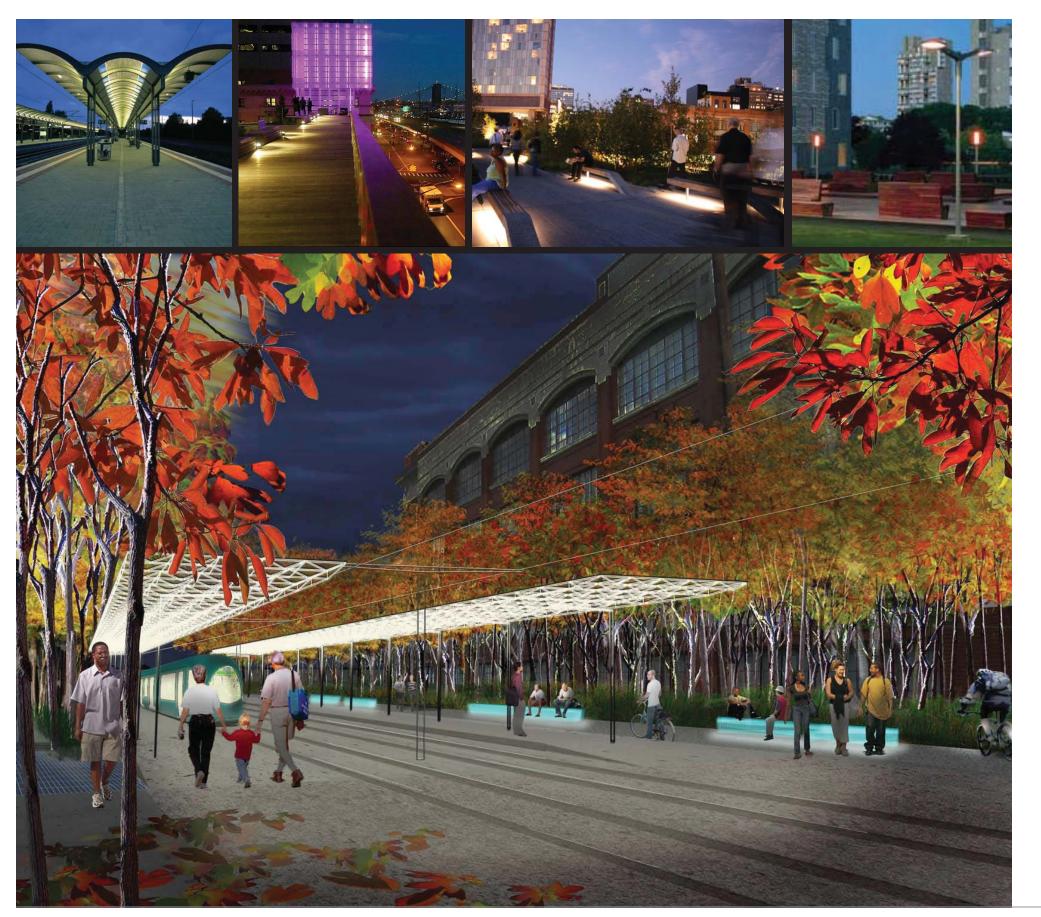
Their are several guideway illumination options; spill-over from the trail lighting, dual lighting poles, flood lighting and integrated lighting into light-rail poles or catenary wires. These typologies may be tested and utilized depending on site characteristics.

TRANSIT STATION & **T4** GUIDEWAY LIGHTING



LT4.3

Tram Catenary Lighting



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 ALONG TRAIL

The trail design is consistent along the entire Atlanta BeltLine. Its continuity is mirrored by its nearly uniform illumination throughout.

The trail is illuminated by fixture families LT1 and LT2. A palette of heights and spacings are proposed to give latitude to future lighting designer.

Shown in this rendering: High pole at 85' spacing.





sheer, these points of reference help to locate the visitor on their transit through the park.

mal features (e.g. columns, arches) should be illuminated to distinguish each tunnel.

Walls, faces, columns, ceilings, textures (e.g. riv-

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



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 for-

eted beams) are among the many fascinating elements that differentiate the underpasses from each other.

providing rain and shade-proof areas for gathering. Bridges and tunnels provide ready-made spaces easily transformed into iconic meeting places.



THE ATLANTA BELTLINE: TYPOLOGIES REVISED 04/05/2012

FUTURE OPPORTUNITIES



Interactive LED and media embellishments



Active "Light playgrounds"



Special illumination concepts for individual public areas such as event spaces









FURNISHINGS









TYPOLOGIES

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LIGHTING

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LT4.1 Station Canopy

LT4.2 Tram Catenary Lighting

LT4.3 Signature Entrance Pole

Lighting for Social Places

Lighting along Trail

Bridge, Tunnel and Underpass Lighting

Future Opportunities



Ut pretium pharetra commodo. Vestibulum nec lacus ligula. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Ut urna elit, elementum id sollicitudin sit amet, lobortis vitae odio. Maecenas placerat arcu quis elit venenatis pretium. Proin enim turpis, vulputate et aliquam scelerisque, varius a metus. Mauris quis quam a nisi posuere adipiscing id vel libero. Vivamus et mattis lectus. Quisque pharetra auctor eros sed auctor.

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.



Green 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.



Green 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.





Ut pretium pharetra commodo. Vestibulum nec

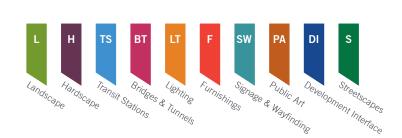


SIGNAGE AND WAYFINDING









TYPOLOGIES

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SIGNAGE AND WAYFINDING

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Signage - Hardscape
Signage - Transit Stations
Signage - Bridges & Tunnels
Signage - Streetscapes

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Information System
Transit Directional
Station Names
Visibility Diagrams
Graphic Standards

▶ DESIGN

Sign Concept A

Design Narrative

Sign Family

Materials / Methods

Typography
Iconography
Sign Concept B

Design Narrative

Sign Family

Materials / Methods

Typography
Iconography
Directional - SW1
Informational - SW2
Identification - SW3
Regulatory - SW4
Feature - SW5

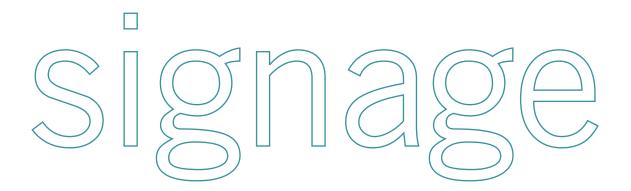
Signtypes - Technology



A vehicle of connectivity, the Atlanta BeltLine links community to community, business to community and entertainment, and sports to parks – providing transportation for work, play and leisure. While the long-term goal is to provide a transit system connecting the corridor with greater Atlanta and beyond, the immediate purpose is to foster community interaction. Walking and biking trails, arboretum viewing, public art forums, historical destinations and many more activities over time will contribute to this identity and offer placemaking opportunities.

Key to the Atlanta BeltLine's identity is a consistent signage and wayfinding strategy. Signage will assist users in locating the Atlanta BeltLine, getting on and off of it, directing, and connecting destinations. Interpretive signage will relay interesting information about areas of public interest on the corridor including the arboretum, public art and historical destinations, thereby reinforcing placemaking.

The interconnectivity of the Atlanta BeltLine is supported by a cohesive sign system including the standardization of sign types, the consistency of site sign locations and adherence to a design aesthetic across the family of sign types. The system includes directional, informational, 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.



Green Materials, Design & Construction: Signage materials specified for the Atlanta Belt-Line 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.



Green 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.





premise

SIGNAGE STRATEGY

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.

See design section for more detailed information.

The sign family is sub-divided into five categories: DIRECTIONAL, INFORMATIONAL, IDENTIFICA-TION, REGULATORY and FEATURE signage.

SW1 **DIRECTIONAL SW1.01** Primary Directional - Freestanding **SW1.02** Primary Directional - Granite Wall **SW1.03** Primary Directional - Screen Wall **SW1.04** Secondary Directional - Freestanding **SW1.05** Secondary Directional - Granite Wall **SW1.06** Secondary Directional - Screen Wall **SW1.07** Secondary Directional - Railing **SW1.08** Access Threshold - Permanent **SW1.09** Access Threshold - Temporary SW1.10 Adjacent Street Directional **SW1.11** Transit Directional SW2 INFORMATIONAL **SW2.01** Interpretive - Freestanding Large **SW2.02** Interpretive - Freestanding Small **SW2.03** Interpretive - Plaque **SW2.04** Interpretive - Embedded **SW2.06** Trail Map - Station Platform SW2.07 Trail Map - Freestanding **SW2.08** Special Event / Programmatic SW2.09 Transit System Map / Info **SW2.10** Ticket Information SW2.11 LED - Next Train

SW2.12 Community Events



SW2.13 Dynamic Mapping

SW2.14 Advertising

SW2.15 Bus Shelter Signage

SW3 **IDENTIFICATION**

SW3.01 Station ID - Trail Side

SW3.02 Station ID - Transit Side

SW3.03 Station ID - Light Poles

SW3.04 Donor Identification

SW3.05 Bridge Identification - Existing

SW3.06 Bridge Identification - New

SW4 **REGULATORY**

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

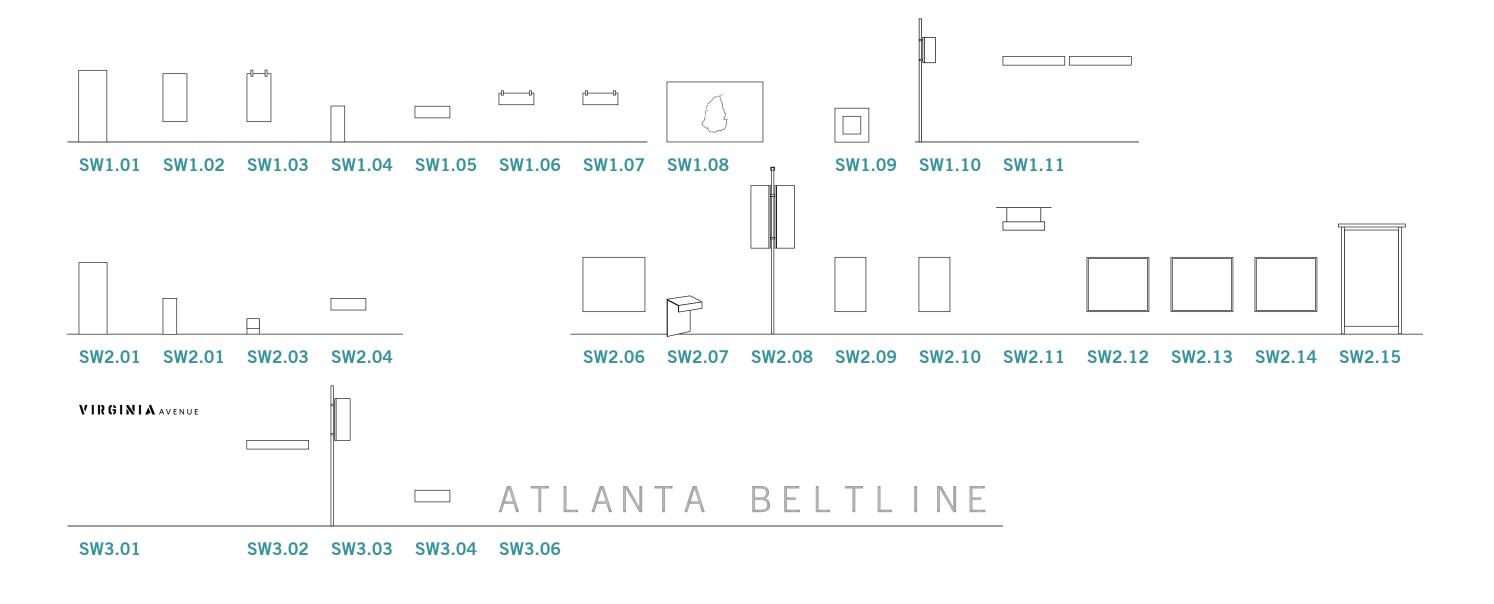
SW5 **FEATURE**

SW5.01 Gateway ID

SW5.02 Placemaking









WAYFINDING STRATEGY

The wayfinding strategy for the Atlanta BeltLine was 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, when implemented, will be a primary and highly visible element of the Atlanta BetlLine. All transit stations will be positioned adjacent to major street crossings for ease of access for transit passengers. Highly visible, they will become major hubs for information, including transit maps and schedules, trail maps and more.

The Atlanta BeltLine's other key feature is the walking and biking TRAIL, which links the neighborhoods in the forty-five adjacent communities and connects the public to destinations on and off the trail. Secondary signage will lead the public to the Atlanta BeltLine trail from adjacent street access points. When users arrive at the trail, primary directional signage will indicate which destinations are located in each direction, quickly guiding them on their way.

Once users have navigated the way to their intended DESTINATION, secondary signage will include placemaking and interpretive information.

Walking/Biking Trail **Connecting Neighborhoods Landing on Trail Primary Location for Directional Signage Street Access Routes Directionals to/from Trail Transit Station Major Hub of Information**





SIGNAGE - LANDSCAPE

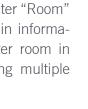
The landscape strategy includes three tiers of organization, each with features that incorporate variety along the Atlanta BeltLine. The overarching Arboretum is divided into five zones focused on restoration, rehabilitation and reclamation. Each of these zones is broken down further into Canopy Character "Rooms" that respond to and enhance the existing site character. Within the Character "Rooms" are Destination Points, unique destinations that are part of the corridor development. Interpretive IN-FORMATIONAL signage, as identified, will be provided for public interest and education.

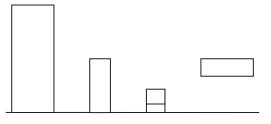
Atlanta BeltLine Arboretum

Interpretive INFORMATIONAL signs will be programmed as needed to convey specific ideas related to the Arboretum. Where possible, signs used for Character "Rooms" should encompass the information for the Arboretum. Information should be grouped when feasible to avoid multiple smaller signs from overwhelming users on the corridor.

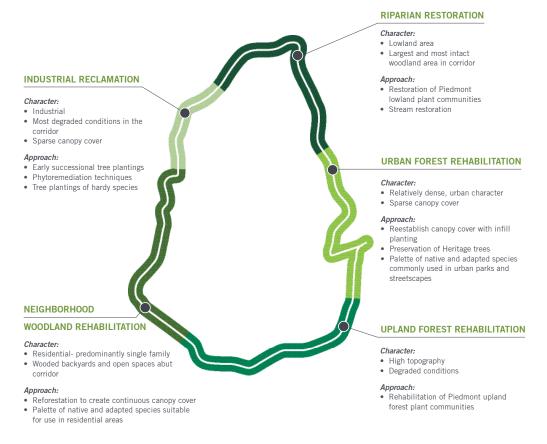
Canopy Character "Rooms"

One large interpretive INFORMATIONAL sign will be programmed in each Canopy Character "Room" along the corridor. This sign will contain information pertaining to each entire character room in one prime location, rather than having multiple small signs.





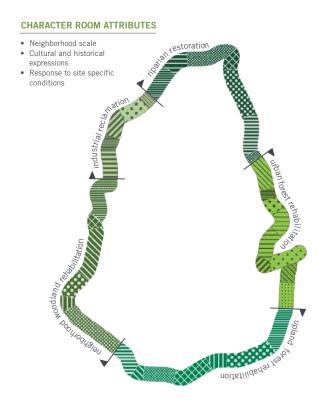
SW2.01 SW2.02 SW2.03 SW2.04



Atlanta BeltLine Arboretum

SW2.01 Interpretive - Freestanding Large **SW2.02** Interpretive - Freestanding Small **SW2.03** Interpretive - Plaque SW2.04 Interpretive - Embedded

SW2.01



Canopy Character "Rooms"

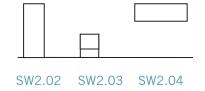
SW2.01 Interpretive - Freestanding Large

conditions

SIGNAGE - LANDSCAPE

Destination Points

Interpretive INFORMATIONAL signs will be programmed as needed to label the destination points and to provide space for any additional information as needed.

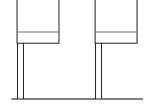




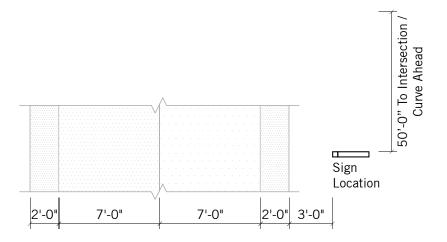
Destination Points

SW2.02 Interpretive - Freestanding Small

SW2.03 Interpretive - PlaqueSW2.04 Interpretive - Embedded



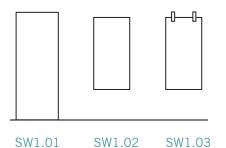
SW4.03 SW4.04

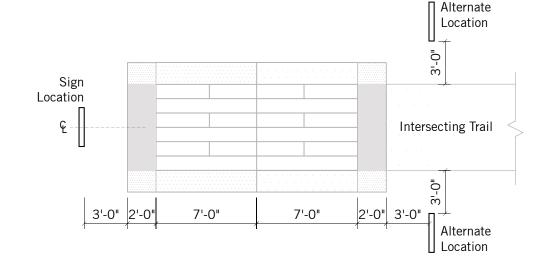




Trail

SW4.03 Intersection Ahead **SW4.04** Curve / Turn Ahead







Trail Crossings

SW1.01 Primary Directional - FreestandingSW1.02 Primary Directional - Granite WallSW1.03 Primary Directional - Screen Wall



Hardscape includes the most continuous and most consistent elements of the Atlanta BeltLine project: the trail, trail crossings, access ramps and stairs, and plazas. The Directional, Informational, Identification and Regulatory signage related to the hardscape will be implemented strategically and regularly in order to give users an intuitive basis of understanding of where to find pertinent information.

Trail

All signs located along the trail proper must be a minimum of 3-feet away from the soft shoulder. 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 locations are is on the near side of the trail.

When a granite wall or a screen wall is available in the appropriate location, apply the directional to the wall rather than using the freestanding version.



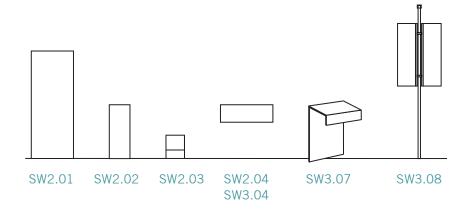
165

conditions

SIGNAGE - HARDSCAPE

Plazas

The locations of signs will vary based on the spatial conditions unique to each plaza.





SW2.01 Interpretive - Freestanding Large

SW2.02 Interpretive - Freestanding Small

SW2.03 Interpretive - Plaque

SW2.04 Interpretive - Embedded

SW3.04 Donor Identification

SW3.07 Trail Map - Freestanding

SW3.08 Special Event / Programmatic





conditions

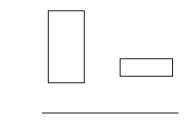
SIGNAGE - HARDSCAPE

Retaining Walls

Sign locations should follow the overarching strategy for sign placement and where feasible, should be embedded in retaining walls.

Screen Walls

Sign locations should follow the overarching strategy for sign placement and where feasible, should be hung on expanded metal screen walls.



SW1.06

SW1.03

SW1.02 SW1.05 SW2.04 SW3.04



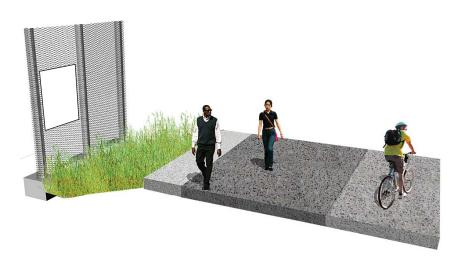
Retaining Walls

SW1.02 Primary Directional - Granite Wall

SW1.05 Secondary Directional - Granite Wall

SW2.04 Interpretive - Embedded

SW3.04 Donor Identification



Screen Walls

SW1.03 Primary Directional - Screen Wall

SW1.06 Secondary directional - Screen Wall



conditions

SIGNAGE - HARDSCAPE

Railings

Sign locations should follow the overarching strategy for sign placement and where feasible, should be hung on railings.

Ramps

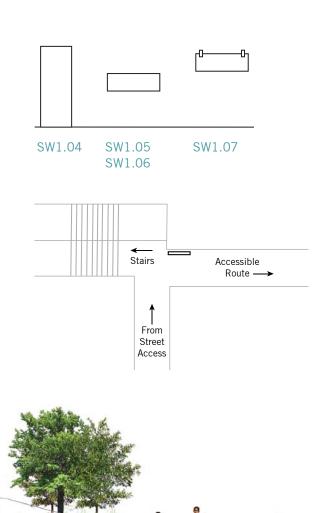
Directional signs indicating the accessibl will point people toward the ramp access to lanta BeltLine.



SW1.07



SW1.07 Secondary Directional - Railing



SW1.04 Secondary Directional - Freestanding
 SW1.05 Secondary Directional - Granite Wall
 SW1.06 Secondary Directional - Screen Wall
 SW1.07 Secondary Directional - Railing

паннръ



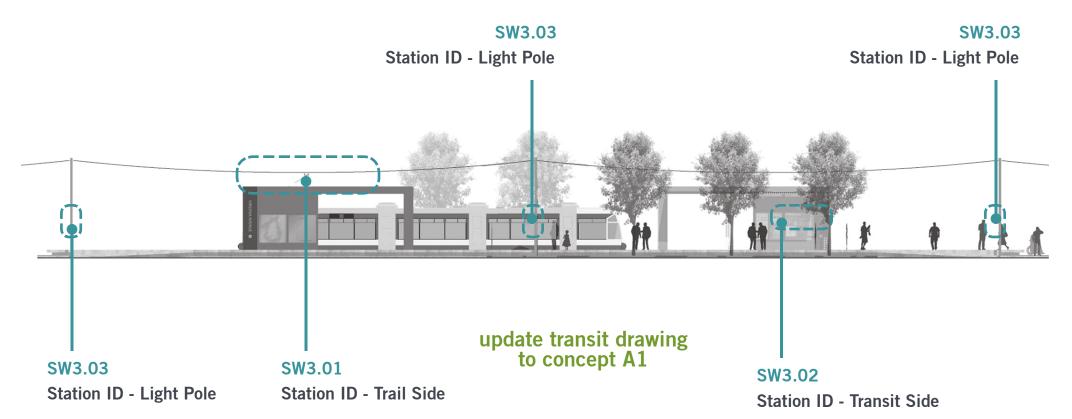


SIGNAGE - TRANSIT STATIONS

Transit Stations and Signage are both elements of continuity along the Atlanta BeltLine. They utilize the same language of materials and methods to bind them together, forming a cohesive language and building identity. The stations are always located adjacent to major street crossings where people are entering and exiting the site, necessitating a broader group of sign types including DIRECTIONAL, INFORMATIONAL, IDENTIFICATION and REGULATORY.

Station Identification

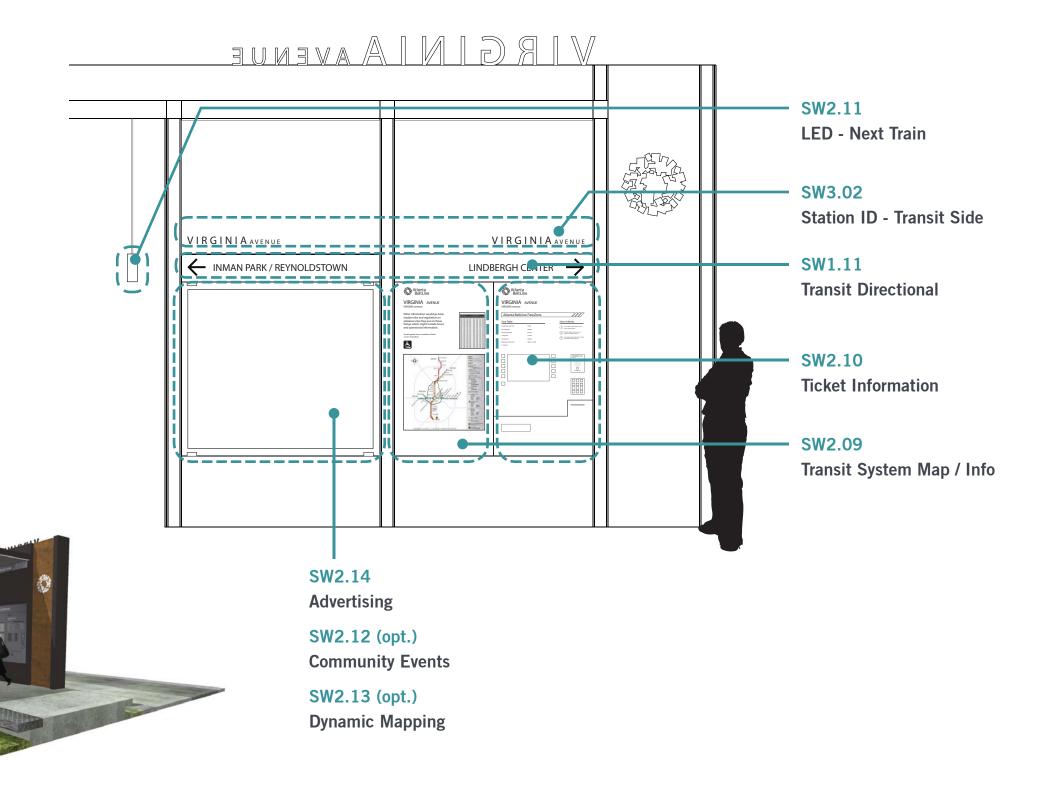
Station IDENTIFICATION serves users of both the trail and transit system. Large signs, visible from a distance, serve as landmarks for wayfinding on the trail. Station IDENTIFICATION facing the transit passengers is at the appropriate scale and height to be understood by passengers on the train and those waiting for a train.



SIGNAGE - TRANSIT STATIONS

Side Platform - Transit Side

The primary signage at stations is for the transit system, providing station IDENTIFICATION, DIRECTIONAL and INFORMATIONAL signage for passengers to navigate the Atlanta BeltLine by train.







conditions

SIGNAGE - TRANSIT STATIONS

Side Platform - Trail Side

All stations receive a large station IDENTIFICATION sign, visible from a distance. In the Side Platform condition, INFORMATIONAL and REGULATORY signs pertaining to the Atlanta BeltLine trail are located on the back side of the transit station on the trail side. At the opposite-facing station, which does not back onto the trail, community events and advertising shall be incorporated, pursuant to specific site conditions.

SW4.05

VIRGINIA AVENUE

PARK RULES AND TRAIL MAP

Atlanta BeltLine

Atlanta BeltLine

Park / Trail Rules

VIRGINIA AVENUE



SW3.01

SW3.02

SW2.06

SW2.12 (opt.)

SW2.14 (opt.)

Advertising

Community Events

Station ID - Trail Side

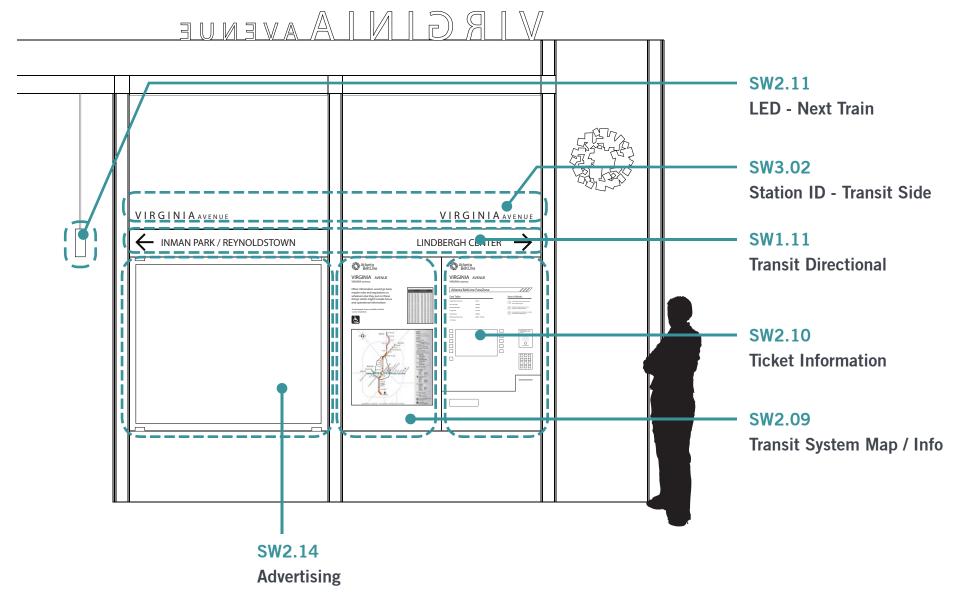
Station ID - Transit Side

Trail Map - Station Platform

SIGNAGE - TRANSIT STATIONS

Center Platform - Front Side

The primary signage at stations is for the transit system, providing station IDENTIFICATION, DIRECTIONAL and INFORMATIONAL signage for passengers to navigate the Atlanta BeltLine by train. If two shelters are used, only one will have a ticket machine and ticket information.



SW2.12 (opt.)

Community Events

SW2.13 (opt.)

Dynamic Mapping

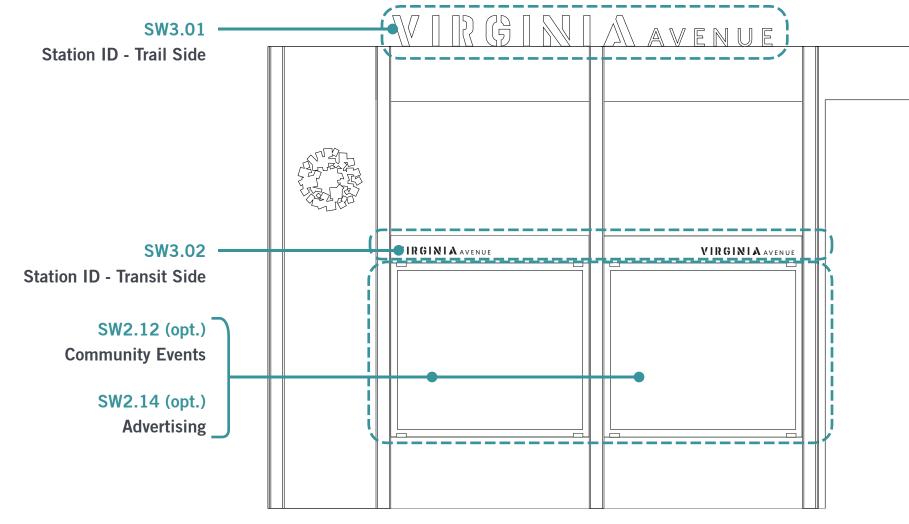


conditions

SIGNAGE - TRANSIT STATIONS

Center Platform - Back Side

All stations receive a large station IDENTIFICATION sign, visible from a distance. In the Center Platform condition, optional community events and advertising are located on the back side of the transit station.

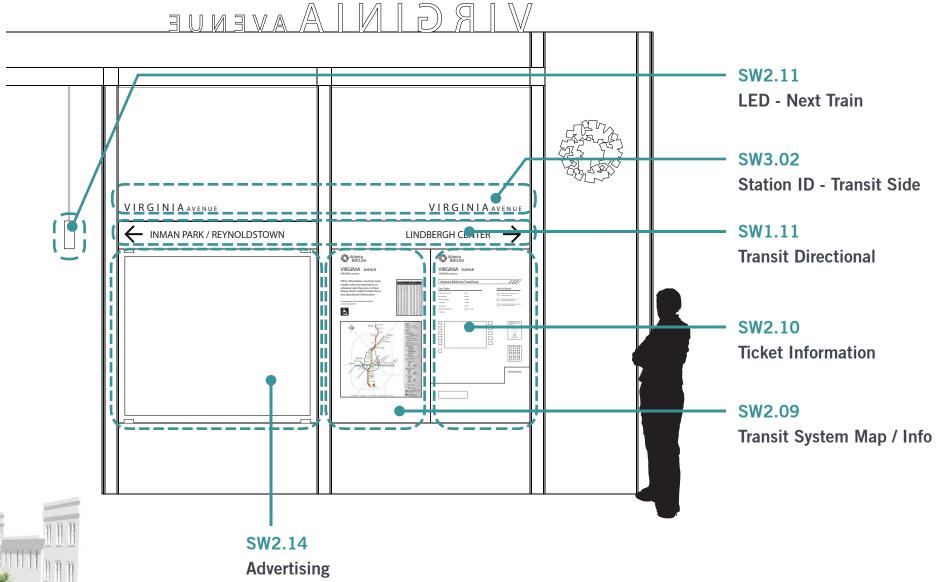




SIGNAGE - TRANSIT STATIONS

In-Street Platform - Transit Side

The primary signage at stations is for the transit system, providing station IDENTIFICATION, DIRECTIONAL and INFORMATIONAL signage for passengers to navigate the Atlanta BeltLine by train.





SW2.12 (opt.)

Community Events

SW2.13 (opt.)

Dynamic Mapping



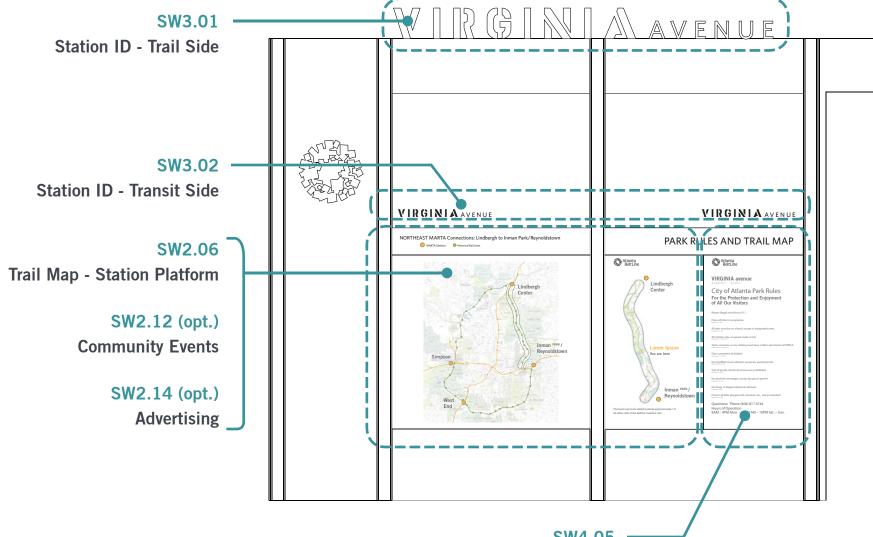
signage and wayfinding

conditions

SIGNAGE - TRANSIT STATIONS

In-Street Station - Sidewalk Side

All stations receive a large station IDENTIFICATION sign, visible from a distance. In the In-Street Platform condition, INFORMATIONAL and REGULA-TORY signs pertaining to the trail are located on the back side of the transit station. Pursuant to specific site conditions, where trail information is unnecessary, community events and advertising shall be incorporated.



SW4.05

Park / Trail Rules

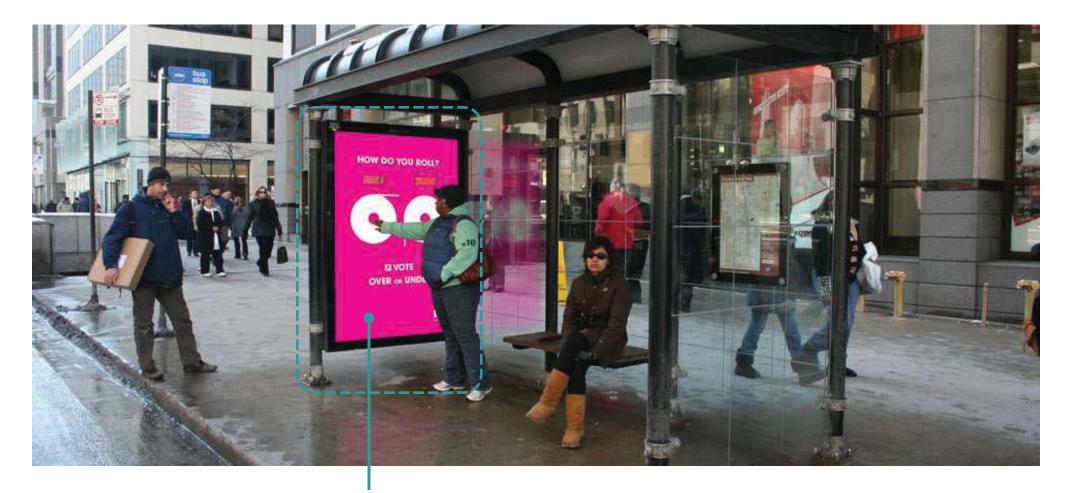


175

SIGNAGE - TRANSIT STATIONS

Bus Shelters

The Bus Shelters that fall within the Atlanta Belt-Line right-of-way will have a similar aesthetic to the transit stations, but on a smaller scale. Both IN-FORMATIONAL signs regarding the transit system and advertising will be displayed here. In some instances, it may be beneficial to display trail information at bus shelters.



SW2.09

Transit System Map / Info

SW2.14

Advertising

SW2.06

Trail Map - Station Platform (opt.)









Existing Bridge Sign Restoration

SW3.05 Bridge Identification - Existing



New Standard Bridge Signage
SW3.06 Bridge Identification - New

SIGNAGE - BRIDGES & TUNNELS

Existing Bridge Sign Restoration

There are a few locations where the existing historic bridges of 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. If restoration is impossible due to deterioration or the de-leading process, recreation should be considered.

New Standard Bridge Signage

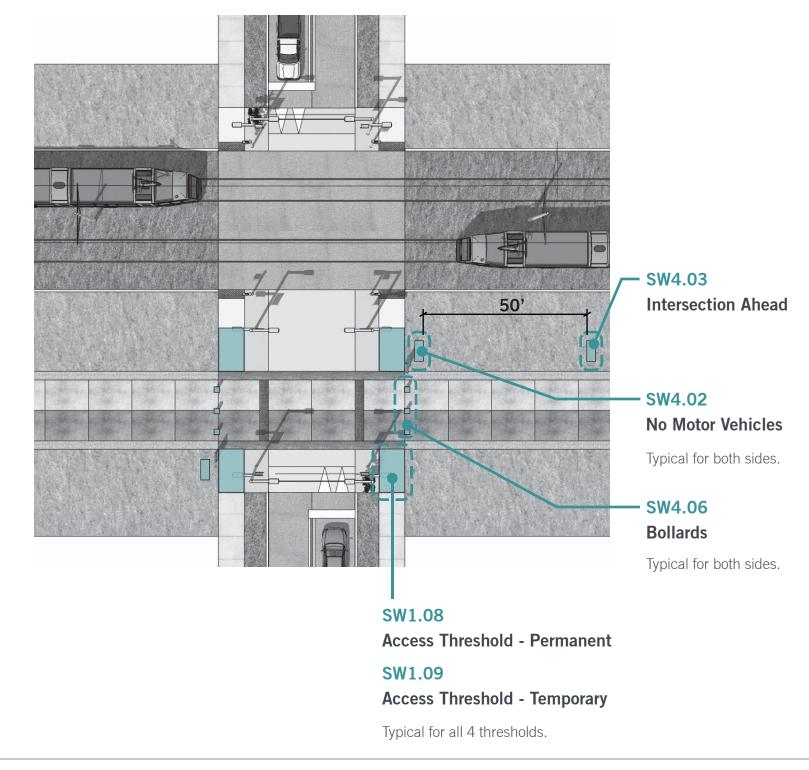
IDENTIFICATION signage indicating the Atlanta BeltLine identity should be utilized at the most prominent street crossings where new standard bridges are built. This signage helps passersby identify the location of the corridor from a distance. This is not necessary for less important street crossings.

SIGNAGE - STREETSCAPES

At-Grade Crossings

All streetscape crossings include DIRECTIONAL signage in the form of embedded access thresholds. At-Grade Crossings also have DIRECTIONAL signage to guide users toward their intended destinations. At-Grade Crossings require REGULATORY signage to control the intersection of the trail and vehicular traffic.







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signage and wayfinding

conditions

SW1.04 Secondary Directional - Freestanding

Typical for stair entrances on both sides. Direct to accessible entrance.

SW3.05

Existing Bridge Sign

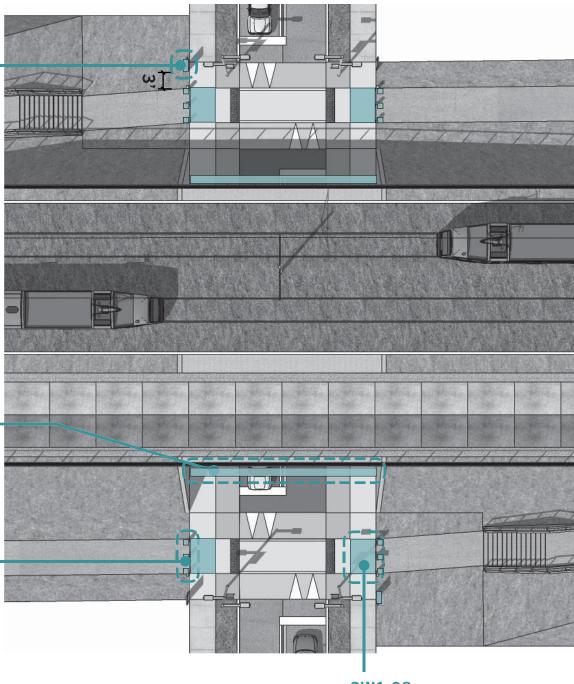
SW3.06

New Standard Bridge Signage

Typical for both sides, conditionally.

SW4.06 Bollards

Typical for all 4 entrances.



SW1.08

Access Threshold - Permanent

SW1.09

Access Threshold - Temporary

Typical for all 4 thresholds.

SIGNAGE - STREETSCAPES

Above-Grade Crossings

All streetscape crossings include DIRECTIONAL signage in the form of embedded access thresholds. Above-Grade Crossings also have DIRECTIONAL signage to guide users onto the trail and toward their intended destinations. Above-Grade Crossings require REGULATORY signage to control the intersection of access ramps and vehicular traffic.





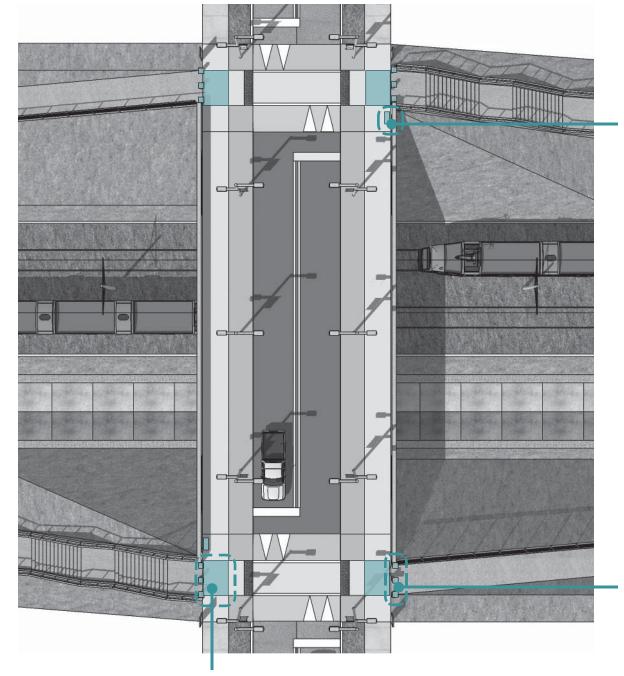


SIGNAGE - STREETSCAPES

Below-Grade Crossings

All streetscape crossings include DIRECTIONAL signage in the form of embedded access thresholds. Below-Grade Crossings will have DIRECTIONAL information to guide users onto the trail and toward their intended destinations. Below-Grade Crossings require REGULATORY signage to control the intersection of access ramps and vehicular traffic.





SW1.08

Access Threshold - Permanent

SW1.09

Access Threshold - Temporary

Typical for all 4 thresholds.

SW

Typical for all 4 entrances.

SW1.07

- Railing

SW4.06 Bollards

Typical for stair

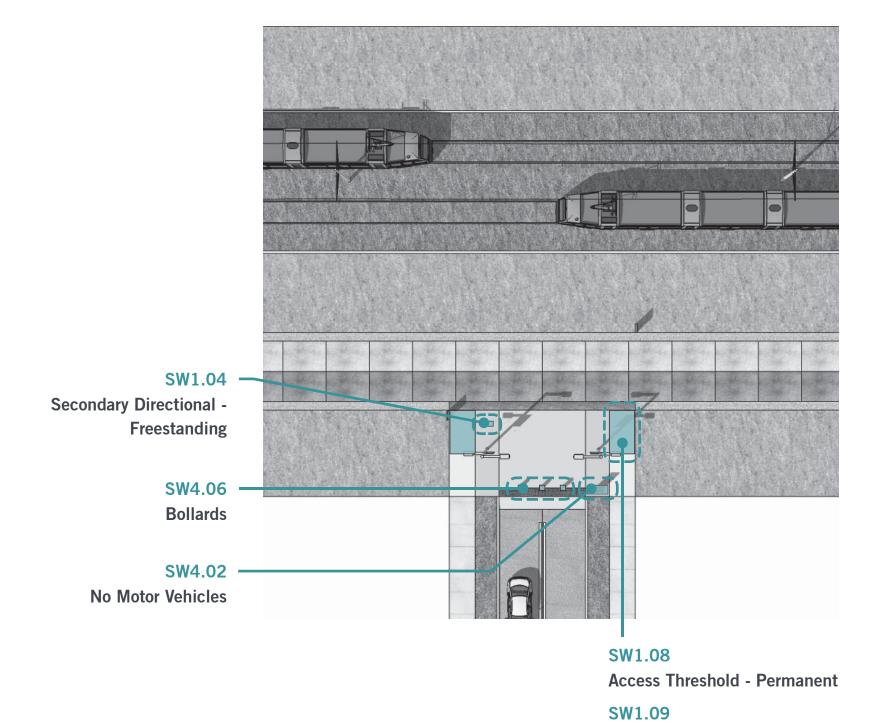
Secondary Directional

entrances on both sides.

Direct to accessible entrance.

signage and wayfinding

conditions



SIGNAGE - STREETSCAPES

Dead-End Crossings

All streetscape crossings include DIRECTIONAL signage in the form of embedded access thresholds. Dead-End Crossings will have DIRECTIONAL information to guide users toward their intended destinations. Dead-End Crossings require REGULATORY signage to keep vehicular traffic from entering the trail right-of-way.



SW



Typical for 2 thresholds.

Access Threshold - Temporary

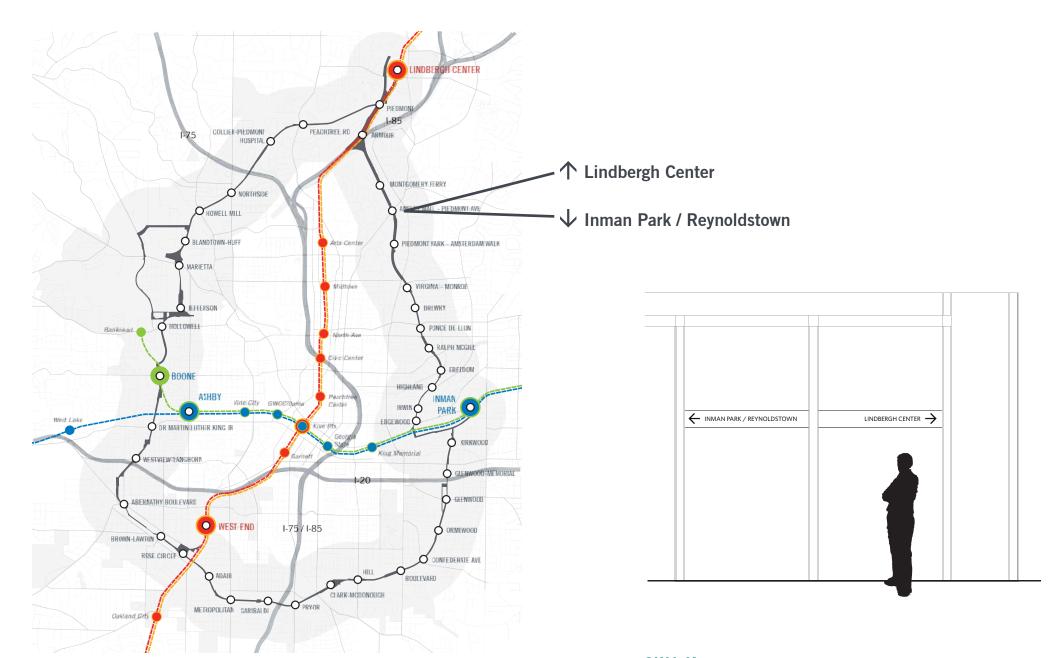
signage and wayfinding

design guidelines

INFORMATION SYSTEM

Transit Directional

The Atlanta BeltLine transit system will add a vital piece of infrastructure to the city of Atlanta, linking to MARTA, future streetcars and the bus system. The four connections between the Atlanta BeltLine and MARTA, Lindbergh Center, Inman Park/Reynoldstown, West End and Simpson, are the key reference points for orientation and location on the Atlanta BeltLine. The transit directional signs located at the transit stations will direct toward these key MARTA connections. It is recommended that a two-color line system be implemented to support orientation, although this will be further studied and developed as the transit is implemented and the future operator is involved.



Atlanta BeltLine / Marta Transit Map

SW1-K
Transit Directional

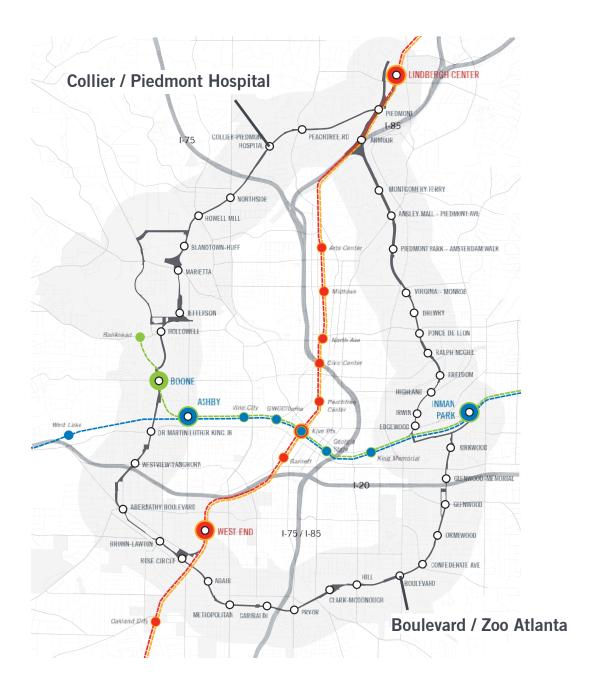




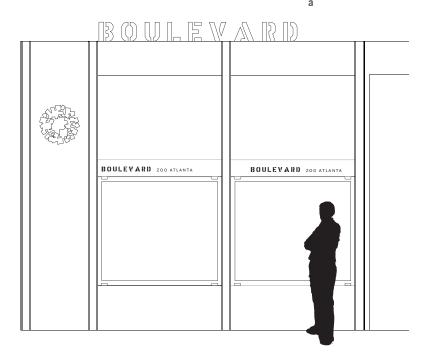
INFORMATION SYSTEM

Station Names

The Atlanta BeltLine is accessed by the adjacent communities at street crossings. As the names of these streets are already familiar to the community, they should be maintained as the names of the transit stations. At stations that also coincide with a major Atlanta destinations, like Piedmont Hospital and Zoo Atlanta, the station name will be appended to include this information.



Atlanta BeltLine Map - Sample Station Names



SW3.01

Station ID - Trail Side

SW3.02

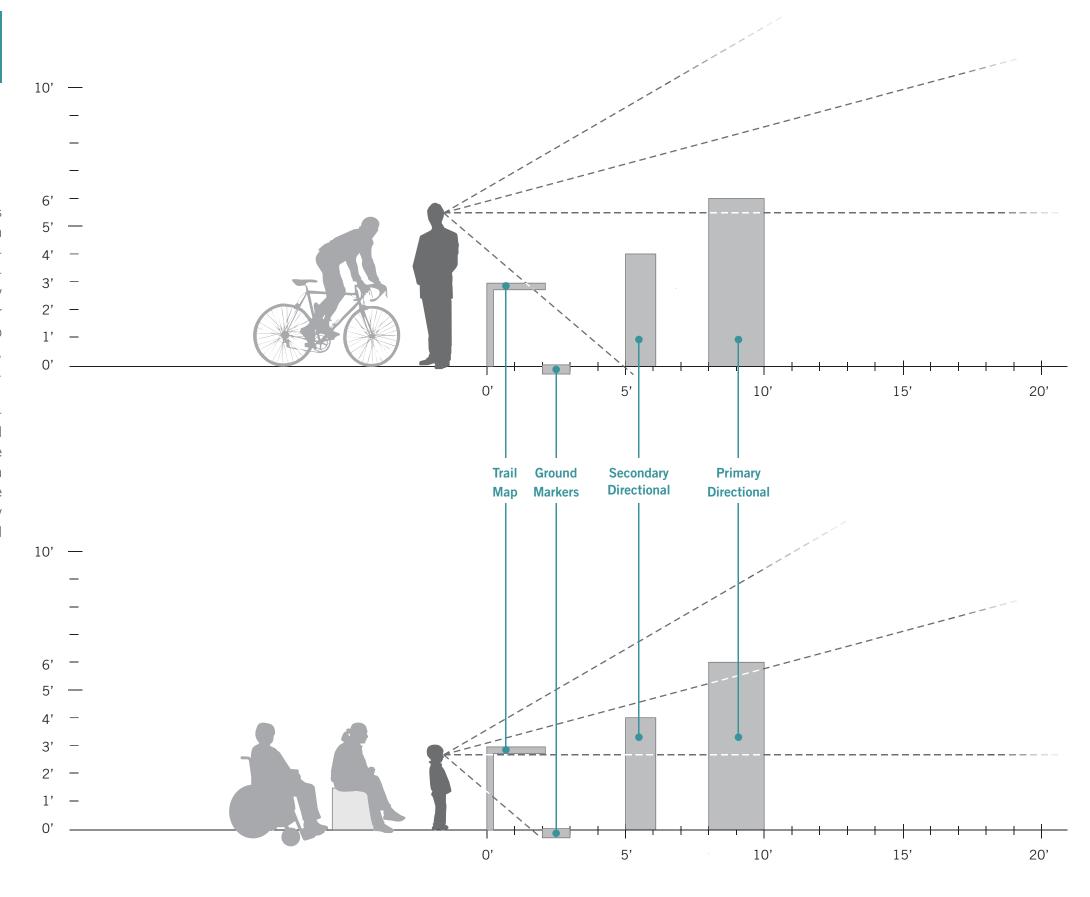
Station ID - Transit Side



VISIBILITY DIAGRAMS

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.

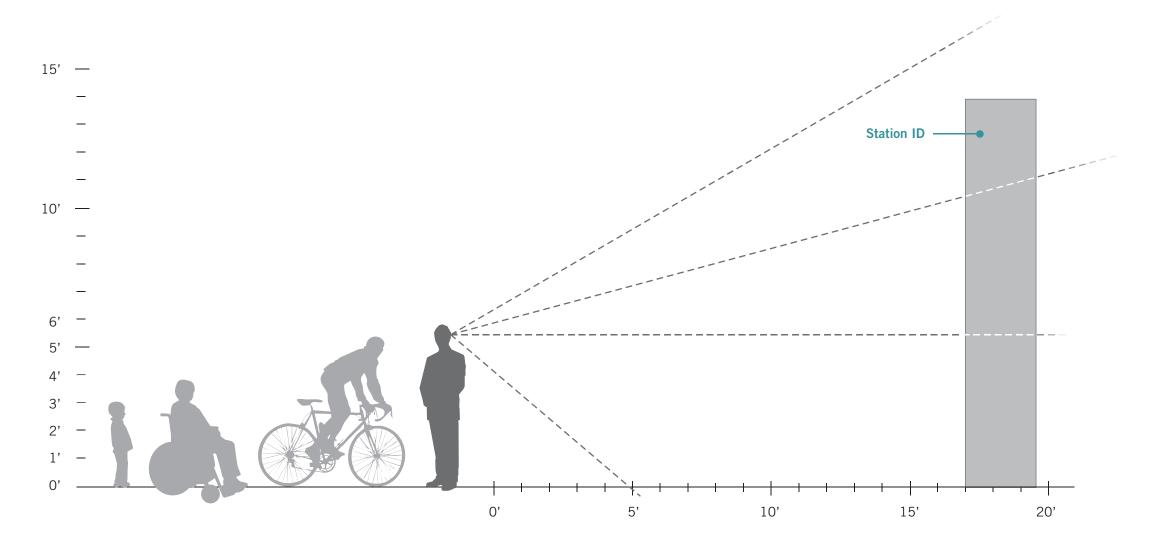
Tabletop trail maps and interpretive ground markers will be viewed from a short distance, and therefore the size of the signs and the text can be smaller. Secondary directionals will be viewed at a moderate distance and are mostly used to navigate on and off the corridor at slower speeds. Primary directionals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





VISIBILITY DIAGRAMS

Station identification signs are a landmark on the Atlanta BeltLine, assisting in navigation and orientation. These signs will be incorporated into the transit stations and viewed from a greater distance. Therefore, the sign and text size is much larger.



signage and wayfinding

design guidelines

GRAPHIC STANDARDS

Atlanta BeltLine Identity Strategy

On the Atlanta BeltLine signs, the identity is only displayed as the One Color Logo and as Symbol alone. The logo is used only at the transit station and the symbol is used on primary signs.

Atlanta BeltLine One Color Logo

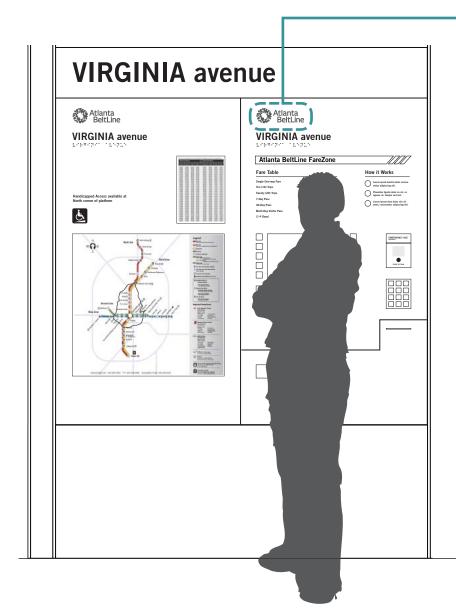


Atlanta BeltLine Symbol

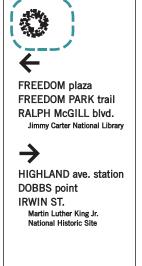


Atlanta BeltLine Symbol in Reverse or Cut Out











Use Atlanta BeltLine
One Color Logo on signage
at transit stations

Use Atlanta BeltLine
Symbol in Reverse or
Cut Out on primary signs

Do not use Atlanta BeltLine One Color Logo or Atlanta BeltLine Symbol on secondary signs





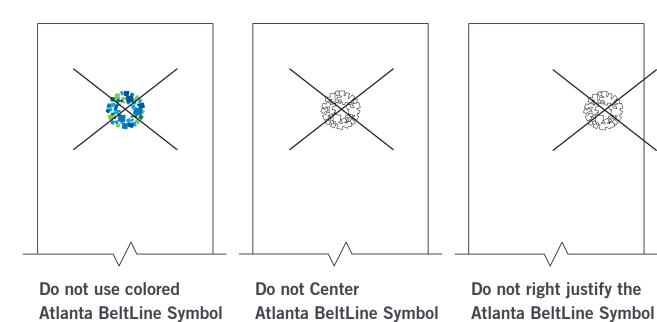
GRAPHIC STANDARDS

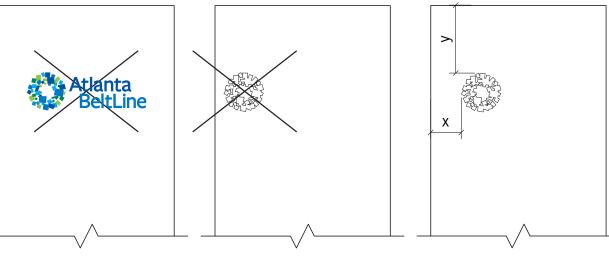
Atlanta BeltLine Symbol

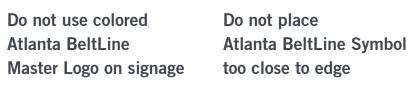
The Atlanta BeltLine Symbol is used on primary signs and should be left justified.

Atlanta BeltLine Logo / Symbol Clear Space

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







on signage

Left justify the
Atlanta BeltLine Symbol



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

signage and wayfinding

design

DESIGN NARRATIVE

Sign Concept A - Weathered Steel

Weathered steel has the strength and permanence of steel but a texture and coloration inherent to the natural environment of the Atlanta BeltLine. Cutout letters and graphics respond to the continual changes in daylight. The use of simple plates and rivets evoke the construction aesthetic of the railroad, bridges and historical structures.





Historic Construction



Cut Out Graphics, Rivet System



Inlaid Rivets



Cut Out Text



Weathering Steel



Cut Out Graphics



Blackened Steel



Silkscreen White Text / Graphics



Sign Concept A - Weathered Steel

The most prominent sign types are constructed of naturally weathered steel. The graphics are cut out to reveal the blackened steel structure behind. Panels for secondary sign types are blackened steel with silkscreened white text, for a coarse, stenciled look. A system of mechanical fasteners evoking the look and feel of the historical rivet construction will attach sign panels to their structure, railings, etc.

PRIMARY SIGN FAMILY

Sign Concept A - Weathered Steel

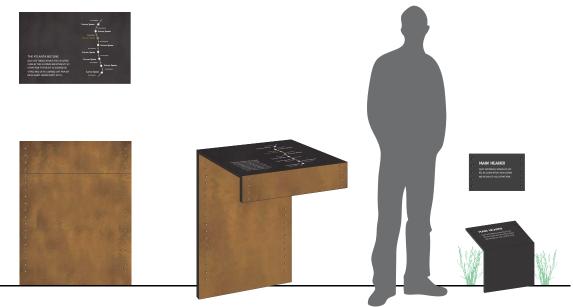
The primary sign type family consists of the most visible signs, including freestanding directionals, large interpretive informational signs and tabletop trail maps.



SW1.01Primary Directional
Freestanding

SW2.01
Interpretive
Freestanding Large

SW1.04Secondary Directional
Freestanding







SW1.08
Access Threshold
Permanent

SW2.03

Plaque

Interpretive



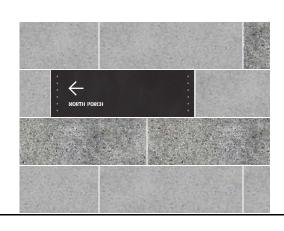
SECONDARY SIGN FAMILY

Sign Concept A - Weathered Steel

The secondary sign type family consists of signs that are incorporated into granite walls, hanging on expanded metal screen walls and railings, and regulatory signage.







SW1.02Primary Directional
Granite Wall

SW1.03Primary Directional
Screen Wall

SW1.05Secondary Directional
Granite Wall

Secondary Directional

Railing



SW1.10

Directional

Adjacent Street

SW4.02

No Motor Vehicles

SW1.06

Screen Wall

Secondary Directional

STATION SIGN FAMILY

Sign Concept A - Weathered Steel

The station sign family includes the station identification, transit information and trail information (where appropriate).



SW3.03Station ID - Light Poles

SW1.11 SW2.09

Transit Directional Transit System Map / Info

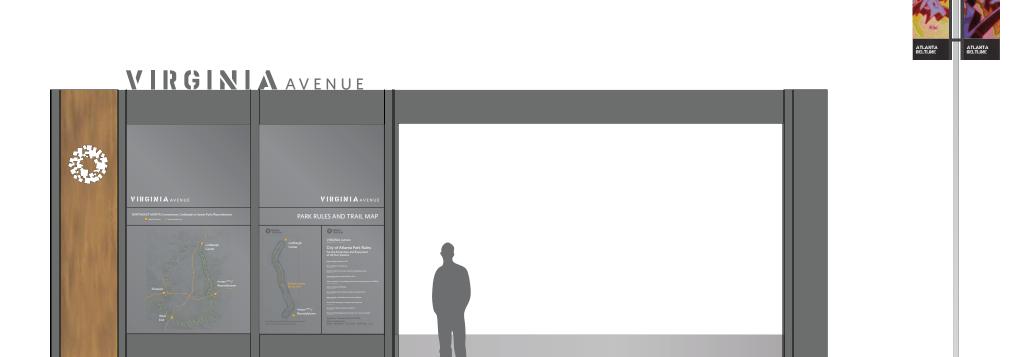
SW2.14 SW2.10

Advertising Ticket Information

SW3.02

Station ID Transit Side





SW2.06 SW3.01
Trail Map - Station Platform Station ID - Trail Side

SW3.02 SW4.05 Station ID - Transit Side Park / Trail Rules

SW2.08
Special Event /
Programmatic





TYPOGRAPHY

Sign Concept A - Weathered Steel

Stencil Gothic is the main font to be used for all major messages. Whitney Medium is used in combination with Stencil Gothic for impact on feature signage and in situations requiring smaller type, map graphics and ADA-compliant messages.



ABCDEFGHLJKLMNOPQRSTUVWXYZ abcdefghijldmnopqrstuvwxyz 0123456789

ABCDE abcde
ABCDE abcde

ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz 0123456789

ABCDE abcde
ABCDE abcde
ABCDE abcde







signage and wayfinding

ICONOGRAPHY

Sign Concept A - Weathered Steel

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).

design



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



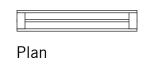


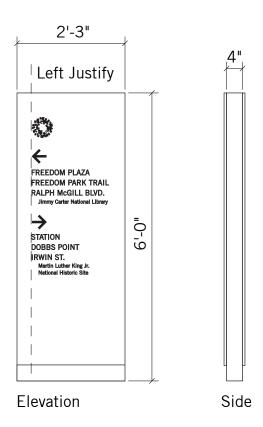
Type 3 Object Marker OM3-R, OM3-L PMS 124C Process Black



SW1 DIRECTIONAL

Directional signs provide key information, orienting users on the Atlanta BeltLine and directing them on and off and toward their intended destinations.



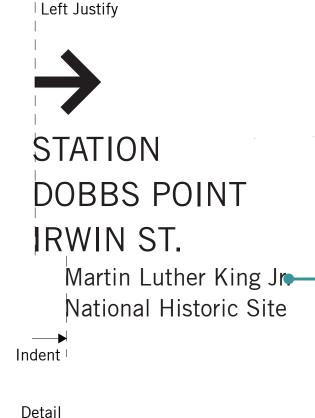


SW1.01

Primary Directional - Freestanding

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

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



Primary Message

Directions to transit stations, destinations on the trail and street access points are left aligned with the corresponding directional arrow and the text size is larger.

Secondary Message

Directions to destinations that are outside the corridor are indented under the corresponding street access point and the text size is smaller.

SW



DIRECTIONAL SW1



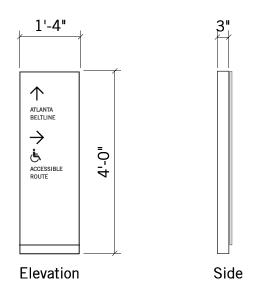
Left Justify

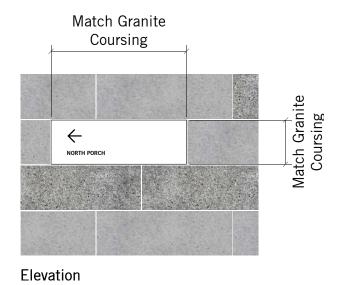
Left Justify

FREEDOM PLAZA
FREEDOM PARK TRAIL
RALPH MCGILL BIND.
Jimmy Carter National Library

STATION
DOBBS POINT
IRWIN ST.
Medicia Librar King Jr.
National Historic Site

Plan





SW1.02

Primary Directional - Granite Wall

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

The primary directional sign should be embedded when a granite wall is available and appropriately positioned for maximum legibility.

SW1.03

Elevation

Primary Directional - Screen Wall

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

The primary directional sign should be mounted to an expanded metal screen wall when available and appropriately positioned for maximum legibility.

SW1.04

Secondary Directional - Freestanding

Secondary 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 to direct users to destinations.

The freestanding secondary directional should be used when there is no adjacent granite wall, screen wall or railing available in the appropriate location.

SW1.05

Secondary Directional - Granite Wall

Secondary 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 to direct users to destinations.

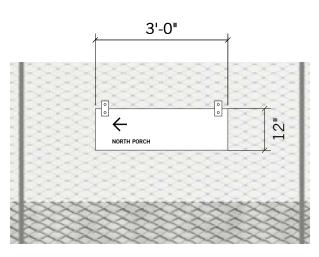
The secondary directional sign should be embedded when a granite wall is available and appropriately positioned for maximum legibility.





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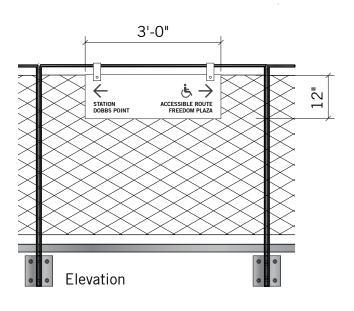
SW1 DIRECTIONAL



Elevation

SW1.06 Secondary Directional - Screen Wall

Secondary 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 to direct users to destinations. The secondary directional sign should be mounted to an expanded metal screen wall when available and appropriately positioned for maximum legibility.



SW1.07Secondary Directional - Railing

Secondary 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 to direct users to destinations. The secondary directional sign should be mounted to a railing when available and appropriately positioned for maximum legibility.

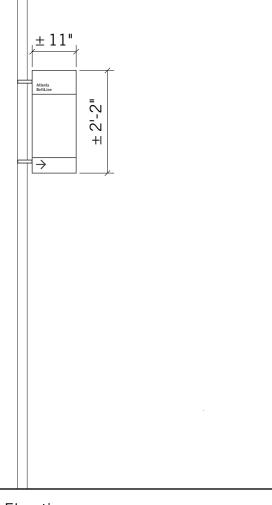
SW1.08
Access Threshold - Permanent

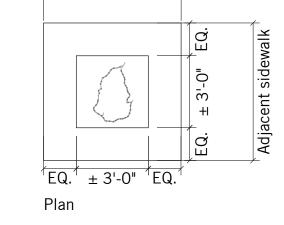
As illustrated in the signage at streetscape conditions, access thresholds will be embedded in the sidewalk of the adjacent street at all thresholds where the public enters the corridor. The sign graphics indicate that the public is crossing the Atlanta BeltLine and offers contextual information for people exiting the corridor.

REVISED 04/05/2012

design

DIRECTIONAL SW1





Entrance to Atlanta BeltLine

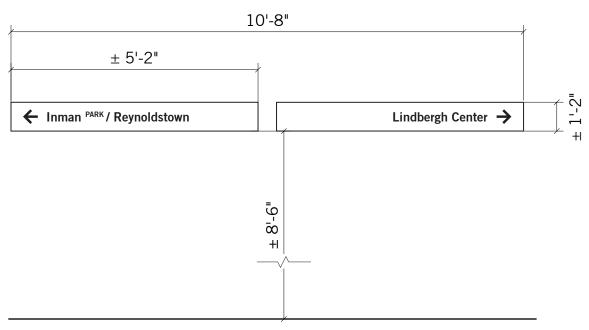
SW1.09 Access Threshold - Temporary

The function and locations for temporary access thresholds are the same as for permanent installations. The temporary version will be painted on the existing sidewalk and used until street improvements are implemented.

Elevation

SW1.10 Adjacent Street Directional

These signs are to be optionally implemented along adjacent streets. They provide direction between the Atlanta BeltLine and destinations outside the corridor.



Elevation

SW1.11

Transit Directional

These directional signs are located at the transit stations and provide the direction of travel for transit passengers.

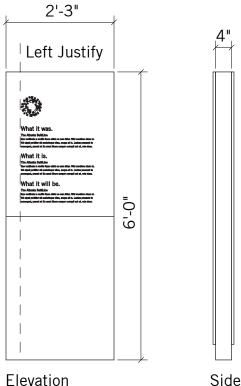


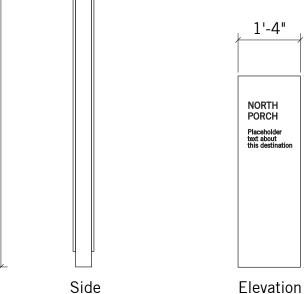


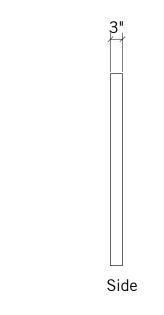
SW2 INFORMATIONAL

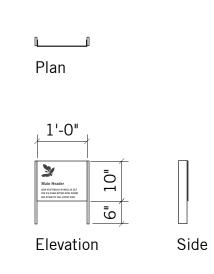
Informational signs provide users with additional useful wayfinding information, including maps and transit-related information. In addition, interpretive signs provide public interest information, including public art, adjacent communities, flora, environmental awareness and historical landmarks.











SW2.01

Interpretive - Freestanding Large

The largest interpretive freestanding sign will be used in large plaza areas or character rooms where more interpretive text is desired and spatial conditions allow.

SW2.02 Interpretive - Freestanding Small

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

SW2.03

Interpretive - Plaque

This small ground-mounted plaque sign will be used for smaller interpretive moments, and may be primarily used for arboretum and public art recognition.

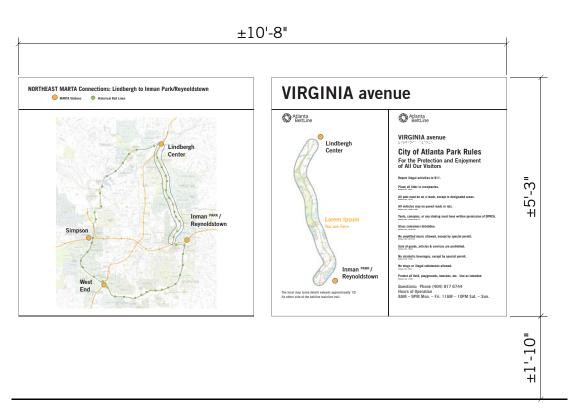
Match Granite Coursing Sweet Auburn Historic District Placeholder text about this destination Watch Granite Concain g

Elevation

SW2.04

Interpretive - Embedded

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.



Elevation

SW2.06

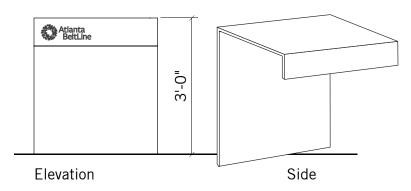
Trail Map - Station Platform

Following the outlined wayfinding strategy, information is grouped at the transit stations. In the side platform condition, the trail map should be posted on the trail side of the shelter wall. An overall map combined with a blow-up of the appropriate segment gives users tools to navigate their immediate environment and the larger context for reference.



Plan

INFORMATIONAL SW2



SW2.07

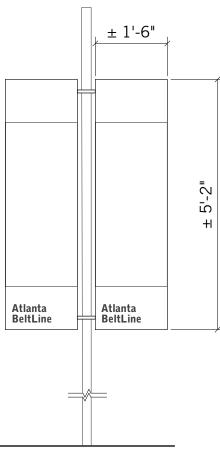
Trail Map - Freestanding

In transit conditions where there is no station wall adjacent to the trail, the freestanding tabletop trail map should be implemented. This can also be used in other places along the corridor where needed. An overall map combined with a blow-up of the appropriate segment will give users tools to navigate their immediate environment and the larger context for reference.





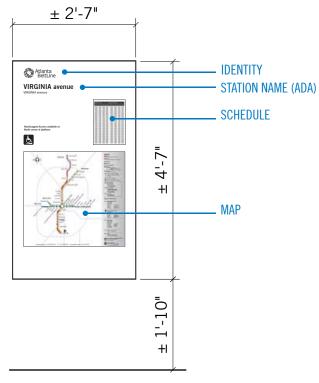
SW2 INFORMATIONAL



Elevation

SW2.08Special Event / Programmatic

Temporary banners will be mounted to light poles for special events or in programmable plaza areas.

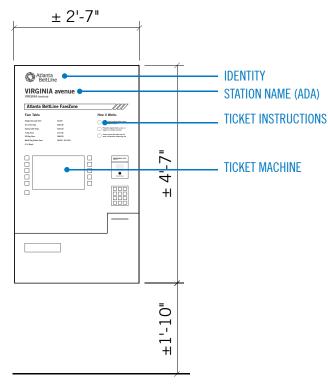


Elevation

SW2.09

Transit System Map / Info

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 wall. This area will also have code-required accessible signage. The layout shown herein is for design intent and will be modified based on actual content.



Elevation

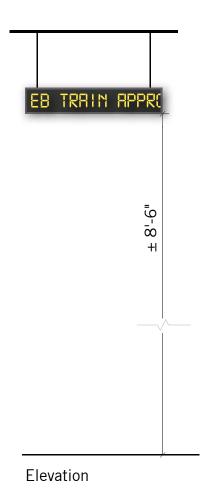
SW2.10

Ticket Information

Changeable information, including fare details and instructions will be posted in conjunction with the ticket machine. The layout shown herein is for design intent and will be modified based on actual content.

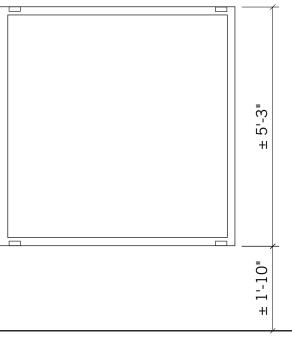
REVISED 04/05/2012





SW2.11 LED - Next Train

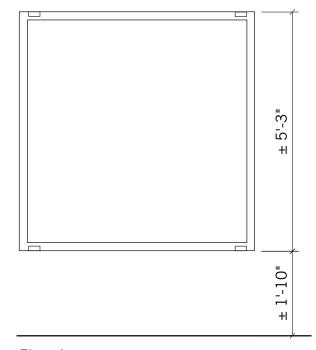
LED read-out signs will hang from the transit canopy and provide information to waiting passengers. The message will indicate how many minutes until the next train arrives and can relay other transit updates as needed.



Elevation

SW2.12 Community Events

Changeable, backlit or digital community events graphics may be permitted for posting at the transit stations. If allowed, this will necessitate strict guidelines for regulation.



Elevation

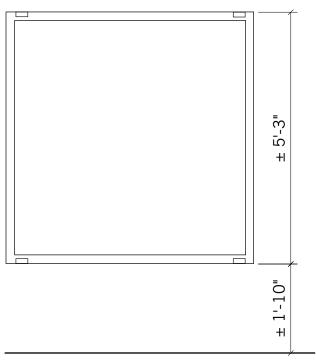
SW2.13Dynamic Mapping

Dynamic mapping is an optional feature that may be used at the transit stations. An interactive LCD monitor would allow passengers to map the best route from their present location to their desired destination. Other features, including Atlanta Belt-Line event descriptions or information about events in adjacent communities, could be incorporated into the digital software.





SW2 INFORMATIONAL

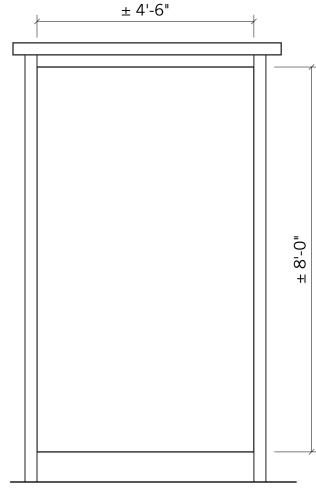


Elevation

SW2.14

Advertising

Changeable, backlit or digital advertising may be permitted at the transit stations. If allowed, this will necessitate strict guidelines for regulation.



Elevation

SW2.15

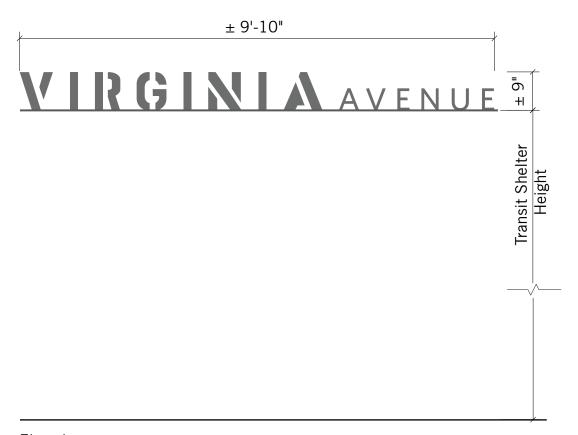
Bus Shelter Signage

Signage at the bus shelters will include a changeable or digital two-sided panel. One side will give transportation maps and information. The other side will be available for advertising. For advertising, strict guidelines will need to be defined.



IDENTIFICATION SW3

Identification signs are used to indicate the transit station names, donor recognition and the location of the Atlanta BeltLine itself.

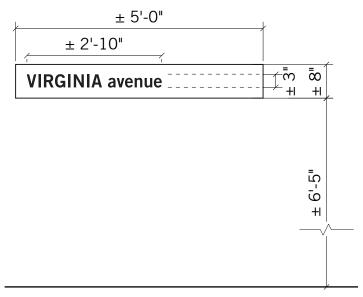


Elevation

SW3.01

Station ID - Trail Side

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. The trail-side Station ID features large text mounted on top of the station, making the sign visible from a distance.



Elevation

SW3.02

Station ID - Transit Side

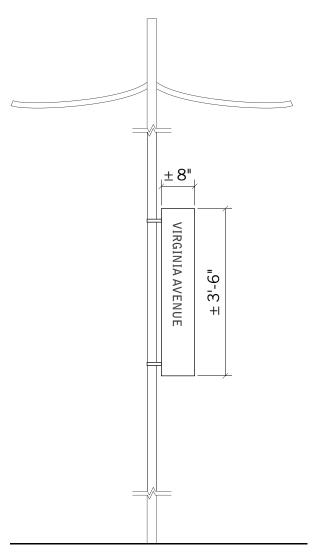
On the train side of the transit station, the Station ID will be mounted at the optimal height for passengers waiting for and exiting the train.





design

SW3 IDENTIFICATION

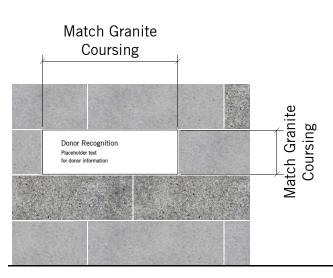


Elevation

SW3.03

Station ID - Light Poles

Additional Station ID signs are required down the length of the transit platform to help passengers on the train identify the correct stop for their departure. These will be mounted to light poles.



Elevation

SW3.04

Donor Identification

Donor identification, if any, will be embedded into granite walls.

Guidelines for donor recognition must be established prior to implementation.



SW3.05

Bridge Identification - Existing

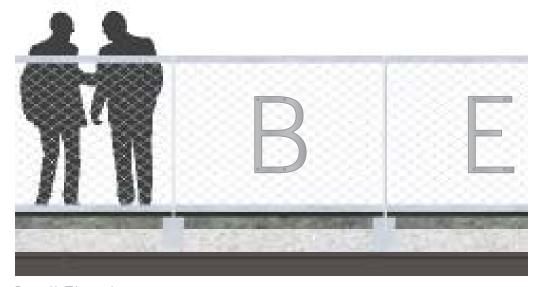
These photos represent a preliminary inventory of all conditions at existing historic bridges on the Atlanta BeltLine that have graphics in the form of inlaid plaques, and carved or painted text. More of these may be encountered during the construction process. To the extent possible, this history should be retained and restored. If restoration is impossible due to deterioration or the de-leading process, re-creation should be considered.





REVISED 04/05/2012

IDENTIFICATION SW3



Detail Elevation



Elevation

SW3.06

Bridge Identification - New

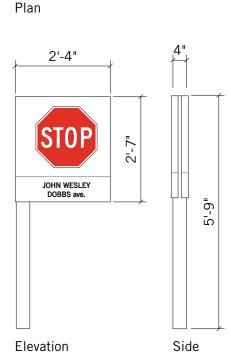
New Bridge Identification signage indicating the Atlanta BeltLine identity should be utilized at the most populated street crossings where new standard bridges are built. Dimensional letters will be mounted to clear acrylic and attached to railing mesh for a simple, transparent application.





SW4 REGULATORY

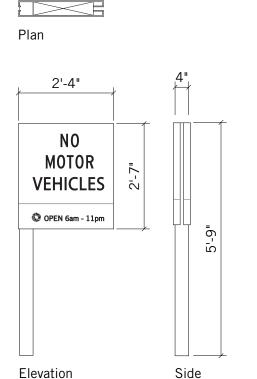
REGULATORY signs are required on the Atlanta BeltLine to maintain a safe environment for all users. For more information on required traffic symbols, reference the Manual on Uniform Traffic Control Devices 2009 (MUTCD).



SW4.01 Stop Sign / Yield

Stop Signs and Yield signs will be used only as needed at crossings to control pedestrian, bicycle and vehicular traffic. The street name is included here for convenience to the trail users.

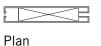
When used, the Stop Sign graphic and the No Motor Vehicles message are used in conjunction as a double-sided sign.

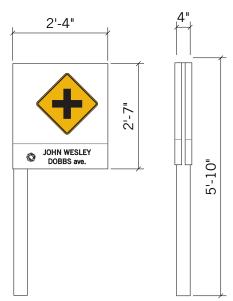


SW4.02 No Motor Vehicles

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

Until the light rail system is implemented, these signs will include the Atlanta BeltLine open hours.





SW4.03

Elevation

Intersection Ahead

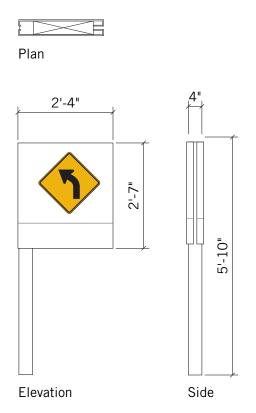
The Intersection Ahead sign is used to indicate that an at-grade crossing is ahead and give users time to prepare for it.

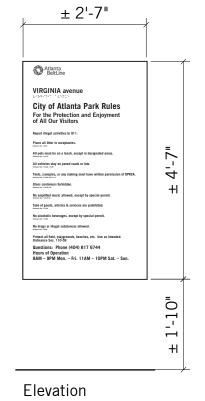
Side

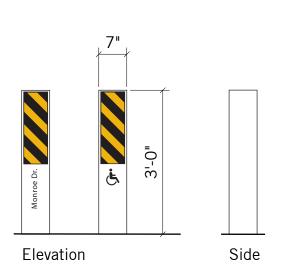
The street name is included here for convenience to the trail users.

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REGULATORY SW4







SW4.04 Curve / Turn Ahead

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

Park/Trail Rules will be posted at the transit stations and anywhere else identified as a key gathering space. The rules are intended to keep the corridor clean, safe and enjoyable for the public.

SW4.06 Bollards

Plan

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

signage and wayfinding

design

SW5 FEATURE

The FEATURE signage category encompasses unique design opportunities for gateway and place-making sign applications. Although the majority of corridor signage supports continuity and a consistent identity, these features celebrate the experience and originality of the Atlanta BeltLine.











SW5.01

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.



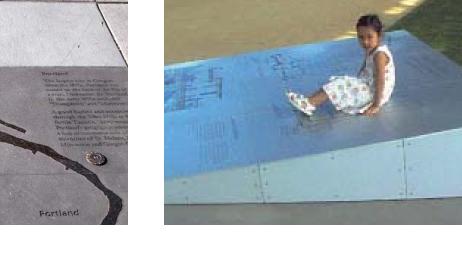




design

signage and wayfinding









SW5.02 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.



SIGNTYPES - TECHNOLOGY

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











"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.

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.

SIGNTYPES - TECHNOLOGY



















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.

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









TYPOLOGIES

2

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▶ CONDITIONS

▶ DESIGN

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PA1.2 Signature Greenspaces

PA1.3 Feature Structures

PA2 Mobility Sequences

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PA2.3 Existing Structure Lighting

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PA2.5 Virtual Works

PA2.6 Guideway

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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 Belt-Line'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.



Green 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.



Green 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

CONDITIONS

While physical conditions for public art vary widely in the corridor, three simple types of conditions outline a framework of opportunities for the Atlanta BeltLine: Durational, Application / Approach, and Cultural.

DURATIONAL conditions

While physical conditions for public art vary widely in the corridor, three simple types of conditions outline a framework of opportunities for the Atlanta BeltLine.

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 Belt-Line's infrastructure to stand-alone sculptures and monuments.

APPLICATION / APPROACH conditions

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 ccontribute 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

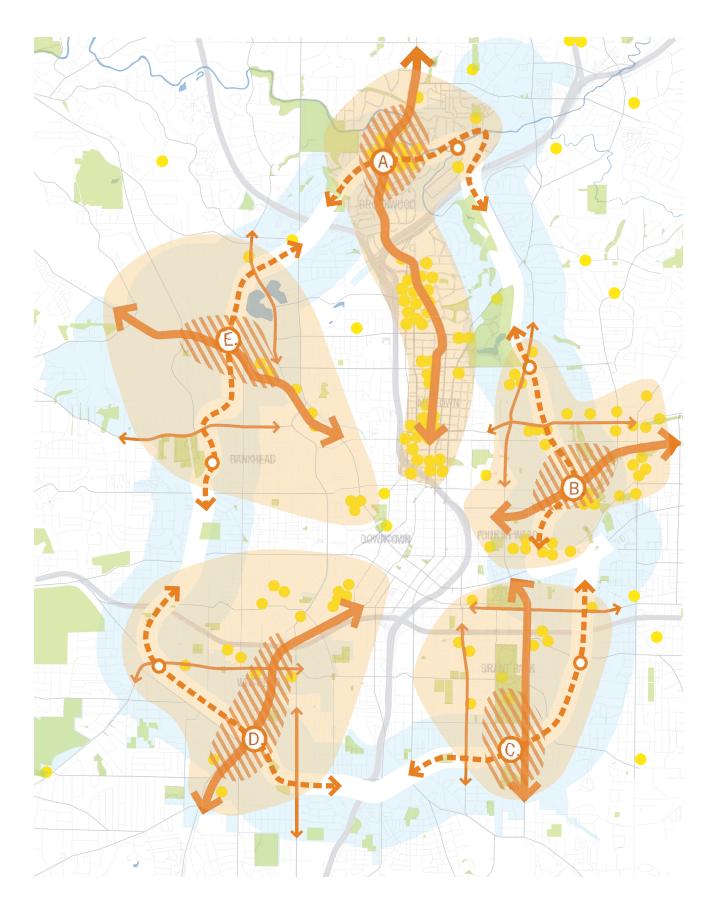
Public Art supports a balance of cultural experiences woven together at both large and small scales. Large scale public art operates at the scale of the Atlanta BeltLine itself, ensuring cultural conditions are met across a large geography. Small scale works respond to more immediate and physical circumstances 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.

Map of Cultural Conditions

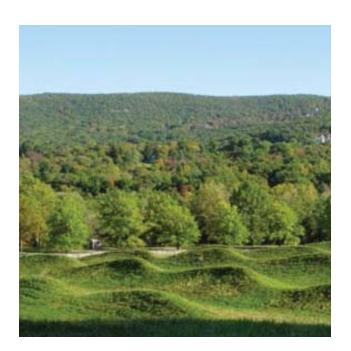


DESTINATIONS PA1





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. Commisions 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.

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.





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.



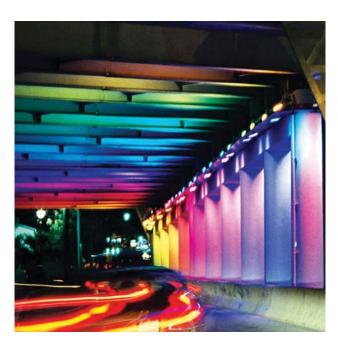


Permanent, Integrated Weather Screens. Weather screens are identified as an integrated art component within the modular design of each transit station canopy structure. This vertical public art element is most typically a transparent surface, laminated glass application allowing two-dimensional works to incorporate photographic, painted, collage, and text based works, to name a few. Alternate works for the same vertical plane at belowgrade 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.

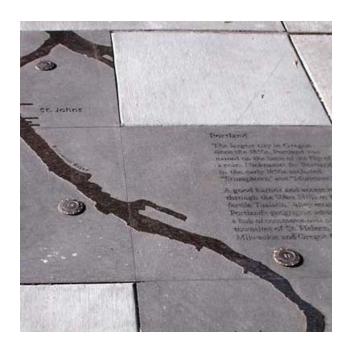


PA2.3
Existing Structure Lighting

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.

P





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

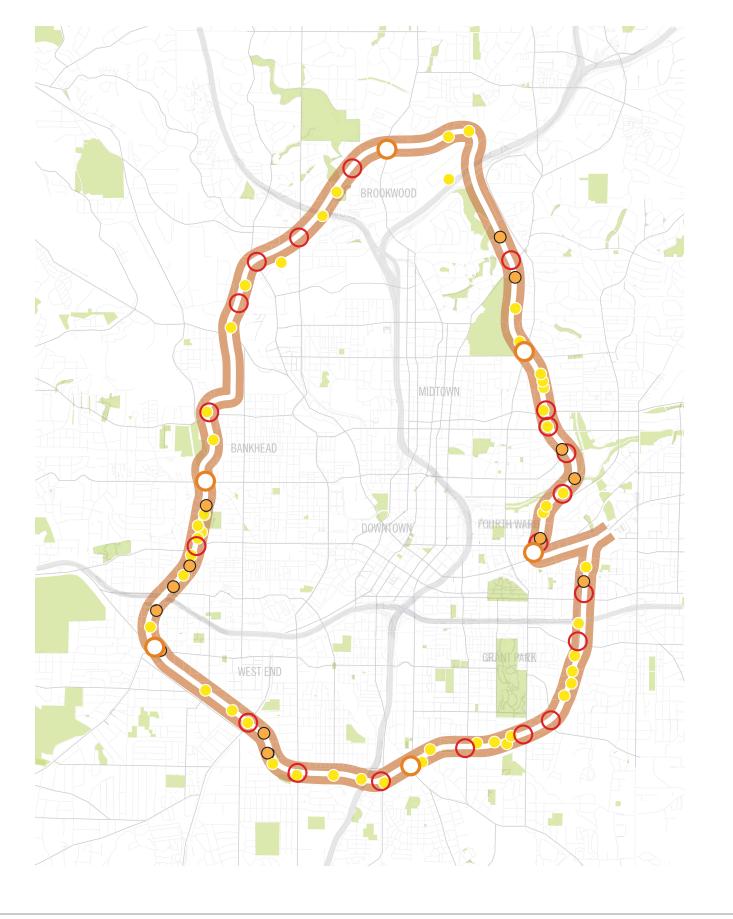
*Infrastructure – Physical Support Infrastructure.*Supporting media, performance and community arts. See Dialogue - PA6.



Ρ

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.





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 Belt-Line 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.

TO THE SLAUGHTER RIVER LAD. 40

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.



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





DIALOGUE PA6



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 way-finding 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.



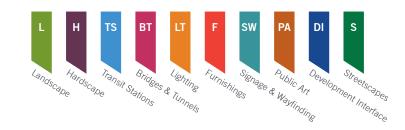


DEVELOPMENT INTERFACE









TYPOLOGIES

2

DEVELOPMENT INTERFACE

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The transformation of the Atlanta BeltLine's physical orientation from a back-door condition built primarily to serve adjacent industrial buildings into a fully-accessible, signature public space requires a strategic and deliberate set of guidelines for the construction of this interface between the public right-of-way and the private properties along its route. Experiential variety at this edge condition is supported by the landscape treatment of the 20-foot setback required on adjacent private land by the Atlanta BeltLine Overlay Zoning District. Design continuity comes through the design of trail access points including connection criteria, dimensions, materials, forms, and signage and lighting as applicable.

development interface

► 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.



Green 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.



Green 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.





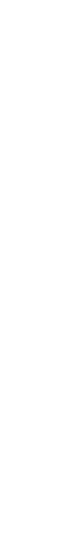
RIGHT-OF-WAY GEOMETRY & **OVERLAY DISTRICT**

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



2miles

0 1/4 1/2





ANSLEY PARK

MIDTOWNN

DOWNTOWNN

FOU FOURTHRI

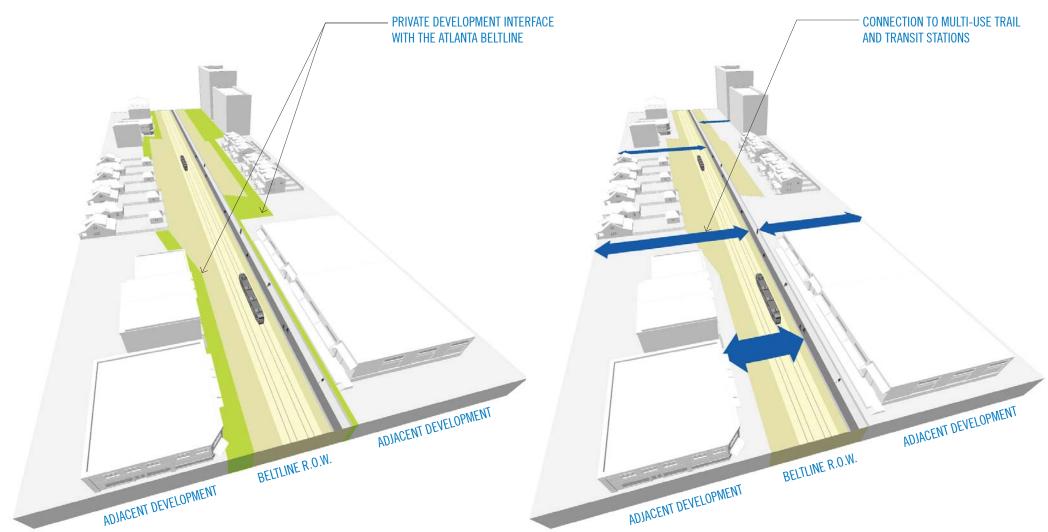
GRANT PARK

BANKHEAD

WESTTEND

f variations generated by even a small

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: 1) Corridor Access, the permeability and accessibility of the corridor edge, which is influenced by development intensity, setback and separation, and topographic adaptations, and 2) Trail and Station Access – the frequency, dimension and material of designed physical connections.

DI1: Development Intensity

DI2: Setback + Separation

DI3: Topographic Adaptations

DI4: Trail + Station Access

CORRIDOR ACCESS

TRAIL + STATION ACCESS

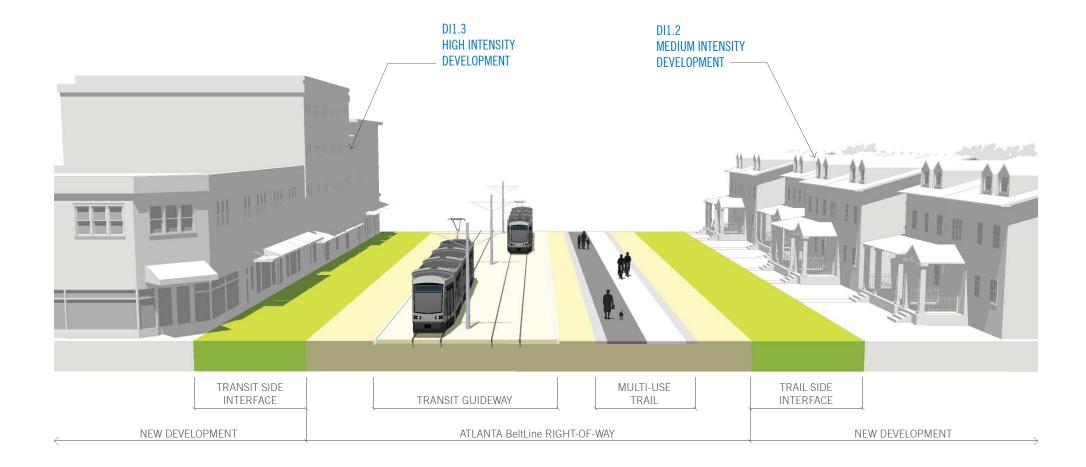


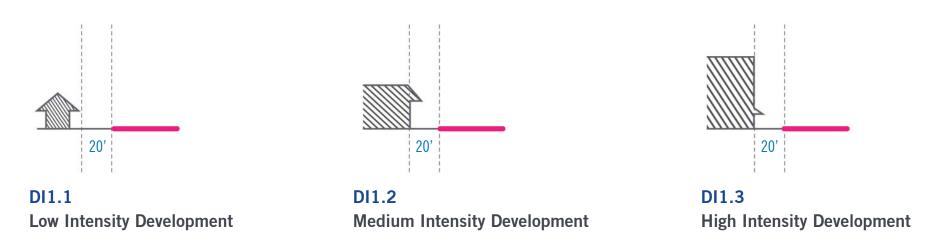
DI1 DEVELOPMENT INTENSITY

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:

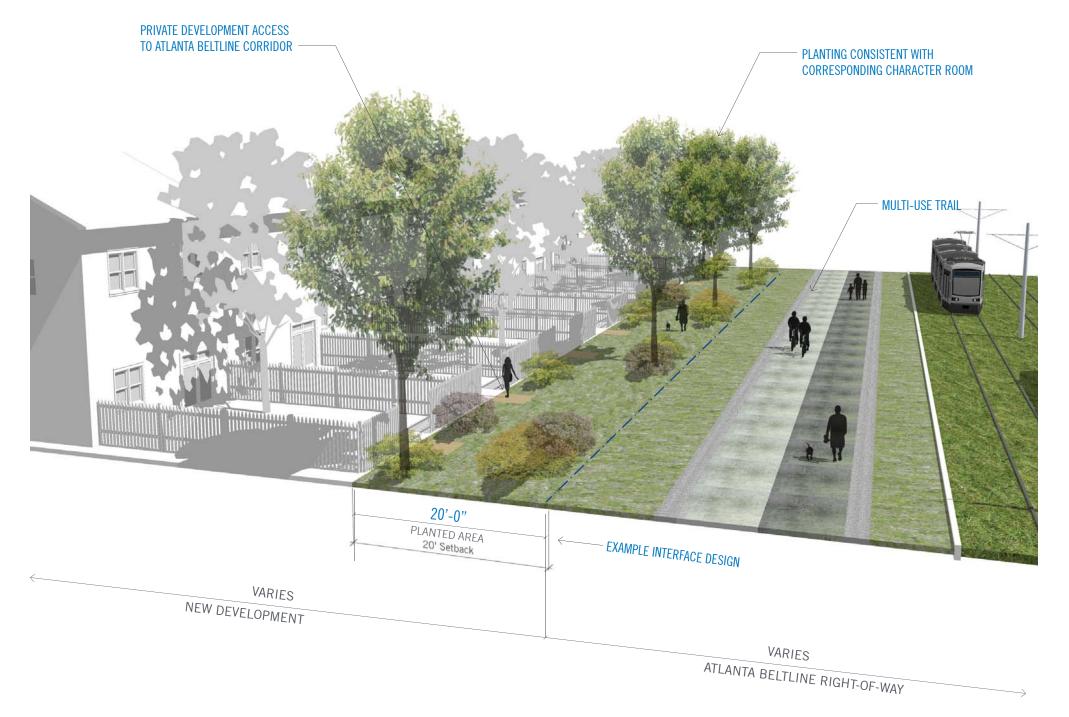
- Low Intensity Development
- Medium Intensity Development
- High Intensity Development







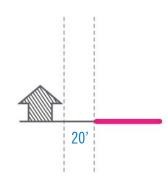




DEVELOPMENT INTENSITY

Low Intensity Development DI1.1

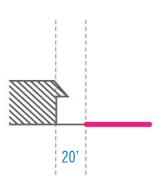
Access between the corridor and adjacent low-intensity development is encouraged but not physically defined by formal pathways. Where high usage may create desire lines over time, these may be managed by implementing soft-surface trail materials and design standards (See Hardscape-H2.2). Furniture, lighting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

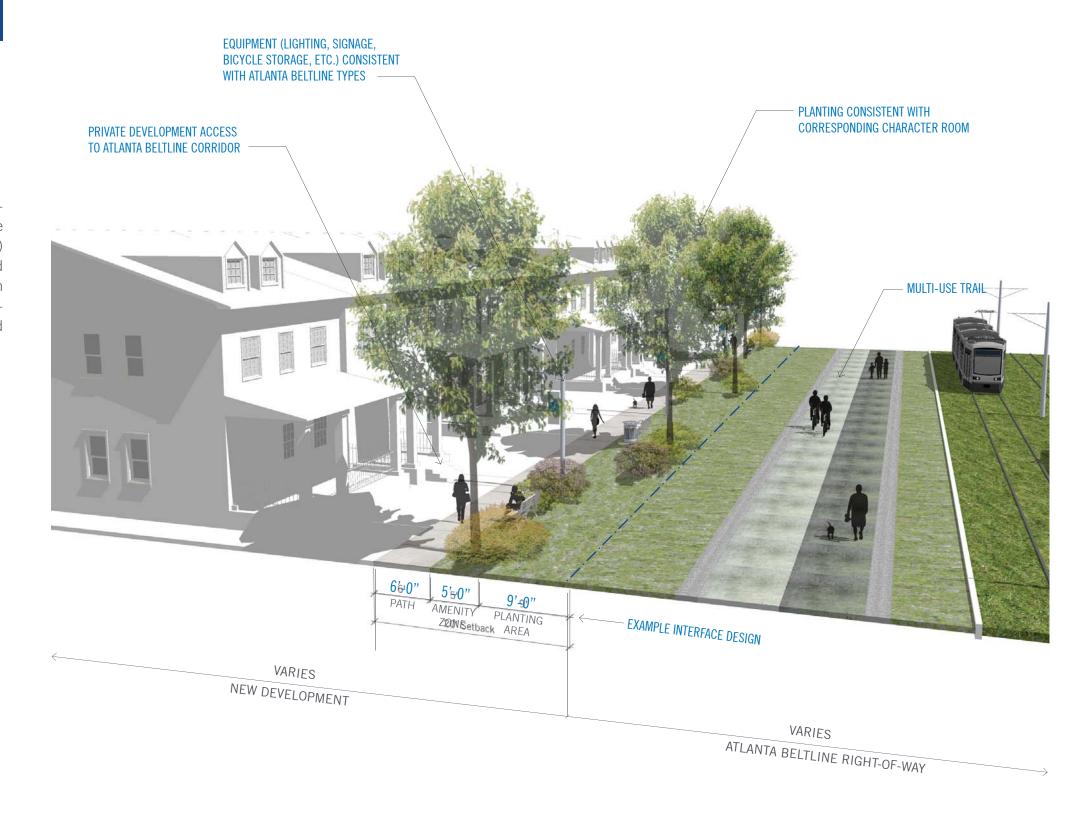


DEVELOPMENT INTENSITY

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 land-scape and hardscape elements in this zone should match corridor typologies.







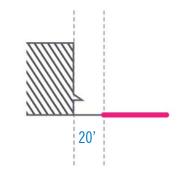


EQUIPMENT (LIGHTING, SIGNAGE, BICYCLE STORAGE, ETC.) CONSISTENT WITH BELTLINE TYPES PLANTING CONSISTENT WITH CORRESPONDING CHARACTER ROOM PRIVATE DEVELOPMENT RETAIL FRONTAGE PRIVATE DEVELOPMENT AMENITY SPACES FRONTING THE ATLANTA BELTLINE CORRIDOR ALONG THE ATLANTA BELTLINE CORRIDOR **MULTI-USE TRAIL** 100.0" SIDEWALK K SUPP. PLANT. AREA - EXAMPLE INTERFACE DESIGN VARIES NEW DEVELOPMENT VARIES ATLANTA BELTLINE RIGHT-OF-WAY

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.

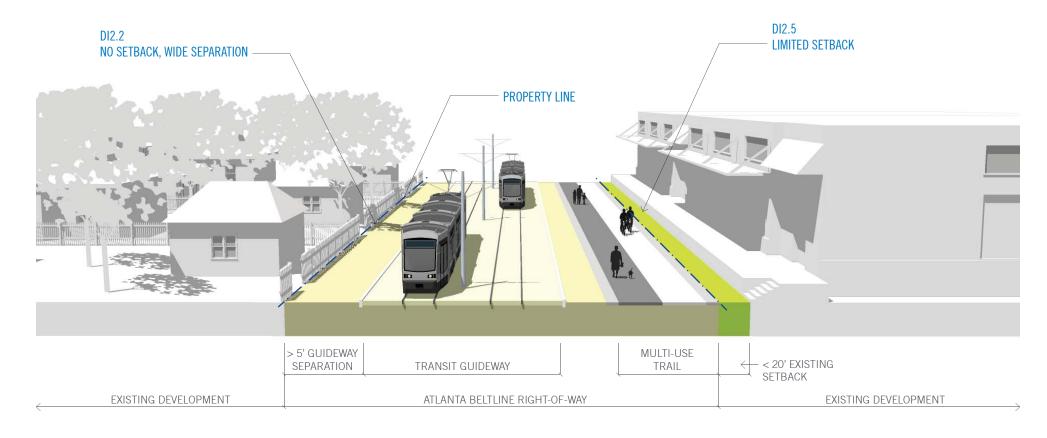


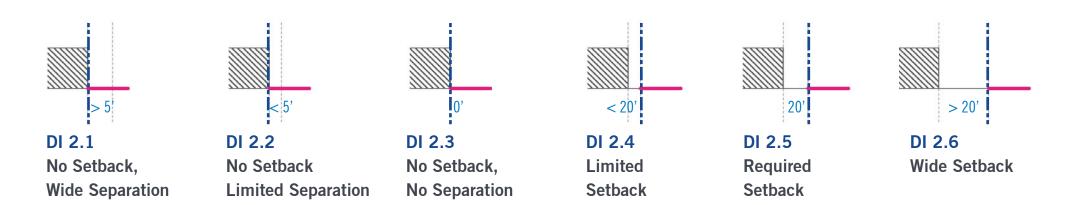
SETBACK + SEPARATION

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



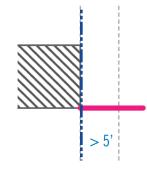




SETBACK + SEPARATION

No Setback; Wide Separation DI2.1

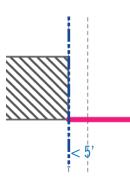
Where there no setback but still a wide physical separation between the adjacent property and the trail or transit greenway, the interface condition may require slopes or walls due to topographic conditions, but it will be primarily informed by its development intensity (see Development Intensity - DI1)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

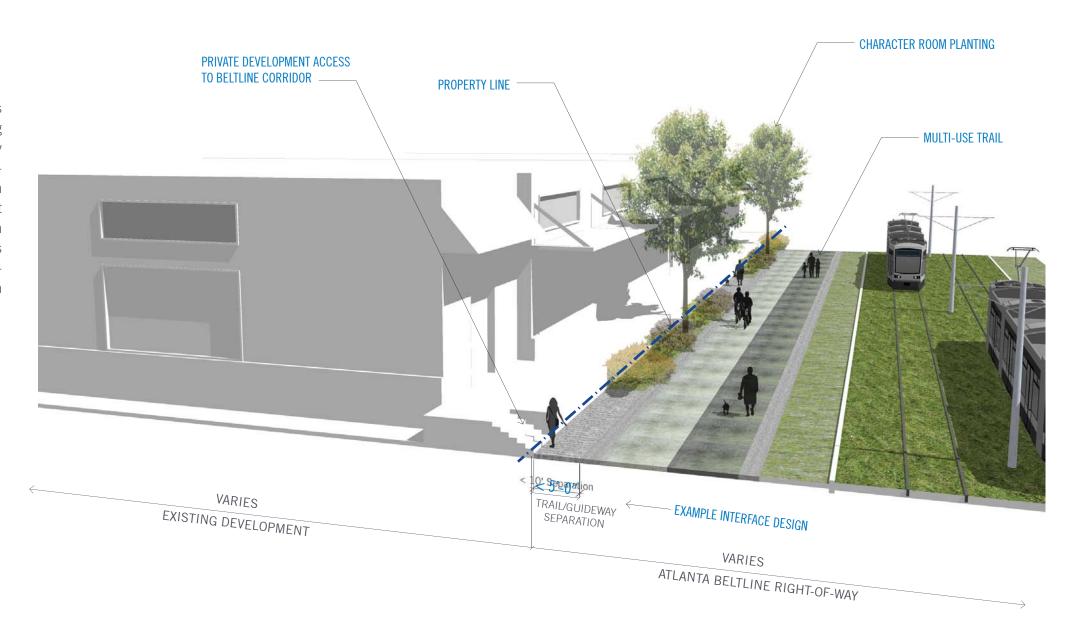


SETBACK + SEPARATION

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.





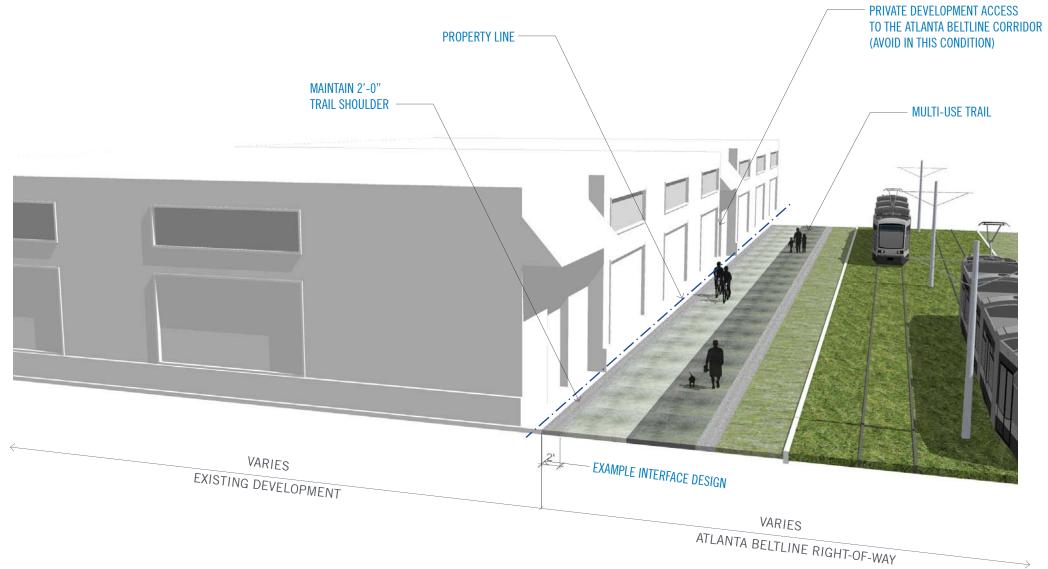


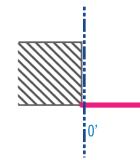


SETBACK + SEPARARTION

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.





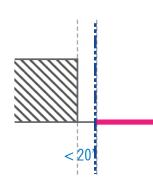
development interface

design

SETBACK + SEPARATION

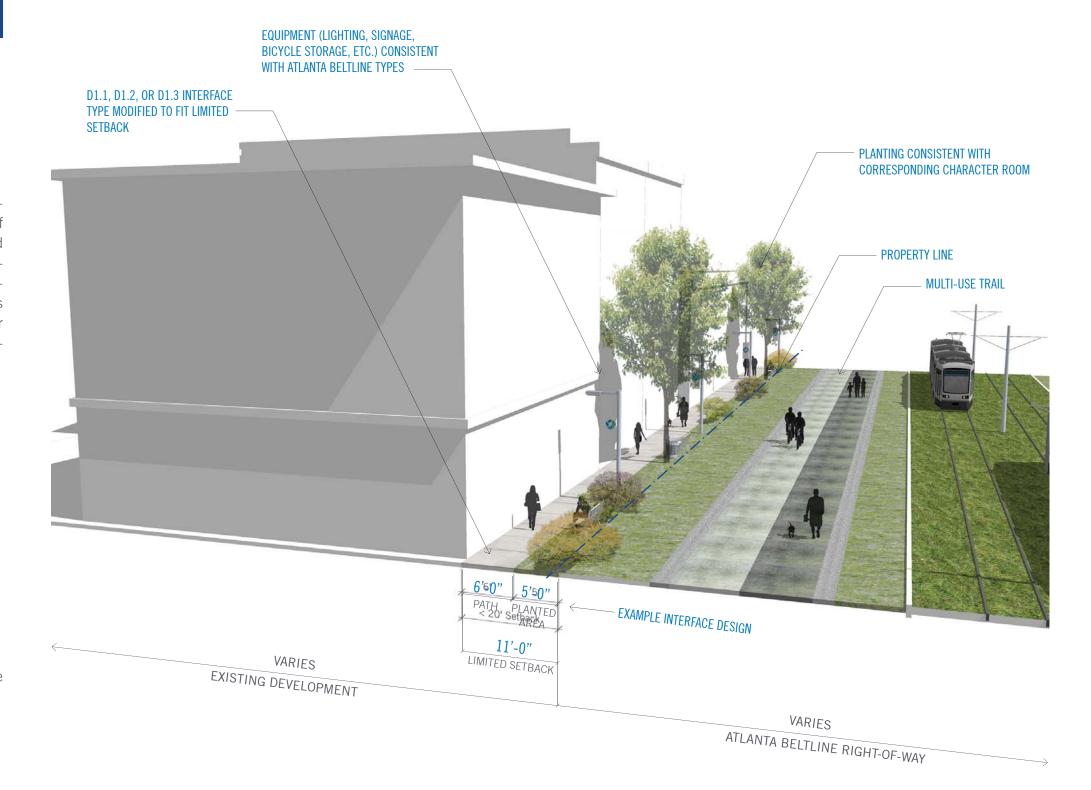
DI2.4 Limited Setback

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.



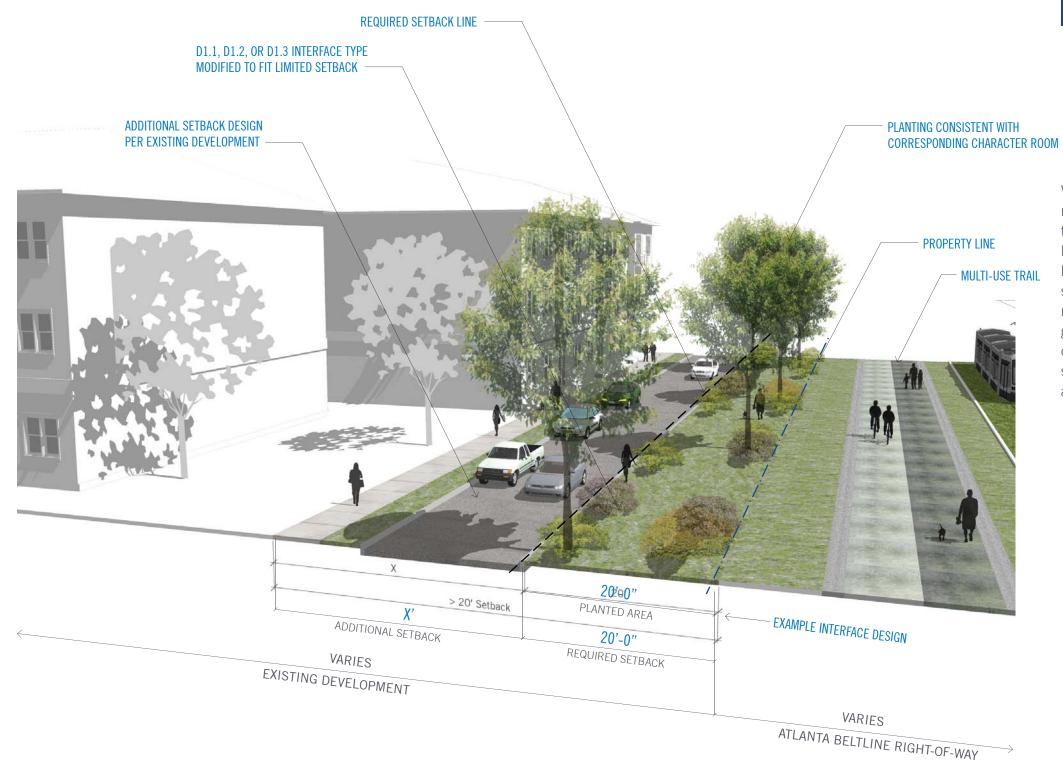
DI2.5 Required Setback

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





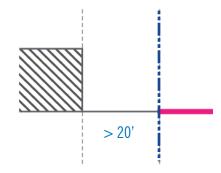




SETBACK + SEPARATION

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

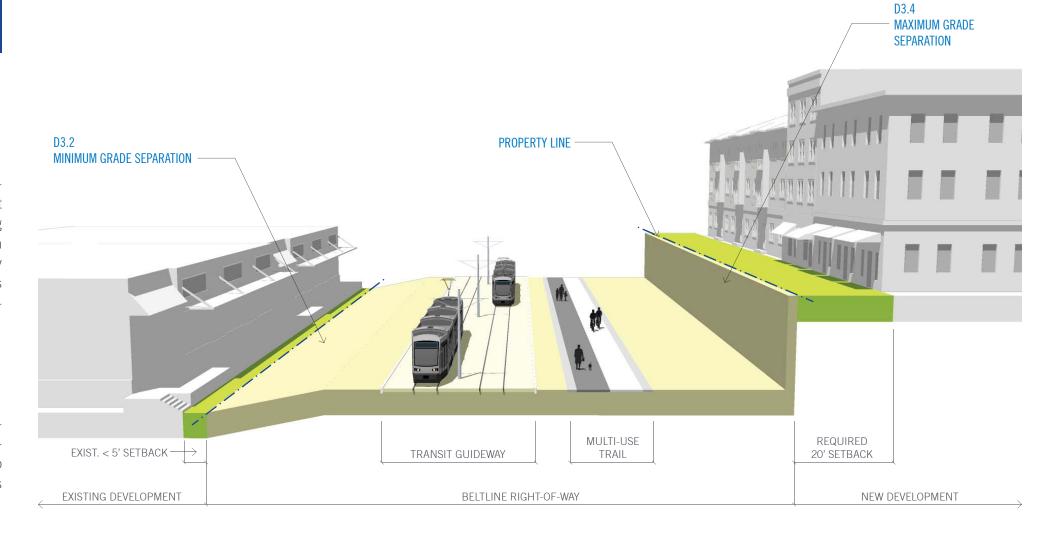
Little impact on access. Ramps and any slope stabilization or walls that may be required should utilize corridor typologies. Special consideration to management of desire lines may be necessary as even slight slopes may corral foot traffic.

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.









DI3.3
Moderate Grade
Separation



DI3.4Maximum Grade
Separation





VARIES

ATLANTA BELTLINE RIGHT-OF-WAY

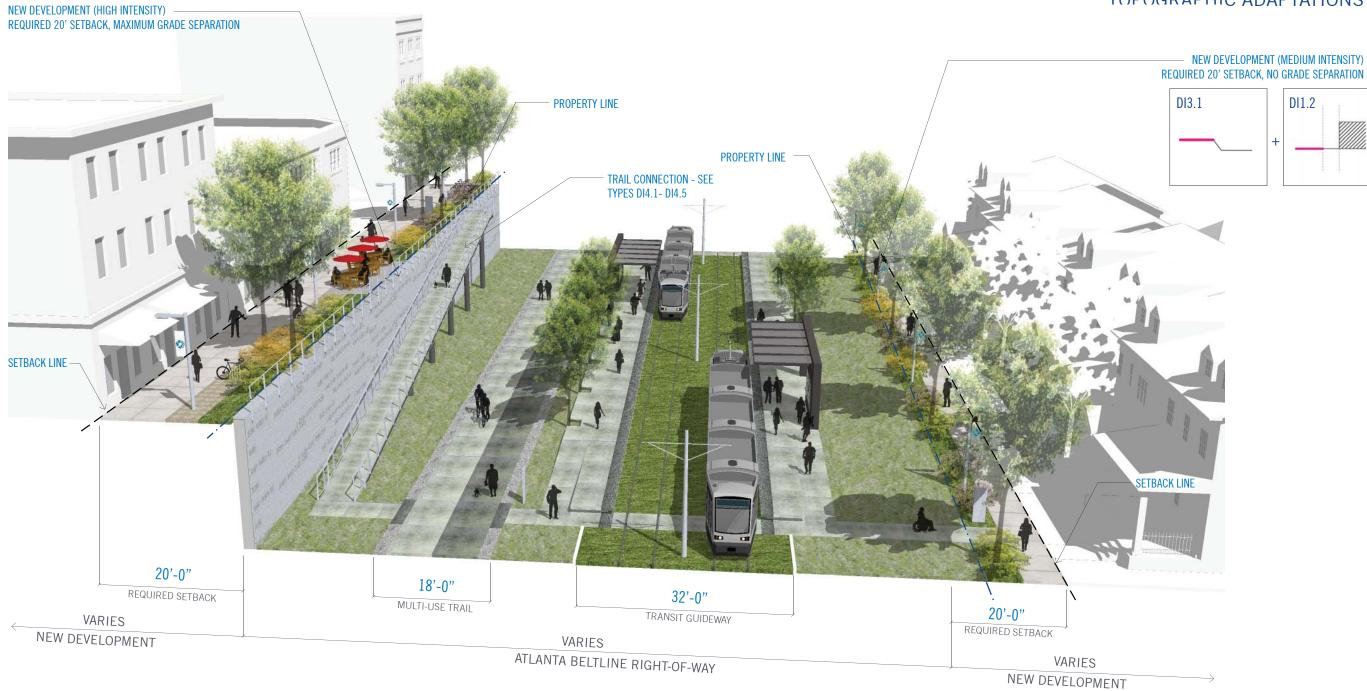


NEW DEVELOPMENT

VARIES EXISTING DEVELOPMENT



TOPOGRAPHIC ADAPTATIONS DI3



INTERFACE + GRADE ADAPTATION STUDY #3

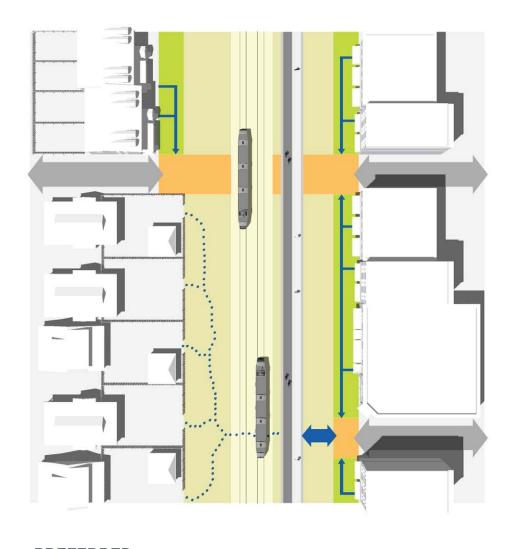


DI4 TRAIL + STATION ACCESS

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.

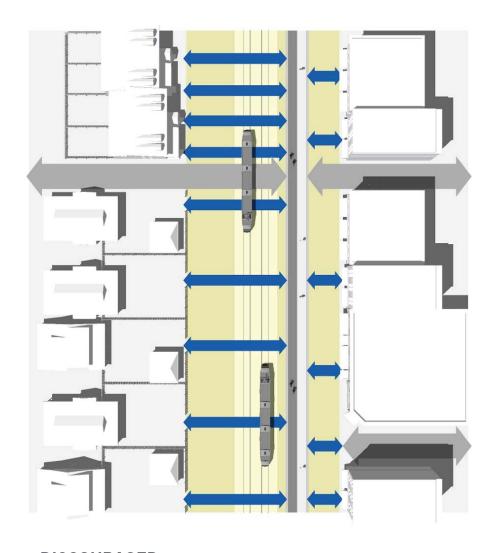
The following section defines six types of trail and station access:

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



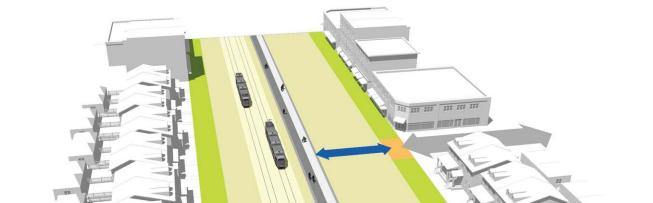
PREFERRED

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



DISCOURAGED

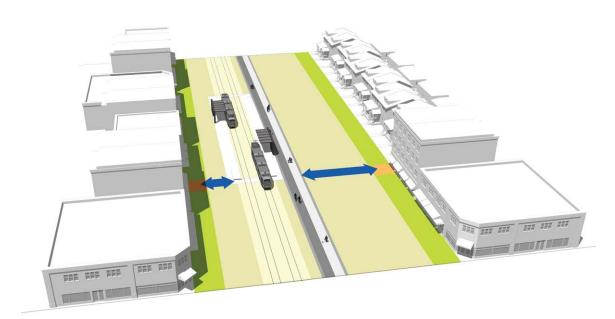
Avoid individual trail and transit connections to every adjacent building/private development. Too many connections clutter the Atlanta BeltLine corridor and detract from its greenway character.



TRAIL + STATION ACCESS

Intersecting Public Way DI4.1

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.



Transit Stations DI4.2

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.



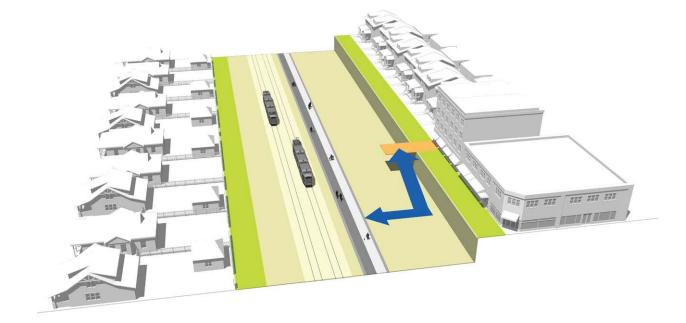
development interface

design

TRAIL + STATION ACCESS

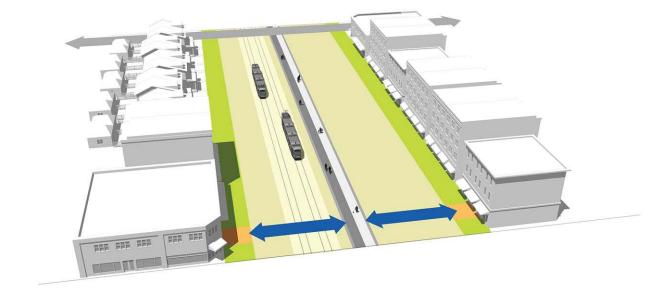
DI4.3 Extreme Grade Separations

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



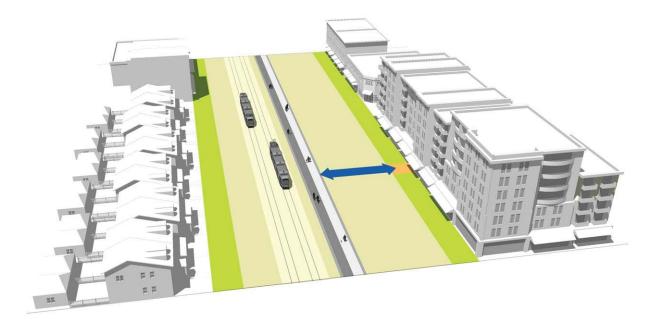
DI4.4 Excessive "Block Sizes"

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

High Intensity Development DI4.5

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.

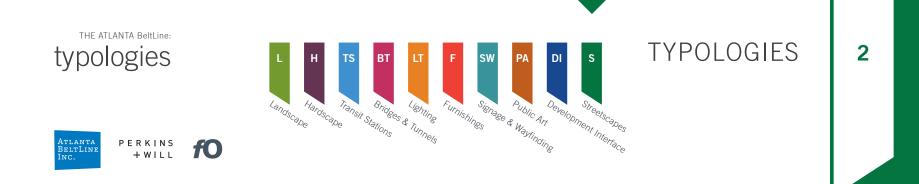
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To be developed.





STREETSCAPES



STREETSCAPES

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S4 Green Streets

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- **S4.2** Curb Extensions



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 in development contexts and right-of-way widths so that they are legible as they cross the city. At moments of intersection the Atlanta BeltLine will celebrate its presence by reflecting the corridor's design through material changes, signage, lighting, and site furniture. 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.



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



Green 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

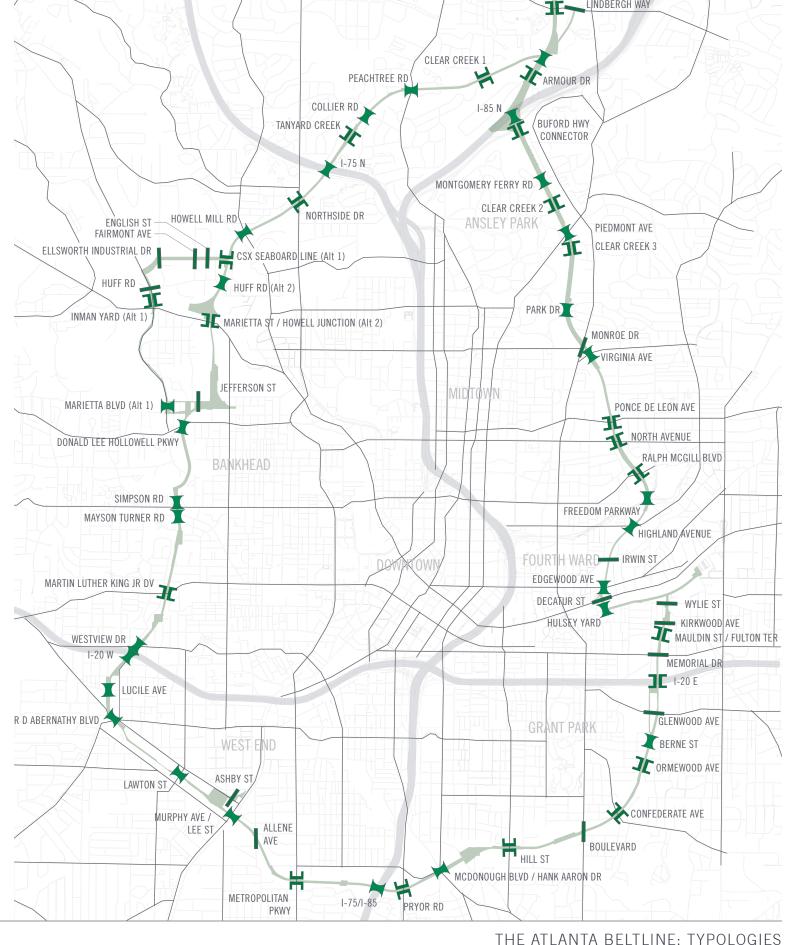
Most of the existing street crossings are grade-separated, and of those that are at-grade, only a few are major city thoroughfares. For freight railroads, this is the most desirable condition, but for a public space, this presents many challenges for public access and compliance with the Americans with 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 bridge abutments occupy the full width of the rightof-way, blocking easy access into the corridor from the street.

BeltLine Corridor

At-Grade Crossings

Above Grade Crossings

Below Grade Crossings





VIEW NORTH VIEW SOUTH UNDERNEATH STRUCTURE STREETSCAPE GENERAL PERSPECTIVE STREETSCAPE VIEW INWARD STREETSCAPE VIEW OUTWARD BELTLINE UNDERPASS VIEW NORTH BELTLINE UNDERPASS VIEW SOUTH BELTLINE BRIDGE VIEW INWARD N/A N/A N/A N/A N/A BELTLINE BRIDGE VIEW OUTWARD N/A N/A N/A N/A N/A SOUTH SIDEWALK VIEW INWARD SOUTH SIDEWALK VIEW OUTWARD NORTH SIDEWALK VIEW INWARD NORTH SIDEWALK VIEW OUTWARD ABOVE ELECTRIC UTILITIES STREETSCAPE ELECTRIC UTILITIES

IRWIN ST

EDGEWOOD AVE

HIGHLAND AVE

RALPH MCGILL BLVD NORTH AVE

EXISTING STREETSCAPES

Generally speaking, the streetscapes leading to the corridor are insufficient for the pedestrian and bicycle activity anticipated with the Atlanta BeltLine. In addition to this, of the 70+ existing street connections to the Atlanta BeltLine, almost every one is different from the others, varying by the dimension of the cartway, the number and configuration of driving lanes, the dimension of sidewalks, the presence of planting strips or tree wells, and the materials of curbs, pavers and sidewalks. Another variation is whether they are a city street or a state route, which impacts what can be done to them.

261

KIRKWOOD AVE

KROG ST

MAULDIN ST

STREET DESIGN

Generally speaking, the streetscapes leading to the corridor are insufficient for the pedestrian and bicycle activity anticipated with the Atlanta BeltLine. In addition to this, of the 70+ existing street connections to the Atlanta BeltLine, almost every one is different from the others, varying by the dimension of the cartway, the number and configuration of driving lanes, the dimension of sidewalks, the presence of planting strips or tree wells, and the materials of curbs, pavers and sidewalks. Another variation is whether they are a city street or a state route, which impacts what can be done to them.

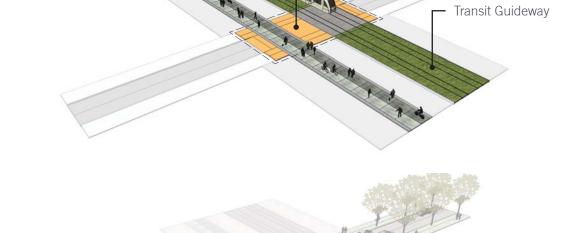
The Streetscapes Section is organized into four sections:

- Street Types (S1)
- Atlanta BeltLine Crossings (S2)
- Bicycle Access to Atlanta BeltLine (S3)
- Integrated Stormwater Management (S4)

S1 Street Types

S2 Atlanta BeltLine Crossings





- Raised Crossing

Streetscape Improvement

Streetscape Improvement

Multi-Use Trail

S4 Integrated Stormwater Management

STREET TYPES \$1

The various street types identified in the Sub Area Plans 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, which have been identified in the Sub Area Plans. The following seven types provide a summary of those sections.

ADJACENT DEVELOPMENT	SIDEWALK ZONE PARKING LANE LANE MEDIAN LANE LANE PARKING ZONE SIDEWALK STREET RIGHT-OF-WAY	ADJACENT DEVELOPMENT \

	AVENUES		BOULEVARDS		RESIDENTIAL STREETS		ALLEY	
	\$1.1 AV/MU-90	S1.2 AV/R-78	\$1.3 BL/MU-112	\$1.4 BL/R-112	\$1.5 ST/MF-60	\$1.6 \$T/\$F-50	\$1.7 AL-20	
Number of Lanes	2	2	4	2	2	2	1	
Lane Width	11'	11'	11'	11'	11'	10'	12'	
Bike Lanes	5'	5'	5'	5'	-	-	No	
Sidewalk	10'	10'	10'	6'	6'	6'	No	
Amenity Zone/ Planting Strip	6'	6'	42'	5'	5'	5'	4'	
On-street Parking	7.5'	7.5'	7.5'	7.5'	7.5'	7.5' (one side)	No	
Median	12'	-	12'	34'	-	-	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





streetscapes

design

STREET TYPES

Boulevard/Mixed Use (112' R.O.W.) \$1.3 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.) \$1.4 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)

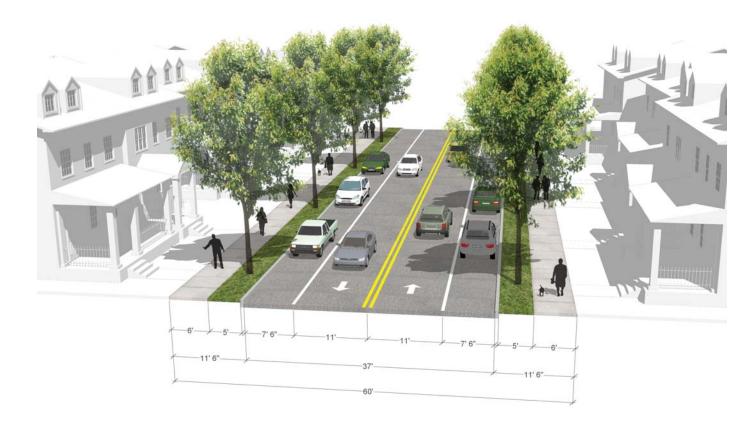
ST/MF-60

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





STREET TYPES



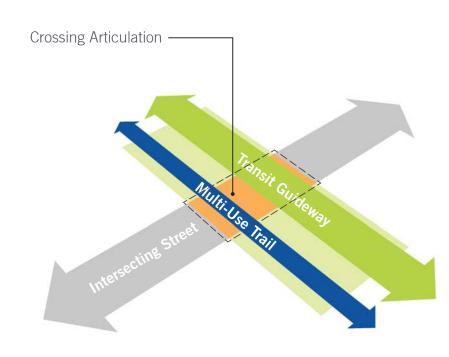
Alley (20' R.O.W.) \$1.7

AL-20

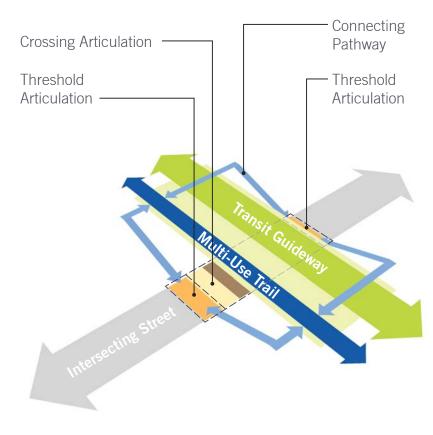
Single vehicular lane No on-street parking No sidewalks

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:

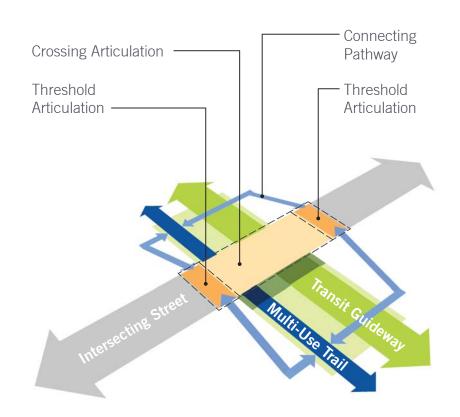
- At Grade Crossing
- Above Grade Crossing
- Below Grade Crossing
- Dead-End Connection
- Shared Right-of-Way

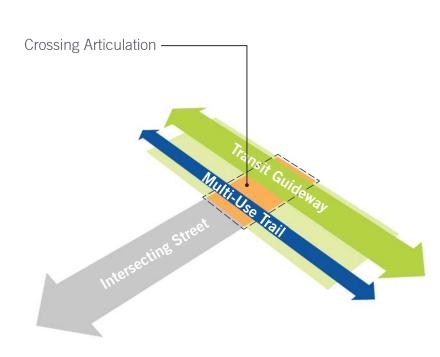


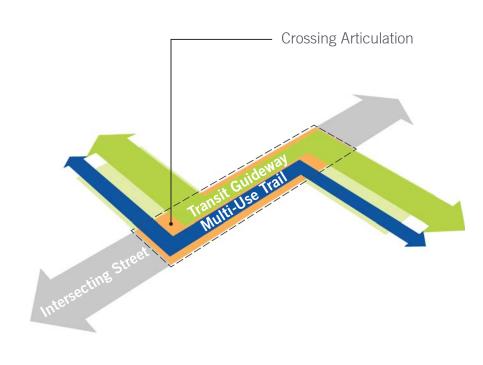
S2.1 At Grade Crossing



S2.2
Above Grade Crossing



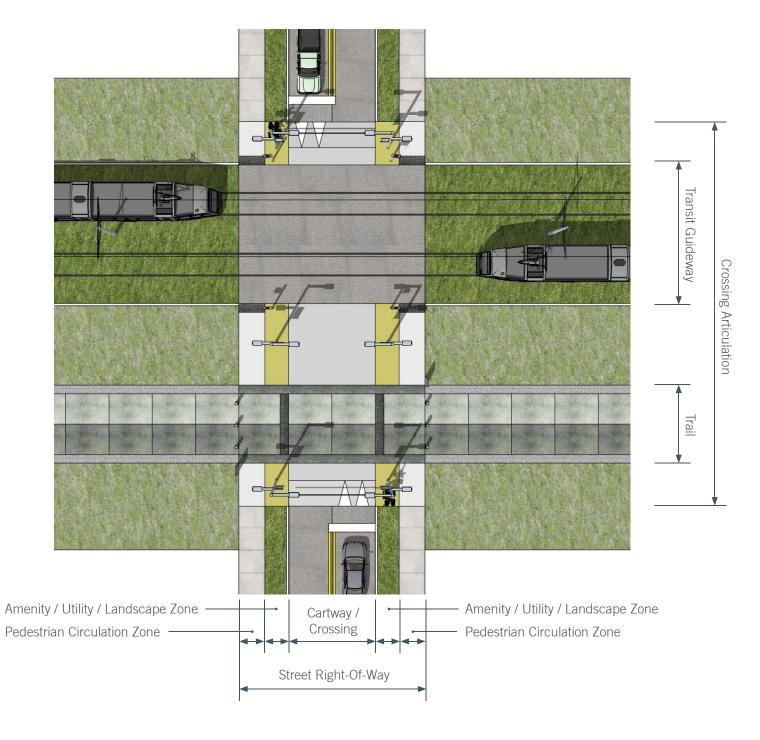




S2.3 Below Grade Crossing **S2.4 Dead End Connection** **S2.5** Shared Right-Of-Way

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. A porous paver system for this surface will tie the space together visually, mark it as an official Atlanta BeltLine connection, and is replaceable as city and utility workers perform various upgrades to the infrastructure running below city streets over time. Key challenges include the location of transit signals, bus stop shelters and signage. Because at-grade crossings are likely entrance points to the trail for maintenance and emergency vehicles, removable bollards should also be provided.



REVISED 04/05/2012

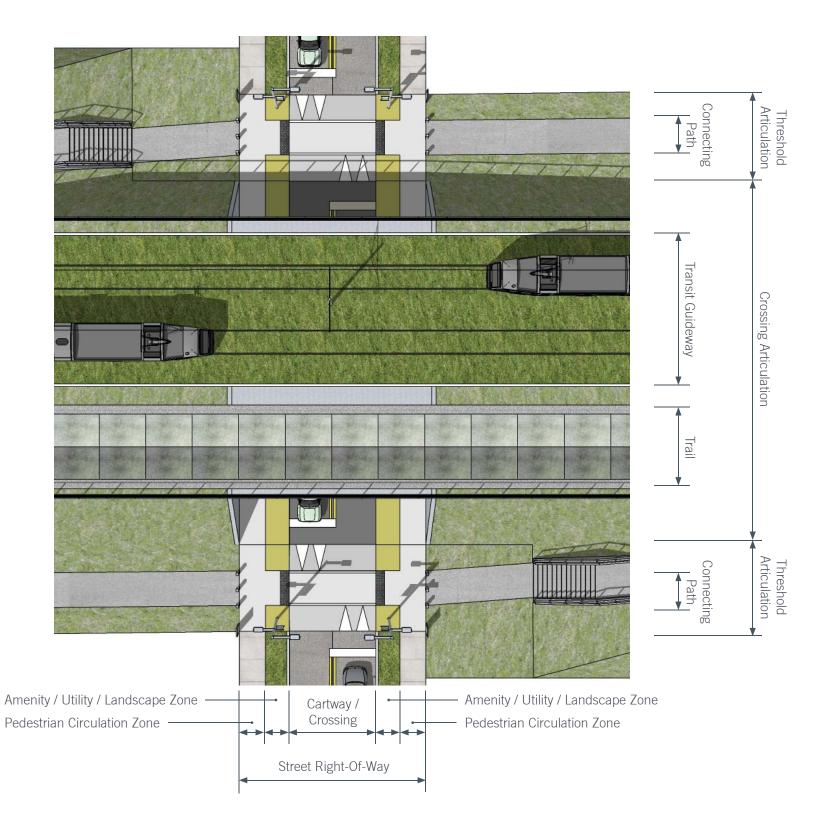


at Street Crossing

S2.2 Above Grade Crossing

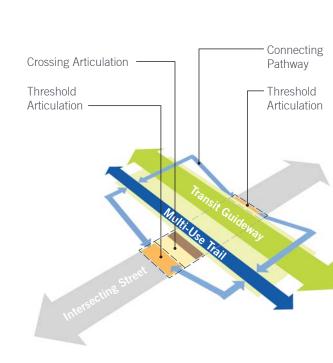
Above-grade crossings have high visibility with sometimes limited accessibility, offering great assistance with visual identity for the Atlanta Belt-Line, but creating difficulty getting physically up to the grade of the corridor. Depending on topography and the horizontal geometry of the intersection, 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. A porous paver system for the sidewalks and crossings will tie the space together visually, mark it as an official Atlanta BeltLine connection, and is replaceable as city and utility workers perform various upgrades to the infrastructure running below city streets over time. Other key challenges include the location of bus stop shelters and signage within the street right-of-way.

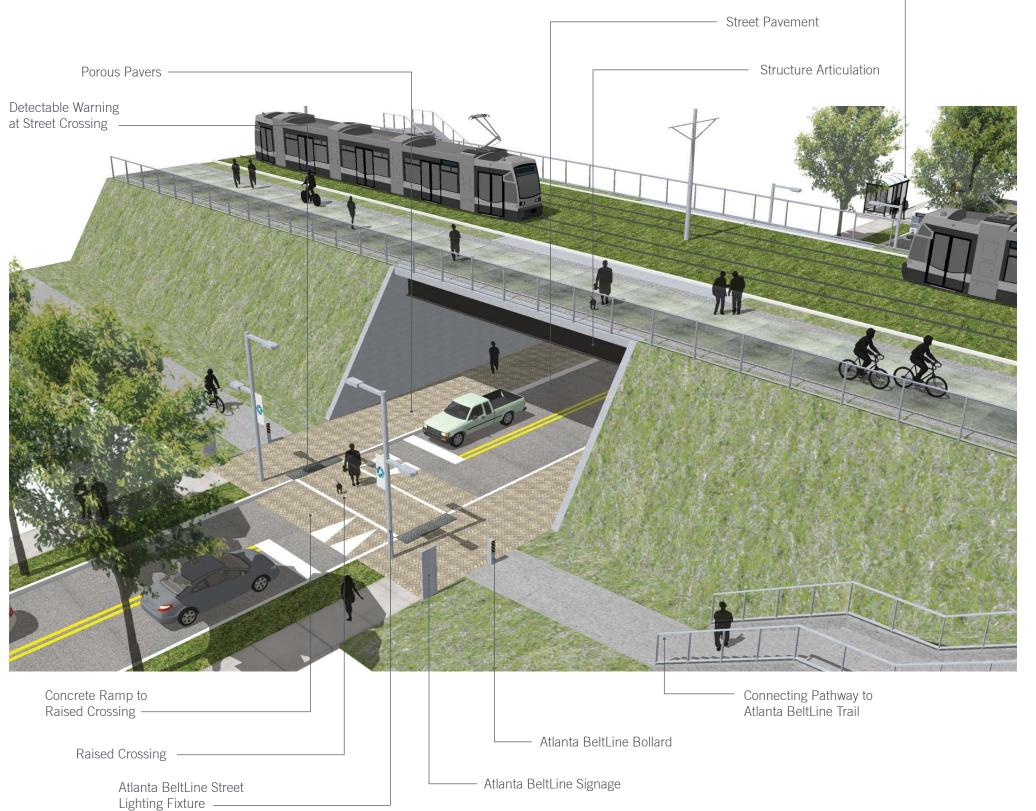
Where raised tables at crossings are not possible, the paver system can still be used for the street surface and crosswalks (see variations S3).





Above Grade Crossing S2.2



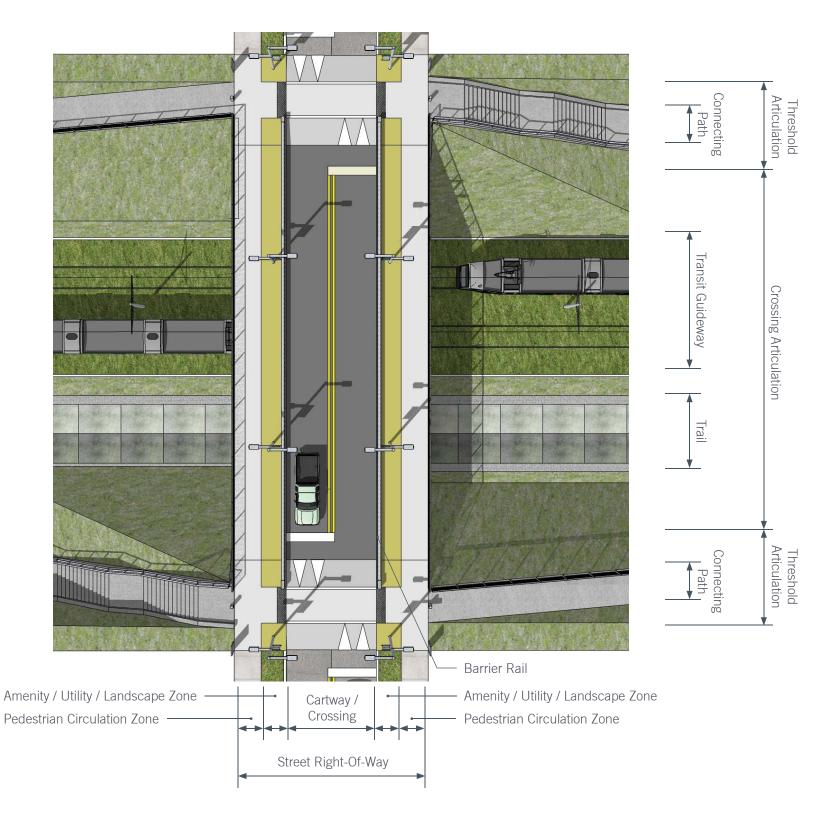


Bus Stop

S2.3 Below Grade Crossing

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, but where access points are not aligned across the street, elongated or separated raised crossings may be required. A porous paver system for the sidewalks and crossings will tie the space together visually, mark it as an official Atlanta BeltLine connection, and is replaceable as city and utility workers perform various upgrades to the infrastructure running below city streets over time. Other key challenges include the location of bus stop shelters and signage within the street right-of-way.

Where raised tables at crossings are not possible, the paver system can still be used for the street surface and crosswalks (see variations ST3).

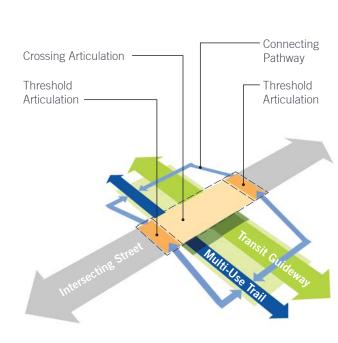


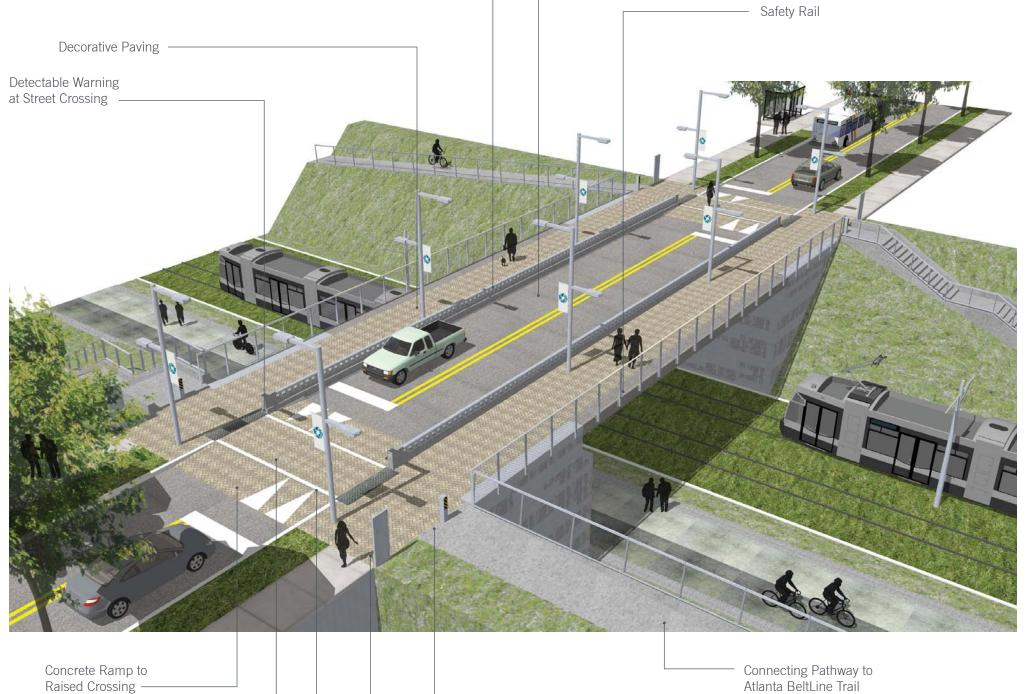






Below Grade Crossing S2.3





Atlanta BeltLine Bollard

Atlanta BeltLine Signage

Bridge Structure

Atlanta BeltLine Street Lighting Fixture –

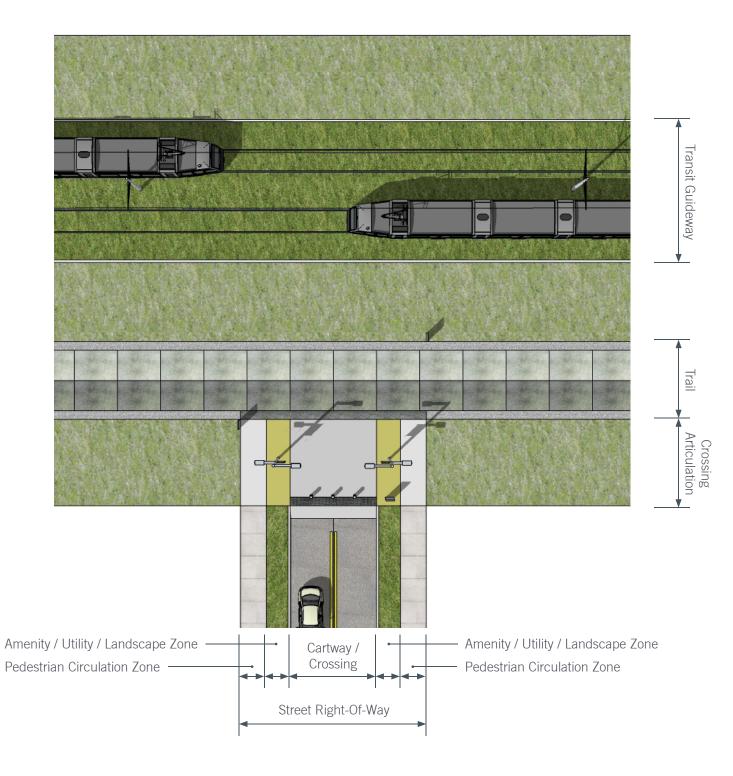
GDOT-Approved Barrier Rail

Raised Crossing -

Raised Crossing

S2.4 Dead-End Connection

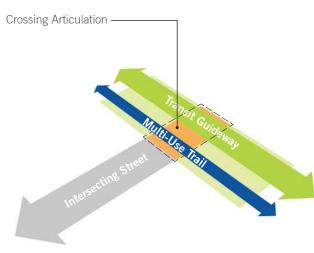
Dead-end connections vary in their degree of visibility and accessibility, but generally do provide opportunities for minor public gathering spaces, which may be especially helpful where the corridor itself is constrained. The specific design of the connection will depend highly on the physical conditions of each site, but generally speaking, there should be a seamless and accessible surface for connecting between sidewalks, trail and adjacent transit stations. A porous paver system for this surface will tie the space together visually and mark it as an official Atlanta BeltLine connection. Deadends that are also at-grade will be likely entrance points to the trail for maintenance and emergency vehicles, so removable bollards and an appropriate surface material like pavers or stone dust should be provided.



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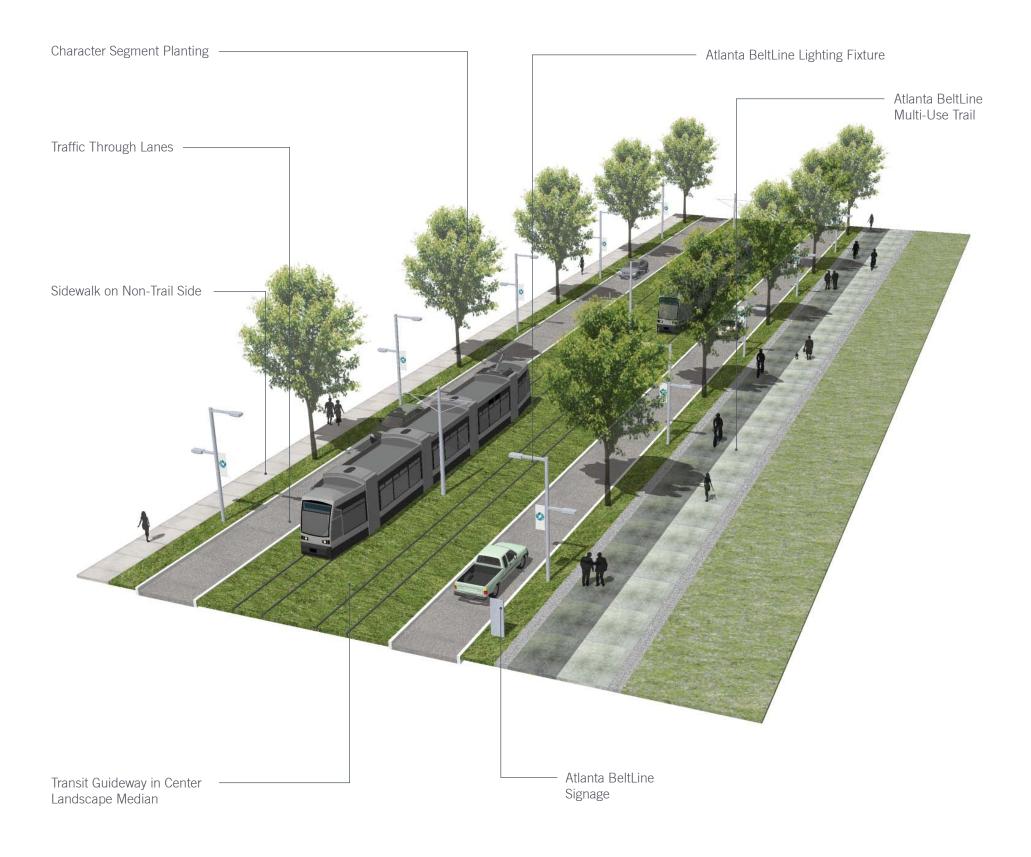
Dead-End Connection \$2.4





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, and use the porous paver system for the surface of various connectivity elements required in the design. Various configurations are illustrated here.



Shared Right-of-Way S2.5



S2.5.1
CENTER: Trail replaces cartway



S2.5.2
SPLIT: Trail replaces sidewalk each side



S2.5.3
SIDE: Trail adjacent to street r.o.w./replaces sidewalk one side



S2.5.4
CENTER: Transit isolated in median



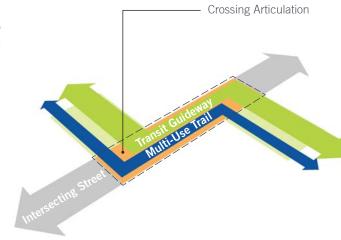
S2.5.5 SPLIT: Transit shares vehicular lanes



S2.5.6
SPLIT: Transit in dedicated lanes



S2.5.7 SIDE: Transit adjacent to street r.o.w.



BICYCLE ACCESS

One of the challenges of designing access to the Atlanta BeltLine from city streets is the potential for user conflict between bicycles and pedestrians. Bicycles are not permitted on city sidewalks, nor would that be a good idea. However, corridor crossings are often mid-block, so bicycles approaching either within the vehicle lanes of the street or in a dedicated bike lane must get up the curb and across the sidewalk to the access walk or ramp. Ideally this happens with a raised crossing as illustrated in the previous Atlanta BeltLine Crossings. This has 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. Where raised crossings are not possible, there are several options illustrated here.







No Bicycle Access

Curb Hop

Curb Cut + Bicycle Shoulder









Curb Cut + ADA Ramp

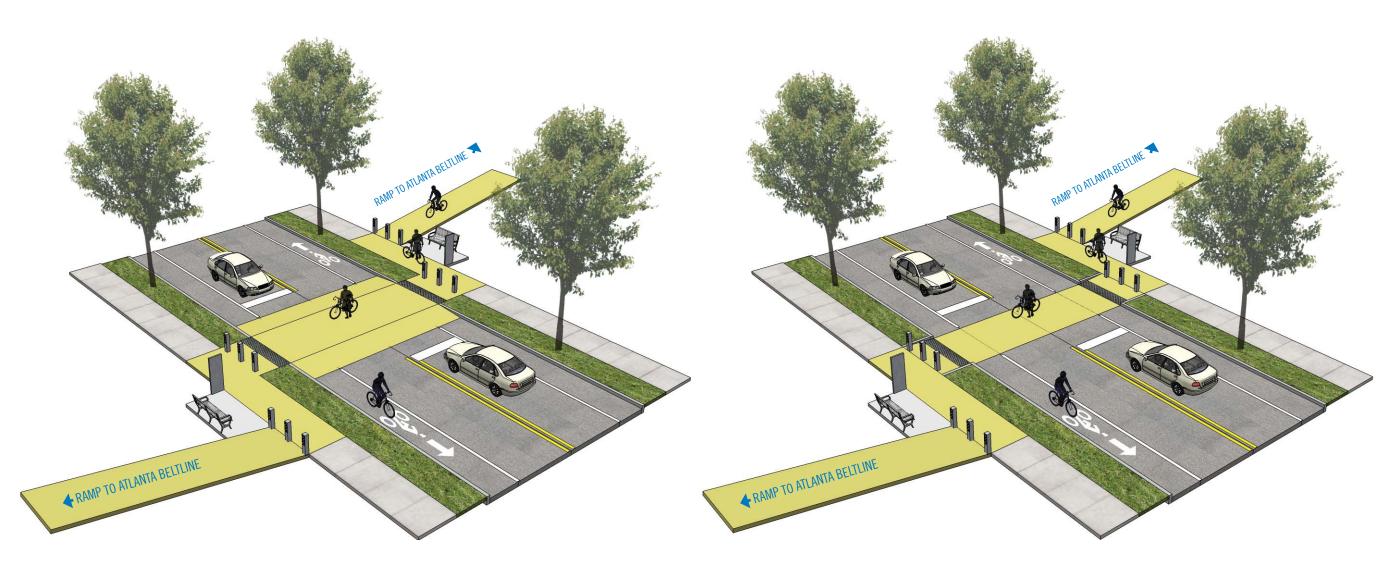
Curb Cut + Non-ADA Ramp

Curb Cut + Ramp + Crossing

Bicycle Ramp



BICYCLE ACCESS \$3



S3.8
Bicycle Access at Raised Crossing

S3.9
Bicycle Access at Standard Crossing

S3 BICYCLE ACCESS

The Atlanta BeltLine connects many of the proposed bicycle routes proposed in Connect Atlanta —Atlanta region's comprehensive transportation plan, shown at right with an overlay of the Atlanta BeltLine corridor.

Atlanta BeltLine right-of-way

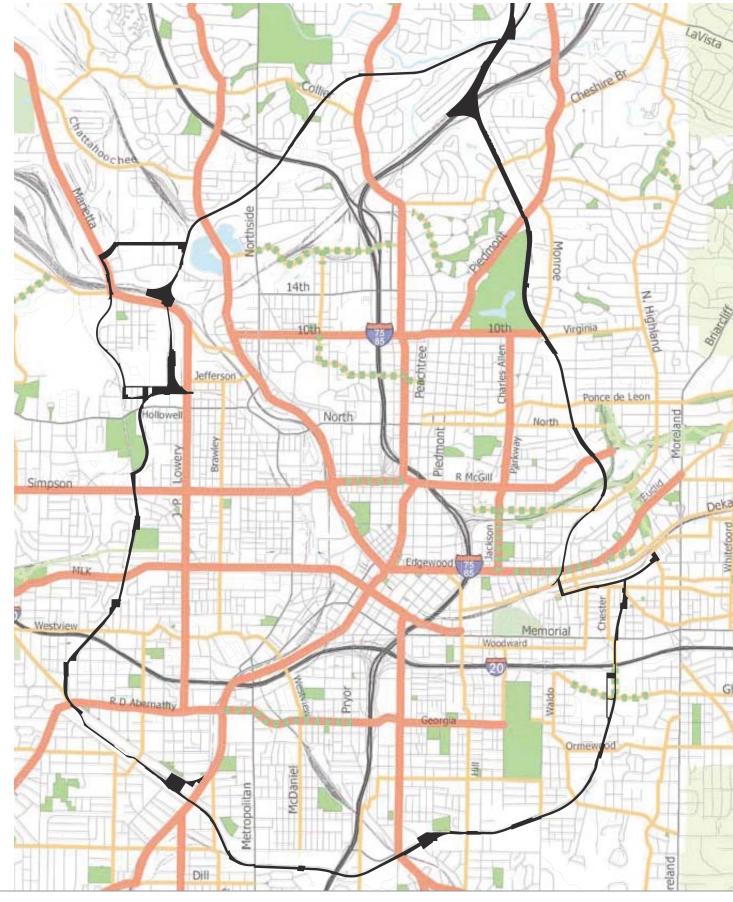
ConnectAtlanta Plan

Proposed Core Bike Route

Proposed Secondary Bike Route

Existing On-Street Bike Lanes

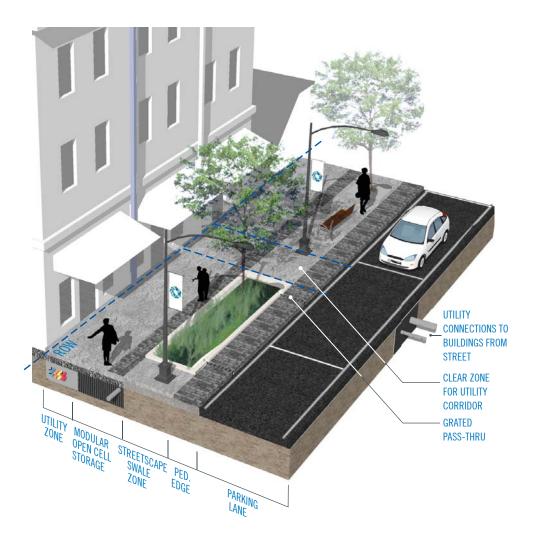
Existing Multi-Use Trails



design

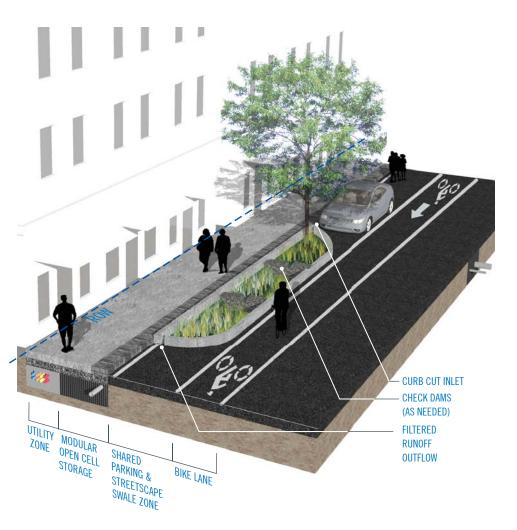
Green Street technologies provide water quality services (the first flush) not typically found associated with roadway drainage systems.

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.



S4.1 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).



S4.2 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.

GREEN STREETS \$4

Curb Extension S4.1

Integrated Stormwater Management \$4.2

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









Recycled Content



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

Use: Atlanta BeltLine Trail, Inner*

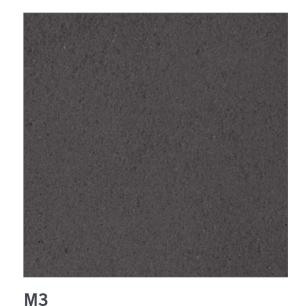
- ☐ Gray portland cement w/ maximum 20% fly-ash content 4
- □ 50% Granite aggregate ◆ Locally-available, dark gray (#89)
- □ 50% Marble aggregate ◆ Gray-white Alabama marble chips (#7)
- □ Non-fading gray color pigment (Scoefield - Landmarks Gray)
- □ Silicon Carbide
- □ Light sandblast finish
- □ Clear 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)
- □ 50% Marble aggregate ◆ Gray-white Alabama marble chips (#7)
- □ Non-fading gray color pigment (Scoefield - Landmarks Gray)
- □ Silicon Carbide
- Medium sandblast finish
- □ Clear acrylic sealer



CONCRETE, PRECAST Integrally-colored, precast concrete with form

Uses: Atlanta BeltLine Trail

- Mile-markers
- Rumble strips
- Ramps
- □ Gray portland cement w/ maximum 20% fly-ash content 🚯
- □ Custom-cast, locally-sourced ◆
- □ Non-fading gray color pigment (Scoefield - Landmarks Gray)
- □ Form finish
- □ Clear acrylic sealer



M4 CONCRETE, CAST-IN-PLACE

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

- □ Gray portland cement w/ maximum 20% fly-ash content &
- □ Locally-sourced granite aggregate ◆
- □ Non-fading gray color pigment (Scoefield - Landmarks Gray)
- □ 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



M6 CRUSHED-STONE - TYPE B



M7STABILIZED CRUSHED STONE - TYPE C



M8
ELBERTON GRANITE - THICK STONE

Uses: Atlanta BeltLine Trail, Soft Shoulder Ground cover in non-planted areas

- □ 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)
- Steel edging used in all conditions to contain crushed stone

Uses: Ground cover in non-planted areas

- □ Crushed granite stone, warm gray, locally-sourced ◆
- □ 100% passes through Sieve No. 2"
- □ Natural, non-toxic, non-staining, odorless, environmentally-safe stabilizer powder consisting of 95% Psyllium
- ☐ Steel edging used in all conditions to contain crushed stone

Uses: Plazas

- □ 1/2" Mini Rockmart SlateScape nuggets ◆
- Natural, non-toxic, non-staining, odorless, environmentally-safe stabilizer powder consisting of 95% Psyllium
- Steel edging used in all conditions to contain crushed stone

Uses: Wall Veneer, Capstone

- □ Elberton granite thick stone, medium grain, 10"x30" nominal size, 3" nominal thickness (cap stone 4" thickness) ◆
- □ 3 finishes: Thermal, polished and split-face**



^{**} Cut walls are made of thermal-finish stone with split-face accent strips. Capstones have thermal finish. (See also Typologies: Hardscape: Walls).

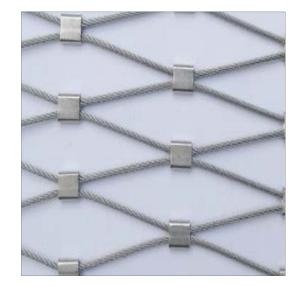
Recycled Content



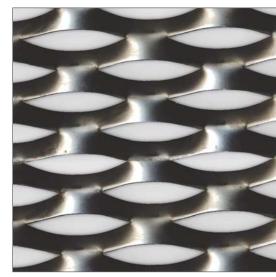
M9ELBERTON GRANITE - UNIT PAVER



M10 ELBERTON GRANITE - CURB STONE



M11
RAILING - TYPE A
Stainless Steel X-TEND Mesh



M12
FENCE - TYPE A
Aluminum expanded metal screen

Uses: Stairs, plazas, crosswalks

- □ Elberton granite, medium grain, max.
 2" thick (unless otherwise indicated),
 varied face size ◆
- □ 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 ◆ ♣

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

Uses: Stairs, ramps, barriers at fill walls,

- ☐ Stainless steel decorative railing with stainless steel mesh infill
- Stainless steel mesh infill: Carl Stahl
 DecorCable or equal
- □ Brackets, flanges, and anchors: stainless steel
- Metal mesh: stainless steel, wire rope joined with stainless steel ferrules
- ☐ 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 rectanular frame shapes; diagonal mesh direction for staircases

Uses: Visual screens or physical barriers

- □ Frame: aluminum alloy
- Decorative expanded metal panels:
 "Sunshade" expanded metal pattern as available from Niles Expanded Metals & Plastics or equal; aluminum





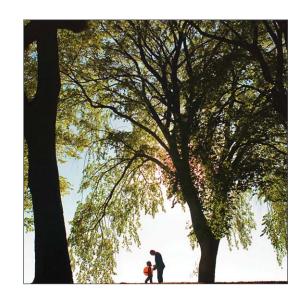
M12
FENCE - TYPE B
Chain link fence and screen gates

Uses: 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
- □ Polyer coating black color
- □ Polymer-coated steel wire
- □ Swing gates: gate leaf width 36 inches



M13
MEADOW GRASSES
& NATURALIZED AREAS



M14
TREES AND SHRUBS

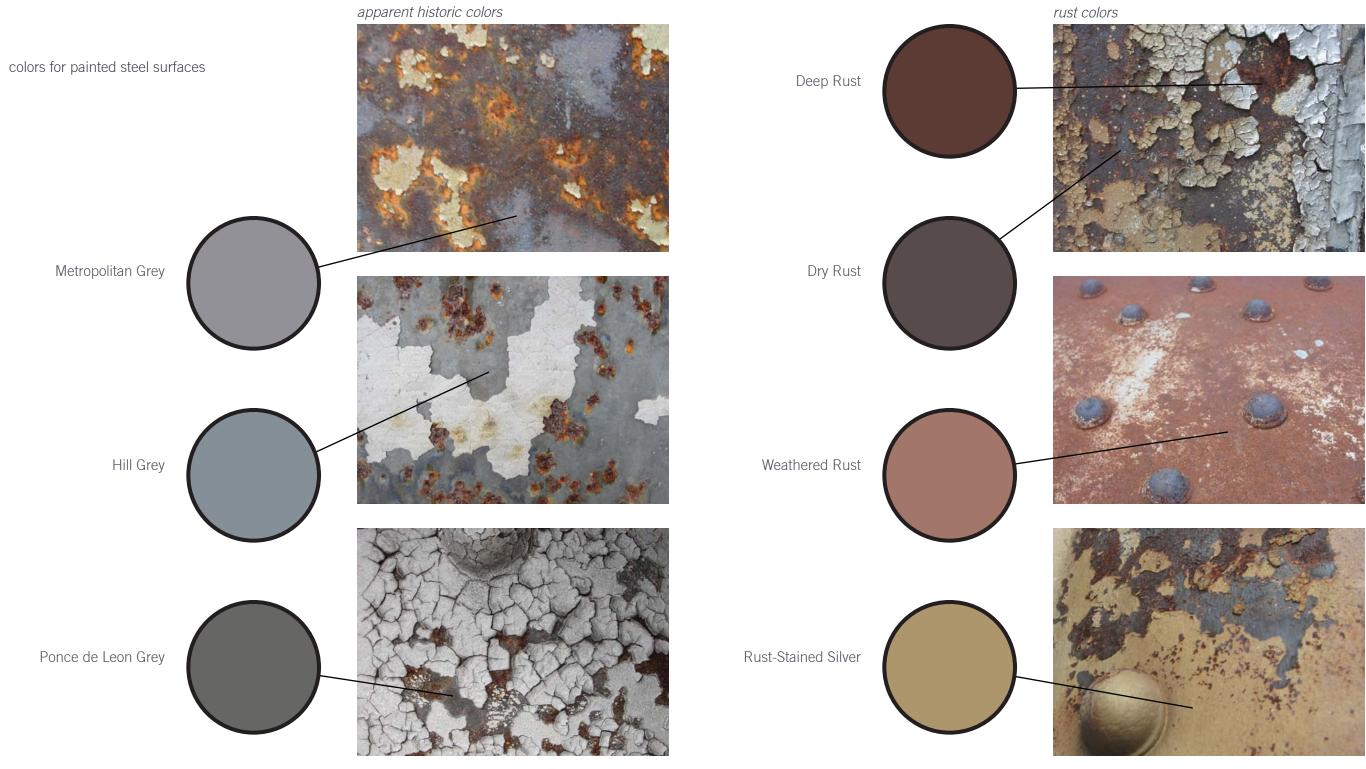
Uses: As specified, along Atlanta BeltLine corridor

- □ 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

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 ◆













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 <u>top ten</u> <u>sustainable cities</u> 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 <u>innovative leadership</u>
- To commit to continual improvement in sustainability practices
- To lead by example through the development and implementation of <u>policies and activities that support</u> <u>environmental sustainability</u>

▶ 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 <u>support best in class sustainability</u> <u>leadership by the City</u> by proactively identifying and implementing solutions to Atlanta's environmental and economic challenges, <u>leading the way for the City's efforts</u>.

The Atlanta BeltLine infrastructure will be built to <u>provide</u> <u>positive social</u>, <u>economic</u>, <u>and environmental benefits</u> 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) Cityowned 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.

Leading the City's Efforts

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

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

BeltLine's Contribution

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

Transportation

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 brownfields⁴ 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	Qual	lity
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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.

 $^{4. \ \ \}text{``Brownfield Remediation,''} \ \ \text{Atlanta BeltLine Website.} \ \ \underline{\textit{http://www.BeltLine.org/BeltLineBasics/BrownfieldRemediation/tabid/1801/Default.aspx}$



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, 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 <u>reforestation</u> of the Atlanta BeltLine corridor will contribute to the City of Atlanta's <u>emission reduction</u> 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 <u>alternative transportation options</u> 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 <u>energy-efficient fixtures</u> for lighting and interactive displays, the Atlanta BeltLine typologies present numerous opportunities for <u>on-site renewable energy generation</u> to minimize energy use.





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

THE SUSTAINABLE SITES INITIATIVE

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- 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

NEIGHBORHOOD DEVELOPMENT



SLL	Credit 3.	Reduced auto dependence
SLL	Credit 4.	Bike network and storage
GIB	Credit 9.	Heat island reduction
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GIB Credit 11. On-site renewable energy sources
GIB Credit 13. Infrastructure energy eficiency
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:

- 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

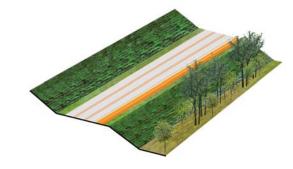
Integrated Sustainability

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.

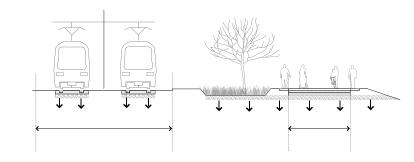
The Atlanta BeltLine landscape is native or native-adapted and does not require irrigation past the period of establishment. Opportunities for rainwater capture exist at key locations, such as transit stations. Water collected on-site can be used in public toilets, should those be included in the Atlanta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



WATER EFFICIENCY & QUALITY

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

THE SUSTAINABLE SITES INITIATIVE



* Prerequisite.

- 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

NEIGHBORHOOD DEVELOPMENT



- 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:

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



SOIL & HABITAT QUALITY



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

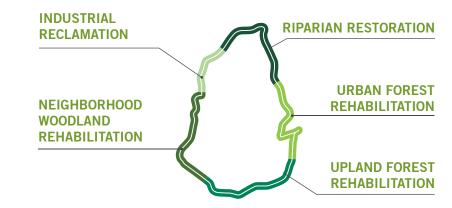
The Atlanta BeltLine landscape typologies calls for the restoration of a native ecosystem within the Atlanta BeltLine corridor, large sections of which are recovering from decades-long kudzu overgrowth. The native, and native-adapted plants that are specified for the corridor create the <u>Atlanta BeltLine Arboretum</u>, 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 <u>site-specific</u> and <u>ecologically rich</u>. 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



SOIL & HABITAT QUALITY

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

THE SUSTAINABLE SITES INITIATIVE



* Prerequisite

- 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

NEIGHBORHOOD DEVELOPMENT LEED-ND

- 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 con
 - servation
- 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:

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



GREEN MATERIALS, DESIGN & CONSTRUCTION



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.

Integrated Sustainability

The Atlanta BeltLine Sustainability Guidelines require compliance with portions of LEEDTM-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 (Pycnanthenum Incanum), and Little Bluestem
 (Schizachyrium Ccoparium)









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.



GREEN MATERIALS, **DESIGN& CONSTRUCTION**

Environmental Issues Addressed

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

Other Environmental Issues

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

Related Metrics

THE SUSTAINABLE SITES INITIATIVE



- 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

NEIGHBORHOOD

- 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**



GREEN OPERATIONS & MAINTENANCE



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 <u>durability and ease of maintenance</u> 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 <u>little or no maintenance</u>.

The <u>Atlanta BeltLine Maintenance Guidelines</u> (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

THE SUSTAINABLE SITES INITIATIVE



* Prerequisite

- 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



LEED-ND

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



COMMUNITY HEALTH, ACCESS & EQUITY



ABI Guidelines for Community Health, Access & Equity

- 1. Design, implementation, and operation and maintenance of the Atlanta BeltLine must comply with the <u>Atlanta BeltLine</u> <u>Community Benefit Guiding Principles</u> 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 <u>Atlanta BeltLine Study Groups</u> 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 <u>Atlanta BeltLine Subarea Master Plans</u>, 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.

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 Study².

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 Belt-Line users from early morning joggers to late-night workers biking back home.



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

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

COMMUNITY HEALTH, **ACCESS & EQUITY**

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

THE SUSTAINABLE SITES INITIATIVE

* 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

NEIGHBORHOOD DEVELOPMENT LEED-ND



- 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 Prereg. 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:

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



CONNECTIVITY & SMART GROWTH



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.



CONNECTIVITY & SMART GROWTH

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

THE SUSTAINABLE SITES INITIATIVE



- 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



- DEVELOPMENT LEED-ND
- SLL Prereq. 1. Smart location
- SLL Credit 3. Reduced auto dependence
- NPD Prereg. 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:

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



