WASHINGTON
UNION STATION
STATION EXPANSION

Draft Environmental Impact Statement for Washington Union Station Expansion Project

Appendix A3b – Final Concept Development and Evaluation Report Appendix B: *Supporting Urban Design and Open Space Information for Concept Development*

U.S. Department of Transportation
Federal Railroad Administration

July 13, 2016

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WASHINGTON
UNION STATION
STATION EXPANSION

Appendix B

Supporting Urban Design and Open Space Information for Concept Development

Task 2.3B

July 13, 2016

Contents

B-1: Introduction

Building upon the Urban Design and Open Space Data Collection and Analysis from prior work phases, along with Partner feedback, the design team has studied a variety of urban design approaches to placemaking and connectivity to support the concepts for the SEP. This report documents the development of options for an open space framework and vision for the entire project area and its relationship to the larger neighborhood context.

Urban design opportunities cover a range of geographic areas, including: neighborhood approaches and view corridors; nearby streets, sidewalks and open spaces outside the SEP boundary; and streets, sidewalks and open spaces within the SEP boundary. One of the most significant factors driving future urban design opportunities in all of these areas is the future overbuild. While the SEP scope excludes the planning and design of BP, the Concepts must ensure that the overbuild is not precluded. Varying land use mixes, building massing configurations, or open space programming could dramatically impact surrounding pedestrian and vehicular flows, views to and from the project area, and opportunities for neighborhood connectivity. Without the ability to predict future variables (especially those related to BP), the study has explored a wide range of strategies, a "menu" of potential opportunities that can adapt to the emerging concepts and remain applicable and responsive to future development including BP.

As viable SEP concepts emerge, some of these urban design opportunities may be more applicable to some concepts than to others. For example, a particular open space or retail strategy on the deck level may make more sense with one particular Train Hall configuration, but not another. Ultimately, it is the intent of this report to illustrate that any of the current concepts have one or more promising urban design and open space framework narratives that can result in successful and well integrated public spaces for the SEP. These narratives, as articulated in this document, are potential jumping off points for more specific designs as the SEP alternatives are selected and advanced and the massing of BP is more well defined.

URBAN DESIGN AND OPEN SPACE PROJECT ELEMENT

Guiding Principles

Ultimately, the SEP can be a catalyst for wide-ranging improvements in and around WUS, such as: a clear system of inviting and well-connected spaces that connect the development back into the fabric of the city in a seamless and integrated way; strengthened pedestrian, bicycle, vehicular and visual connections throughout the area; active, mixed and engaging approaches to site and neighborhood programming; calculated and feasible development strategies that promote economic growth and strong, healthy communities; and a distinct and unifying site narrative. In order to achieve these and other important goals, the study relied on a set of key working principles, described in section 3a of this document, that guide the urban design and open space strategies.

Geographic Opportunities

Particular focus has been paid to examining the areas within and immediately adjacent to the boundaries of the project area boundary and their potential to deliver maximum project benefits. Section 3a of this document describes these geographic opportunity areas in more detail:

- Columbus Circle (technically outside SEP boundary, but critical area of influence)
- Areas adjacent and connecting to Historic Station and potential future Train Hall
- Potential open space above tracks, south of H Street
- H Street corridor above tracks
- Potential open space above tracks, north of H Street
- Potential open space above tracks at northern edge of site, overlooking tracks and NoMA (NoMA Terrace)
- Metropolitan Branch Trail extension along western edge of site (proposed publicly available greenway open space above WMATA Right of Way)
- Potential elevated open space, undetermined location (referred to within SEP as 'Elevated Prospect')

Placemaking Strategies

There are a number of exciting opportunities for creating a distinctive sense of place in the streets and open spaces in and around WUS. Ultimately, the SEP and BP development can be coordinated to maximize station functionality, public amenity, and urban vibrancy in a manner that is grounded in the context of Washington, D.C. The resulting places can be inventive and forward-thinking, while also being contextual. Section B-5 describes a number of potential strategies. These are presented as a "mix-and-match" menu of narrative catalysts. Some may work well paired with one or more other strategies; some may only work with a limited number of emerging SEP concepts. The critical intent is that SEP and future air-rights development achieve a coherent overarching narrative or set of narratives to guide placemaking, identity and broader urban design and programming connections to adjacent neighborhoods and city beyond.

Connectivity Strategies

While the Placemaking strategies involve broader themes of identity and sense of place, Connectivity strategies are more localized, specific interventions with immediate and definable physical attributes. While less dependent on the specifics of future BP development, they are more dependent on the interface with adjacent public and private landowners. Greater variety and intensity of connections to and from the site can only enhance multi-modal accessibility, neighborhood connectivity and positively complement the overall SEP goals. Section 3b explores a number of these potential urban design and open space connections.

PROCESS AND METHODOLOGY

Urban design and open space strategies were developed over the past several months through a collaborative, iterative process of design workshops with the Partners. Initial workshops included updates on the design team's Urban Design and Open Space Data Collection and Analysis deliverables; and site visits to relevant spaces and urban design precedents in Washington, D.C. Later workshops included: placemaking and connectivity concepts and development; other relevant precedent studies; and coordination with concurrent retail and programming efforts.

B-2: Urban Design Goals and Objectives

The range of study for urban design and open space is informed by the overall design Goals and Objectives and project Purpose and Need. Specific passages related to the public realm are extracted below. Challenges, Goals, and Objectives described here will be addressed in the following sections, with urban design and open space opportunities and strategies.

CHALLENGES

- Bicycle facilities are at capacity
- Pedestrian access to the parking garage is uncomfortable and unwelcoming
- WUS and the extensive rail yard to the north block access between existing and emerging neighborhoods and economic development areas
- The two existing connections – the H Street Bridge and the K Street Tunnel – are not designed for comfortable pedestrian use
- Future development in the vicinity of WUS will require new connections to accommodate passengers and provide neighborhood connectivity

GOALS AND OBJECTIVES

- Provide a World-Class Railroad Station for the National Capital Region
    - Better integration between transportation modes, and
    - Enhanced public spaces for passengers and Station visitors.
- Provide Improved Connectivity Among Transportation Modes
    - Provide adequate ingress and egress for all modes or connections, including bicycle and pedestrian, to meet current and future demand.
    - A successful Station will improve the access and egress capacity, provide better connectivity to the surrounding street grid, and better integrate the street system with the multimodal connections at WUS.
- Provide Better Integration between WUS, its Surrounding Neighbors, and Planned Future Development
    - Provide connectivity with multiple entries including enhanced access for passengers arriving to and from NoMA, H Street, Capitol Hill, and other origin/destination points.
    - Support the District of Columbia's and metropolitan region's economic development, community building, and transportation access goals.
    - Design new station facilities to connect with future land uses in the immediate vicinity of the Station.
- Preserve and Maintain the Historic WUS
    - Distinguish the historic station and new development in such a way as to establish a meaningful dialogue between first and second centuries of WUS's history

B-3: Guiding Urban Design and Open Space Principles

The Urban Design Principles that follow establish a solid foundation upon which to build a set of broad project goals as well as specific measurable objectives that address the full range of project challenges. These core principles form the fundamental underpinnings of the planning and design recommendations that follow. They provide a mechanism by which to evaluate potential strategies and test alternative concepts in order to determine how effectively they would achieve project goals, ensure effective urban design and advance successful place-making. As such, these principles are critical to the decision-making process through NEPA and beyond.

A set of principles should be both broadly applicable but also specific to the unique characteristics and history of WUS and Washington, D.C. They should allow decision makers to actively refer to them for guidance, while providing flexibility as to how to achieve the larger priorities they represent. At WUS, there are a robust set of challenges, project goals and objectives, as well as specific site context and history to draw upon. There is a rich site context that provides a foundation to build the principles upon. The site is rooted in history with contemporary challenges dealing with issues such as connectivity, access, and pedestrian environment. The principles aim to address these issues head on with thoughtful tenets guided by urban design best practices. Project Challenges, Goals and Objectives related to the public realm are described in Section B-2.

Ultimately and perhaps most importantly, the Principles represent a set of collective values and a firm commitment to the realization of an extraordinary SEP, including a richly detailed, highly engaging, animated, and connected public realm successfully set within the grand civic context of Washington, D.C. and the local context of both the world-renowned National Mall and adjacent Capitol Hill and NOMA neighborhoods.

The Urban Design and Open Space Principles inform and guide the Open Space Opportunities, Placemaking Strategies and Connectivity Strategies described in the subsequent sections.

Following an in-depth analysis of the site and its surroundings, careful consideration of the overall project objectives, and capitalizing on the decades of experience our team brings to this project, the following Urban Design and Open Space Principles have been established for this project.

Honor the History

- Honor and express the history of WUS to contribute to the sense of place

Activate the Site

- Activate and enliven streetscapes with active retail frontages, generous outdoor seating, robust landscape plantings, and active programming
- Attract visitors with integrated, active, and multi-faceted open spaces
- Improve walkability and support healthy, vibrant streets with active and enhanced circulation corridors

Connect the Neighborhood

- Increase the porosity of the station to improve integration with the surrounding neighborhood
- Enhance east/west connections to improve neighborhood connectivity
- Increase visitor comfort and enhance wayfinding with clearly organized, well-marked, and highly functional multi-modal components

B-4: Urban Design and Open Space Opportunities

The specific configuration of the SEP site and its topography, combined with an understanding of the urban context, offer a range of open space opportunities. The extensive site perimeter, reaching from Columbus Plaza in the south to K Street in the north abuts varying edge and neighborhood conditions. Generally speaking, a mental map of the area's identity ranges from a more civic identity in the south to a more neighborhood identity in the north, with some variation in scale east-to-west that distinguishes the finer-grained block structure east of the tracks(See Figure B-1). This gradient of scale and neighborhood identity can begin to inform the nature and scale of a potential open space network of the SEP and BP development. In addition, without speculating on the specific form of BP, it is possible to imagine a range of open space types stretching from south to north that responds to the civic-to-neighborhood north-south gradient, as well as the distinct western (First Street wall and future potential linear public open space feature along the west edge of the project greenway connection) and eastern (interior block service access) edge conditions.

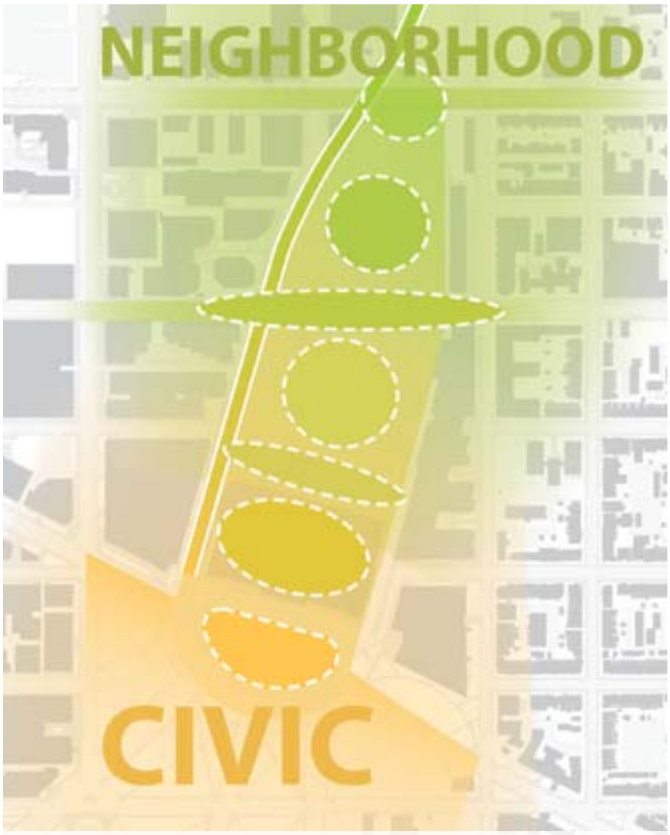


Figure B-1

Great civic spaces have scale and stature, they are physically and materially distinct, creating a memorable place. Their planting, paving, furnishing, lighting, design detailing, and special features combined to form a strong image often as part of a highly sensory environment that helps to create a place that is magnetic, unique and timeless.

The open spaces of the SEP and BP can be a coherent, organized, and inter-connected series of attractive spaces. However, they can also be more: a distinctive public realm whose scale, character, quality, and programming are commensurate with the extraordinary civic asset that is Union Station. The public realm can be activated by retail and restaurants and enlivened by cultural uses and community events. It can accommodate commuters, welcome visitors, and embrace residents. It can include a range of active and passive spaces, a balance of taut hardscape, lush landscape, and generous public amenities. Most of all it can embrace and capitalize on the unusual site that surrounds WUS and celebrate its unique relationship to historic and contemporary Washington DC.

The SEP identifies eight (8) potential open space geographic or typology opportunities. Each one of these can be conceived of in a variety of forms. For example, the open space opportunity on the deck, south of H Street, could be a civic plaza, a lush park, or an inhabited roofscape integrated with the SEP architecture. The intent of identifying the various opportunities together is to consider the site and it surroundings in a holistic and complementary manner, and, ultimately, infused with an additional layer of placemaking and vibrancy as described in the next section.

NOMA TERRACE

OPEN SPACE NORTH
OF H STREET

H STREET

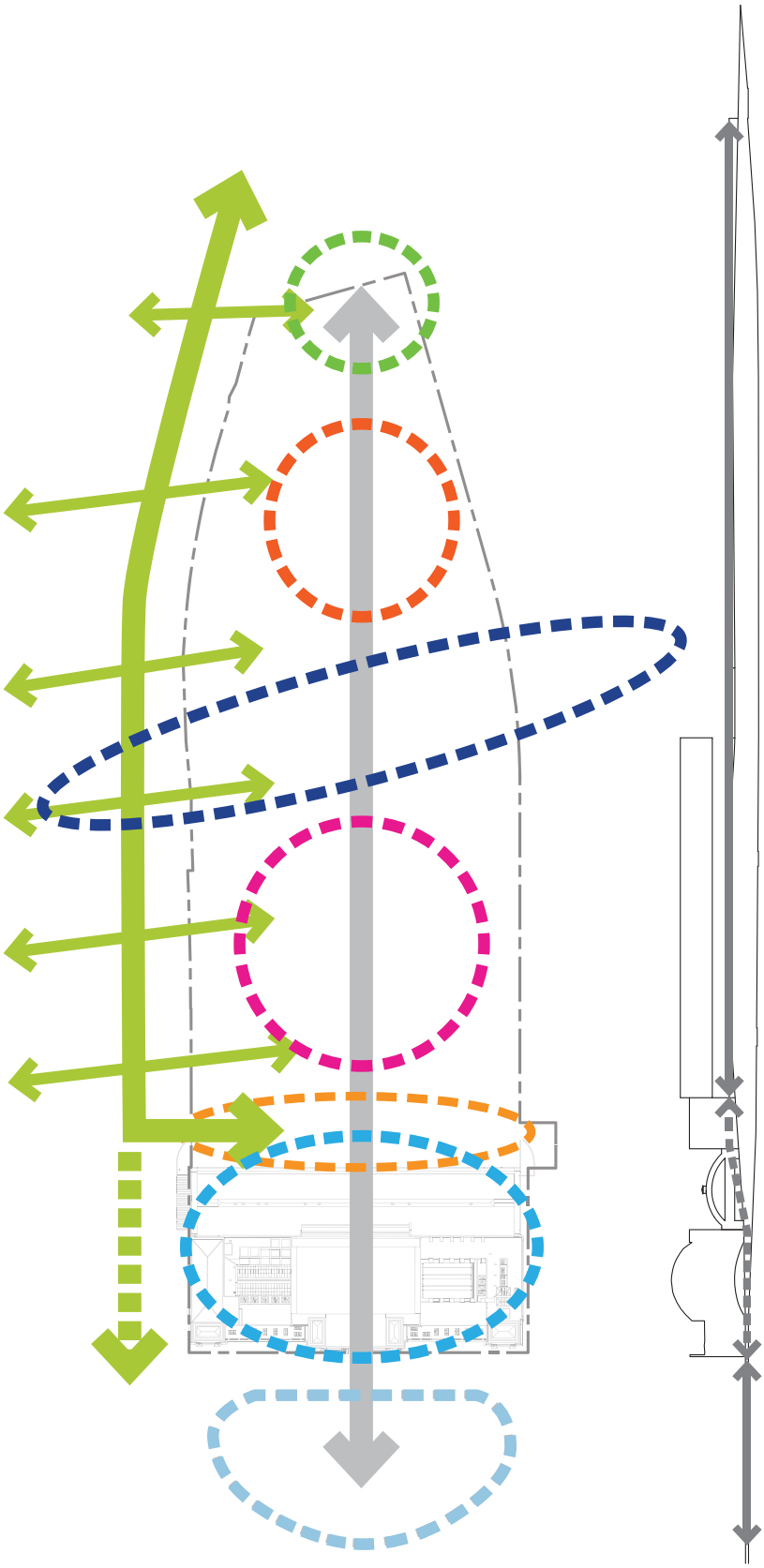
OPEN SPACE SOUTH
OF H STREET

HISTORIC STATION +
TRAIN HALL

COLUMBUS PLAZA

PUBLICLY AVAILABLE
OPEN SPACE ABOVE
WMATA RIGHT OF WAY
(GREENWAY)

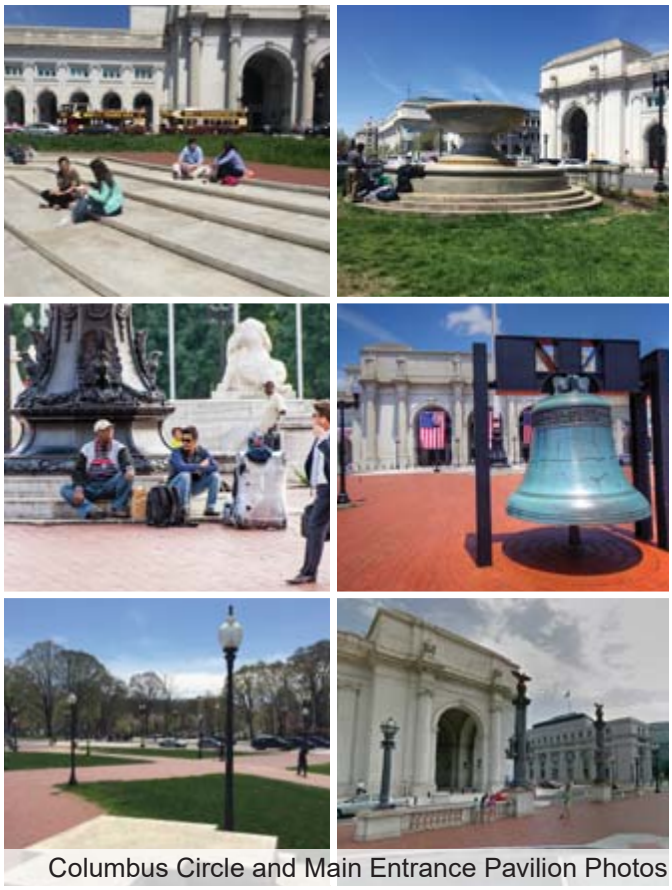
ELEVATED PROSPECT



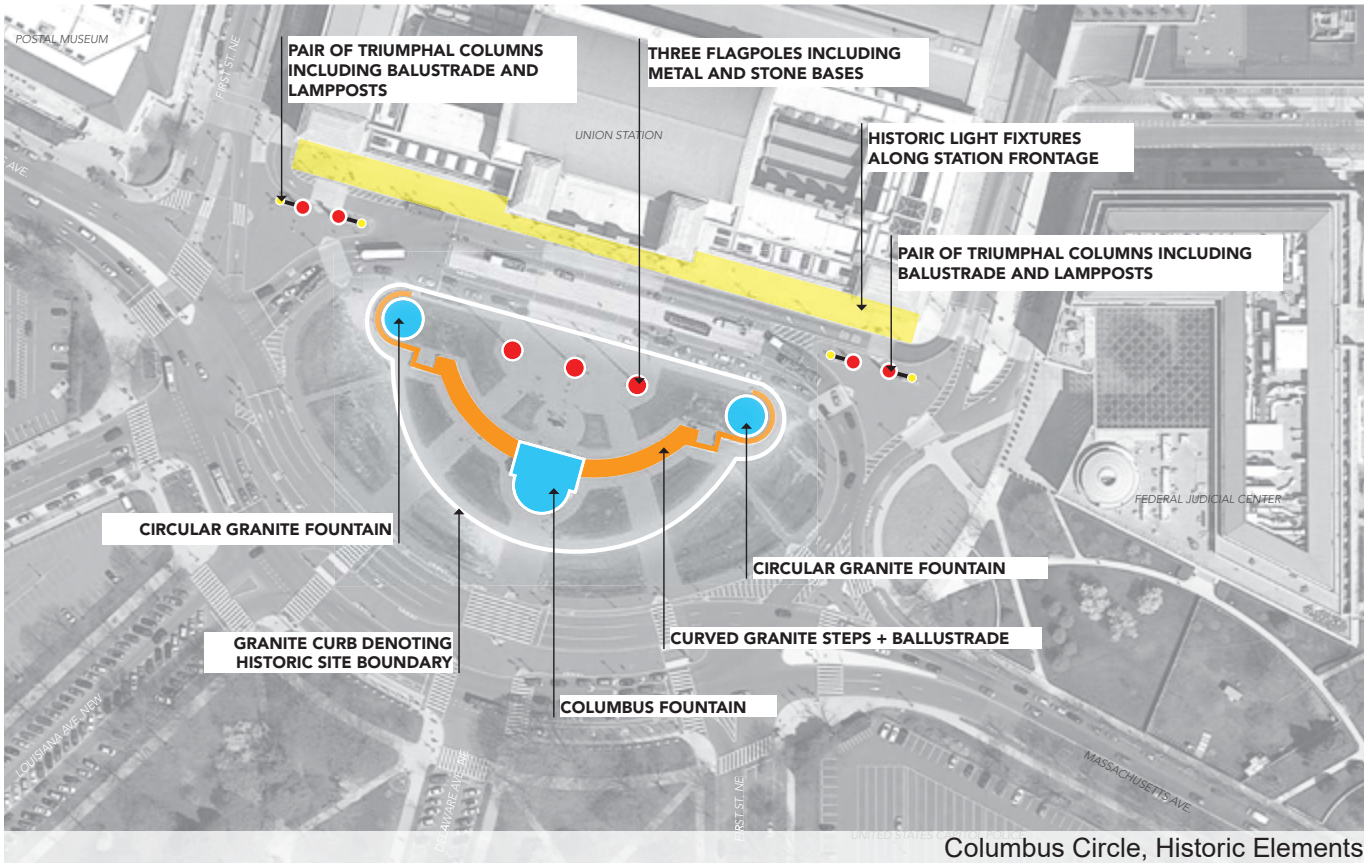
OPEN SPACE OPPORTUNITY 1:
COLUMBUS PLAZA

This broad plaza serves as an iconic forecourt to the historic Union Station. It is an important physical threshold between the Station and the City and the physical manifestation of important symbolic relationships. With its grand fountain, broad pathways, terraced steps, and monumental flagpoles, Columbus Plaza is highly successful as a civic setting befitting the grandeur of WUS However, it is largely underutilized, especially for its scale and given the volume of vehicles and complexity of traffic pattern that surround the space. Its sheer size and prominent location make it ideally suited to host festivals, events, and public performances. While respecting the historic structure, the emerging SEP concepts can set the stage for a refreshed Plaza that maximizes its setting as a dramatic foreground for one of Washington's most iconic buildings. As the next generation of station development increases its transit capacity, daily visitors and importance in the city, this space can be transformed into a truly extraordinary place -- to interact, to gather, to celebrate, to congregate, as well as to arrive and depart in grand civic fashion.

This potential, however, is not explored fully within the SEP, as it falls outside of the project boundary definition. Despite this exclusion, SEP concepts must consider the importance of the space as it contributes to the interface of various intermodal components: taxis, car shares, private vehicles, tour buses and pedestrians all share Columbus Plaza's northern edge, at the interface with the WUS primary front entrance. SEP concepts will impact this interface in a variety of ways depending on scenarios for these key project elements.



Columbus Circle and Main Entrance Pavilion Photos



Columbus Circle, Historic Elements


Columbus Circle and Main Entrance Pavilion Photos


1906, Columbus Circle, Penn Engraving Co.

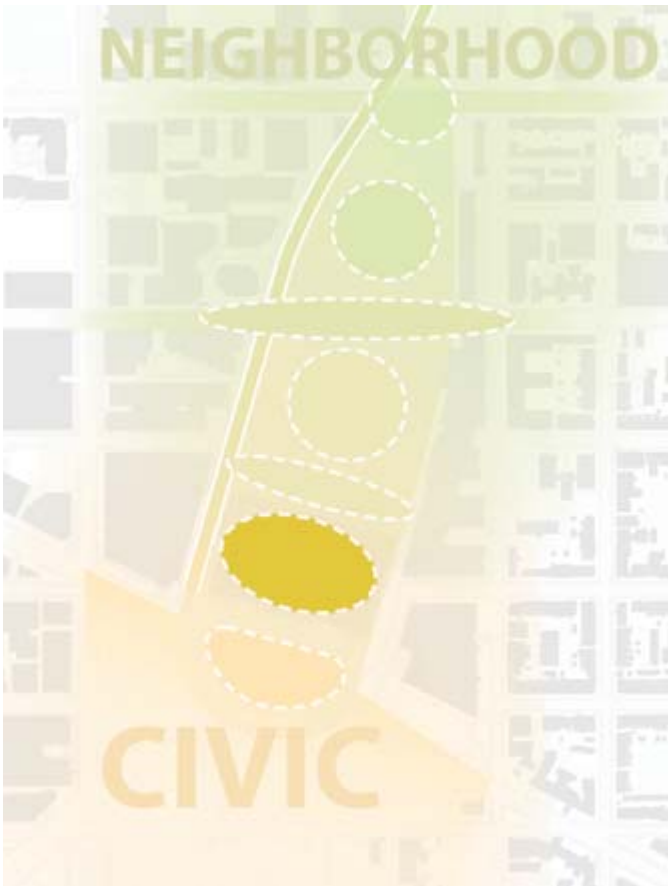
OPEN SPACE OPPORTUNITY 2:
HISTORIC STATION + TRAIN HALL

Much has been written and documented about the historic station and its various components. In the context of this Urban Design and Open Space exploration, a few key observations and opportunities stand out:

Union Station itself sits as an important landmark within the complex composition of historic streets and open spaces of Washington, DC's exceptional urban form. As such, even its interior spaces are seen as extensions of the city's open space network, "living rooms" at a civic scale supporting critical public infrastructure. With the next century of WUS expansion, the provision of new or expanded Train Hall, commensurate with its expanded transportation capacity, is a key opportunity - not just for handling capacity increases, but for participating in the civic tradition of public architecture and public space worthy of the distinctive urban settings generated from the L'Enfant and McMillan Plans. The Train Hall offers a wide range of urban design and architectural opportunities, from grand stand-alone structures to complex integrations of public and private uses. The SEP concepts would provide a framework of potential scenarios that considers this range.

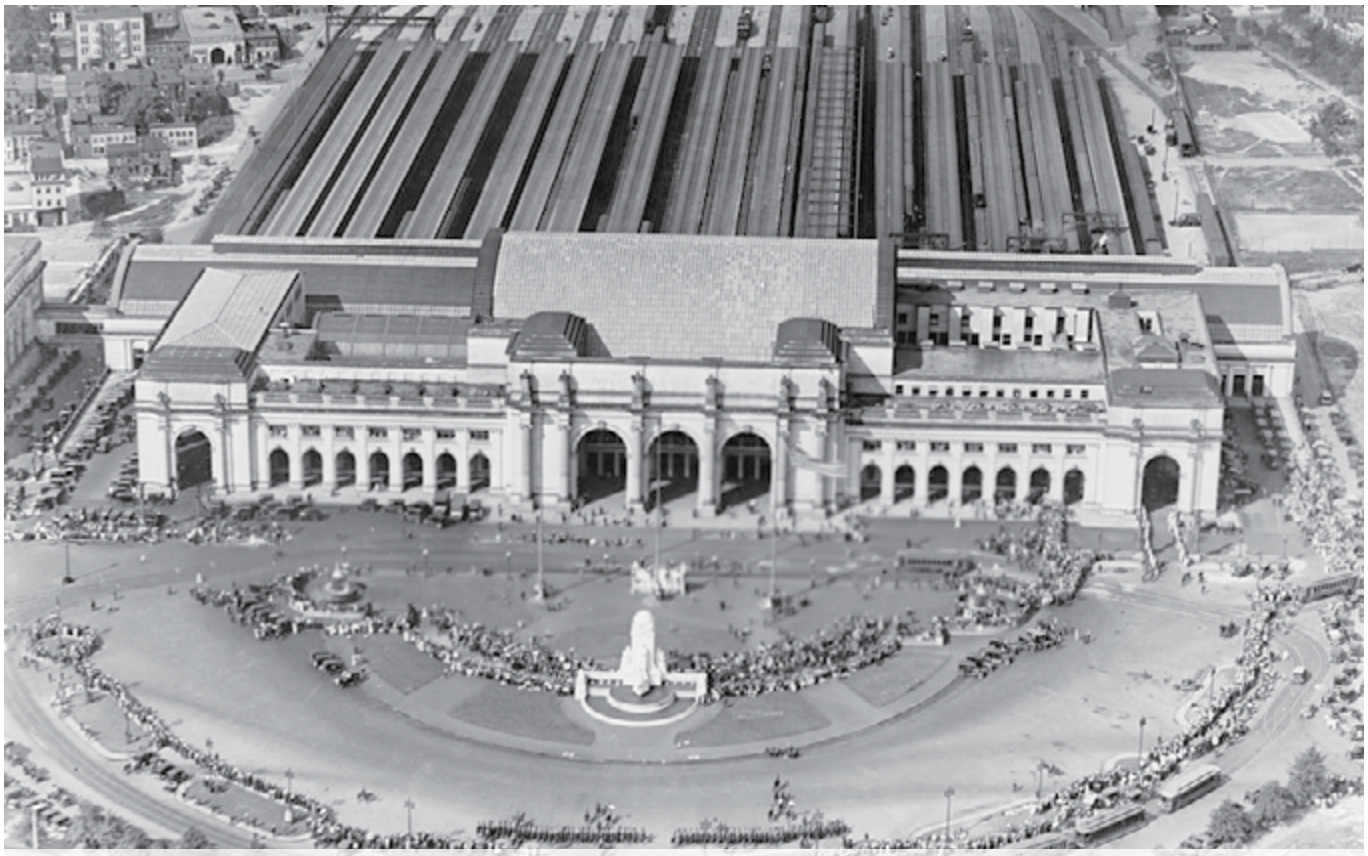
The hall itself, especially one that straddles the distinction between interior and exterior space, may in fact provide as important a role in the open space framework as any more conventionally conceived plaza or park space. It is an exceptional building type, one with a great tradition in the history of transportation architecture, that, in many cases, simultaneously bridges the realms of both architecture and urban design.

In the case of WUS, a new Train Hall structure must respond to the existing historic progression of spaces from the south to the north - a progression where one passes laterally through grand spaces vaulted in the east-west direction: a contrast of north-south pedestrian flows and east-west architectural directionality.



1905, Grand Lobby, Union Station

1910, Train Concourse, Union Station



1921, Aerial, Union Station

1968, Grand Lobby, Union Station

Dining Room, Union Station

1909, Aerial, Union Station

1968, Main Entrance Pavilion, Union Station

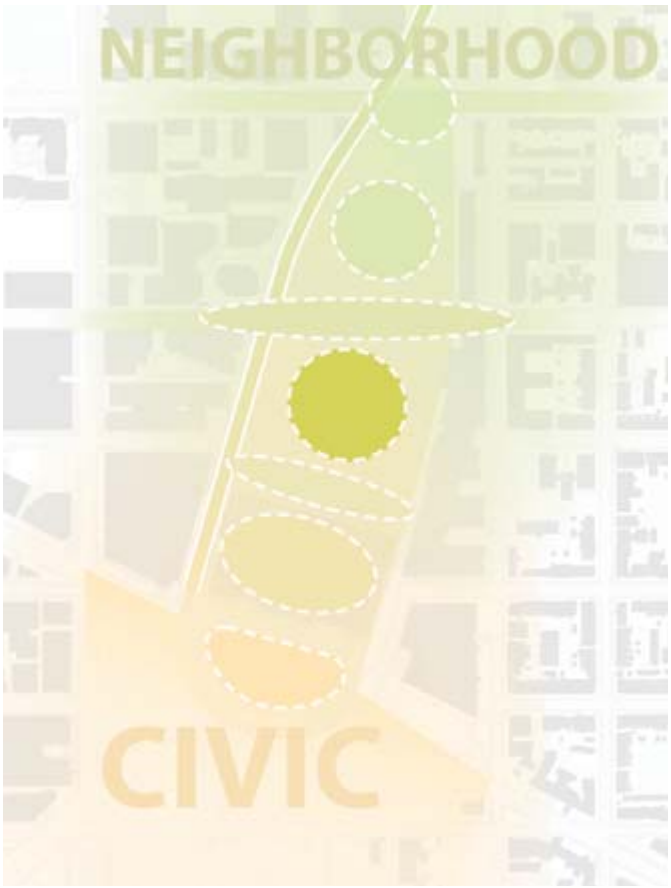
OPEN SPACE OPPORTUNITY 3:
OPEN SPACE SOUTH OF H STREET

A series of interconnected open spaces above the tracks can anchor the SEP, help to reconnect WUS with the surrounding neighborhoods, and provide a gracious and welcoming public realm. Vibrant, well-designed open spaces can provide the backdrop for a new, redefined northern entrance, or entrances, to the SEP.

A place of leisure, commerce, culture, entertainment, and delight, the public realm of the SEP can complement BP and serve as a beacon and a catalyst elevating (quite literally) high quality public space in the District. As a new centerpiece, the public realm must be well-connected not only to the WUS transportation uses, but also to the surrounding city fabric via numerous points of access. Arts and culture can infuse spaces amidst intimate and vibrant spaces, convenient access points, and high quality streetscape and drop-offs.

South of H Street, close to WUS and the future potential Train Hall, urban design features can emphasize transit connectivity (expanded station/ Train Hall, H Street streetcar), a dialogue with the historic station, and closer proximity to Downtown. Open spaces may be more civic in nature, addressing the gateway potential of expanded SEP frontage and deck-level entrances.

The specific nature of these opportunities would require substantial coordination with BP, and would be done in advanced stages of design beyond the completion of the Master Development Plan. The design team is tasked with ensuring that all concepts allow for a range of urban design and open space possibilities that support the SEP and do not preclude BP.



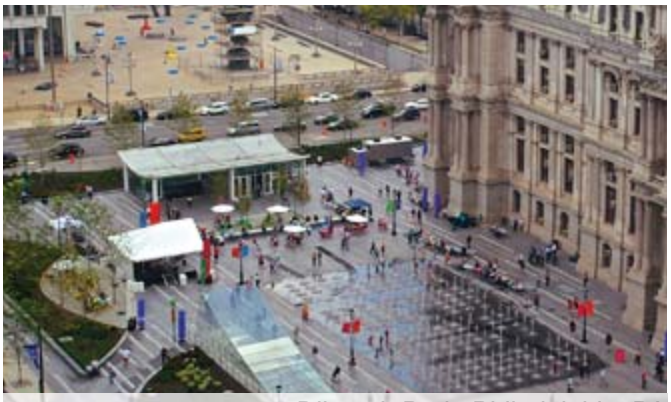
Bryant Park, New York, NY

Bryant Park, New York, NY

Granary Square, London, England

Granary Square, London, England

Hypar Pavilion, New York, NY



Dilworth Park, Philadelphia, PA

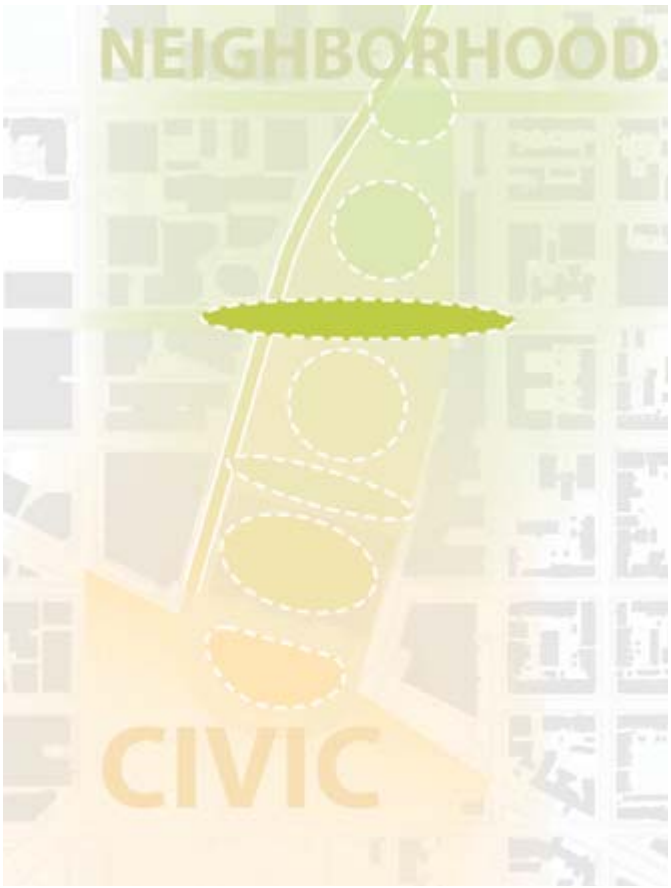
Kings Cross Square, London

Kings Cross Square, London

OPEN SPACE OPPORTUNITY 4:
H STREET

As the major east-west public street running through the WUS site, H Street is uniquely positioned and heavily burdened. It offers the capacity to provide vehicular, pedestrian, and streetcar access to the site. But given its cross-section and profile, it is largely disconnected from City fabric to its north and south, and challenging for pedestrians walking up its steep slopes from the east and west. There are numerous opportunities to engage the SEP, along with the future buildings and open spaces of BP, in an effort to better integrate the H Street bridge into its surroundings and to bring the energy and vitality of its recent resurgence into the heart of WUS. In addition, the ramping portions of the bridge offer opportunities to better connect with existing neighbors to the north and south.

Ultimately, H Street can be re-conceived as more of a boulevard that is comfortable and safe for multi-modal transit as well as for pedestrians.



Market Street, San Francisco, CA

Allen Malls, New York, NY

Kurfurstendamm, Berlin, Germany

Magnificent Mile, Chicago, IL

OPEN SPACE OPPORTUNITY 5:
OPEN SPACE NORTH OF H STREET

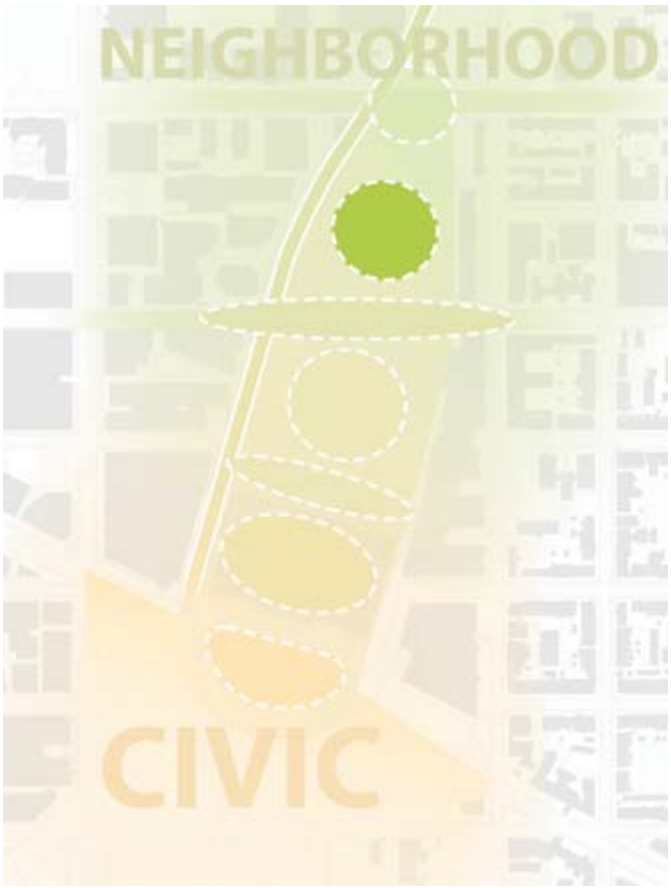
Similar to the potential described in Opportunity 3 (South of H Street) the area north of H Street allows for a wide range of open space opportunities to support the SEP.

A series of interconnected open spaces above the tracks can anchor the SEP, help to reconnect WUS with the surrounding neighborhoods, and provide a gracious and welcoming public realm. Vibrant, well-designed open spaces can provide the backdrop for a new, redefined northern entrance, or entrances, to the SEP.

A place of leisure, commerce, culture, entertainment, and delight, the public realm of the SEP can complement BP and serve as a beacon and a catalyst elevating (quite literally) high quality public space in the District. As a new centerpiece, the public realm must be well-connected not only to the WUS transportation uses, but also to the surrounding city fabric via numerous points of access. Arts and culture can infuse spaces amidst intimate and vibrant spaces, convenient access points, and high quality streetscape and drop-offs.

North of H Street, and further from the intensity of the historic WUS intermodal activity, ope spaces can continue to support the intermodality of the SEP, but may also be more responsive to the potential form and mix of uses of BP - potentially less civic in nature, and more integrated within the character of individual BP buildings, the spaces between them, and connections to surrounding neighborhoods.

The specific nature of these opportunities would require substantial coordination with BP, and would be done in advanced stages of design beyond the completion of the Master Development Plan. The design team is tasked with ensuring that all concepts allow for a range of urban design and open space possibilities that support the SEP and do not preclude BP.



Navy Yards Central Green, Philadelphia, PA

Portland, OR

Canal Park, Washington, DC

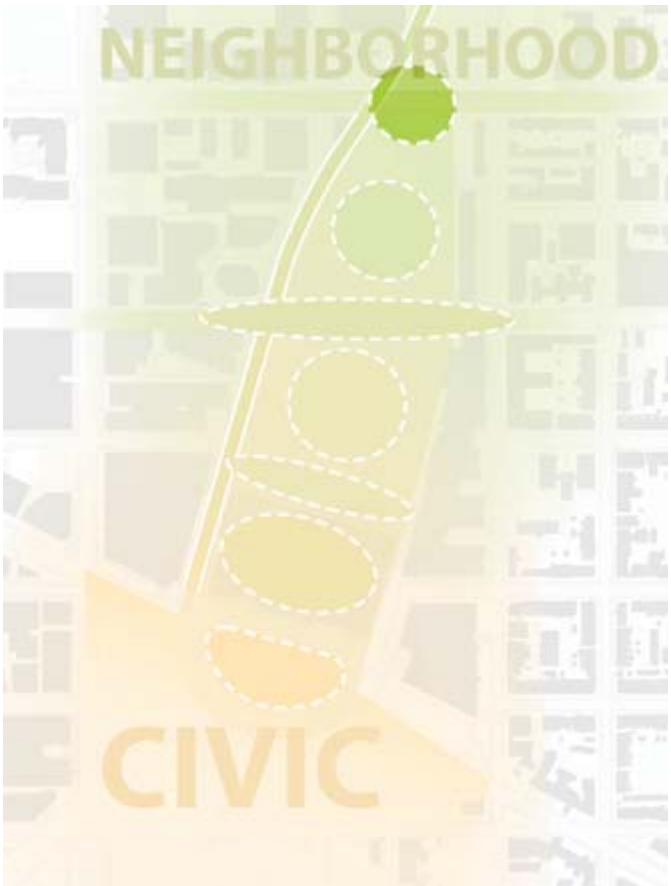
Brooklyn Bridge Park, New York, NY

Maggie Daley Park, Chicago, IL

City Center, Washington, DC

OPEN SPACE OPPORTUNITY 6:
NOMA TERRACE

Another key open space opportunity lies at the northern edge of the project area, where the deck tapers to it narrowest width along the K Street corridor. Overlooking the tracks below, with an open vista towards the north, this edge offers a unique opportunity to create an open space - whether it is a park, a promenade, a viewing platform, or other variation - that acknowledges and celebrates the underlying transportation infrastructure that gives the area its identity. This “terrace” edge, overlooking NoMA, can create a SEP open-space anchor at the north, funneling visitors and station users from the proposed publicly available greenway open space feature along the west edge of the project and surrounding blocks to and from WUS.



The Rise, Vancouver, BC

Portland, OR

Navy Pier Wave Wall, Chicago, IL

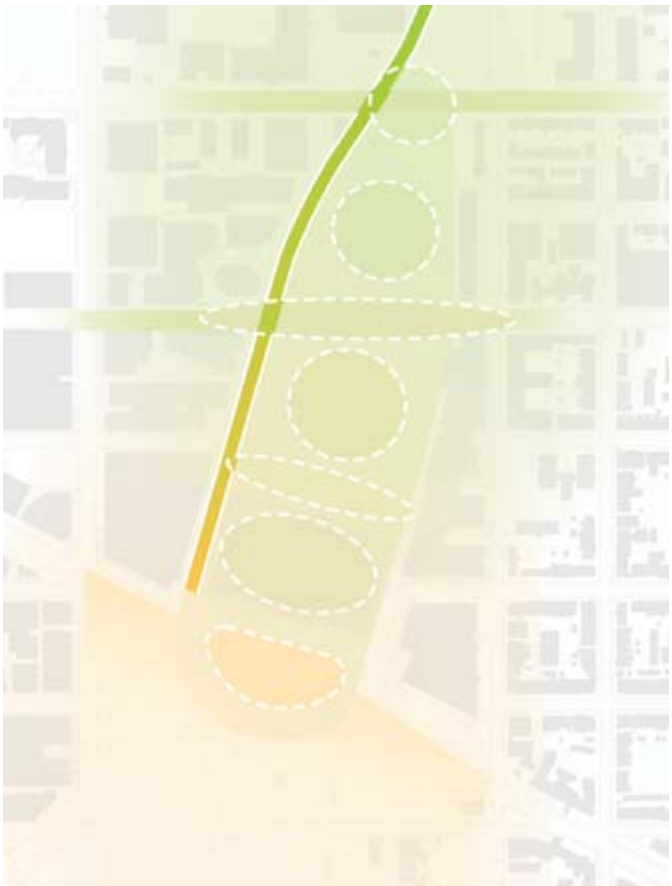
Madison Square Park, New York, NY

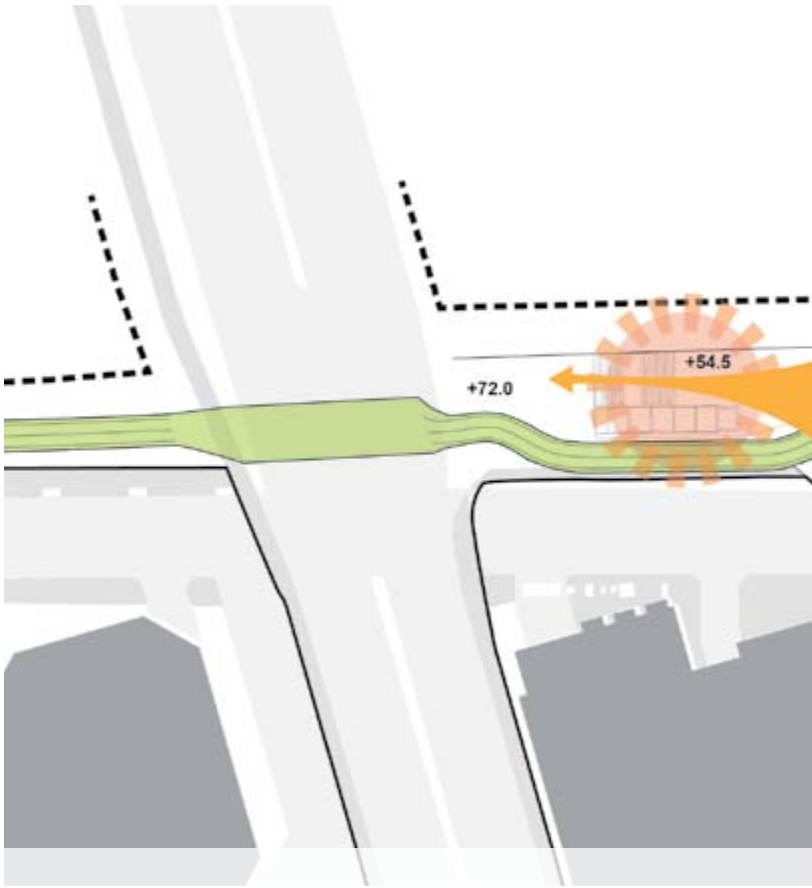
Cumberland Park, Nashville, TN

Highline 10th Avenue Square, New York, NY

OPEN SPACE OPPORTUNITY 7:
PUBLICLY AVAILABLE OPEN SPACE ABOVE WMATA RIGHT OF WAY (GREENWAY)

A potential publicly available linear open space greenway feature would infill a critical missing link between the existing elevated Metropolitan Branch Trail (MBT) to the north and WUS, Columbus Plaza and connections further south to the National Mall. Boasting unique and unusual relationships to new adjacent buildings and diverse uses, a vital connection between the MBT bike trail and the proposed open spaces of the future public realm, the linear open space can become an incredibly important part of the SEP. Given the multi-level elevations of the SEP and future BP development and the prospect for multi-modal trail use and intensive programming, the linear open space can become a transportation, social, recreational, and ecological connector. As a pedestrian promenade, bike trail, green corridor, and linear park, the publicly available linear open space greenway can provide a generous public realm for strolling, sitting, gathering, and viewing while also accommodating potential commercial and retail frontage in new and interesting configurations.



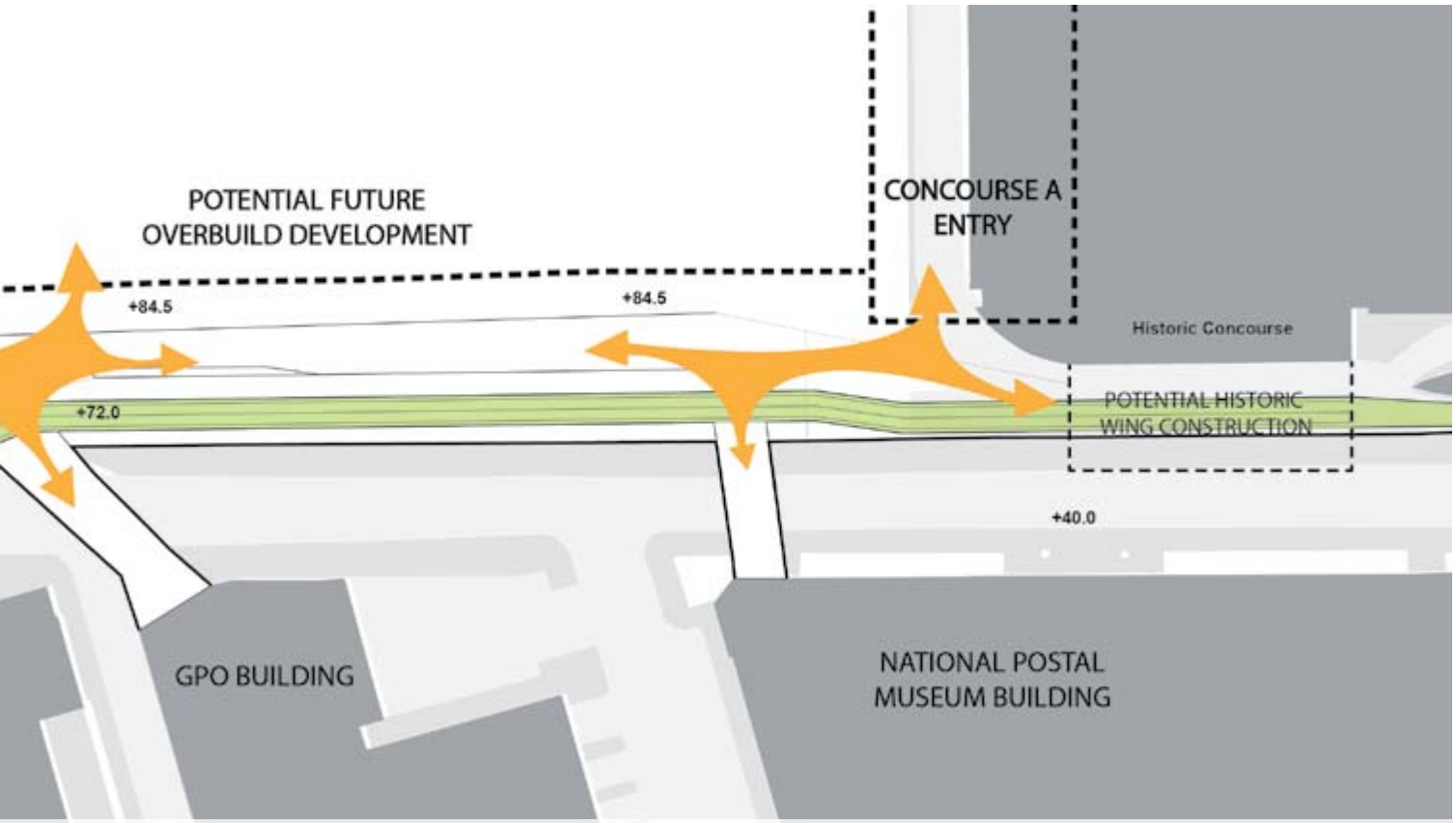


South Park Plaza, Queen Elizabeth Olympic Park, UK

Bloomingdale Trail, Chicago, IL

Grand Central Terminal, New York, NY

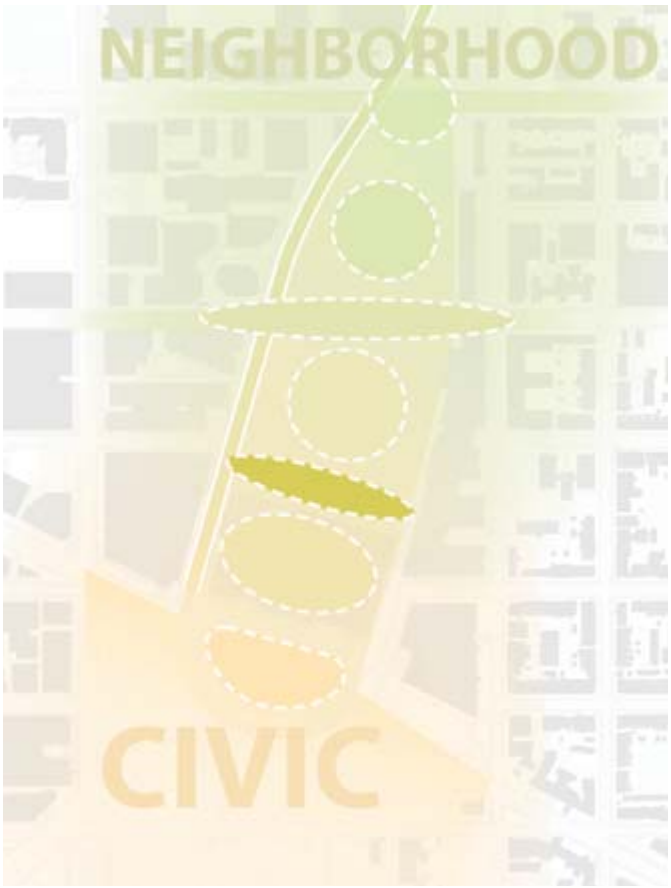
Bloomingdale Trail, Chicago, IL



NOTE: ELEVATIONS ARE APPROXIMATE

OPEN SPACE OPPORTUNITY 8:
ELEVATED PROSPECT

Given its prominent location and unique relationship to the L'Enfant and Ellicott Plans of DC, and the city's height limit restrictions, Union Station affords some of the most attractive and dramatic views of the Capitol and National Mall. From the top of the existing parking garage or from an equally elevated new perch, one can experience the grandeur and breadth of Washington, D.C. And as part of the effort to realize an extraordinary vision of revitalization and redevelopment, a major elevated public open space could be created as part of the SEP, one that offers stunning views from a unique vantage point. This could be developed as a new, unique open space typology for Washington, D.C., where the challenges of vertical transitions at WUS are exploited as an advantage to create a unique open space destination.



The Whitney Museum, New York, NY

Elevated Acre, New York, NY

Placemaking and Connectivity Strategies are informed by the Urban Design and Open Space Principles, and support and are compatible with the current concepts. The strategies are meant to be a kit of parts or menu to select the best urban design and open space supportive strategies. Each of the strategies can be applied to the concepts independently and also as part of a system of placemaking and connectivity strategies working together. Placemaking strategies P1-P11 are meant to describe and create a place that is active and appealing to visitors and locals and rooted in the site and Washington D.C. Connectivity strategies C1-C6 describe integral connections that knit the urban design and open spaces to the neighborhood and create an interconnected public realm on site. Together, Placemaking Strategies and Connectivity Strategies provide a menu to support the concepts.

Placemaking and Connectivity Strategies are flexible and could be implemented in a variety of combinations and designs to create a successful public realm.

B-5: Placemaking Strategies

Placemaking is a multi-faceted approach to the creation of successful public spaces which builds upon the site's unique assets, national and international inspirations, and latent potential inherent in the parameters of this ambitious project. WUS is an iconic building sited uniquely within the historic L'Enfant and Ellicott plans of Washington D.C. As such, the SEP. Placemaking Strategies are specific to the site and to Washington D.C. and aim to embrace the characteristics of both the SEP site and the city as a whole.

The SEP identifies eleven (11) Placemaking Strategies which are intended to provide a menu of options that can be deployed and combined in various combinations to create a successful public realm rooted in place. The strategies range from building upon and embracing the history of the site to incorporating contemporary active open space typologies.

It is important to note that these strategies are not designs and in order to be successfully realized, detailed site specific planning and design is necessary. Background, additional considerations, and potential manifestations for each of these strategies is described on the following pages.

The Placemaking Strategies are highly compatible with all concepts being considered. Many of the strategies are universal and could be implemented with any of the concepts. Conversely, all concepts support these strategies to inform the urban design and open space designs, thus creating a successful public realm.

- Program open spaces for an activated public realm
- Express civic to neighborhood character through distinct landscape character
- Animate WUS with active frontages
- Establish a new DC cultural destination at WUS
- Create an elevated prospect, taking advantage of views and low built environment of DC
- Enliven WUS with an active market place, appealing to locals and visitors alike
- Create a grand gateway connecting WUS with the neighborhood
- Create a DC scale architecture/landscape hybrid
- Reference the historic context
- Embrace the history and character of trains and related infrastructure
- Recall the historic Tiber River

PLACEMAKING STRATEGY 1: PROGRAM OPEN SPACES FOR AN ACTIVATED PUBLIC REALM

Public open spaces are integral to a successful public realm providing opportunities for circulation, formal and informal gatherings, outdoor events, and substantial landscaping. Successful open spaces allow for a range of activities and programming opportunities which enrichen the public realm.

Programming opportunities range in activity and may include: flexible dining or seating, art exhibits, games, pop up retail, eating/drinking establishments, fountains, cultural performances, outdoor movies, or yoga to name a few. Successful programming should activate public space throughout the day as well as seasonally.

Additionally, successful public spaces should be designed to be flexible to allow for special events of varying sizes such as concerts, movies, pop-up dinners, and game play. Scale of open space also play important role in defining a successful public realm as spaces scaled appropriately to its context would not feel empty during inactive or unprogrammed times.

Public spaces can be activated with programming whether open or enclosed, outdoor or indoor. Indoor or enclosed public spaces can incorporate much of the same types of programming and also benefit from being all weather permitting and controllable conditions.

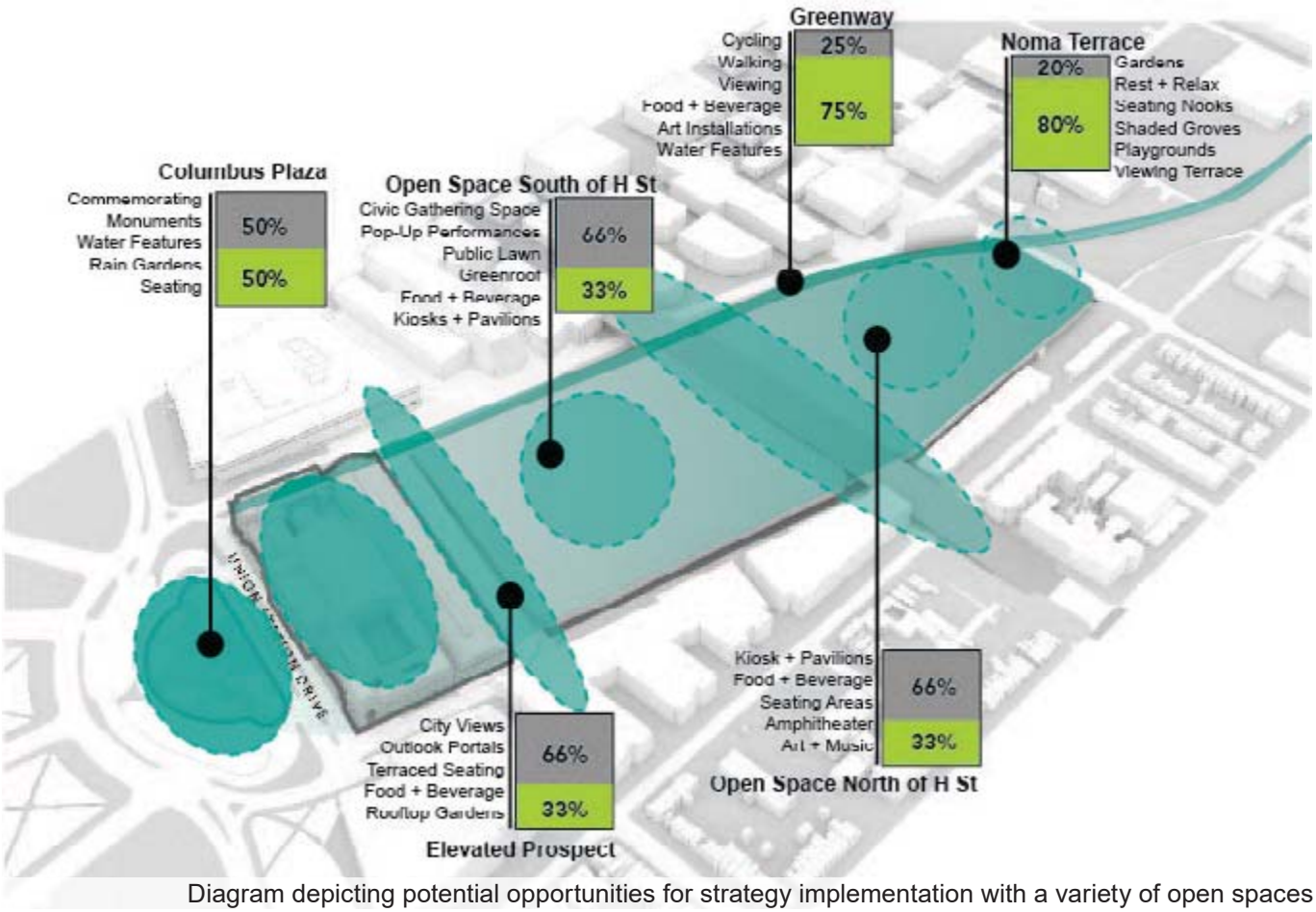


Diagram depicting potential opportunities for strategy implementation with a variety of open spaces

Cinema + Visual Arts

Winter Village

Temporary Installations

Games + Recreation

Flexible Spaces

Outdoor Dining

PLACEMAKING STRATEGY 2:
EXPRESS CIVIC TO NEIGHBORHOOD CHARACTER THROUGH DISTINCT LANDSCAPE CHARACTER

Civic character of open spaces is often associated hardscape to express formality and accommodate formal gatherings or specific needs. Conversely, neighborhood character of open spaces is often associated with green space and lush landscaping, much like a traditional backyard. The size and open space opportunities at the SEP site allow for expressions of both the civic and neighborhood character and can be expressed with the treatment of hard and soft landscapes.

At WUS, Columbus Circle is a grand civic space with historic significance that will remain to the south of the historic station building. Although Columbus Circle is not within the project area, it is included in the open space analysis for a holistic approach. Moving northward from Columbus Circle, the SEP site becomes more and more neighborhood-like. The open spaces, as described in Section B-4, could be designed with a spectrum or gradient of hard and soft landscapes to reflect this civic to neighborhood character.

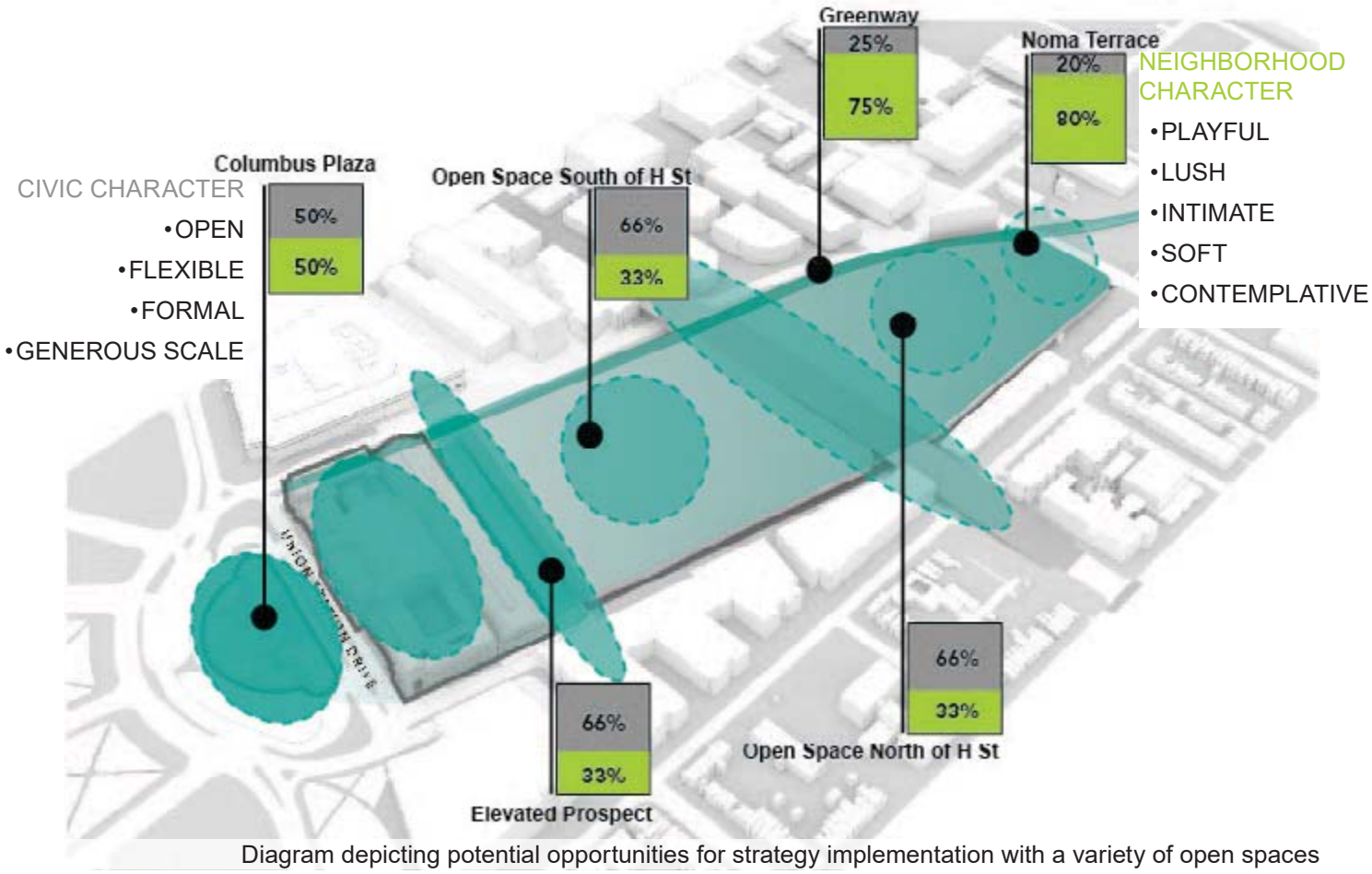


Diagram depicting potential opportunities for strategy implementation with a variety of open spaces

SOFT + INTIMATE

1111 Lincoln Road, Miami Beach, FL

Teardrop Park, NewYork, NY

Bryant Park, New York, NY

Cumberland Park, Nashville, TN

City Center, Washington DC

Seattle Sculpture Park, Seattle, WA

Washington Canal Park, Washington DC

Kyushu Railway, Hakata Station, Japan

OPEN + CIVIC

PLACEMAKING STRATEGY 3:
ANIMATE WUS WITH ACTIVE FRONTAGES

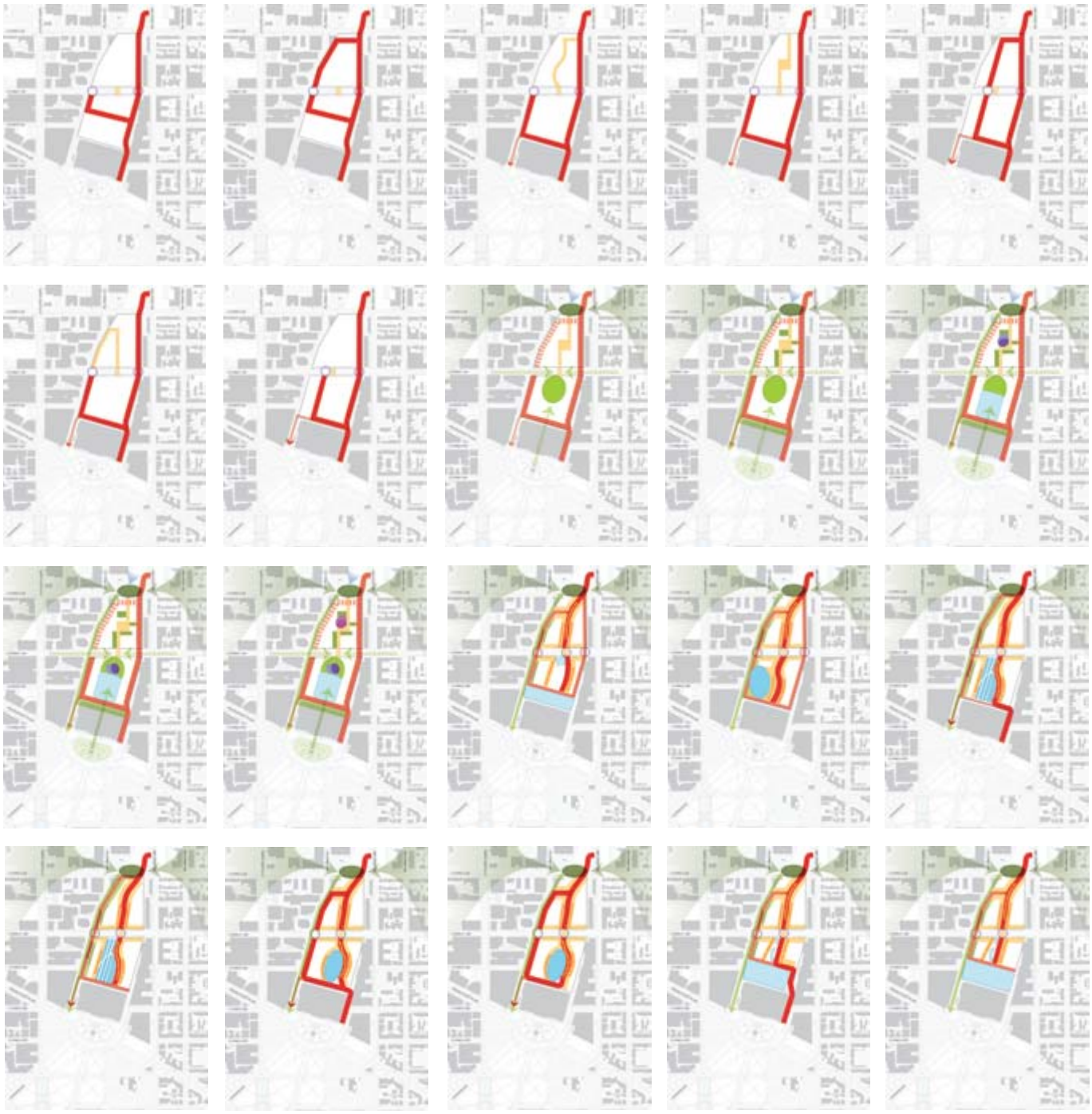
Active frontages are critical in animating a public space. A variety of components are involved when creating active frontages including: street character and type, sidewalk and streetscape, outdoor seating, parking, landscape design, and building use at the ground floor. Street character and type is arguably an initial organizing factor in planning active frontages on an untouched site, and can vary and serve different purposes. Some streets are service oriented and secondary; others are primary and character defining. Streets can also be primarily pedestrian with limited service or emergency vehicular access. Materiality, curb conditions, and street width all contribute to the character of a street.

A variety of street configurations are included in the urban design studies to create a neighborhood served by streets with appropriate functionality which also activate and animate the area. Configurations including primary, secondary, character defining, and pedestrian oriented streets are included to create a vibrant neighborhood. Many site specific factors were considered during these explorations including: pedestrian crossings, intersections at H Street Bridge, connections to neighborhood to the north and south, existing and future character and aesthetics of First and Second Streets, relation to the proposed publicly available linear open space greenway, and relation to public spaces.

Diagrams depicting potential opportunities for roadway configurations, creating active edges where possible and providing for secondary or service oriented streets where appropriate

Portland Pearl District, OR

Lambs Conduit, London



PLACEMAKING STRATEGY 4: ESTABLISH A NEW DC CULTURAL DESTINATION AT WUS

Cultural destinations are an attractor in many places, but especially in Washington, D.C. where there is a wealth of cultural opportunities. Visitors and residents have a range of cultural destinations in a geographically small area to choose from, creating a density of cultural uses to build upon. The cultural density is city-wide, but specifically the F Street corridor directly west of WUS is rich with cultural uses such as the National Portrait Gallery, National Building Museum, and several theaters among others.

Pairing of cultural uses with major transportation hubs has proven to be successful in many cities. Recent development in both Milan and London adjacent Milano Porta Garibaldi Train Station and St. Pancreas Kings Cross Station respectively have included cultural uses which are reciprocal in activating the area.

A variety of cultural uses can activate WUS including: a performing arts venue, outdoor amphitheater, art gallery, museum, or art related retail. Configuration of the cultural use can also be successful in a variety of ways including: within the station building, incorporated into development, adjacent to development but independent, and indoor or outdoor.

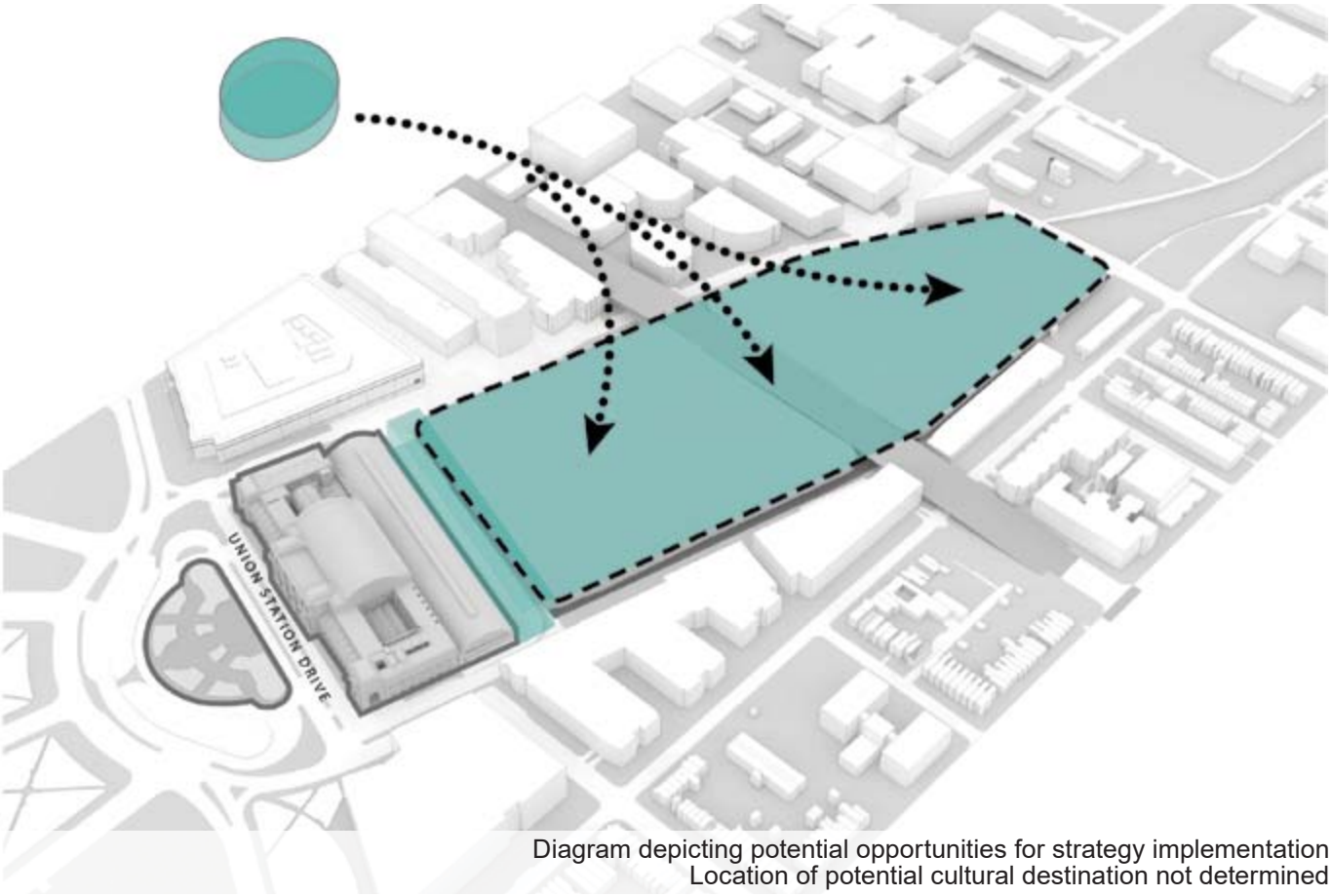
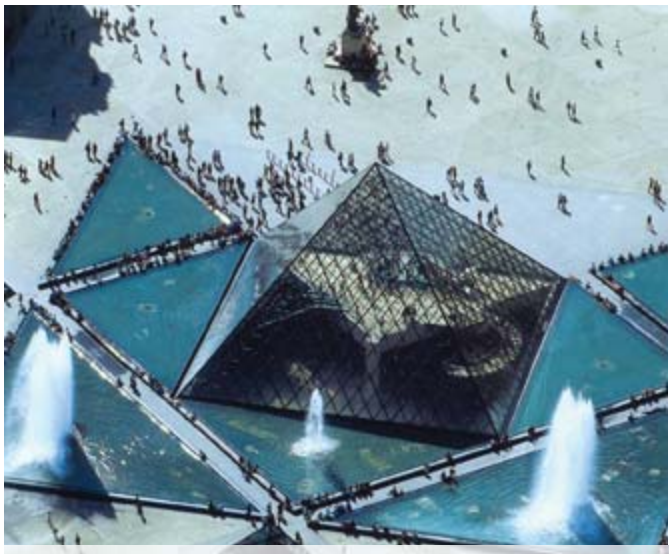


Diagram depicting potential opportunities for strategy implementation
Location of potential cultural destination not determined

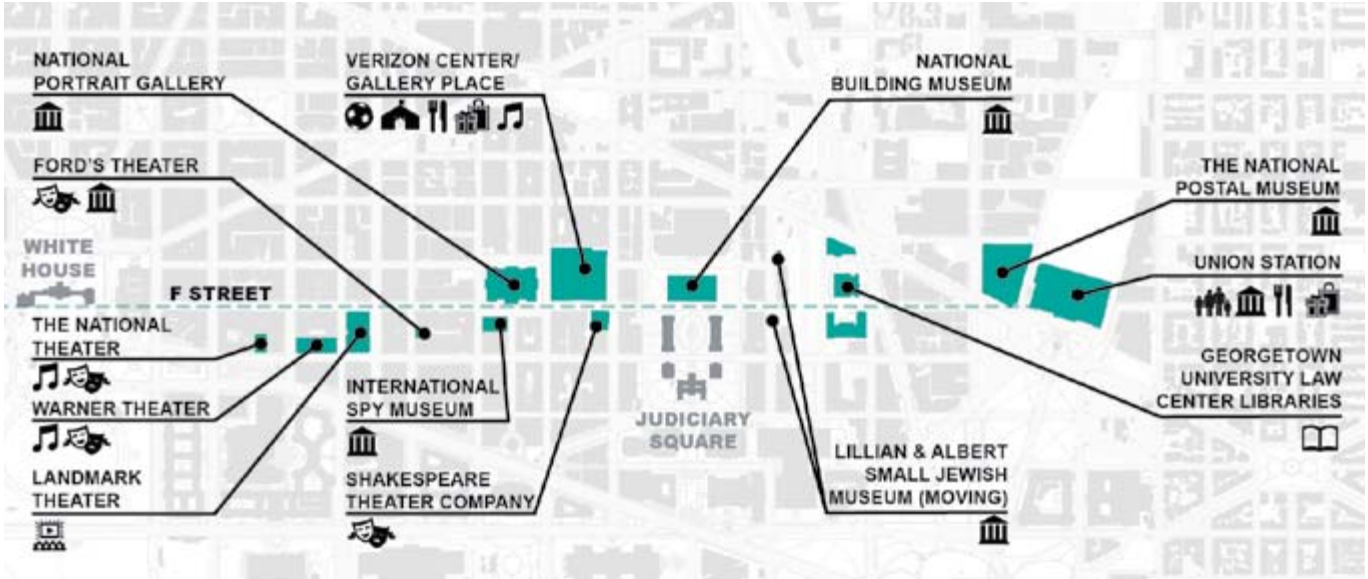
Kauffman Center for the Performing Arts, Kansas City, MO

Hudson Yards Culture Shed, New York, NY



The Louvre, Paris, France

Rijksmuseum Store, Schiphol Airport, Amsterdam



PLACEMAKING STRATEGY 5:
CREATE AN ELEVATED PROSPECT, TAKING ADVANTAGE OF VIEWS AND LOW BUILT ENVIRONMENT OF DC

Building heights in Washington, D.C. are governed by the Height of Buildings Act of 1910. Exact height limitations are dependent upon the street in which the building sits, but generally most buildings cannot exceed 13 stories, excluding some along Pennsylvania Avenue which can rise to 16 stories. The height limitations create a generally low height of buildings in a prominent city and also create immense opportunities for views city wide.

The prominent location of WUS and unique relationship to the L'Enfant and Ellicott Plans of Washington, D.C. affords some of the most attractive and dramatic views of the Monumental Core, including the U.S. Capitol Building and National Mall. Further, an elevated prospect affords a rare up close experience of the historic architecture of WUS and the adjacent post office building facade. Views from the existing parking garage depict the potential of views from a similar perch. Additionally, views northward to the neighborhood and rail infrastructure offer a different and unique experience as well.

An elevated prospect could incorporate both hardscape and softscape, seating, and allow for programming or events. It has the potential to become a destination for unique programming opportunities, and act as an amenity to the neighborhood. It has the potential to be multi-level with vertical connections to other open spaces on site, like the proposed publicly available linear open space greenway. An elevated prospect would also contribute to honoring the history of the site, enhancing connectivity, and creating animated open spaces.

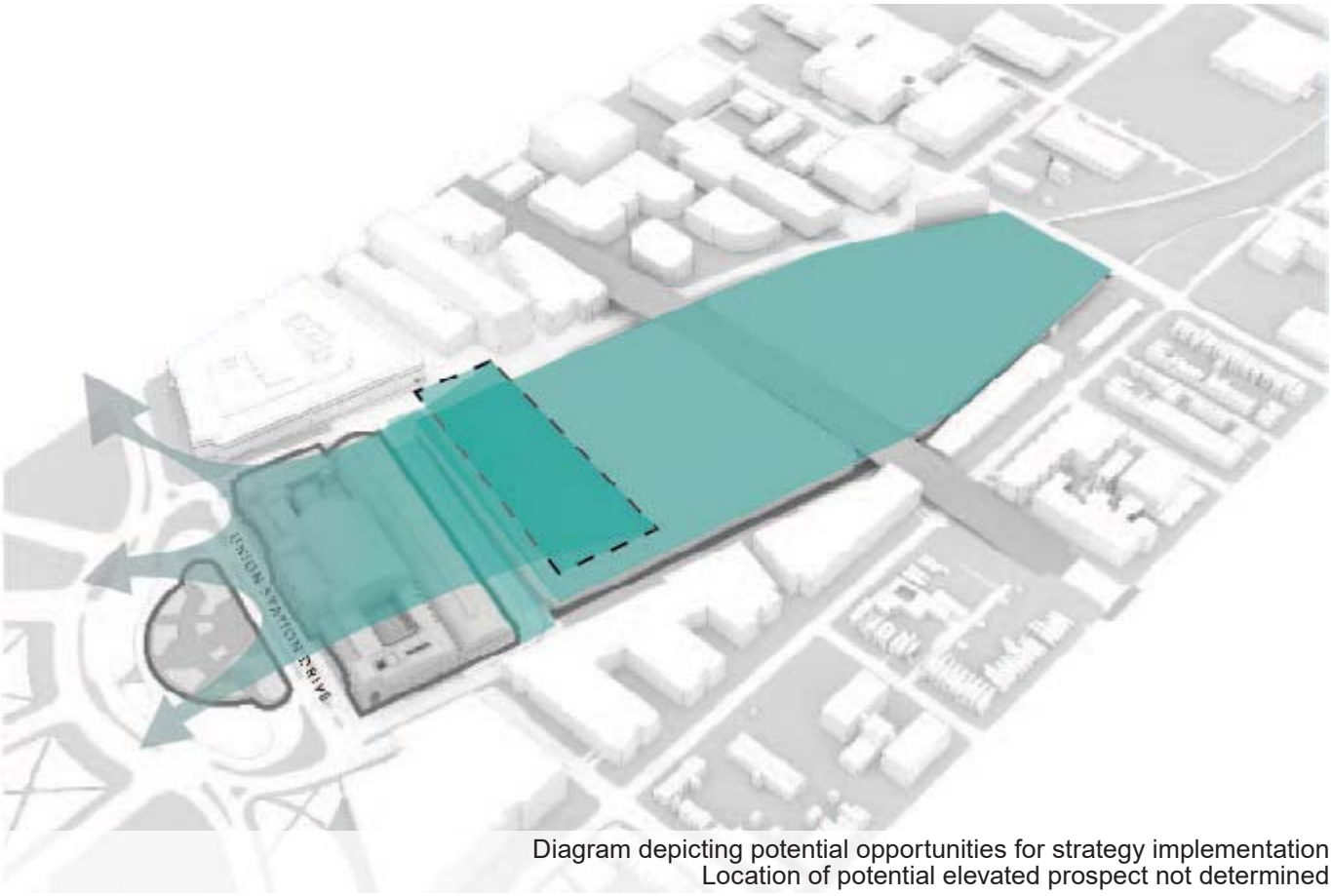
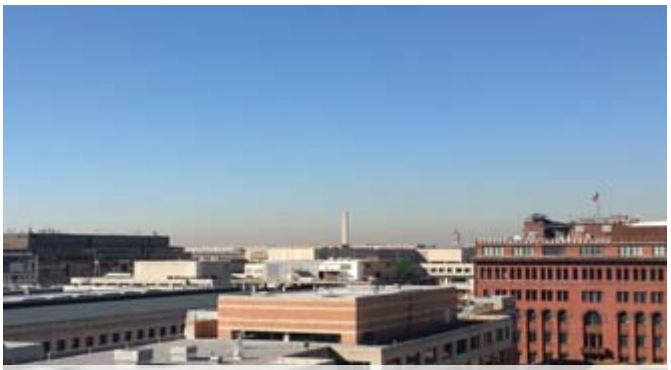


Diagram depicting potential opportunities for strategy implementation
Location of potential elevated prospect not determined

Whitney Museum Roof Terraces, New York, NY

Existing Parking Garage:
View Looking Southwest to the Capital



Existing Parking Garage:
View Looking West to the Washington Monument

Existing Parking Garage:
View Looking Southeast to Capital Hill

Existing Parking Garage:
View Looking South including Historic Architecture

PLACEMAKING STRATEGY 6:
ENLIVEN WUS WITH AN ACTIVE MARKET PLACE, APPEALING TO LOCALS AND VISITORS ALIKE

Market places have historically been nodes of activity and even once considered to be the epicenter of a city or town. Their popularity has survived the test of time, and a resurgence of contemporary market places has begun in many cities with the rise of supporting local businesses. The timeless success and flexibility of market places also alleviates the need to define exact program that would be successful in years to come.

The contemporary market place brings together a variety of small businesses ranging from boutique retail shops to unique eating and drinking establishments to establish a vibrant active place for visitors and locals. Often they include indoor and outdoor spaces and a diversity of seating and dining opportunities. Temporary or pop up retail can contribute to the dynamic nature of the market place as well as help to launch local businesses. Established retailers can provide an anchor to the market place and bring clientele back again and again.

In Washington D.C., Union Market and Eastern Market have gained immense popularity in recent years and created lively nodes of activity in their respective neighborhoods. Establishing an active market place at WUS can build upon this trend and appeal to locals and visitors. It can serve the dynamic surrounding neighborhood, establish a destination, and provide goods and service to those traveling through WUS.

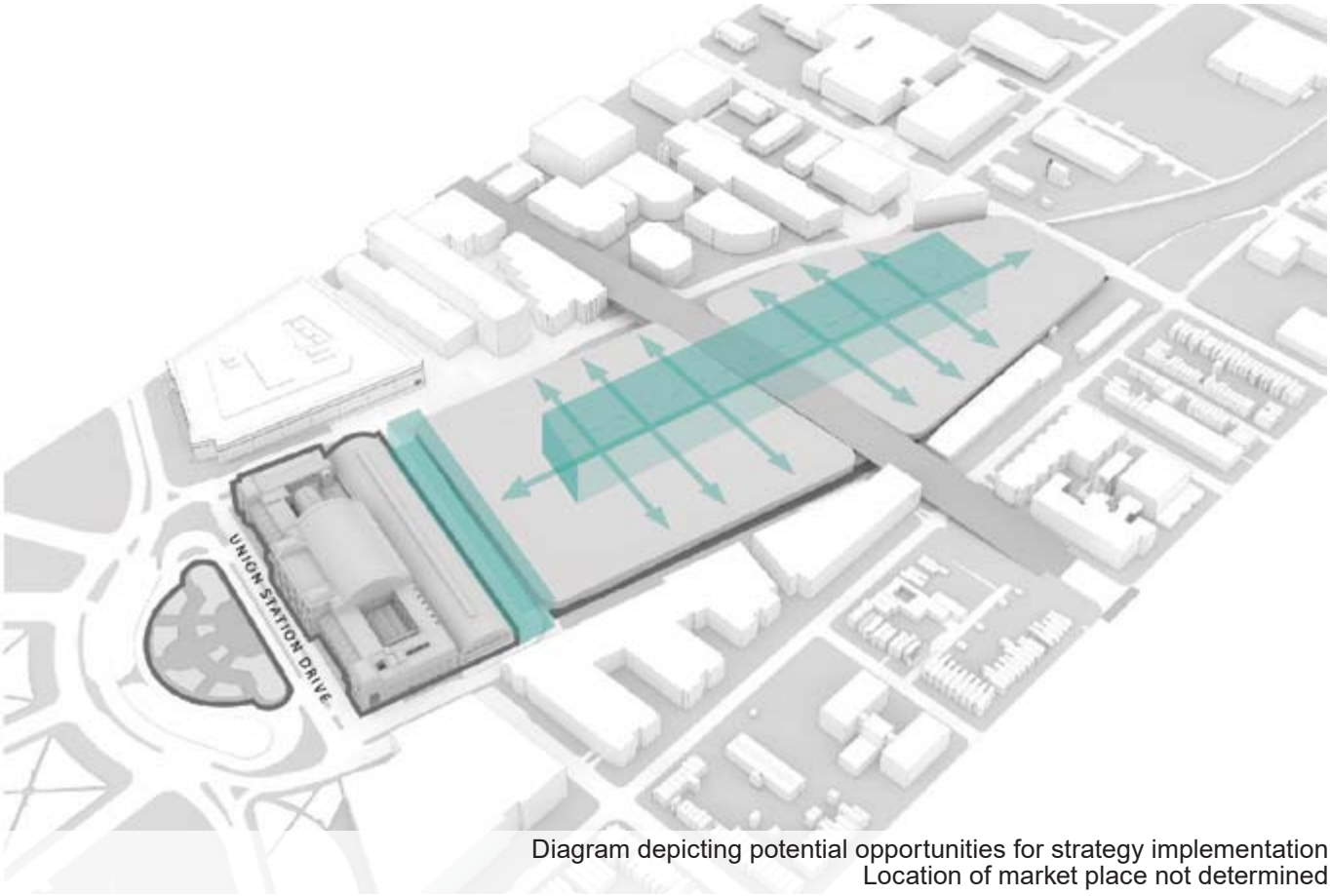
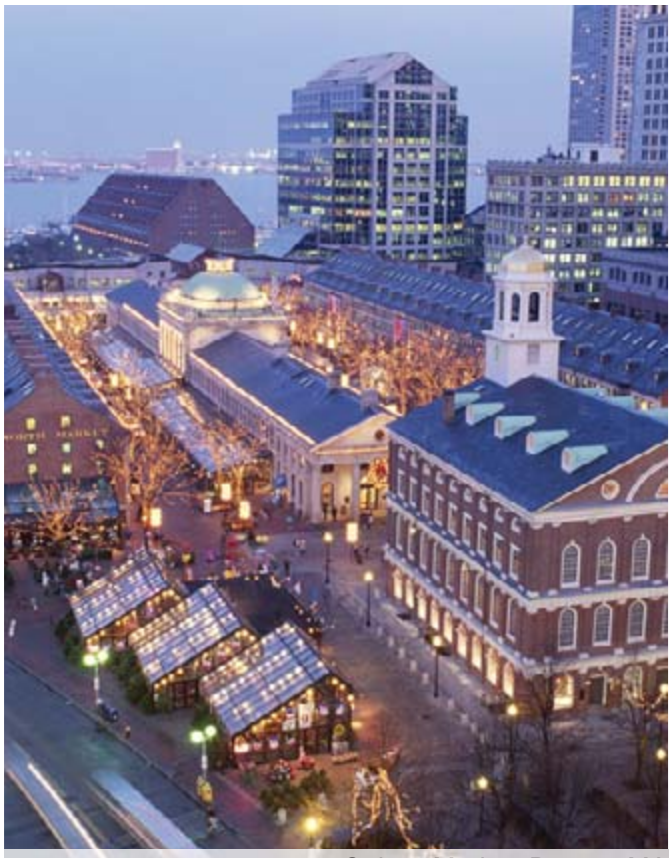
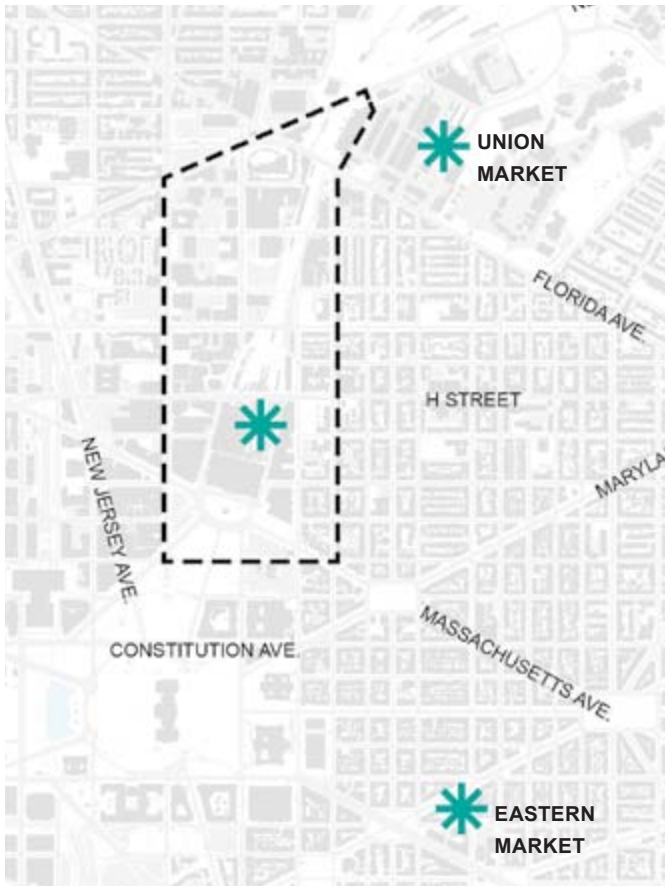


Diagram depicting potential opportunities for strategy implementation
Location of market place not determined

Ferry Building, San Francisco, CA


Quincy Market, Boston, MA




Eastern Market, Washington, DC


Eastern Market, Washington, DC

PLACEMAKING STRATEGY 7:
CREATE A GRAND GATEWAY CONNECTING WUS WITH THE NEIGHBORHOOD

A large-scale, unifying physical element can contribute to and sometimes even define the character of a place. It can create a gateway or signature architectural element for entry to a place and connect that place to the surrounding context. Gateways should communicate the character of a place, designate points of entry, and consider views from varying perspectives.

At WUS, a gateway element could have a strong presence on the H Street Bridge and visually connect to the surrounding neighborhood from all directions. A grand gateway has the potential to be large-scale and communicate the notability of the SEP, and potentially unify the entire development area. The unifying element could negotiate between different spaces on site, reaching down or rising up to connect between otherwise separate levels, thus overcoming elevational challenges of the site. It has the potential to connect all the public spaces on site, carrying a continuous character and sense of place throughout. Viewpoints from the surrounding context should be considering during the planning and design of the grand gateway to optimize its presence and create a destination.

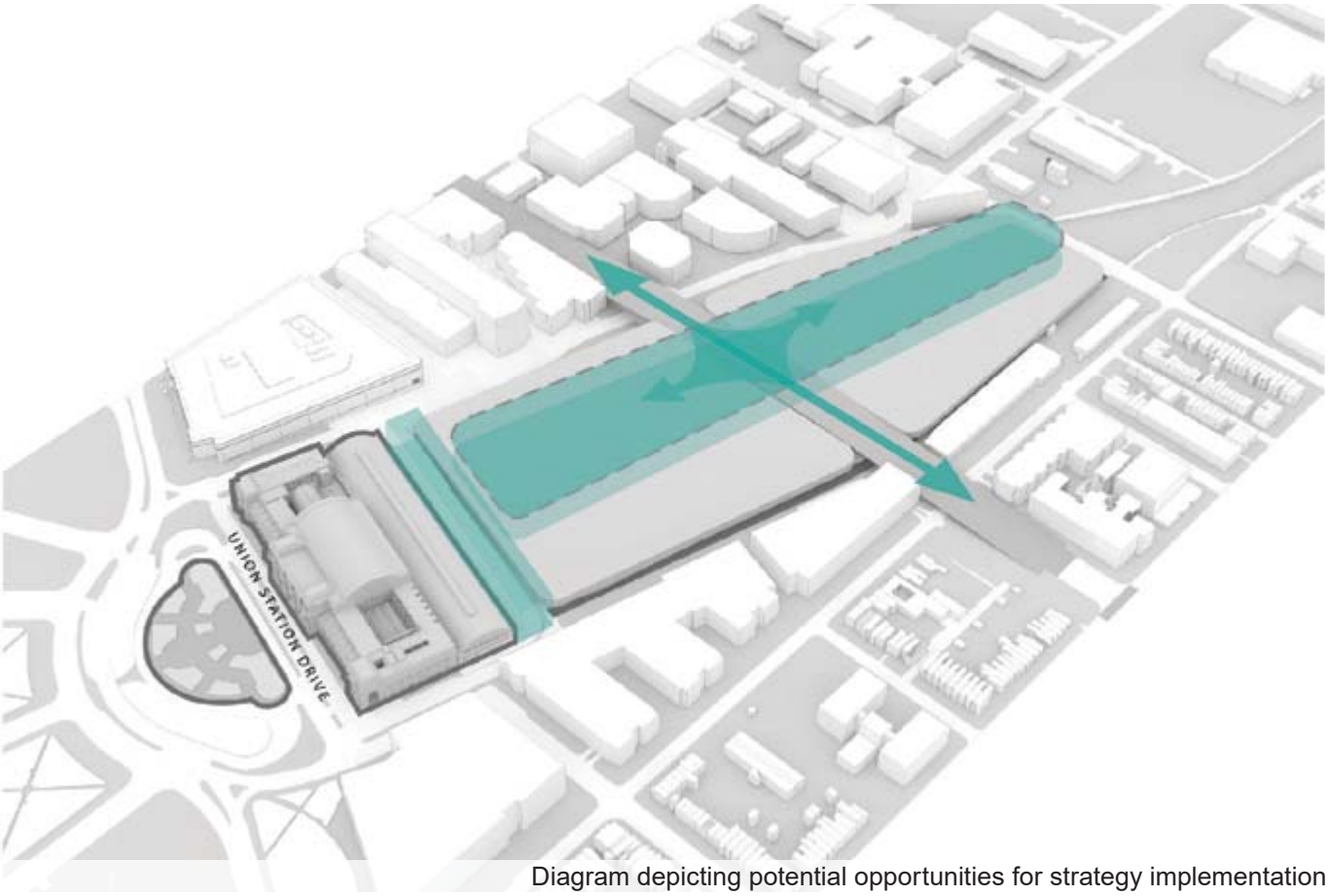


Diagram depicting potential opportunities for strategy implementation

Metropol Parasol, Seville, Spain

Metropol Parasol, Seville, Spain

Metropol Parasol, Seville, Spain

Metropol Parasol, Seville, Spain

PLACEMAKING STRATEGY 8:
CREATE DC SCALE ARCHITECTURE / LANDSCAPE HYBRID

Washington, D.C. is a destination for visitors from around the world and home to hundreds of thousands of residents. As such, many of the public open spaces are grand in scale to accommodate this population. The National Mall is perhaps the most iconic of such spaces, but recent contemporary landscape proposals in the district have approached the design of public open space with a creative architecture/landscape hybrid. Hybrid proposals have woven landscaped public space with buildings or infrastructure, accommodating needs such as a bridge or building square footage while providing an outdoor amenity. Often site conditions are constrained with many competing needs, and thinking of green space incorporated into the architecture at varying levels can alleviate some constraints in providing public open spaces.

An architecture/landscape hybrid approach to the public realm is particularly appropriate to consider in the SEP where infrastructure for rail and development is a primary need. Creating a hybrid that includes the needed infrastructure or supporting architecture and landscaped open space allows for a symbiotic relationship of the spaces and an appropriately scaled open space. Such an architecture/landscape hybrid would build upon the contemporary language of open spaces being established currently in Washington, D.C.

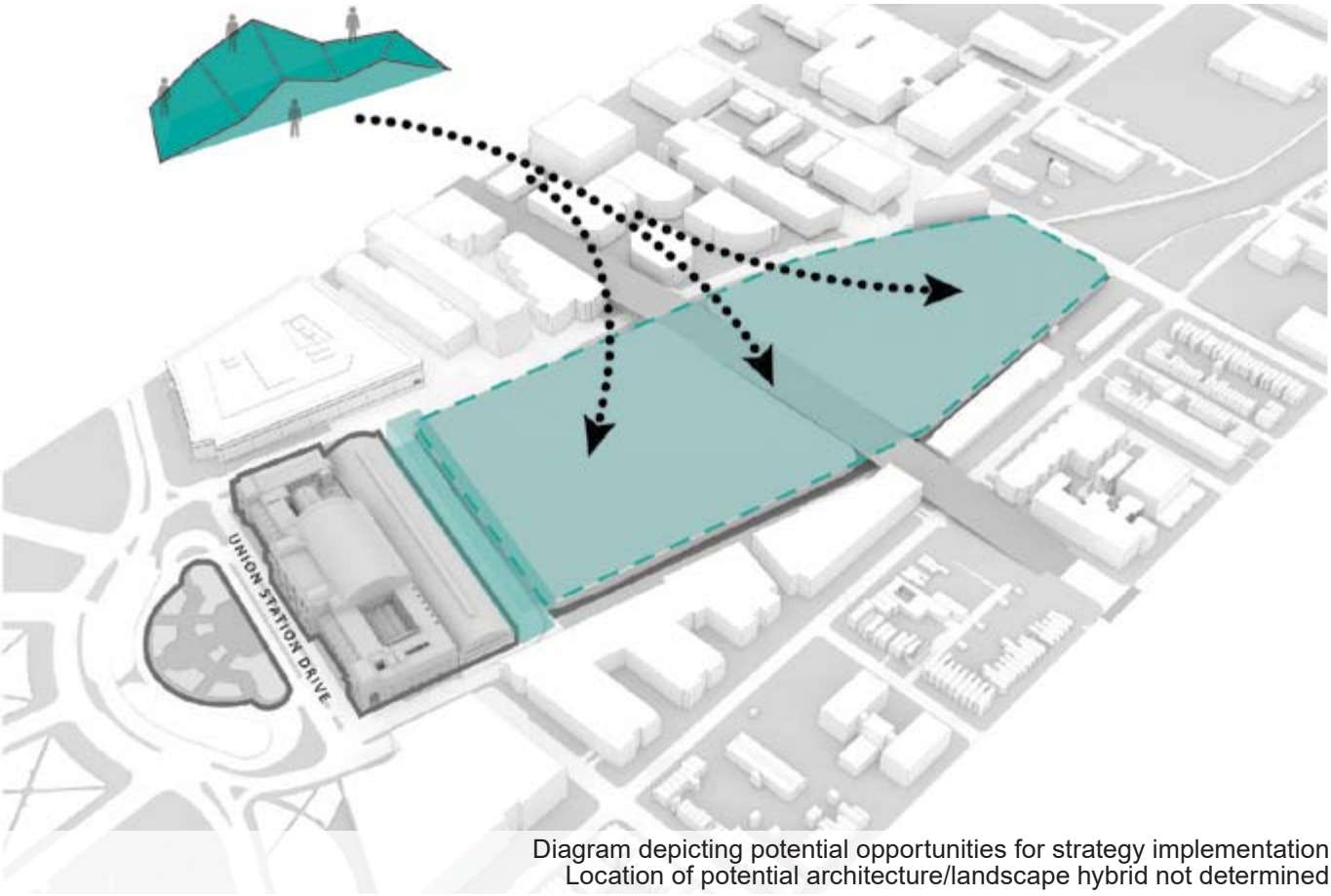


Diagram depicting potential opportunities for strategy implementation
Location of potential architecture/landscape hybrid not determined

[Proposed] 11th Street Bridge, Anacostia Crossing, OMA

[Proposed] Sylvan Theater, Wiess/Manfredi + OLIN

[Proposed] Smithsonian Campus, BIG

PLACEMAKING STRATEGY 9:
REFERENCE THE HISTORIC CONTEXT

The rigid orthogonal grid and strong diagonals that define the morphology of Washington, D.C. converge at WUS. In fact, the introduction of WUS required an adaption of the original L'Enfant city plan. In addition, the strong axis from the U.S. Capitol Building is a distinguishing site feature which should be referenced along with the city grid. References to this neighborhood historic context could include preserving key view sheds or corridors created by the existing historic city fabric, architectural articulation to respond to the grid or axis, or continuation of the grid with any new development or overbuild.

In addition, the WUS site has several historic elements to draw upon. Similar to what was previously identified with regards to the K Tower, the historic Burnham Wall at the edges of the site, and the historic concourse wings. Reference to the historic site elements could include preservation or restoration, adaptive reuse of elements, or reconstruction of the historic element, and the approach to referencing each historic element should be considered according to the specific element.
An example of reconstruction is shown through a series of vignettes of the historic concourse wings. Studies included several reinterpretations for reconstruction to complement the contemporary WUS.

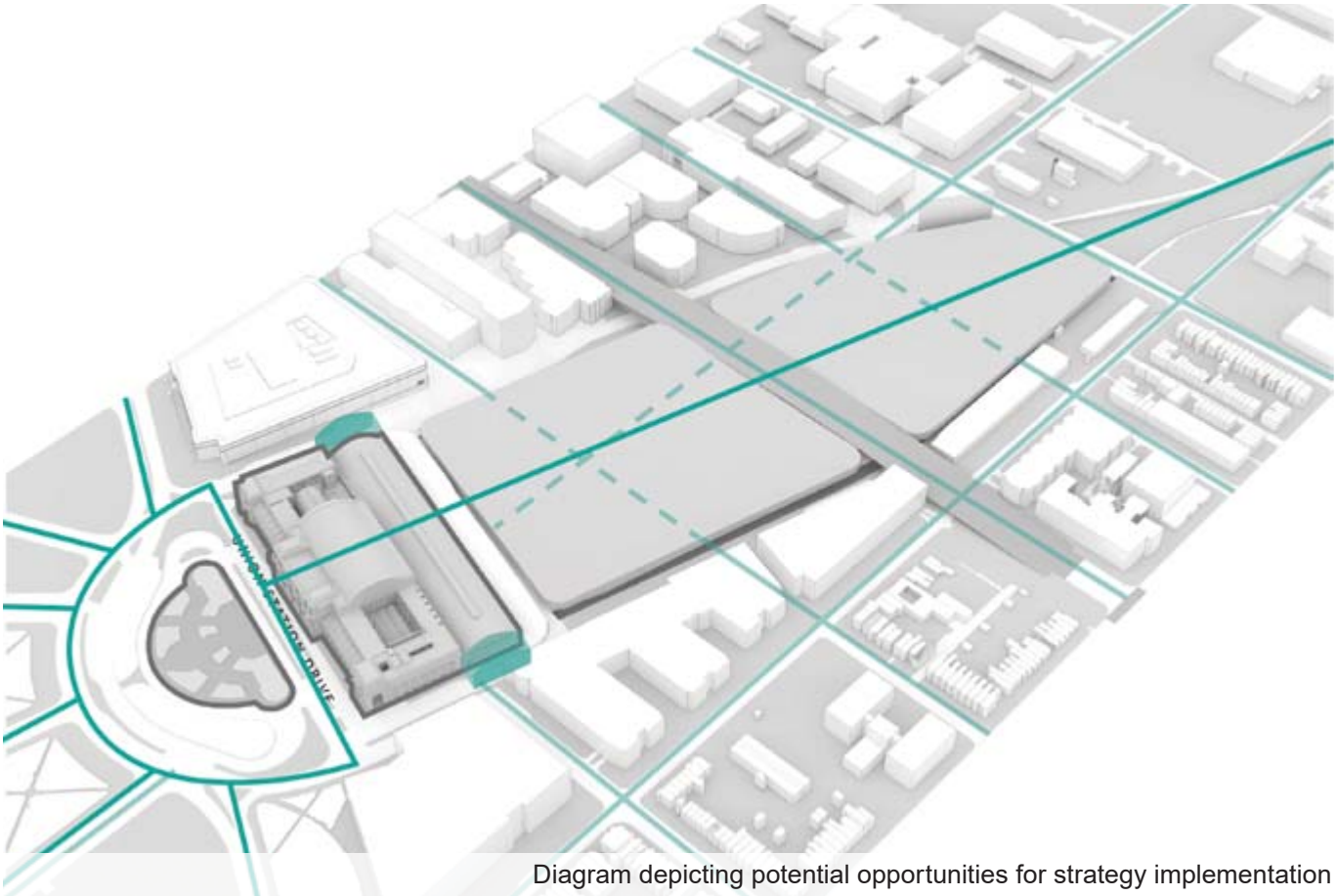
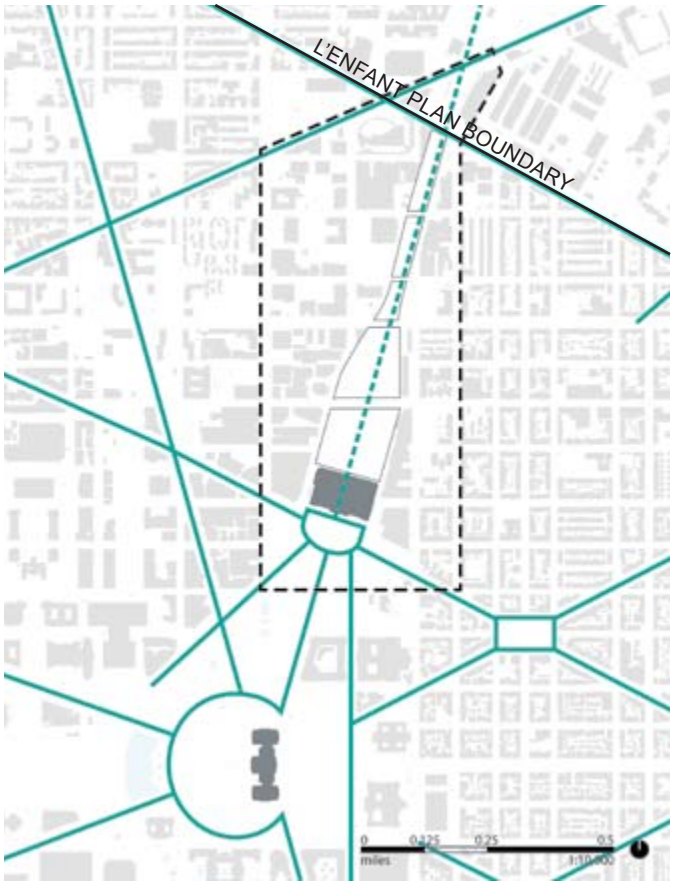
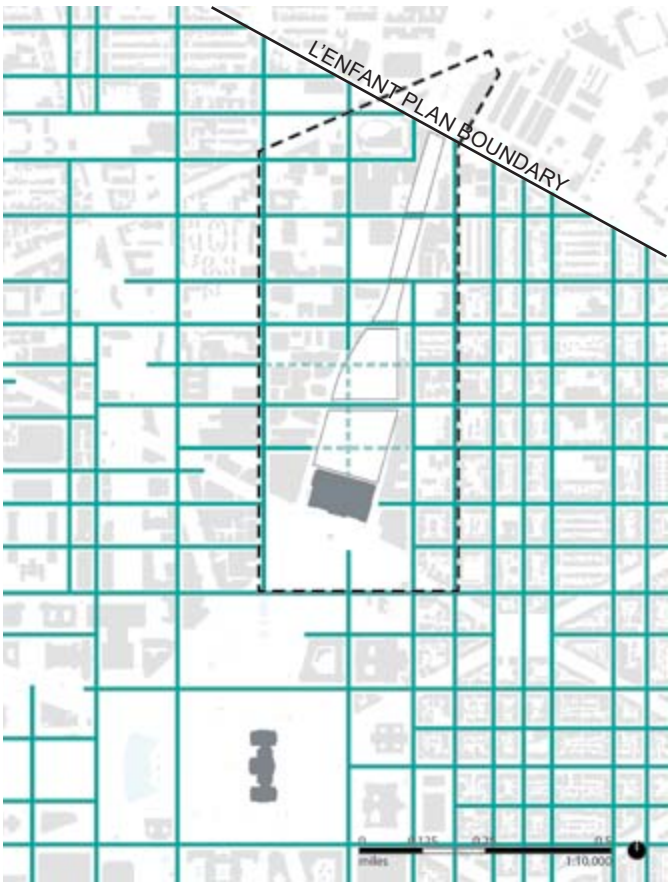


Diagram depicting potential opportunities for strategy implementation





WUS, 1910

PLACEMAKING STRATEGY 10:
EMBRACE THE HISTORY + CHARACTER OF TRAINS AND RELATED INFRASTRUCTURE

Travel by train has been embraced since the early 19th Century with a rich history. The historic WUS building is a significant structure in Washington, D.C. and should be preserved along with the development of new SEP facilities. Along with the preservation of the historic building, the train car, train tracks, and associated infrastructure also contribute to a familiar character associated with this mode of travel and should be embraced and celebrated.

The public realm can reveal and embrace the character of trains through optimizing views of the tracks. Strategic use of transparency and public spaces that overlook the tracks can optimize views. Open space at the northern end of the site could incorporate overlooks to watch trains arrive and depart. The use of transparency between levels, whether through open overlooks or glass materiality, can reveal the train infrastructure from public spaces that would otherwise be detached from trains. Optimizing views to tracks and trains would relate the public realm to the rich history of WUS.

Adaptive reuse of historic train infrastructure can also embrace this history, and several historic elements could be considered for reuse. For example, the historic K Tower will be removed as part of the track expansion and realignment. This element could be adaptively reused in another area of the Project for a multitude of uses such as retail, or food service, either incorporated into larger structure or reused independently.

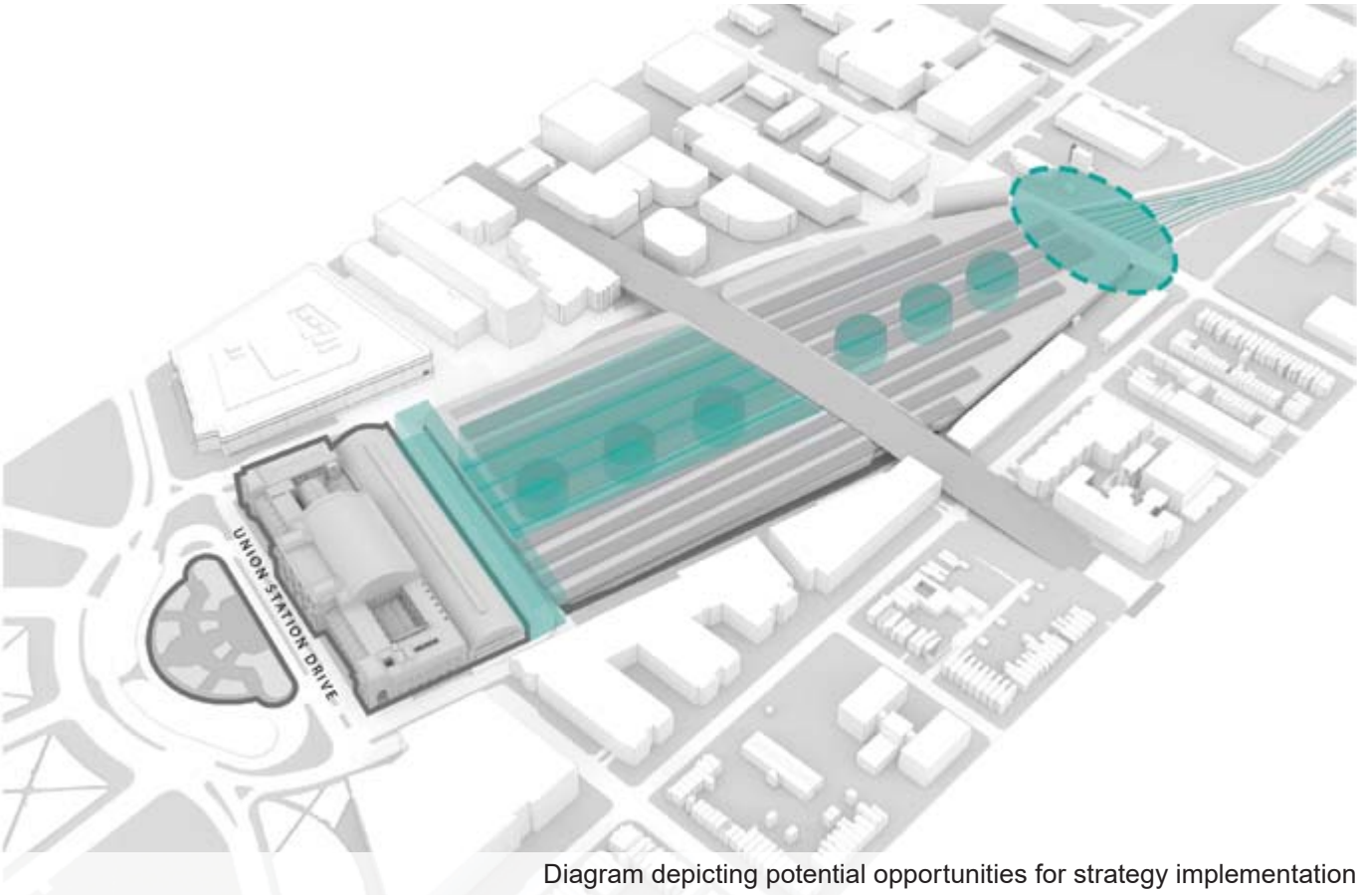
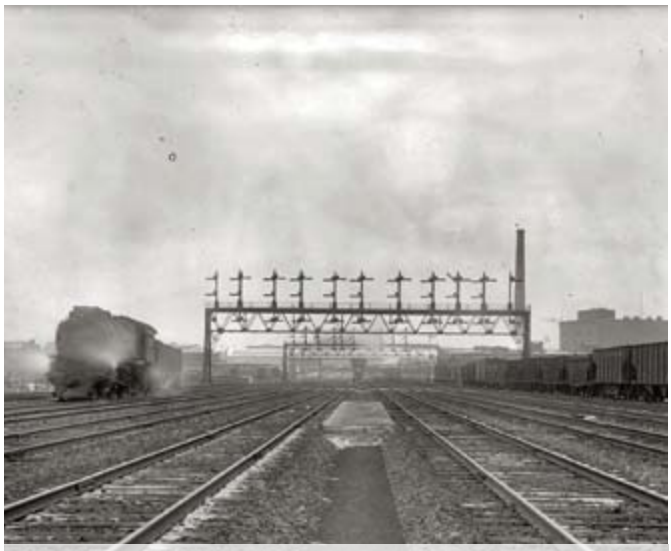


Diagram depicting potential opportunities for strategy implementation



WUS, Washington, DC

Penn Station, New York, NY

Historic K Tower, WUS, Washington, DC

Olympic Sculpture Park, Seattle, WA

Museu Joanneum, Graz, Austria

Piazza Gae Aulenti, Milan, Italy

PLACEMAKING STRATEGY 11:
RECALL THE HISTORIC TIBER RIVER

While there is a strong sense of place deeply rooted in the orthagonal grid and diagonals defined by L'Enfant's 1791 Plan, investigation into the site history also reveals other elements which can contribute to contemporary placemaking.

The historic Tiber River was also a part of L'Enfant's Plan. The waterway was channeled to the Potomac, but over time, infrastructure improvements and building enclosed the Tiber River and it remains underground today. The river ran through the WUS area in its natural form with tributaries before channeling regularized the waterway south of the site near Constitution Avenue. The Tiber River was a strong element in the historic plan of Washington D.C. and should be celebrated.

Recalling the essence of the Tiber River can take many forms. Physical planning elements such as the proposed publicly available linear open space greenway or proposed roadway network could evoke the natural curves of the river and connect smaller "tributaries" of spaces branching from a central element. Recalling this history does not need to be literal, but could act as a guide in conceptual development, grounding the urban design in the history of place.

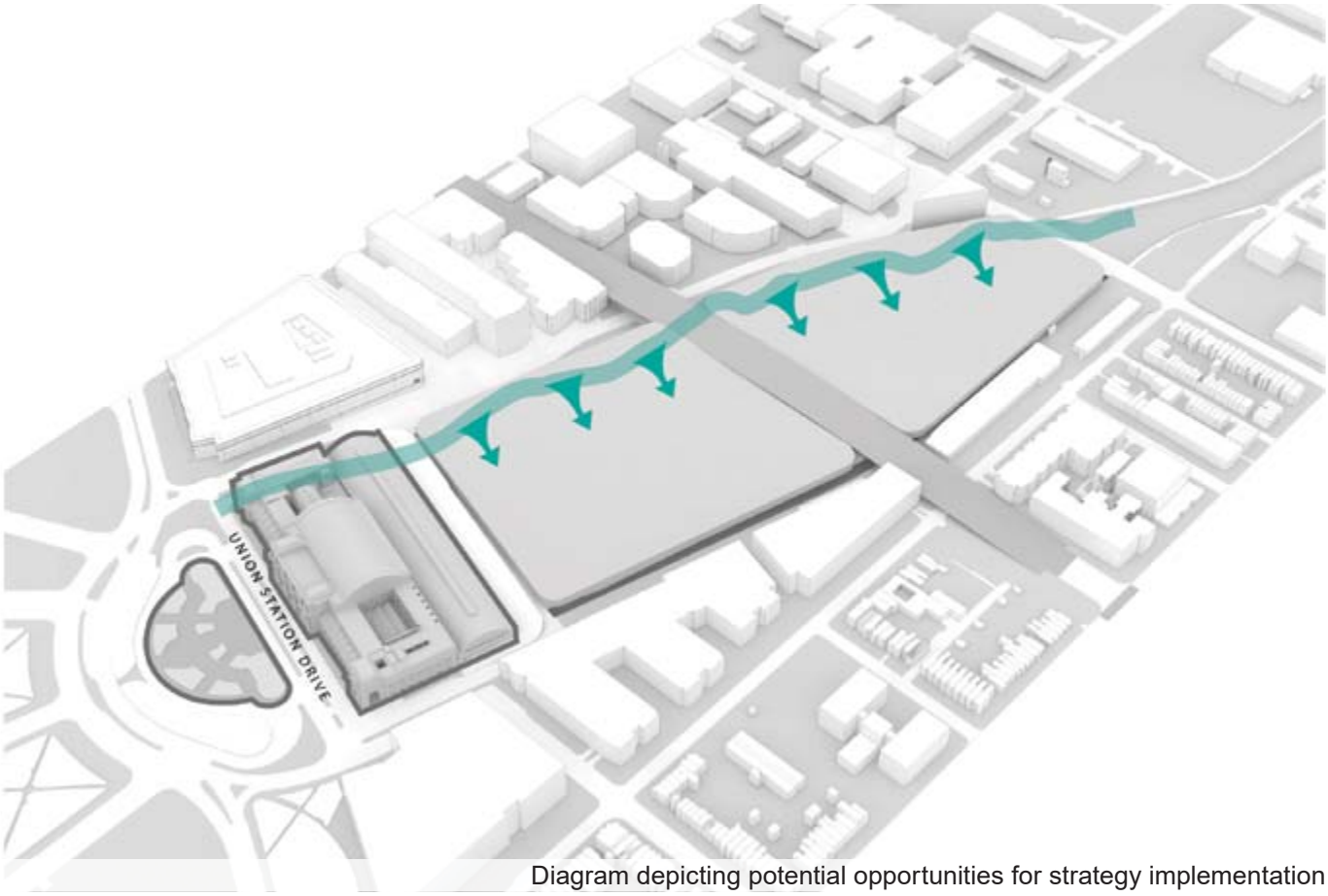
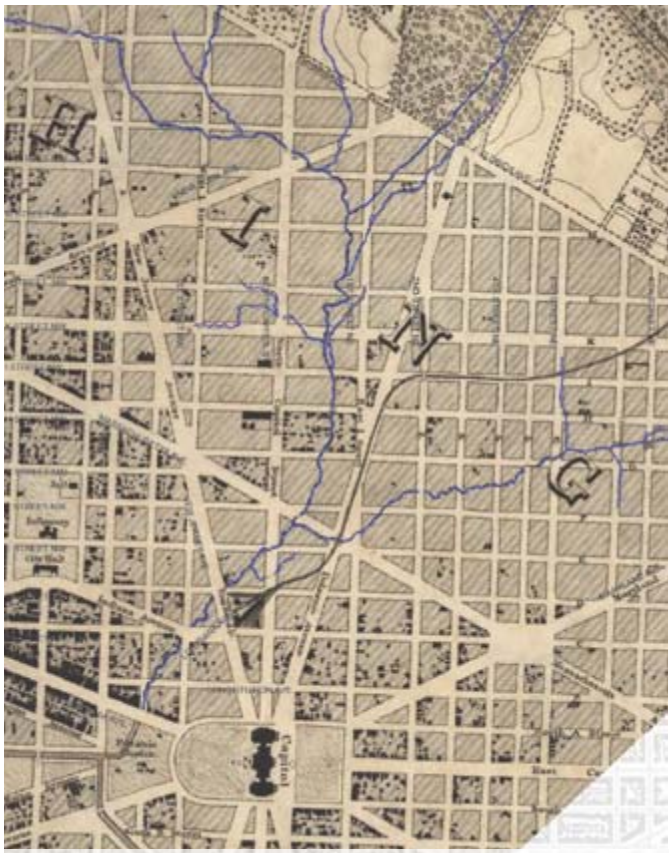
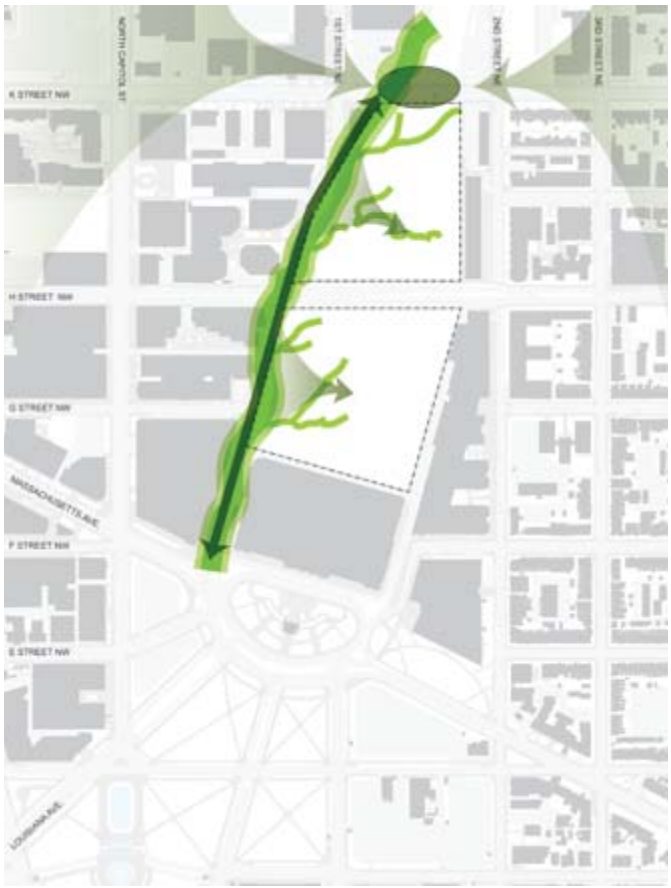


Diagram depicting potential opportunities for strategy implementation



Historic Tiber River, Washington, DC

Historic Tiber River, Washington, DC



B-6: Connectivity Strategies

Increased connectivity to WUS can take various forms: visual connections; east-west neighborhood connections between Capitol Hill and NoMA; vertical connections from street level to deck level; transportation connections to citywide networks; north-south connections to established trail systems. Maximizing all of these strategies, and more, would leverage the benefits of increased SEP capacity, provide the framework for activating future air-rights development, and seamlessly link WUS into its context with an integrated urban design vision.

The SEP identifies six (6) Connectivity Strategies which are intended to provide a menu of options to create an interconnected public realm with multiple options for movement and access to, from and throughout WUS. The strategies range from multi-modal connectivity to wider DC transportation networks to more localized strategic pedestrian connections along the edges of WUS.

The Connectivity Strategies can support all concepts being studied. Many of the strategies are applicable to any of the concepts, and all concepts can be supported with multiple strategies. Several of the strategies require coordination with off-site landowners or other public agencies.

CONNECTIVITY STRATEGIES

- Connect WUS to wider DC with embedded transportation networks
- Explore streetcar alignment options for operation and placemaking
- Maximize connectivity to the H Street Bridge
- Maximize roadway connections to DC road network
- Stitch WUS edges to adjacent neighborhood
- Maintain visual connections

CONNECTIVITY STRATEGY 1:
CONNECT WUS TO WIDER DC WITH EMBEDDED TRANSPORTATION NETWORKS

WUS is a major transportation hub connecting Washington, D.C. and linking it to the greater rail network regionally. As such, the site should tie into local networks that offer a variety of modes of transportation and connections throughout the city and beyond.

Advances in the D.C. bicycle network have implemented more than 100 miles of bike lanes and trails and Capital Bikeshare is the country's largest bike sharing system. Existing bike lanes connect to WUS with bike shares available in close proximity. Bike lanes connect to the Metropolitan Branch Trail, connecting bicyclists regionally. In addition, planned bike lanes would increase the connectivity city wide. The SEP should utilize all opportunities to directly connect to the established and growing network and support biking on site.

Rue Prince-Arthur, Montreal, Canada

Washington, DC

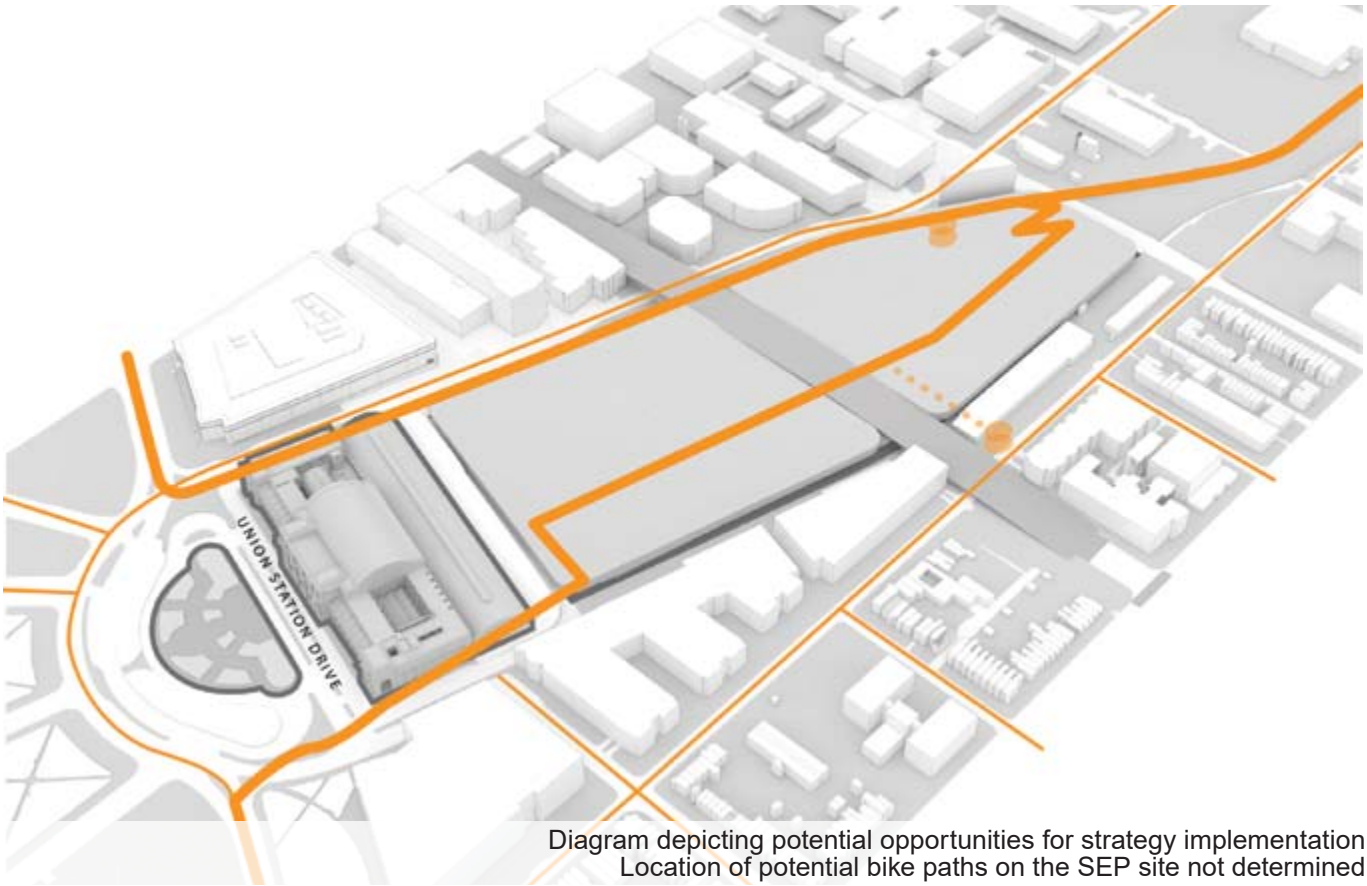
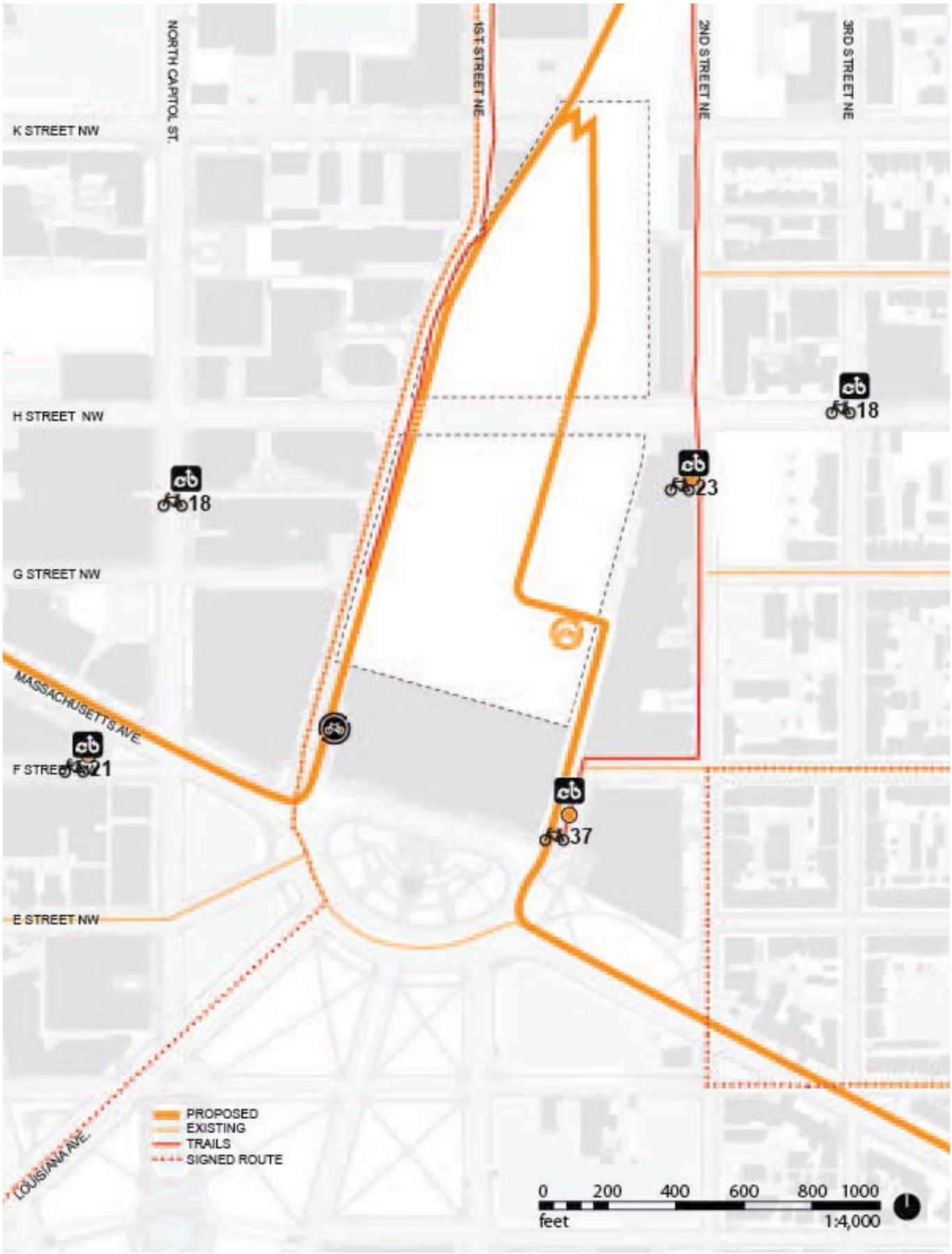


Diagram depicting potential opportunities for strategy implementation
Location of potential bike paths on the SEP site not determined


NORTH CAPITOL ST.
1ST STREET NE
2ND STREET NE
3RD STREET NE
K STREET NW
H STREET NW
G STREET NW
F STREET NW
E STREET NW
MASSACHUSETTS AVE.
LOUISIANA AVE.
18
18
23
21
37
PROPOSED
EXISTING
TRAILS
SIGNED ROUTE
0 200 400 600 800 1000
feet
1:4,000

CONNECTIVITY STRATEGY 2: EXPLORE STREETCAR ALIGNMENT OPTIONS FOR OPERATION AND PLACEMAKING

Recent implementation of the DC Streetcar in February of 2016 has complemented existing transit options and growth is planned. The system in place is rooted in a planning process with expansion planned to further connect the city and fill transportation gaps. The success in the streetcar is recent, but a significant addition to the transportation network in Washington, D.C.

Current lines serving the district run from WUS to Oklahoma Avenue/Benning Road to the East. Along with other planned lines, this line is planned for further extension to connect from Benning Road to Georgetown. This strong east/west transportation connection would connect through the SEP site on the H Street Bridge. Stop configurations and alignment options at WUS will be further studied and explored for optimal operational, connectivity, and civil design. Placemaking opportunities should also be explored along with the technical needs of the configurations. Opportunities to be explored include potential shared open space plazas with streetcar stop(s), stop amenities, looped routes branching off of H Street Bridge, and relationship to other open spaces.

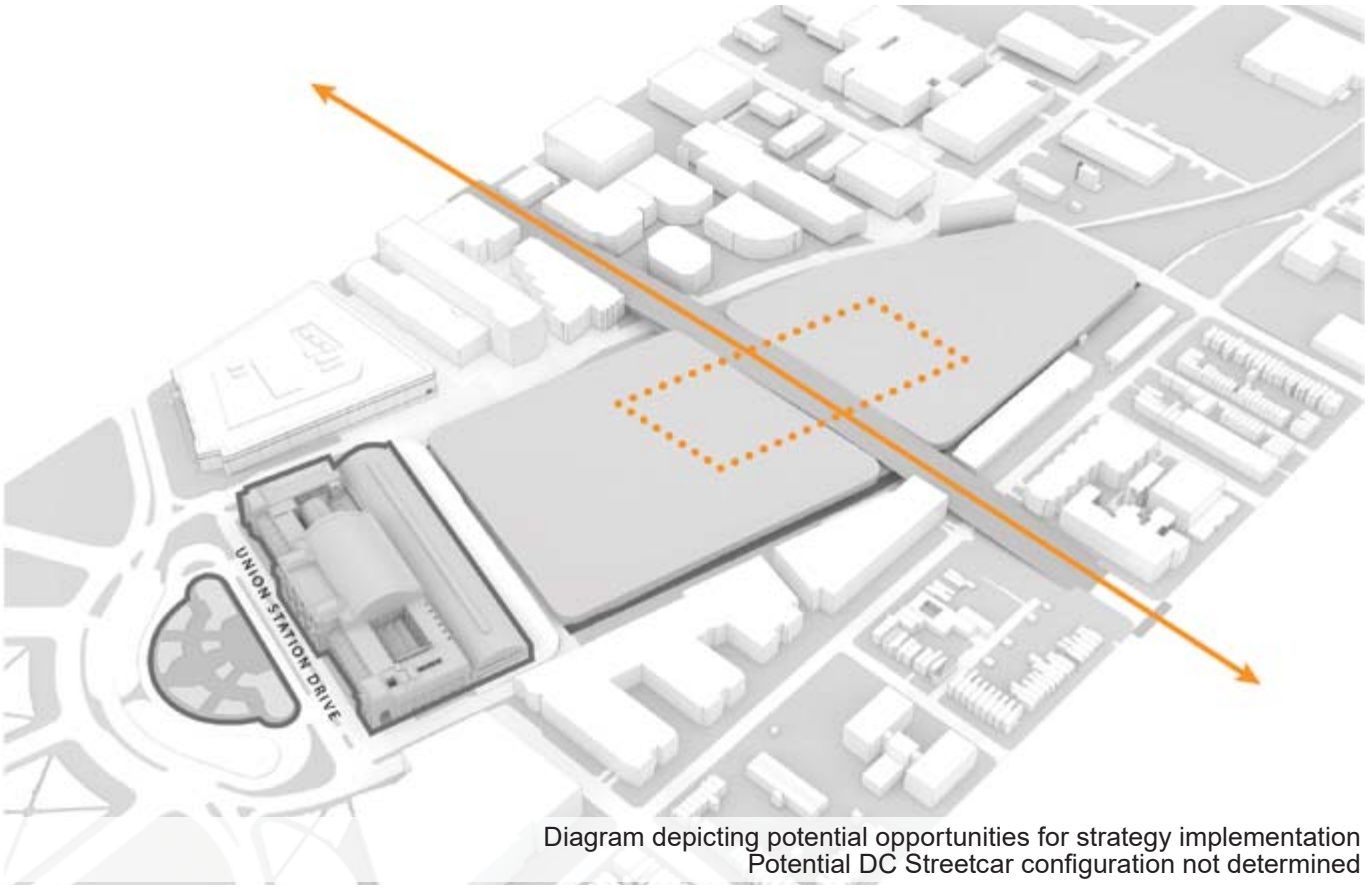
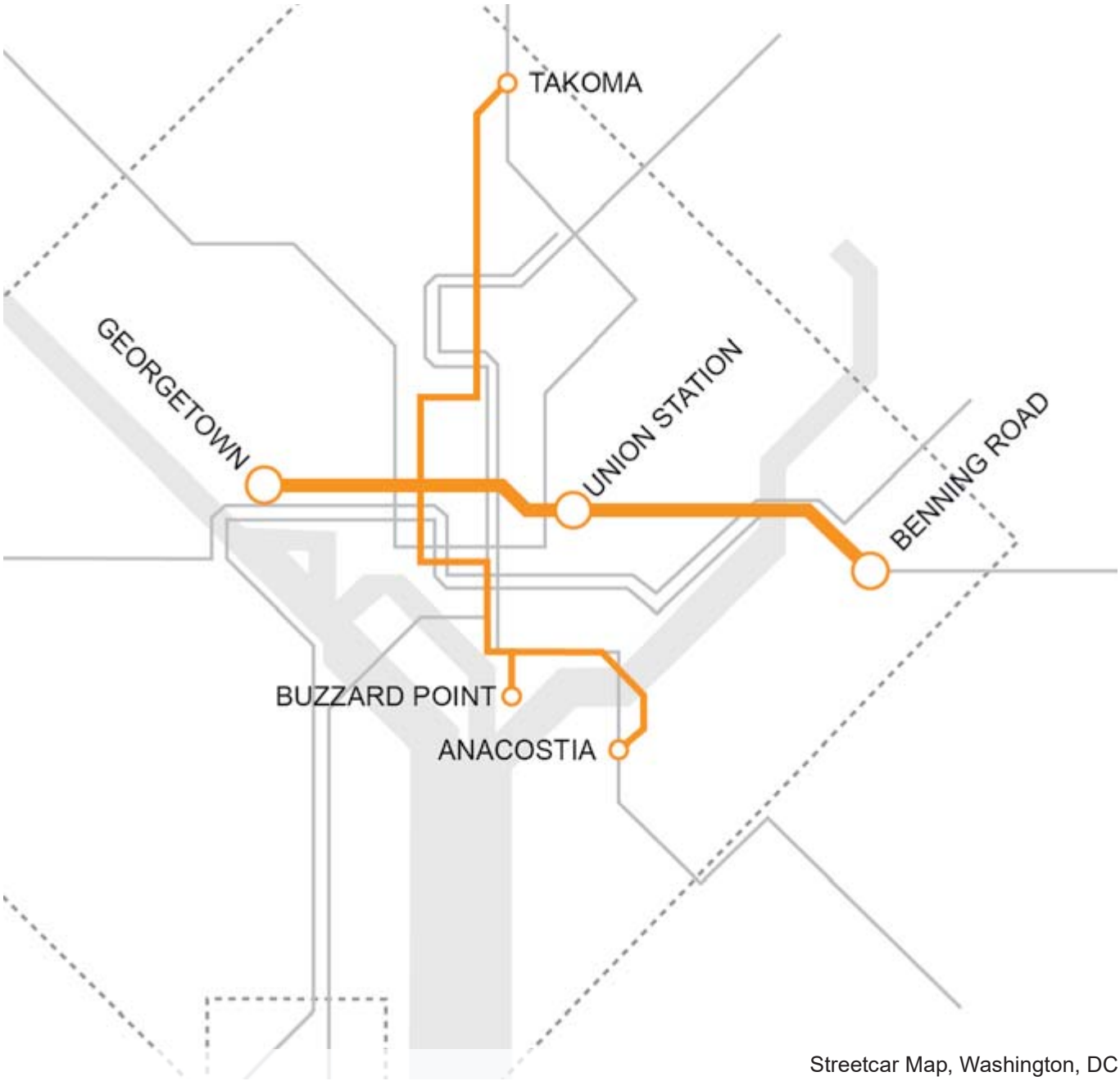


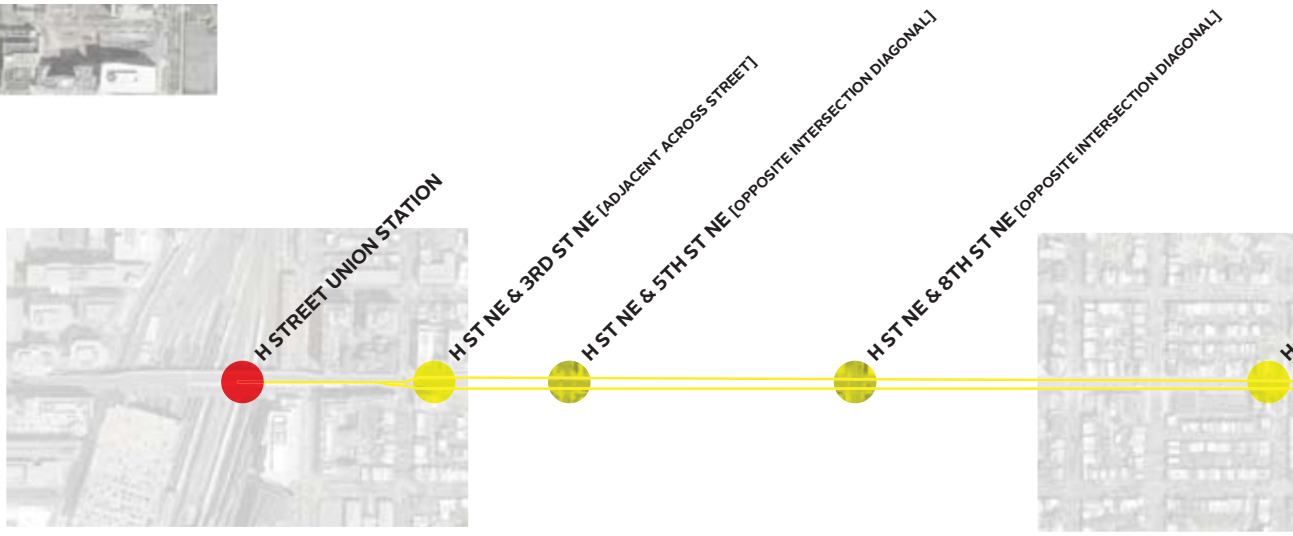
Diagram depicting potential opportunities for strategy implementation
Potential DC Streetcar configuration not determined



Streetcar Map, Washington, DC

Streetcar, Washington, DC

Streetcar, Washington, DC



MEDIAN STOPS

CURB EXTENSION STOPS

Diagrams depicting potential streetcar turnaround opportunities on the SEP site

Portland, OR

Portland, OR

Tacoma, WA

CONNECTIVITY STRATEGY 3:
MAXIMIZE CONNECTIVITY ON H STREET

The H Street corridor is a significant artery in Washington, D.C. and the H Street Bridge at the SEP site is integral to maximizing connectivity to the surrounding street network and on site. Physical connections and perceived connections across and between the site areas south of H Street and north of H Street are imperative to creating a cohesive project.

The street design should accommodate multi-modal transportation including the DC Streetcar, bicycles, automobiles, and pedestrians. Along with civil design of the roadway, the configuration of these elements should be considered to optimize connectivity between modes of transportation while creating a pedestrian friendly environment. Safe pedestrian crossings should be incorporated into the street design, and street width, number of intersections and lanes, medians, and materiality should all be considered in pedestrian crossing studies. Streetscape, street furniture, and active sidewalk frontages would also contribute to a pedestrian friendly environment while creating a sense of place. The Study explores potential configurations of H Street Bridge, incorporating these elements. Urban design strategies for H Street Bridge are informed by existing street conditions, DC Streetcar conditions, and urban design best practices. The strategies represented are for consideration and commentary from DDOT with respect to lanes, intersections, pocket track configurations, etc.

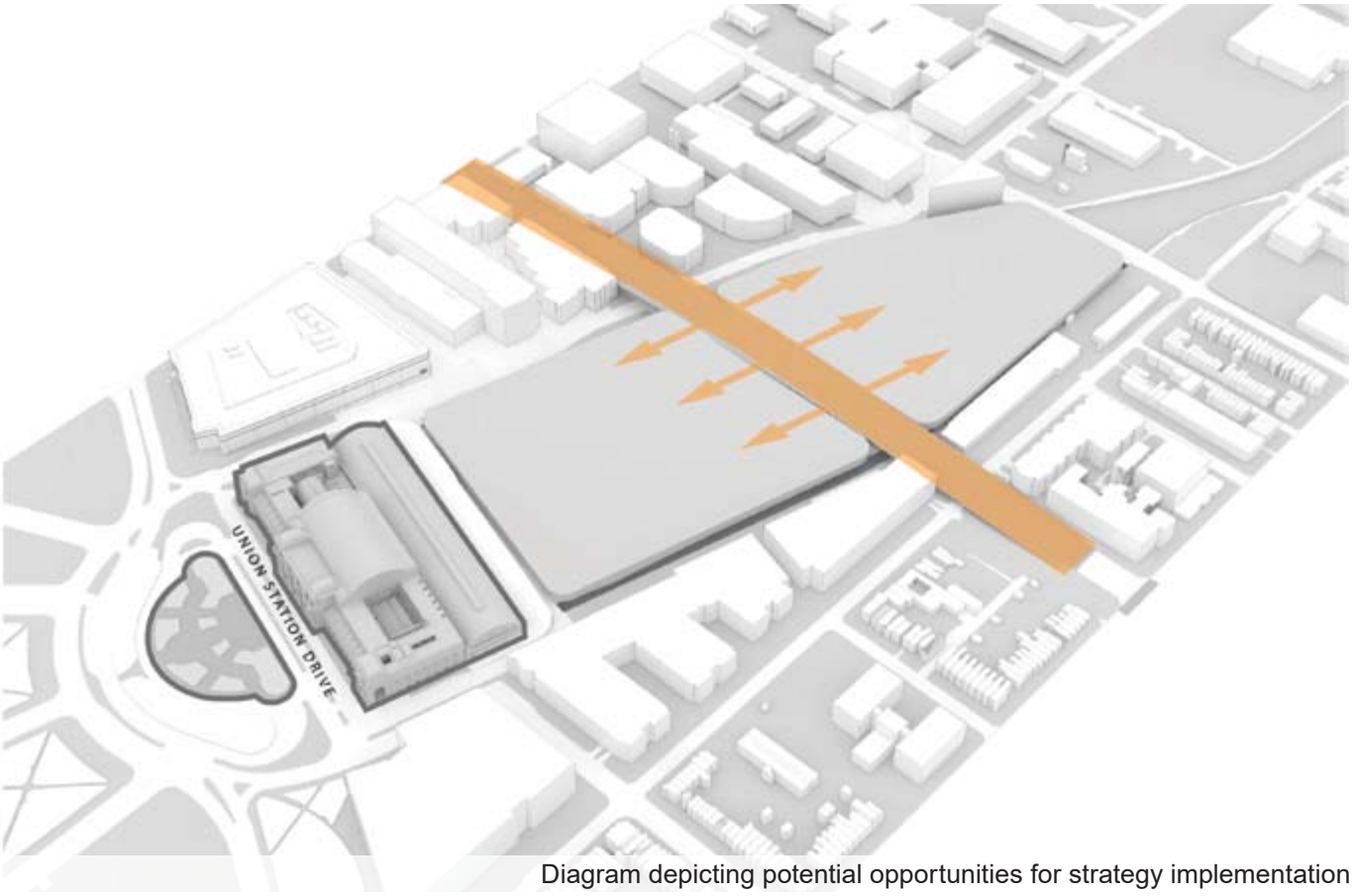


Diagram depicting potential opportunities for strategy implementation

Gateway, Chicago, IL

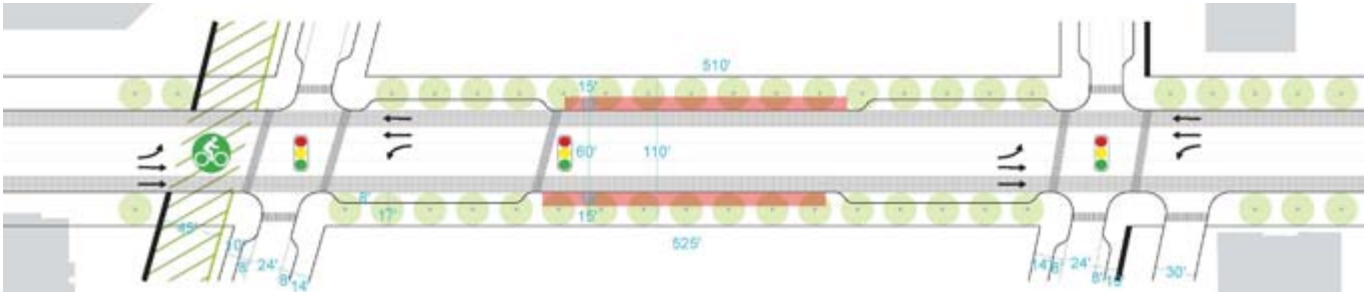
Clinton Street, Chicago, IL

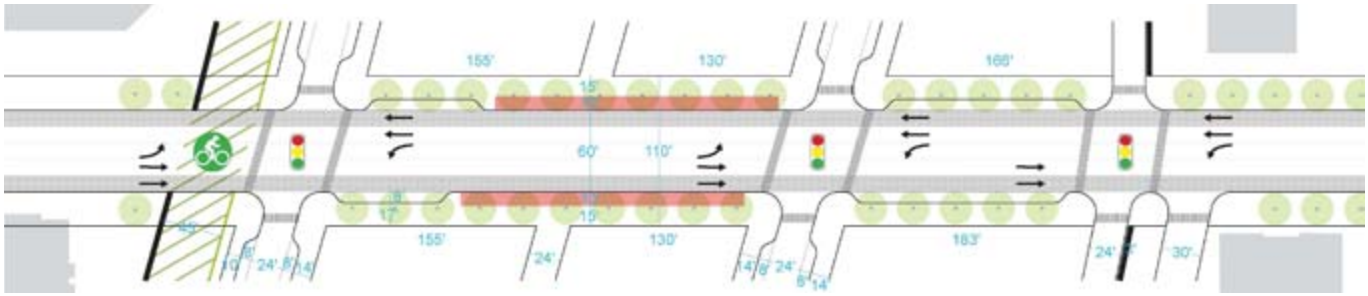
Kurfurstendamm, Berlin, Germany

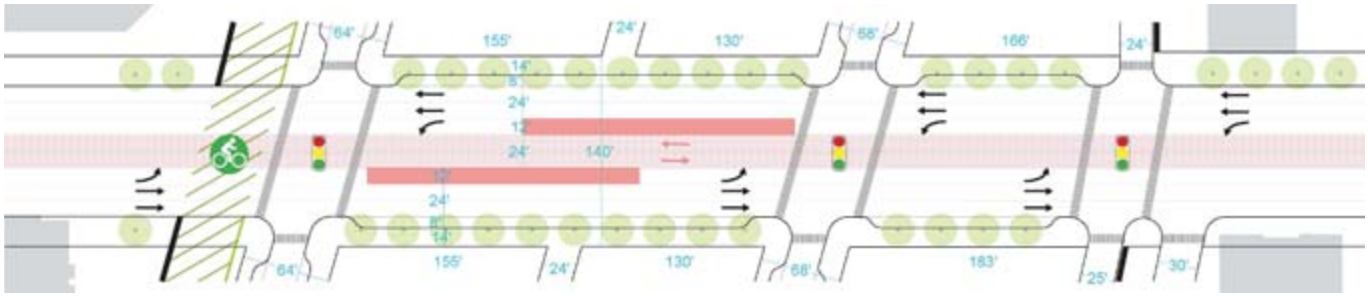
Portland, OR

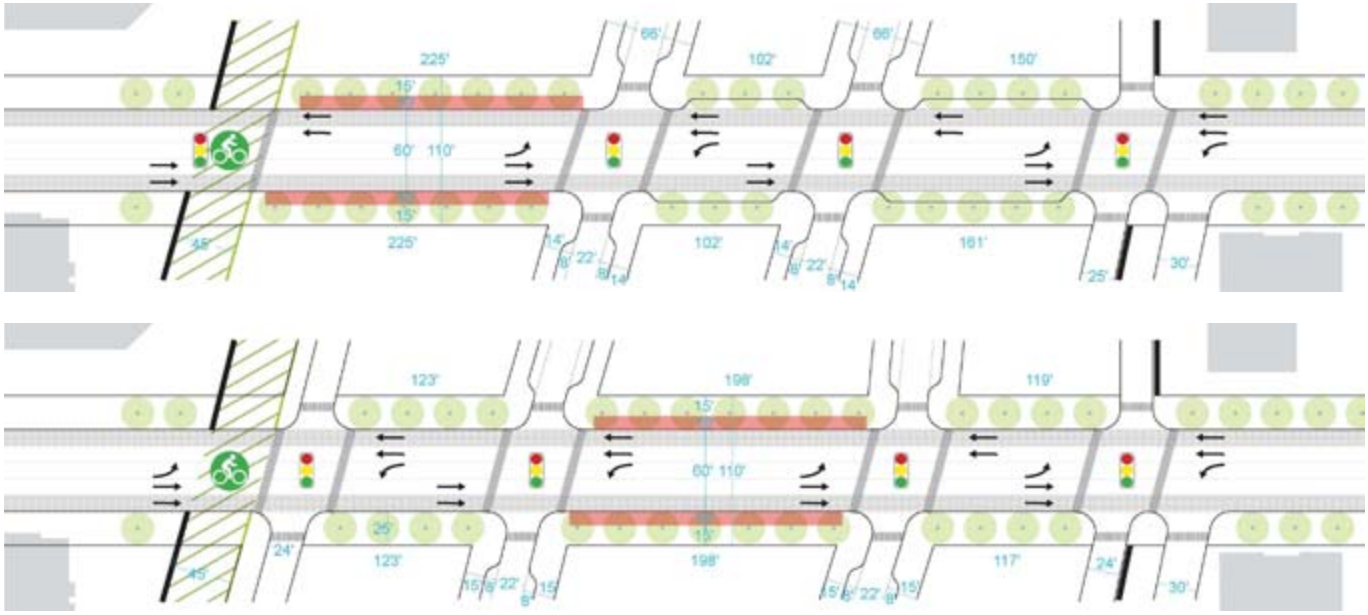
EXISTING H STREET CONFIGURATION

STREETCAR PLATFORM AND POCKET TRACK AREA









Diagrams depicting potential for H Street Bridge incorporating all transportation modes and pedestrians

- Signaled Intersection
- Bike Lane/Greenway Crossing
- Pedestrian Crossing
- Shared Streetcar Lane
- Dedicated Streetcar Lane
- Streetcar Platform (200')
- Greenway

CONNECTIVITY STRATEGY 4: MAXIMIZE ROADWAY CONNECTIONS TO DC ROAD NETWORK

Connections to the existing roadway network would stitch the SEP site to the surrounding neighborhoods. In addition to the H Street Bridge connecting the site east and west, roadway connections to the north and south should be maximized.

Roadway spurs from Columbus Circle could connect the site to this iconic forecourt and vital multi-modal transportation plaza. Columbus Plaza currently serves as a drop off area and connects to Massachusetts Avenue, E Street, Louisiana Avenue, Delaware Avenue, and First Streets. Connecting the SEP site to this network directly would greatly increase the ties to the city.

A roadway connection to the north would also tie the site to the neighborhood and city. While there are challenges and competing elements to navigate, this connection would create an important link. Initial studies show a potential roadway link which can clear the K Street Bridge, connecting to either Second Street mid-block or the intersection of Second Street and L Street. Other competing uses in this area of the site to consider include the potential substation area and potential screening area.

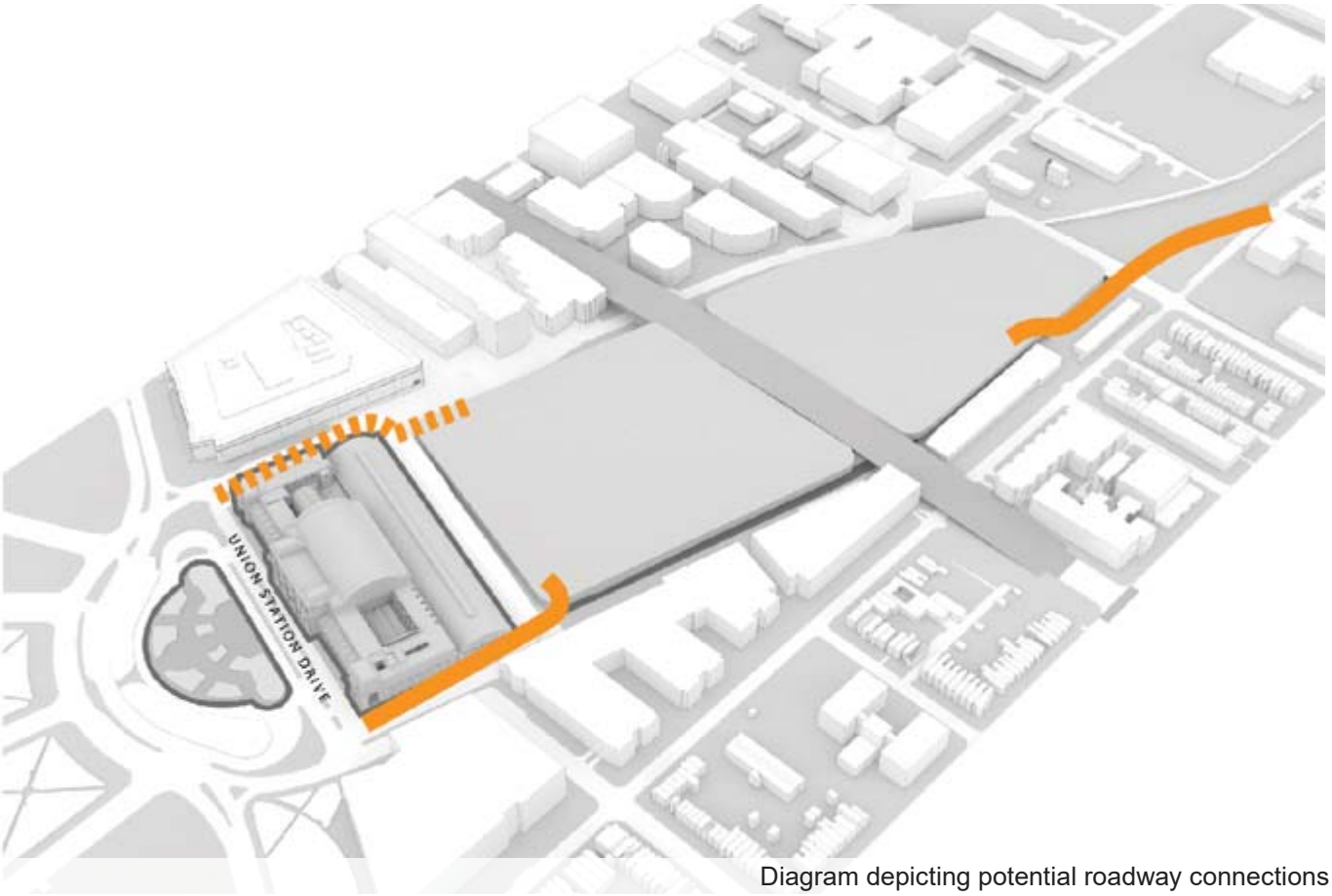
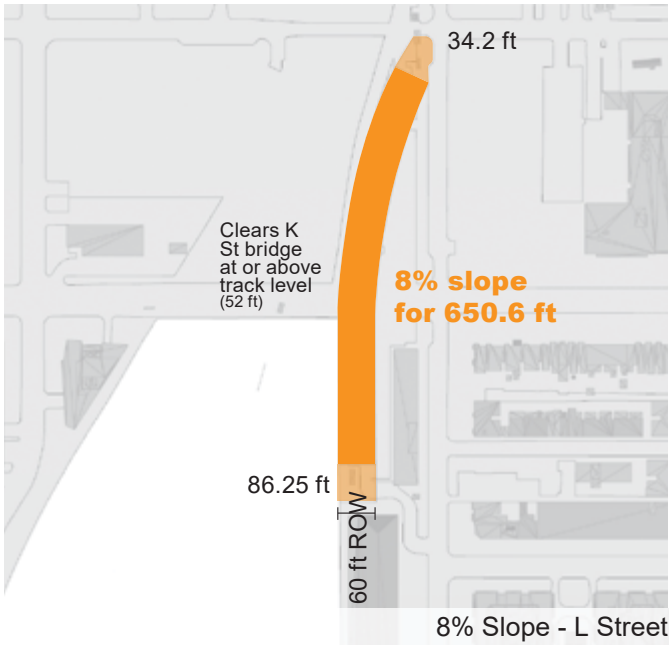
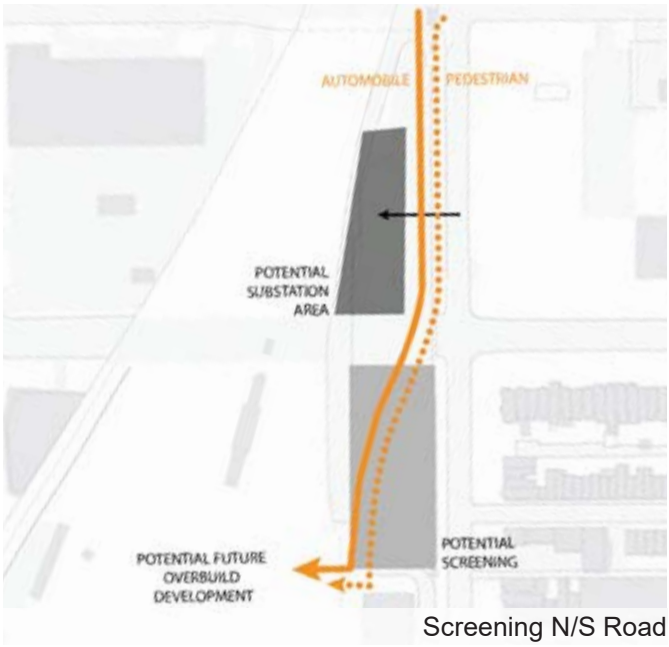


Diagram depicting potential roadway connections

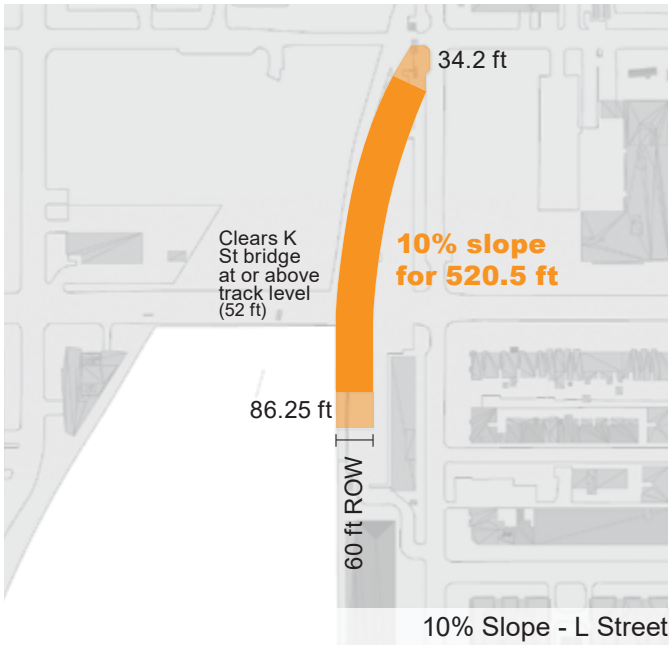
8% Slope - L Street



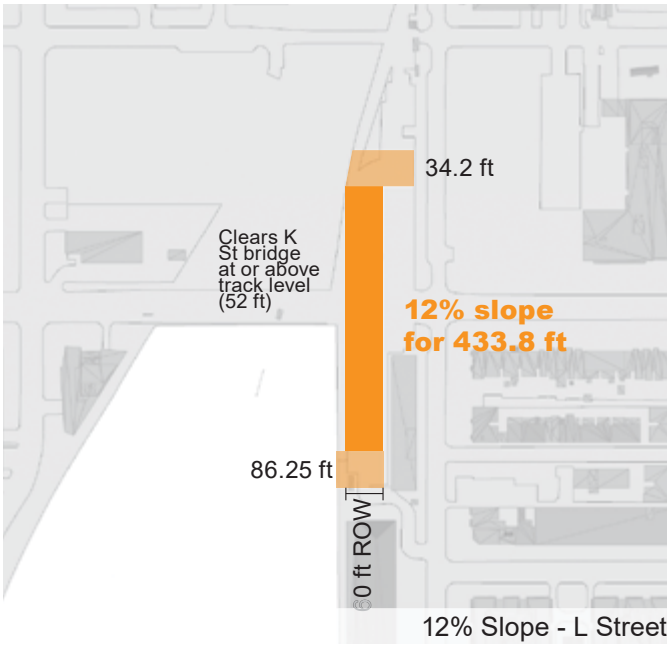
8% Slope - L Street



Screening N/S Road



10% Slope - L Street



12% Slope - L Street

CONNECTIVITY STRATEGY 5: STITCH WUS EDGES TO ADJACENT NEIGHBORHOOD

The SEP site has a potential for many connections to the neighborhood. Potential connections can bridge elevation challenges, link pedestrians to the site, and stitch the site back to the urban fabric of the neighborhood through strategic interventions. They can provide access to the SEP and the overall site for the pedestrian from the H Street Corridor, Noma, Near NE, Capitol Hill, and Downtown neighborhoods.

Connections to the SEP specifically can be made at the east and west edges of the site at H Street. Vertical connections at these strategic points can connect the pedestrian to the SEP from street level, overbuild deck or H Street Bridge level, and on the west side to the proposed publicly available linear open space greenway. A secondary vertical connection mid-site along H Street can also connect to the SEP. Connections to the site and the SEP are critical at Concourse A and would provide entry and exit proximate to the historic WUS building.

In addition to the vertical SEP connections, several urban design interventions are represented in a conceptual manner in this section to demonstrate potential secondary connections. Interventions range from stairs at strategic locations, opportunities for key connections into surrounding buildings and sidewalk network, and utilizing existing surrounding conditions and infrastructure to build connections while creating an active public realm.

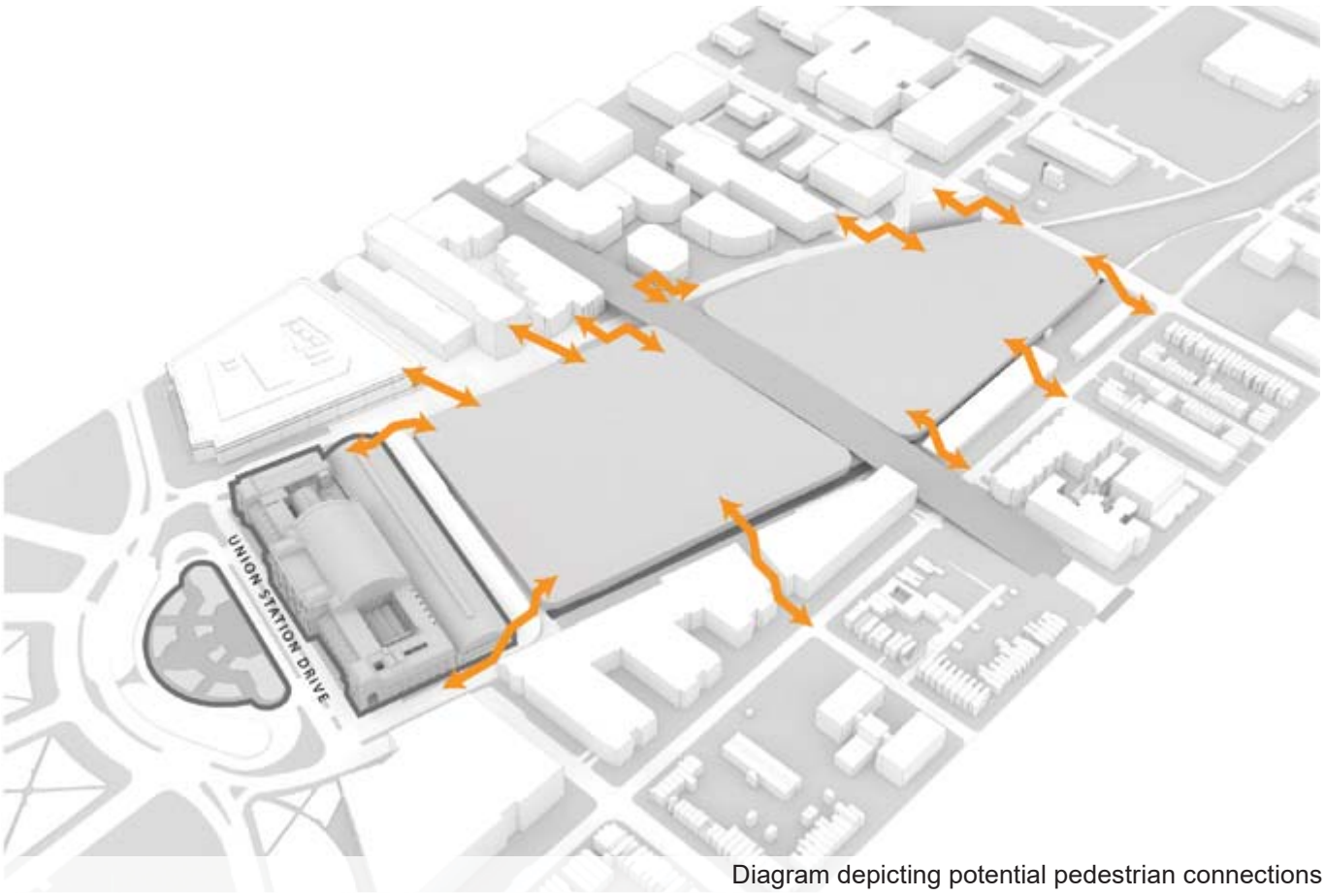
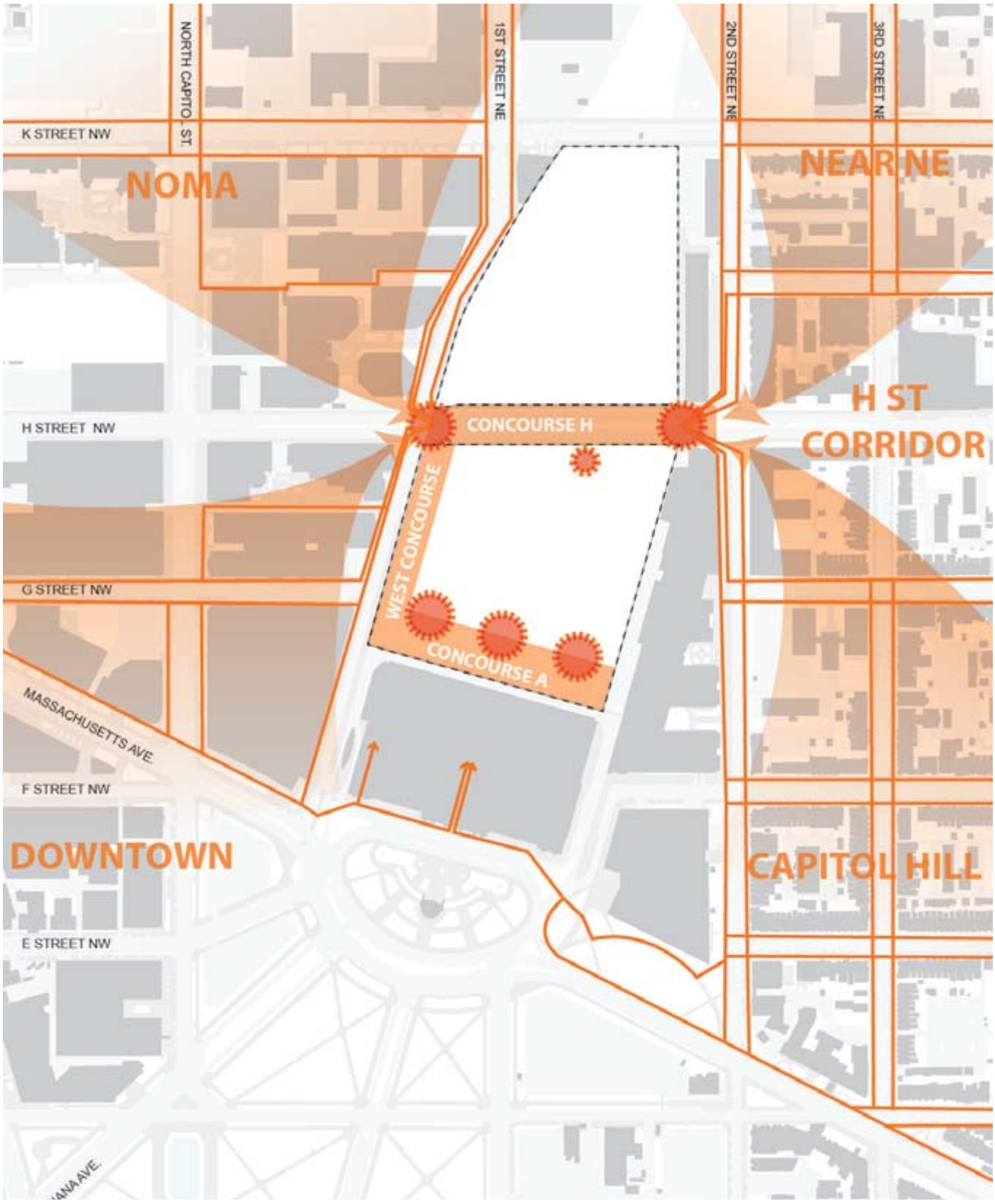


Diagram depicting potential pedestrian connections



VERTICAL STATION CONNECTIONS

SIDEWALKS

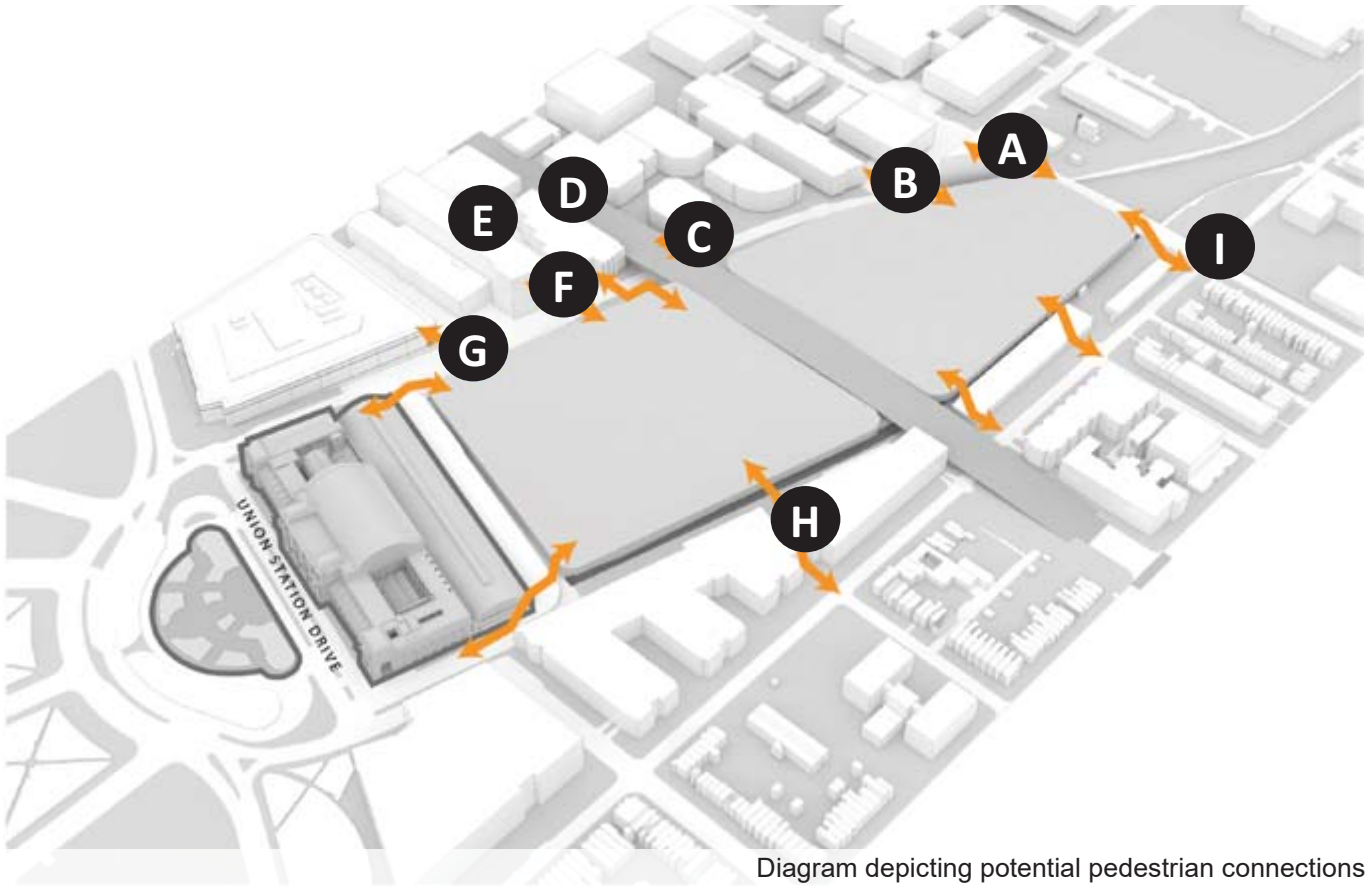
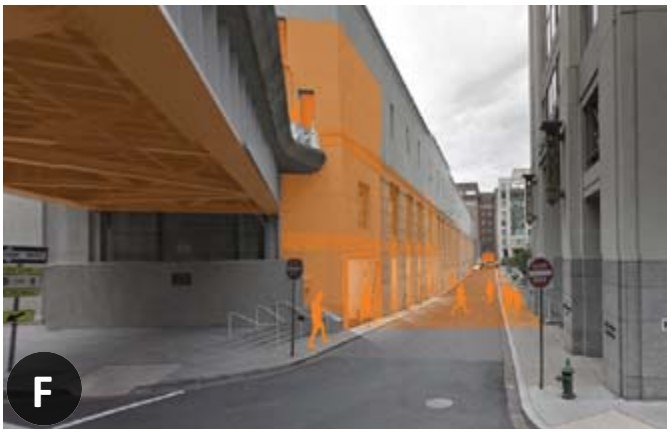


Diagram depicting potential pedestrian connections

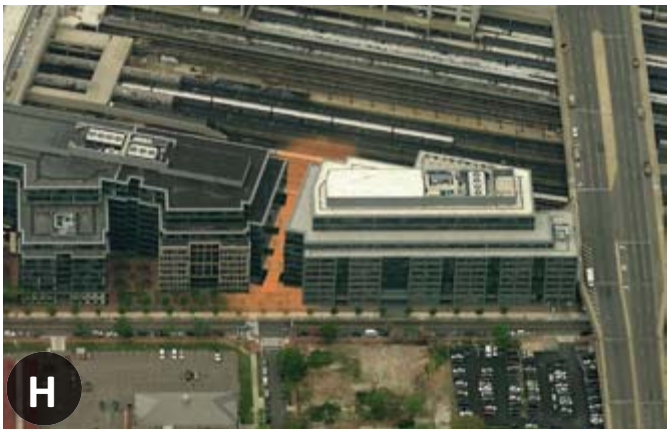

B


F


C

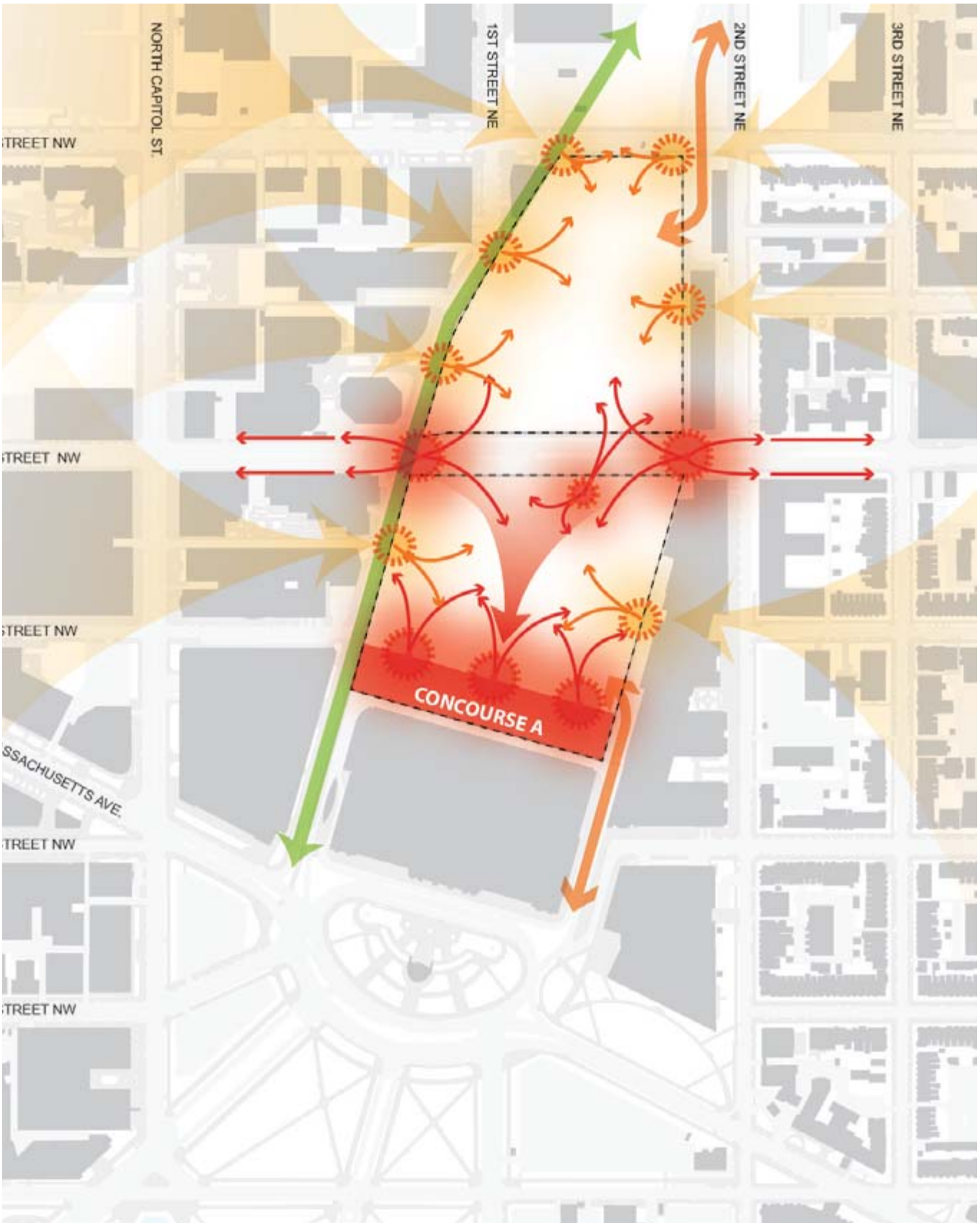

G


D


H


E


I

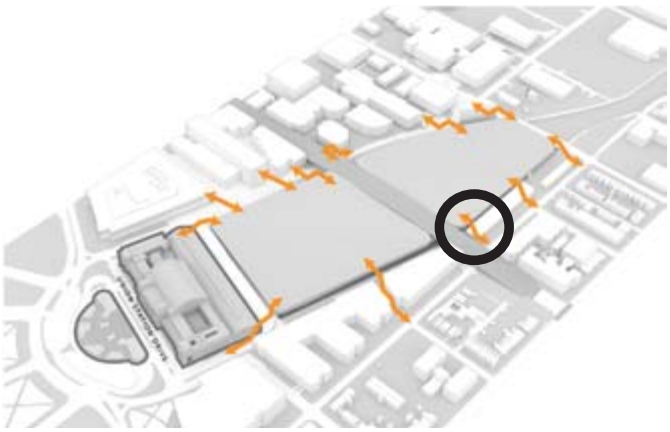


VERTICAL STATION CONNECTIONS

SECONDARY VERTICAL CONNECTIONS

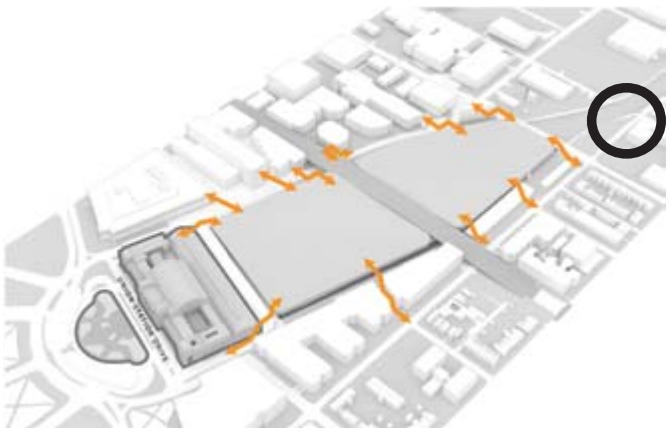
Highway A8, Koon aan de Zaan, Netherlands

Highway A8, Koon aan de Zaan, Netherlands



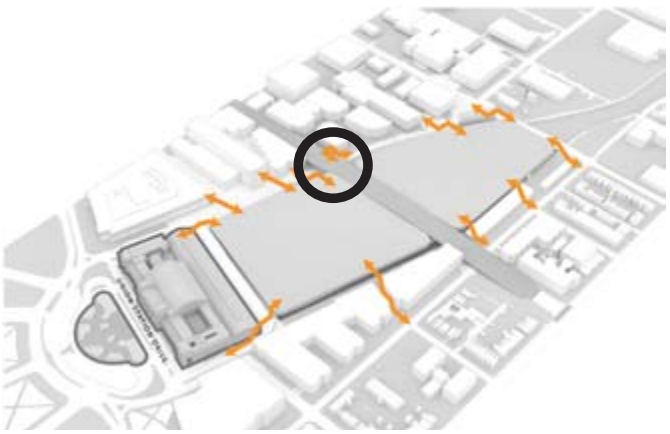
East H Street Connection

The H Street Bridge intersects with the site in such a way to create a potential SEP entry below the bridge at street level at both the East and Western edges of the site. This street level entry at the east edge of the site has the potential to be activated by art or small retail or cafe opposite the entry. In addition, this location is a strategic point to provide vertical circulation from street level up to the H Street Bridge level. The above vignette demonstrates a concept that incorporates the existing Burnham Wall, the bridge infrastructure, and the REA building into this vertical connection sequence.



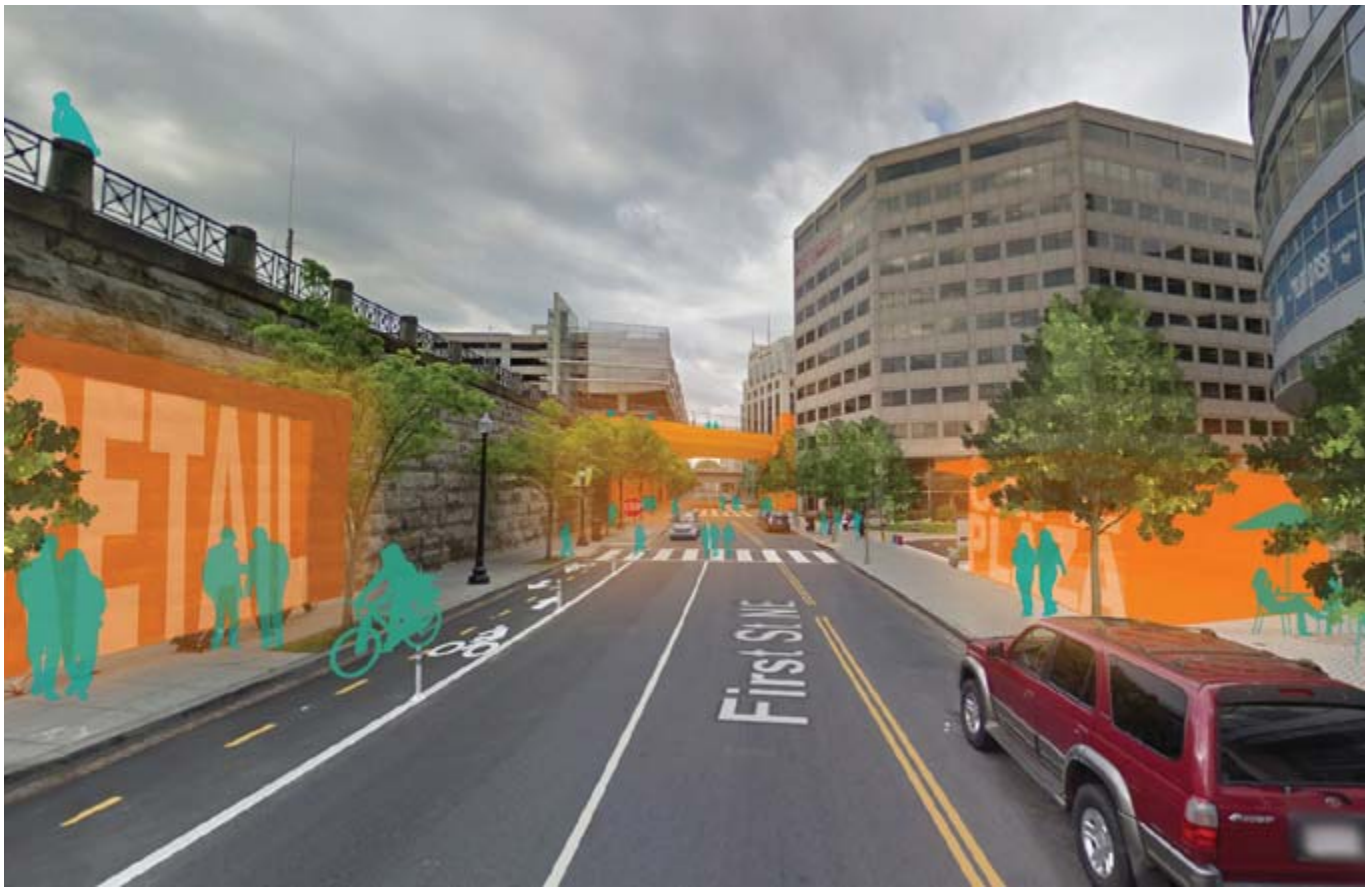
East L Street Connection

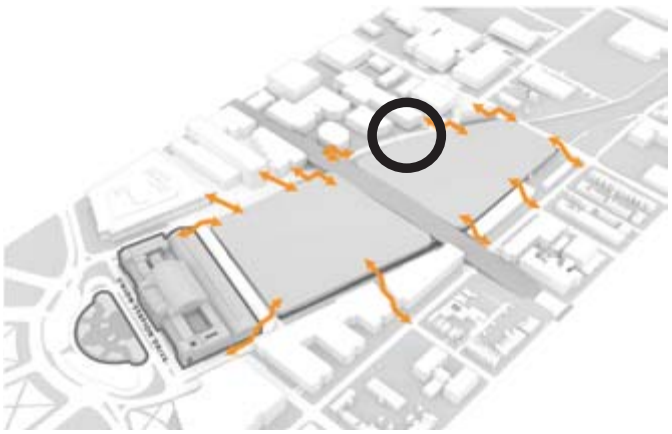
A potential roadway connection, as described in Strategy C4 of this Section, can also provide pedestrian access to the site. Streetscape improvements and public art can activate this transition to the existing neighborhood fabric and specifically the L Street underpass in conjunction with the proposed roadway and pedestrian link.



West H Street Connection

The H Street Bridge intersects with the site in such a way to create a potential SEP entry below the bridge at street level at both the East and Western edges of the site. This street level entry at the east edge of the site has the potential to be activated by retail or art opposite the entry. In addition, this location is a strategic point to provide vertical circulation from street level up to the H Street Bridge level, thereby also connecting to the proposed publicly available linear open space greenway. The above vignette demonstrates a concept that utilizes the bridge infrastructure and provides for an active circulation point on site.





First Street Roadway and Street Activation

To accommodate the street level SEP entry along First Street NE as shown on the adjacent page, alterations to the lane configuration may be needed to accommodate drop-off. Secondary entry or retail puncturing the Burnham Wall along with a potential retail or cafe pavilion opposite the street and streetscape improvements could provide an active node and additional porosity to the SEP.

CONNECTIVITY STRATEGY 6:
MAINTAIN VISUAL CONNECTIONS

Visual connections to, from, and within the SEP site are critical to maintain and build upon the perceived connectivity of the Project. They are arguably as important as physical connections in stitching the site to the neighborhood and creating an interconnected site.

Maintaining existing view corridors created by the street grid would complement and honor the historic city fabric and create a sense that the Project is part of the city rather than competing or interrupting the view corridors. The H street view corridor would be maintained with the H Street Bridge. While this particular corridor also bridges up to directly physically connect to an overbuild ground plane, adjacent view corridors would be as important to maintain for visual connectivity.

Maximizing significant city views from the site would also assist in grounding the project and rooting it in the city. In addition to visual east/west corridors, visual connectivity to the surrounding neighborhood and significant Washington, D.C. views such as the Capitol would connect the site and contribute to a sense of place.

Visual connectivity within the site and with areas directly adjacent the site is critical in creating an interconnected Project. Taking advantage of opportunities to visually connect the pedestrian between levels on site and to the street level below would allow the user to be aware of surrounding context even if not immediately physically connected.

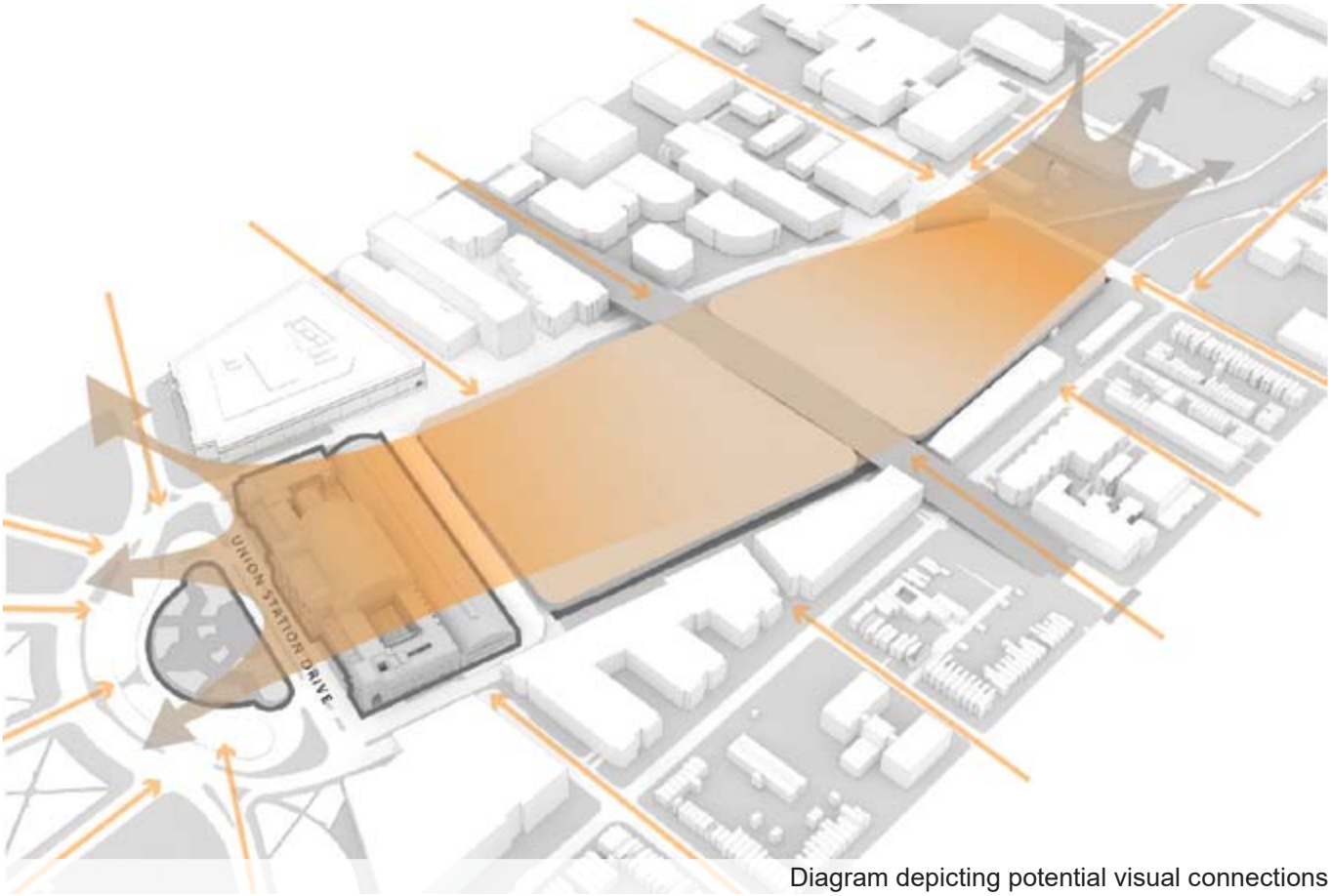
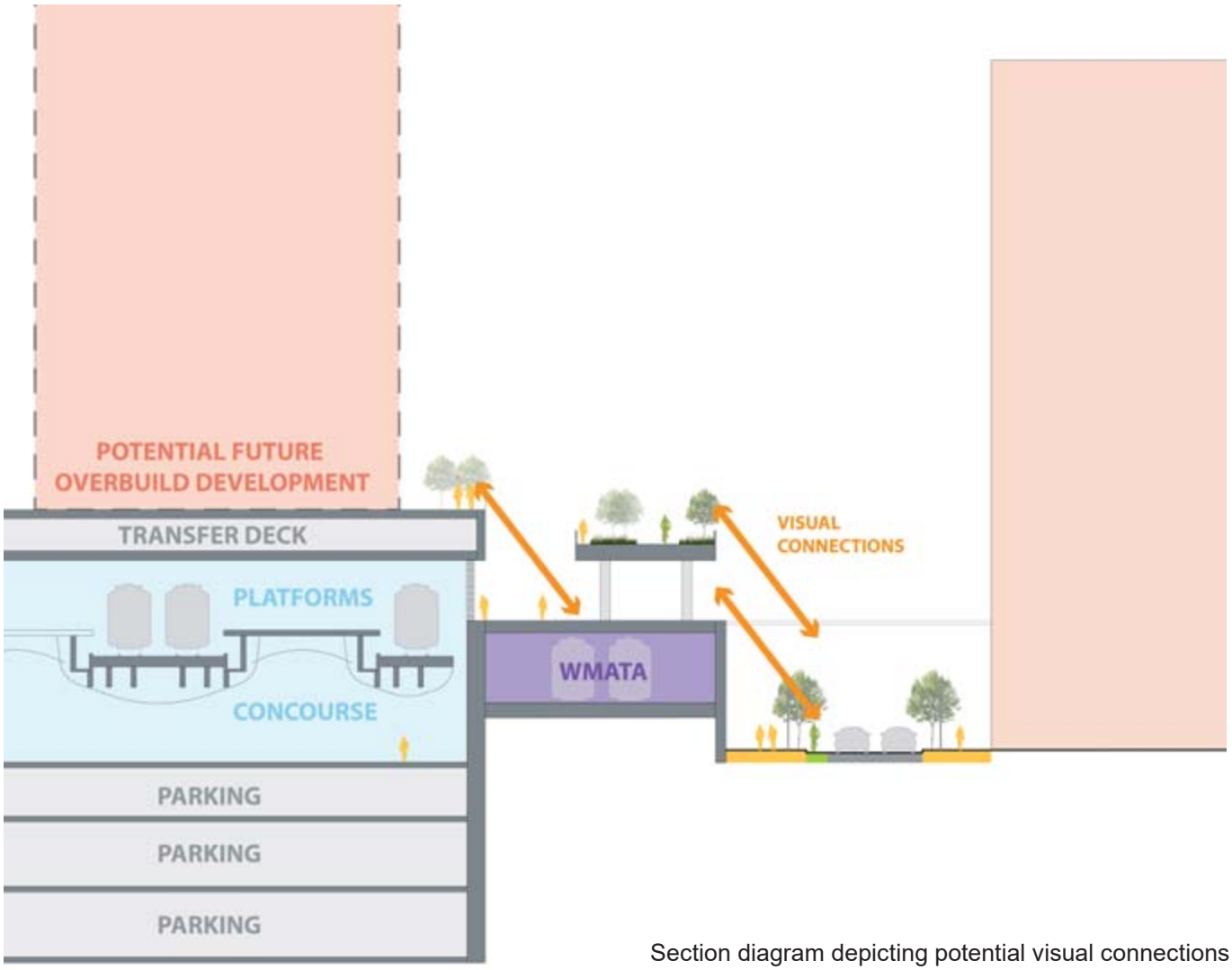


Diagram depicting potential visual connections



Section diagram depicting potential visual connections

High Line, New York, NY

B-7: Strategies Considered but not Currently Carried Forward

Exploration of strategies and opportunities often include studies that are deemed infeasible after further study and therefore not carried forward. Issues that can deem a strategy infeasible ranges from physical to logistical or ownership challenges. Many of these challenges associated with the dismissed strategy are insurmountable or classify the strategy as unachievable. Physical challenges could include site conditions which prohibit a physical proposal such as topography or historic elements to remain. Logistical or ownership challenges could include policy, approvals, partnerships, or property ownership issues which would prohibit implementation of a proposal.

While the Project identifies many strategies which need further study to prove feasibility, the following outlines the urban design strategies that have been dismissed or have significant hurdles in feasibility and are likely to be dismissed with further study.

Historic Burnham Wall Studies

Elimination of significant punctures in historic wall

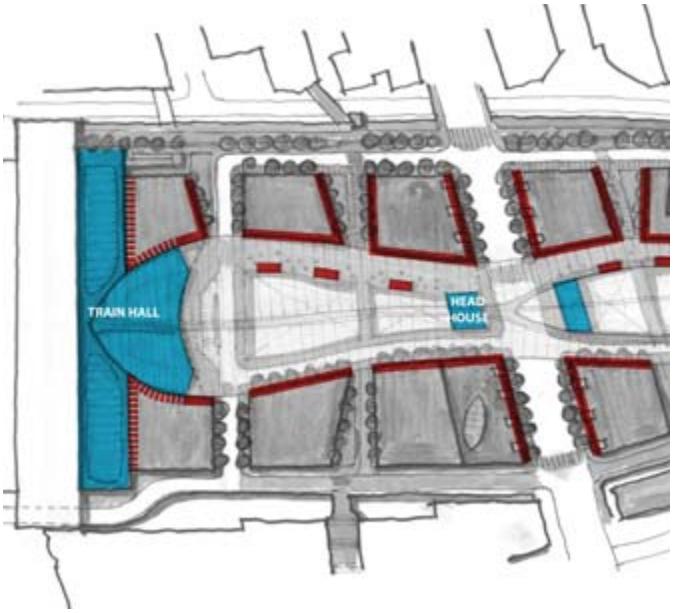
SEP porosity and connectivity to the neighborhood was studied through significant punctures in the historic Burnham Wall. Building lobbies and retail were explored to activate the edge of the site and sidewalk and increase the street connectivity. However, the historic nature of the wall was identified and significant punctures were deemed inappropriate and infeasible. Some areas of the wall have been added over time and are not historic in nature. Alterations to these areas or very strategic small openings in the historic wall are considered feasible and remain part of the Connectivity Strategies.

H Street Headhouse Studies

Elimination of urban design strategies related to SEP headhouses on H Street

Various iterations of SEP access were studied in terms of urban design and in relation to the architectural studies of the concepts. Access with only a SEP headhouse or headhouses from a central point along the H Street Bridge was studied, and urban design and open spaces were investigated in relation to this central access.

Architectural studies dismissed concepts that only include central headhouses for SEP access rather than headhouses in combination with a Train Hall. Therefore, urban design studies which supported this access as primary were also dismissed. Urban design studies related the headhouse entries investigated conditions related to the proposed roadway configuration, H Street Bridge, and open spaces.



Suspension Bridge on H Street

Strategies related to structure for the H Street Bridge

A suspension bridge concept was studied for the H Street Bridge. This concept would have created a vertical element on the bridge which could act as a gateway element and could have largely decreased the area below the bridge needed for structure. However, the H Street Bridge project timeline is far more expedited than the SEP, and structural studies for the bridge are currently underway. Therefore, the suspension bridge concept was dismissed.