DENVER
COMMUNITY PLANNING
& DEVELOPMENT

02.15.19 DRAFT

NATIONAL WESTERN CENTER
DESIGN STANDARDS AND GUIDELINES

IMAGINE. DISCOVER. CULTIVATE.

M I G In association with Winter and Co., 505 Design, Studio Insite, Livable Cities Studio, and Clanton and Associates

This page intentionally left blank.

Acknowledgments and signatures
to be located here.

TABLE OF CONTENTS

INTRODUCTION

Honor and celebrate the spirit of the West, while also promoting research and progress in agriculture for the next 100 years.

VISION STATEMENT:
To be a global destination for agricultural heritage and innovation.

MISSION STATEMENT:
The mission is to convene the world at the National Western Center to lead, inspire, create, educate, and entertain in pursuit of global food solutions.

The National Western Center Campus (NWC or the Campus) presents a once-in-a-lifetime opportunity to honor and celebrate the spirit of the West, while also promoting research and progress in agriculture for the next 100 years. The revolutionary campus will host programs and house facilities that focus broadly on entertainment, food, animal health and performance, water, energy, agriculture, livestock and equestrian events, and sustainability and the environment. This document's vision, mission, and guiding principles were identified during the National Western Center Master Plan (2015) process.

ABOUT THE NATIONAL WESTERN CENTER AUTHORITY

The National Western Center Authority is a Colorado nonprofit corporation that programs, operates and maintains the year-round Campus. The actions of the Authority are guided by a 13-person Board made up of 11 voting directors and two non-voting directors. The Authority is working closely with adjacent neighborhoods to ensure development of the Campus is consistent with adopted plans and community vision.

DESIGN PRINCIPLES

NWC Placemaking Study Rendering: Looking north at Bettie Cram Drive and the Grand Plaza.

NWC Placemaking Study Rendering: Ground level view looking north along National Western Drive North.

The following design principles apply to all development throughout the Campus.

ACHIEVE EXCELLENCE IN DESIGN: Each development should express excellence in design and raise the bar for others to follow. This includes using materials and construction methods that express depth of detail, shadow, contrast, and other similar rich visual qualities.

PROMOTE CREATIVITY: New ways of designing buildings and public amenity spaces should be explored when they contribute to a cohesive campus fabric. This type of creativity should be distinguished from simply being "different."

DESIGN WITH AUTHENTICITY: Buildings and public spaces should reflect authentic design and material choices, including distinct construction techniques. An authentic building design has a consistent design concept that speaks of its own time and does not convey a false history. It also is one that uses design concepts, materials and forms in a consistent manner such that an entire building is understood to be a single composition.

DESIGN FOR DURABILITY: Buildings and public spaces should be designed for the long term with high-quality, durable materials and infrastructure that supports amenities and allows for easy repair, replacement, and growth.

ENHANCE THE PEDESTRIAN EXPERIENCE: Define street edges and public spaces with buildings and amenities that are visually interesting and attract pedestrian activity. Public spaces should be inviting with wide sidewalks, universally accessible facilities, and landscape elements.

DESIGN FOR REGENERATION: Urban design and architecture should promote sustainability and regeneration.

DESIGN FOR FLEXIBILITY: Buildings and public spaces should accommodate flexible programming and can evolve over time in support of the NWC mission and vision**.**

DRAW UPON LOCAL AND REGIONAL DESIGN TRADITIONS: Surviving buildings and historic site features exemplify a unique character and authenticity, with lessons for design. Opportunities to reuse historic materials and reference existing buildings or buildings that have been demolished should be pursued. Development should consider how regional farming and ranching traditions can influence and inspire materials, building massing, and form, without copying an older style.

CREATE ENGAGING PUBLIC SPACES: Each project should incorporate engaging elements, features and public space amenities for pedestrians to move through and enjoy. These include promenades, plazas, courtyards and natural areas. Linking these while enhancing and restoring connections to the South Platte River in a cohesive circulation network will create a valuable public amenity.

EDUCATE, ENGAGE, AND INSPIRE VISITORS: Functional and historic features should be used to teach visitors about the past, current systems, and stories on the Campus. Public spaces should be used to teach and inspire visitors in interactive ways.

REGULATORY FRAMEWORK

NWC Placemaking Study Rendering: Looking north at Betty Cram Drive and the Entry Plaza

STRATEGIC DESIGN LEADERSHIP

The Strategic Architecture and Design Leadership (SADL, pronounced saddle) is a committee comprised of subject matter experts across a range of planning and design fields. SADL will advise the Mayor's Office of the National Western Center (NWCO) and the National Western Center Authority (NWCA) regarding the design of campus development and site improvements.

SADL Design Review has its own submittal requirements and process, separate from the review conducted by the City and County of Denver. Please consult the NWC Design Handbook for SADL Design Review details and process.

DESIGN HANDBOOK

Content relating to historic and interpretive design/reuse; detailed paving, planting, and furnishing specifications; and how these elements should relate to the Character Areas can be found in the NWC Design Handbook.

PURPOSE AND APPLICABILITY

The Design Standards and Guidelines (DSG) set clear criteria for design of the Campus. This document sets forth intent statements, standards, and guidelines that will be used by the City and County of Denver's Department of Community Planning and Development (CPD) in the review and permitting of projects.

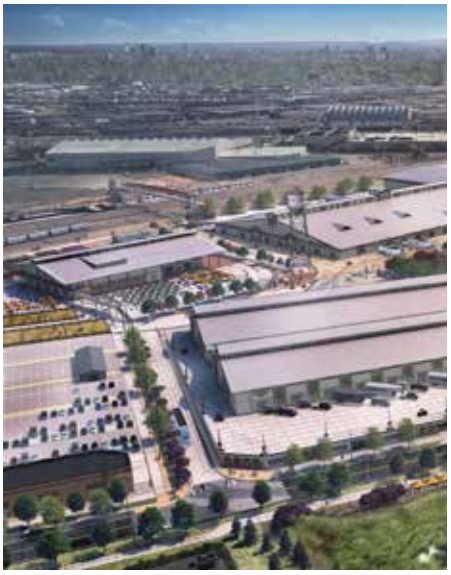
Approval is required by CPD, as established in the Denver Zoning Code (DZC). The Zoning Administrator shall utilize the DSG in this document when making a determination of approval of any proposed project at the National Western Center.

The NWC DSG apply to all:

- New construction;
- Additions;
- Exterior improvements;
- New or expanded public use areas;
- Signs; and
- Public right-of-way improvements.

REGULATORY FRAMEWORK

NWC Placemaking Study Rendering: Ground level view looking northeast at the Entry Plaza



NWC Placemaking Study Rendering: Looking southeast at the Stockyards Event Center

The DSG serve as one of a number of documents involved in the City's planning and development process. The DSG are intended to implement adopted City plans and policies while working within existing regulations. Several of the key policy and regulatory documents relevant to National Western Center are summarized on this page. All documents are available for download at denvergov.org/CPD.

DENVER ZONING CODE (2010)

The DZC preserves and promotes the public health, safety and welfare of Denver's residents and employees and facilitates the orderly growth and expansion of the City. Zoning regulations provide the basic building form, site design, parking, signage, and land use requirements for all neighborhoods within the City.

NATIONAL WESTERN CENTER MASTER PLAN

The National Western Center Master Plan was adopted in 2015 and provides a clear vision for the development of the Campus.

ELYRIA AND SWANSEA NEIGHBORHOODS PLAN

The Elyria and Swansea Neighborhoods Plan was adopted in 2015 and provides a vision, goals, and recommendations for the Elyria and Swansea Neighborhoods, including recommendations for the National Western Center and RTD Station Area.

GLOBEVILLE NEIGHBORHOOD PLAN

The Globeville Neighborhood Plan was adopted in 2014 and provides a vision, goals, and recommendations for the Globeville Neighborhood, including recommendations to establish connections over the South Platte River and into the Campus.

BLUEPRINT DENVER

Blueprint Denver is a citizen-driven, integrated land-use and transportation plan. The plan was originally adopted in 2002 and is currently being updated. It aims to enhance Denver life by using land in the way that is healthy for its economy, supports alternative modes of transportation, and maintains the integrity of neighborhoods.

CMP - NWC ZONE DISTRICT

DZC Article 9, Special Contexts and Districts includes a specific Campus - National Western Center (CMP-NWC) Section, which provides general guidance and regulations for building height, siting, design elements and permitted uses on the NWC Campus. These regulations form the baseline for design on the NWC Campus. See the DZC for more information and specific requirements.

Note: Sections of the DZC that will apply to the NWC are currently being developed by Denver's Department of Community Planning & Development.

STATE-OWNED PROPERTIES

There are some state-owned properties on the Campus; in addition to City and County of Denver Regulations, these properties are subject to state regulations and requirements.

URBAN DESIGN FRAMEWORK

The National Western Center Authority, in conjunction with the Citizens Advisory Committee, conducted an in-depth placemaking study. This document reflects the design thinking that was developed during this process. The map on the following page illustrates the urban design framework, which identifies major circulation routes and Key Intersections to give users of this document an understanding of the overall organization and hierarchy of the Campus. Specific elements are referred to throughout and the document, and defined below.

KEY STREETS

Key Streets include streets or street segments where pedestrian-oriented design and visual interest is critical. These include streets that provide key neighborhood connections or are planned as major placemaking opportunities. Some DSG are particularly important when they directly impact the experience on a Key Street. See Chapter 2: Public Space Design (page 35) for more design guidance along Key Streets.

KEY FRONTAGES

Like Key Streets, Key Frontages are priority areas for pedestrian-oriented design. Located along major plazas, buildings adjacent to these areas should have a high degree of transparency and ground-level active uses. See Chapter 2: Public Space Design (page 35) for more design guidance along Key Frontages.

PEDESTRIAN PRIORITY ROUTES

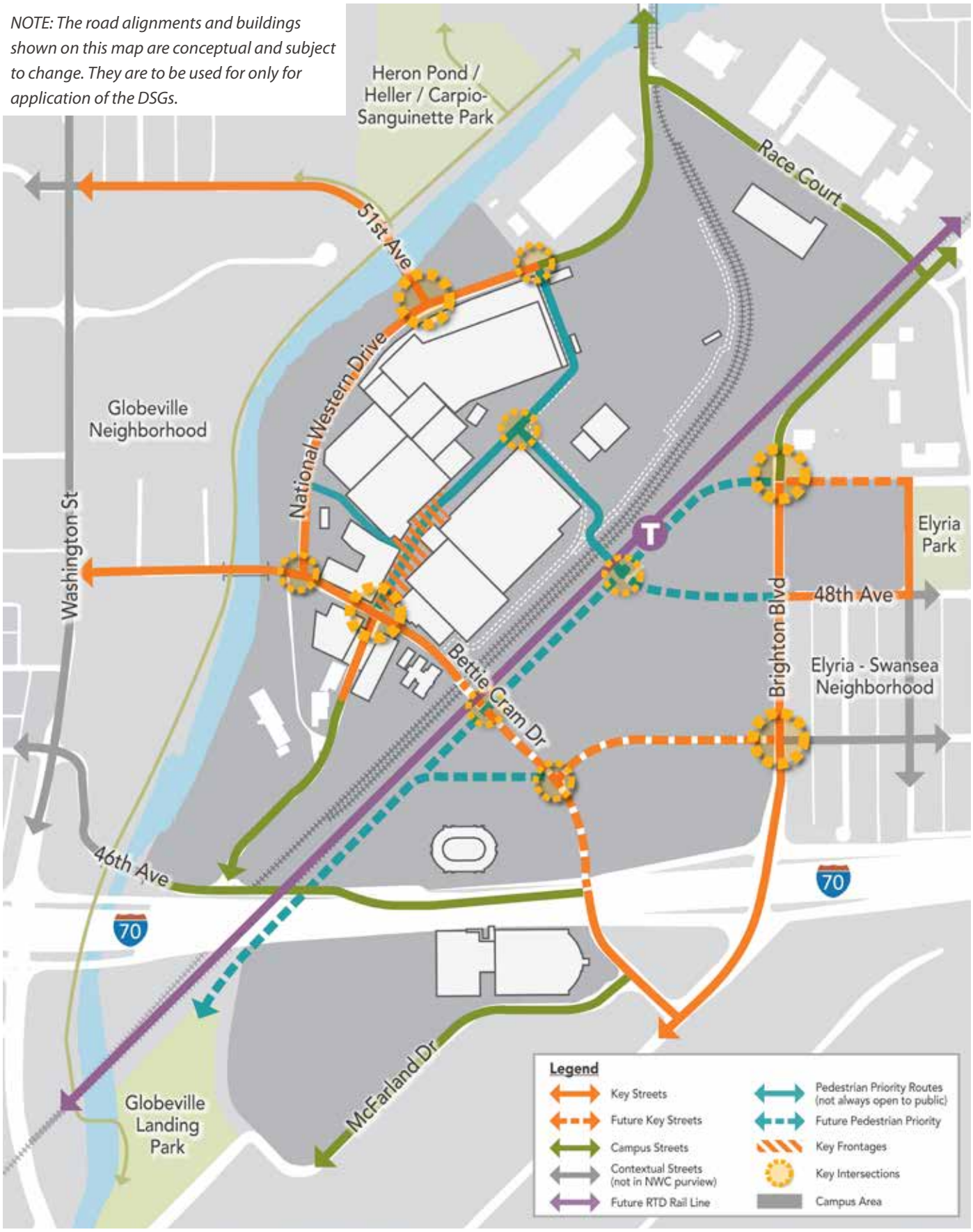
The NWC Campus is intended to be highly walkable, interactive, and engaging. Visitors are encouraged to explore the Campus and learn about the facilities. As such, it is critical that people can move freely. Certain areas of the Campus are deemed as "pedestrian priority" and should be designed for the pedestrian above all else. These areas include plazas, gathering areas, and major internal connections. Some DSG are particularly important when they relate site or building design near a Pedestrian Priority Route. See Chapter 3: Circulation (page 61) for more design guidance along Key Streets.

KEY INTERSECTIONS

Several Key Intersections will exist on the Campus. These are highly visible locations where visitors pass an important threshold into the Campus or where two or more key circulation routes converge. They should be celebrated with iconic gateways, monuments, architectural features, and pedestrian-oriented public spaces.See Chapter 2: Public Space Design (page 49) for more design guidance at Key Intersections.

URBAN DESIGN FRAMEWORK MAP

NOTE: The road alignments and buildings shown on this map are conceptual and subject to change. They are to be used for only for application of the DSGs.



USING THE DESIGN STANDARDS AND GUIDELINES DOCUMENT

NWC Placemaking Study Rendering: Looking south at the Stockyards and Stockyards Event Center

NWC Placemaking Study Rendering: Looking southeast at National Western Drive

FLEXIBILITY FOR CREATIVE AND INNOVATIVE DESIGNS

In some cases, an innovative or creative design approach that may deviate from specific design standards or guidelines may be approved if it is consistent with the guiding principles and relevant intent statements. It is the applicant's responsibility to show that an alternative solution is consistent with, and effectively implements the guiding principles and intent statements.

The DSG are organized into chapters that address specific design topics. Each design topic is addressed at the three levels described below.

1. Intent Statements establish the objectives for each topic and may also be used to determine the appropriateness of alternative or innovative approaches that do not meet specific standards.

2. Design Standards set criteria for achieving the intent statements. They use action-oriented phrases to indicate that compliance is expected.

3. Design Guidelines provide additional recommendations to achieve the intent statements. They use softer language, such as "consider," to indicate suggestions.

The intent statements, design standards, and guidelines provide structure for the design review process while encouraging flexibility for creative design. See "Sample Design Standards and Guidelines Format" on the following page for more detail regarding the format and use of intent statements, design standards and design guidelines.

SAMPLE DESIGN STANDARDS AND GUIDELINES FORMAT

To increase clarity and ease-of-use, DSG pages that include recommendations use a standard format. The example below indicates each key element of the standard format.

DESIGN TOPIC TITLE

Design Subtopic

NOTE: Images used in the DSG document are not directly representative of what is recommended for the site. Images are purely conceptual representations and are only intended to convey the ideas expressed in their captions. Images will not be used to determine whether or not a project meets an intent, standard, or guideline.

Photographs and Diagrams *show conceptual examples of the guidance listed on that page.* **Image Captions** *are most often text directly from a standard or guideline that relates to the image.*

INTENT

1a ***Intent Statements*** establish the objectives to be achieved for each topic and may also be used to determine the appropriateness of alternative or innovative approaches that do not meet specific standards.

SIDEBARS

Sidebars *give general background information or reference related sections of the DZC or other regulatory documents.*

STANDARDS

1.1 **Design Standards set criteria for achieving the intent statements. They use action-oriented phrases and language to indicate that compliance is expected.**

a. **Alphabetized Lists** beneath standards and guidelines provide additional suggestions or more information on how to achieve certain standards or guidelines.

GUIDELINES

1.2 **Design Guidelines provide additional recommendations to achieve the intent statements. They use softer language, such as "consider," to indicate suggestions.**

» **Bulleted Lists** indicate specific approaches and strategies to meet the corresponding standard or guideline.

ADDITIONAL FORMAT NOTES

The Design Topic Title Bar *is indicated with a heading at the top of each page. These bars are color-coded by Chapter.*

Intent Statements, Standards, and Guidelines *are numbered by chapter for clarity and ease of reference.*

Sidebar Pages *are pages that do not have numbered DSGs. These pages offer additional explanation, imagery, and background information on design topics.*

CHAPTER OVERVIEW

This document is organized into seven chapters. Chapters One and Seven provide background information about the Campus and Character Areas and the design review process and Chapters 2-6 provide specific intent statements, standards, and guidelines to be used by the City in the review of each project.

CHAPTER 1: CHARACTER AREAS

This chapter outlines the existing character and future vision for the Campus Character Areas. This chapter will be used to aid in interpretation of the general DSG for specific areas of the campus.

DESIGN STANDARDS AND GUIDELINES CHAPTERS

CHAPTER 2: PUBLIC SPACE DESIGN

This chapter provides intent statements, standards, and guidelines for public spaces. (See Page 32 for the definition of public space as it pertains to the NWC Campus). This chapter addresses different types of public spaces, design elements, overall campus design, and other site design topics.

CHAPTER 3: CIRCULATION

This chapter provides intent statements, standards, and guidelines for the NWC transportation network. It provides specific detail on pedestrian, bicycle, transit, and vehicular facilities.

CHAPTER 4: BUILDING DESIGN

This chapter provides intent statements, standards, and guidelines for buildings. It defines building types and addresses mass, scale, facade design, pedestrian level design, and rehabilitation and reuse of existing buildings.

CHAPTER 5: LIGHTING DESIGN

This chapter provides intent statements, standards, and guidelines for lighting design, including information about overall lighting for building exteriors and public spaces.

CHAPTER 6: SIGN DESIGN

This chapter provides intent statements, standards, and guidelines for signs. It defines types of signage and addresses location, character and materials, and lighting.

CHAPTER 7: DESIGN REVIEW PROCESS

This chapter summarizes the Design Review process and application requirements for project proposals.

CHAPTER 1: CHARACTER AREAS

CAMPUS CHARACTER AREAS OVERVIEW

The Character Areas recognize and encourage the distinct identity of different areas of the National Western Center (NWC) Campus, while helping to ensure there is a general sense of continuity in design across all areas. These unifying elements are experienced at a very high level. Site and building design should have an overall character that supports the NWC vision; one that celebrates the past, but clearly points to the future. The character of buildings and public space should reflect the American West by considering the landscape, the river, the prairie and an inclusive heritage while inspiring new design ideas for the future.

The Character Areas were established to:

- Give direction for design character;
- Convey distinct themes that help in understanding the place;
- Support heritage interpretation; and
- Support programming opportunities.

Their physical descriptions are included on this page and more information on the vision and design intent for each area is included in the following pages.

NWC CAMPUS CULTURAL PLAN

Readers should also refer to the NWC Campus Cultural Plan, which speaks to the vision for the Character Areas, provides a history of the site, and acts as a resource for future designers and programmers that addresses treatment of historic elements, interpretive opportunities, public art, and more.

CHARACTER AREA LOCATION

- **Riverfront** - This area from Globeville Landing Park to 51st Avenue along the western edge of the NWC is largely inaccessible today.
- **Elyria-Swansea Gateway** - This area is a former Denver Public Schools (DPS) school bus site, located east of Brighton Boulevard and north of 48th Avenue.
- **Triangle North** - This area on the eastern edge of the NWC, north of I-70 and west of Brighton Boulevard currently includes the Events Center, surface parking, the new RTD commuter rail park and ride, and a few smaller commercial and residential buildings.
- **Triangle South** - This area is located north of I-70, and east of the BNSF/RTD rail lines. It currently contains the National Western Stock Show (NWSS) Administration Building/Hall of Education, Exposition Hall, Livestock Hall, Stadium Hall and the 1909 Stadium Arena, which was designated a Denver landmark in 2016.
- **Festival Grounds** - This area, located north of the planned Bettie Cram Drive and west of the BNSF/RTD rail corridor, is currently the livestock yards for NWSS, surface parking lots, and industrial uses and includes the Armour Administration Building.
- **Maintenance and Operations** - This area is located south of Race Court and west of the BNSF/RTD rail tracks.
- **South Campus** - This area is located south of I-70 and west of Brighton Boulevard. It is home to the Denver Coliseum, an attached horse barn, surface parking, and Globeville Landing Park.
- **Innovation Campus** - This area is west of the BNSF/RTD rail tracks, east of the South Platte River, and straddles the north section of the proposed Bettie Cram Drive and the southern leg of the proposed National Western Drive. It contains three buildings associated with the Livestock Exchange. This area also contains the Artist Studio, built in 1918 and the McConnell Welders, built in 1930, as well as the McDonald Farm Enterprises.

HOW TO USE THE CHARACTER AREAS

This chapter shall be used in conjunction with the other chapters. The specific guidance that follows aids in application of the DSG to a specific Character Area. A description of existing and future character is provided for each. The map on the next page illustrates these Character Areas.

CHARACTER AREAS MAP

NOTE: The Character Areas shown on this map supersedes the Character Areas identified in the Campus Cultural Plan.

Today, the river is largely inaccessible.

EXISTING CHARACTER

The Riverfront Character Area runs for approximately 1.3 miles from Globeville Landing Park to the Heron Pond, Heller and Carpio-Sanguinette Open Space along the western edge of the NWC. Today, the river is largely inaccessible due to overgrown vegetation, the Globeville Levee to the west and the Delgany Interceptor sanitary sewer lines and a portion of the Denver Rock Island Railroad (DRIR) to the east. The area also includes the historic Sheep Bridge.

EXISTING TREES

Almost all existing trees on the Campus are located in the Riverfront Character Area. Ensure that construction in this area does not conflict with tree protections zones, grades, drip-lines, and roots. Coordinate with City Staff including the Office of the City Forester and the Office of the City Naturalist to identify existing vegetation and what to preserve or remove.

FUTURE CHARACTER

VISION: The Riverfront becomes a celebrated community asset with a series of spaces and activities that allow the neighborhoods and the Campus to engage with the river.

NEIGHBORHOOD INTEGRATION

- Create an open space amenity for the surrounding neighborhoods
- Make connections to the South Platte Trail and the rest of Denver

PUBLIC SPACE DESIGN

- Incorporate natural elements, plants, and materials
- Provide a variety of recreation opportunities
- Encourage users to interact with nature

CIRCULATION

- Connect the surrounding neighborhoods, campus, and the City to the riverfront
- Design bridges over the river at Bettie Cram Drive and 51st Avenue to provide notable entries into the campus that should be marked with gateway elements
- Integrate circulation and access with National Western Drive

BUILDING DESIGN

- Use buildings and associated land uses to create activity nodes
- Scale buildings modestly to ensure compatibility with and sensitivity to the river
- Design and locate buildings to maintain views to the riverfront
- Design buildings to provide a visually interesting edge along National Western Drive and the river edge.

SUSTAINABILITY AND INNOVATION

- Include riparian habitat restoration and innovative storm water management

INTERPRETIVE ELEMENTS

- Incorporate environmental education elements, when feasible

Festival Grounds

This area is currently the stockyards for the National Western Stockshow and also includes surface parking and industrial buildings.

EXISTING CHARACTER

This area is currently the Stockyards for National Western Stockshow and includes surface parking, industrial buildings, and railroads. Historically, development was oriented along the rail lines. By 1938, the meat packing facilities were expanded and remained until 1965. By 2017, the packing facilities that once dominated this area had been demolished, except for the Armour Building and water tower.

FUTURE CHARACTER

VISION: The Festival Grounds will be among the most highly programmed areas of the Campus. It will accommodate a variety of events and user experiences throughout the year.

NEIGHBORHOOD INTEGRATION

- Design the edge along National Western Center Drive approaching 51st Avenue as a critical neighborhood connection with a safe, comfortable and visually interesting pedestrian environment

PUBLIC SPACE DESIGN

- Accommodate both large events and daily use
- Use durable and flexible design elements to provide functional event spaces

CIRCULATION

- Create routes that are highly accessible and accommodate a ranges of modes, including significant animal usage
- Use design elements to comfortably guide pedestrians during large events

BUILDING DESIGN

- Vary massing and articulate facades to break up the scale of large barns and arenas
- Design public entries to barns and arenas to be highly visible to visitors
- Design buildings to provide views of barn and arena activities such as equestrian warm-up spaces from outside the building

SUSTAINABILITY AND INNOVATION

- Incorporate sustainability and regeneration throughout the Festival Grounds

INTERPRETIVE ELEMENTS

- Celebrate traditional buildings and features
- Acknowledge the historic significance of large, meat packing buildings
- Use the historic water tower to act as an iconic wayfinding element

Maintenance and Operations

The site currently consists of industrial and warehouse uses with some freight rail access.

EXISTING CHARACTER

The existing Maintenance and Operations area is approximately nine acres and has been adapted for parking, equipment storage, dirt/footing mix storage, and cattle ties during the National Western Stock Show. The site currently consists of industrial and warehouse uses with some freight rail access.

FUTURE CHARACTER

VISION: As the key operational and maintenance hub for the Campus, the Maintenance and Operations Character Area will maintain a high level of flexibility and functionality.

PUBLIC SPACE DESIGN

- Design spaces around buildings to be utilitarian and operational
- Use perimeter fencing that provides visual interest
- Provide a sensitive edge condition along areas fronting Race Court and the Stockyards, use fencing, decorative screening, landscaping, and other decorative elements, when feasible

CIRCULATION

- Provide circulation that accommodates overflow areas during large events
- Design the railroad underpass to provide access for service vehicles and livestock

BUILDING DESIGN

- Allow flexible building design that meets the utilitarian needs of this area
- Design building facades fronting Race Court and the Stockyards should provide some visual interest, when feasible


BRIDGE YARD


6
5
4

Innovation Campus

This area contains the three buildings associated with the Livestock Exchange.

EXISTING CHARACTER

This Character Area contains the three buildings associated with the Livestock Exchange built between 1898 and 1919, and includes the oldest building on site. It also includes two buildings built during the historic period by Swift & Company, the Artist Studio in 1918 and the McConnell Welders in 1930. The McDonald Farms Enterprises came after 1967. Buildings are sprinkled along the southern leg of National Western Drive.

FUTURE CHARACTER

VISION: The Innovation Campus, around Bettie Cram Drive, becomes the epicenter of campus, housing institutional and research facilities and the preserved Livestock Exchange building, that will provide year-round activation.

NEIGHBORHOOD INTEGRATION

- Establish connections through the campus and to the surrounding neighborhoods along Bettie Cram Drive
- Provide connections from the neighborhoods to the riverfront

PUBLIC SPACE DESIGN

- Establish a memorable entry experience, creating the southwestern gateway
- Design Bettie Cram Drive, identified as a Key Street, to be a multi-functional "main street" experience with high levels of activation
- Allow flexible design of public spaces in the southern portion of this Character Area

CIRCULATION

- Design Bettie Cram Drive to accommodate multiple modes of transportation

BUILDING DESIGN

- Use articulation and variation in massing to help create a human scale
- Highlight primary building entries with iconic architectural features
- Design active, engaging ground floors
- Use contemporary applications of wood, masonry, metal and glass
- Allow more flexibility in the design of buildings in the southern portion of this Character Area

SUSTAINABILITY AND INNOVATION

- Convey innovation in water resource management and food production
- Utilize signature design elements and express innovation in technology

INTERPRETIVE ELEMENTS

- Integrate historic elements and buildings, when possible

Triangle North

The area currently includes the Events Center, surface parking, and a few smaller commercial and residential buildings.

EXISTING CHARACTER

This area is approximately 27 acres and is located on the eastern edge of the NWC, north of I-70 and west of Brighton Boulevard and east of the planned consolidated BNSF/RTD/DRIR rail corridor. The area currently includes the Events Center, horse barn, historic buildings on Baldwin Court and 47th Avenue, surface parking, the RTD commuter rail park and ride, and a few smaller commercial and residential buildings.

Note: Specific road, intersection, and building locations in this area are subject to change.

FUTURE CHARACTER

VISION: The Triangle North Character Area will provide signature entertainment venues and mixed-use, infill development.

NEIGHBORHOOD INTEGRATION

- Design this area to respectfully interface with the Elyria-Swansea neighborhood, strategies include stepping down buildings to lower scale areas, creating clear pedestrian connections, and providing neighborhood amenities

PUBLIC SPACE DESIGN

- Design public spaces near 47th Avenue/Brighton Boulevard to signal entry to the Campus
- Design spaces to accommodate events and community gatherings

CIRCULATION

- Provide enhanced connections to the Campus from the Elyria-Swansea Neighborhoods along Brighton Boulevard and 47th Avenue
- Design 47th Avenue or realigned Bettie Cram Drive as a Key Street that can serve as a "festival street" and be closed or partially closed for special events
- Co-locate mobility facilities such as bike and scooter share, bike racks, wayfinding elements, and ride share pick up and drop off areas adjacent to the transit station

BUILDING DESIGN

- Vary massing on larger buildings to provide a sense of scale
- Design facades near street edges to be compatible with the abutting neighborhoods
- Use new materials, such as glass and metal, that relate to the heritage of this area
- Design iconic building elements that aid in wayfinding and are visible from I-70

INTERPRETIVE ELEMENTS

- Draw inspiration from the industrial heritage and interpret these references in new and innovative ways
- When possible, adaptively reuse historic commercial and residential buildings

Triangle South

The 1909 Stadium Arena is a treasured historic building and was designated a Denver Landmark in 2016.

EXISTING CHARACTER

This area currently contains the National Western Stockshow Administration Building/Hall of Education, Exposition Hall, Livestock Hall, Stadium Hall and the 1909 Stadium Arena. The Arena is a treasured historic building and was designated a Denver Landmark in 2016.

Note: Specific road, intersection, and building locations in this area are subject to change.

FUTURE CHARACTER

VISION: The Triangle South Character Area will feature a restored 1909 Stadium Arena and surrounding plaza space that can be used and enjoyed by the public through a variety of uses. New development in this area should be mixed-use and sensitive to and honor the 1909 Stadium Arena.

PUBLIC SPACE DESIGN

- Design an entry sequence, plaza design, and adjacent streetscape to frame and anchor the 1909 Stadium Area, emphasizing its importance
- Use vegetation, furnishings and historic materials to complement the architecture of the 1909 Stadium Arena
- Design buildings and site features to accentuate the intersection of 47th Avenue and Bettie Cram Drive, a Key Intersection, to welcome visitors to the site with active public spaces and iconic features,

CIRCULATION

- Provide clear wayfinding and a safe pedestrian experience at the intersection of 47th Avenue and Bettie Cram Drive
- Ensure safe travel for users under the I-70 corridor

BUILDING DESIGN

- Appropriate materials for new buildings include masonry and metal
- Design new buildings to orient to and activate the streets
- Design new buildings to be compatible with and subordinate to the 1909 Stadium Arena

INTERPRETIVE ELEMENTS

- Reuse brick pavers and incorporate historic elements, when feasible
- Integrate interpretive elements, art work, and reused relics to highlight the importance of the 1909 Stadium Arena

The area currently houses the Denver Coliseum, an attached horse barn, and 2,240 surface parking spaces as well as Globeville Landing Park.

EXISTING CHARACTER

The South Campus Character Area includes approximately 30 acres. The area currently houses the Denver Coliseum, an attached horse barn, and a surface parking lot, and is adjacent to the Globeville Landing Park. This Character Area is currently separated from the rest of the Campus by the elevated Interstate 70 corridor and 46th Avenue (underneath I-70).

Note: Specific road, intersection, and building locations in this area are subject to change.

FUTURE CHARACTER

VISION: The South Campus Character Area will redevelop with a mix of uses that are compatible and complementary to the Campus. These uses include residential, retail, hotel, office, or commercial uses that help to support the needs of the surrounding neighborhoods and City and integrate with and activate the Riverfront, the park, and the Triangle South area.

NEIGHBORHOOD INTEGRATION

- Design development to contribute to safe, comfortable and visually interesting connections to adjacent neighborhoods and districts, including the River North (RiNo) Art District

PUBLIC SPACE DESIGN

- Establish a southern gateway to the Campus
- Use the I-70 viaduct, which provides year-round weather protection and shade, for programming and events
- Design public spaces to connect this area to the rest of the Campus

CIRCULATION

- Utilize wayfinding and signage to enhance the area as a gateway to the NWC
- Provide easy and clear access to the river

BUILDING DESIGN

- Design and orient buildings to provide 'eyes' on the river and park
- Accommodate designs that may be double-fronted, to face open spaces and street edges


KANSAS STATE UNIVERSITY - OLATHE

Elyria-Swansea Gateway

Today, the area is largely underutilized industrial land that has a potential for redevelopment in the northern part of Elyria.

EXISTING CHARACTER

The Elyria-Swansea Gateway is currently largely underutilized industrial land that has a potential for redevelopment in the northern part of Elyria. The former industrial site poses environmental challenges and was identified in the Elyria and Swansea Neighborhoods Plan as a TOD Development Opportunity Area.

FUTURE CHARACTER

VISION: The Elyria-Swansea Gateway will become a key transition between the Campus and the Elyria and Swansea Neighborhoods. This area will transform into mixed-use, transit-oriented development that provides neighborhood-serving amenities in line with the Elyria and Swansea Neighborhoods Plan.

NEIGHBORHOOD INTEGRATION

- Provide sensitive transitions to the existing neighborhood in terms of building scale and land use, particularly along 48th Avenue and High Street
- Reduce building scale and massing along neighborhood-facing edges
- Enhance the edge along Elyria Neighborhood with compatible uses such as residential development and neighborhood supporting uses

PUBLIC SPACE DESIGN

- Create spaces that are accessible and visible from the surrounding neighborhood
- Create public spaces that provide a neighborhood amenity

CIRCULATION

- Promote walkability and provide safe, attractive connections from the neighborhoods to the transit station

BUILDING DESIGN

- Create a flagship, vertical mixed use development with ample streetscape amenities, high-quality materials, and lush vegetation
- Provide retail, community-serving amenities, and other street level activation
- Design facades along street edges to be compatible in scale with abutting neighborhoods

SUSTAINABILITY AND INNOVATION

- Support the Campus mission of regeneration and environmental stewardship by addressing environmental challenges of this area

INTERPRETIVE ELEMENTS

- Design spaces to reference the rich history of the neighborhood


SEDL

CHAPTER 2: PUBLIC SPACE DESIGN

IN THIS CHAPTER:

INTRODUCTION

While all site design elements should be high performing, the design of the campus should also be approached as a hierarchy of spaces with different layers and types of spaces receiving an appropriate level of design, detailing, and investment

PUBLIC REALM PROGRAMMING

The Public Realm Programming Report identifies potential programming opportunities for specific public spaces in the first phase of design. The report also suggests design features that should be considered for these spaces.

A variety of spaces are planned for the Campus. The portion of the Campus owned by the City and County of Denver is operated by the NWC Authority. Colorado State University (CSU) and the Western Stock Show Association (WSSA) also own portions of the Campus, however the overall site should still be approached as one campus, with multiple tenants. For the purposes of this document, public space refers to all areas on the Campus that are outdoors, and may include public right-of-way and streets, plazas, gathering areas, event spaces, Stockyards, service areas, the riverfront, and other open spaces.

In order to create a cohesive campus that is well integrated into the surrounding neighborhoods, this chapter defines and provides guidance for the design of a wide variety of spaces on the Campus. The intent statements, standards, and guidelines in this chapter aim to ensure that all outdoor spaces and associated design elements are developed to a high level of quality and functionality, while still maintaining the flexibility needed to create different types of spaces in various contexts as the Campus continues to grow and develop.

Campus design should establish a hierarchy of spaces with different layers and types of spaces receiving an appropriate level of design, detailing, and investment. Emphasis should be placed on the areas that define the pedestrian experience and that provide critical connections to the surrounding neighborhoods, such as the gathering areas and plazas, riverfront and natural areas, and streetscapes. Public spaces should be designed to assist in orientation and wayfinding. They also provide opportunities to incorporate interpretive elements that allow users to reflect on the history of the site and surrounding areas.

PUBLIC SPACE ORGANIZATIONAL ELEMENTS

The DSG for public spaces on the Campus are broken into three major components: general public space guidance, design elements, and public space types. These categories are described in detail below. The remainder of the chapter covers other relevant site design topics including boundaries and gateways, Green Infrastructure, public art, topography, and walls.

OVERARCHING PUBLIC SPACE DESIGN

These intent statements, standards, and guidelines provide overarching guidance on an overall approach to public space design. These pages apply to all design elements and public spaces. Most of the DSG give criteria for how to layout and orient campus to achieve a well-functioning, legible, and vibrant series of public spaces. These pages also speak to frontages and how to locate buildings to frame the adjacent outdoor spaces.

DESIGN ELEMENTS

Design elements are those features that are found in all public spaces. At a high level they cover guidance for paving materials, landscaping, and furnishings. These overarching components define much of the pedestrian experience in public spaces and should be designed to a consistent level of quality. The criteria in these sections apply to all types of public spaces. These pages lay the framework for a pedestrian-friendly campus that is consistent in quality while still providing flexibility for the different needs of varying spaces.

Paving materials refers to all elements of the ground-plane, for more information see pages 36-37 of this Chapter.

Landscaping includes all planted areas on campus, for more information see pages 38-39 of this Chapter.

Furnishings applies to the wide variety of user amenities placed on campus including benches, bike racks, art, planters, and tables, for more information see pages 40-41.

PUBLIC SPACE TYPES

In order to accommodate the variety of uses and functions of the Campus public spaces, spaces were organized into several categories. These categories provide more specific guidance on how to design the varying types to better serve their specific function. Campus space types include streetscapes; gathering areas and plazas; riverfront and natural areas; event and flexible space; and back-of-house areas. More information about each of these specific space types can be found on pages 43-47 of this Chapter.

OVERALL PUBLIC SPACE DESIGN

Use trees, lights, and other vertical elements to direct pedestrians through the site along preferred routes.

INTENT

2a To maximize accessibility

2b To minimize maintenance

2c To ensure long-term durability

2d To visually articulate large public space elements

CRIME PREVENTION

Crime Prevention Through Environmental Design (CPTED) strategies use design to reduce criminal behavior. Primary CPTED strategies include:

- *Natural Surveillance - orienting public spaces and placing design elements to maximize the visibility of public spaces, or increasing "eyes on the street"*
- *Natural Access Control - controlling how people move through a space through placement of entries, fencing, lighting, landscaping, and furnishings*
- *Natural Territorial Enforcement - Clearly defining types of space and uses to create a sense of ownership*

STANDARDS

2.1 Ensure that public spaces are accessible for all age groups and abilities, including children, parents, elderly persons and people with special needs.

2.2 Design public spaces and streets to guide visitors through the campus.

a. Use cues in paving materials to guide pedestrians to key site destinations.

b. Use trees, lights, and other vertical elements to direct pedestrians through the site along preferred routes.

c. Use building edges and design elements to identify key destinations.

2.3 Design and locate design elements to promote development of a mature tree canopy.

2.4 Avoid back-of-house spaces or the "backside" of buildings along neighborhood edges.

2.5 Use design elements and materials that are low maintenance and proven to be durable in the Colorado climate.

2.6 Use design elements to break down large areas into smaller, more comfortable areas.

2.7 Employ Crime Prevention Through Environmental Design (CPTED) strategies in public spaces to increase feelings of safety for users (see Crime Prevention sidebar on this page for more information).

Design public spaces to coordinate with interior building activities.

Frame public spaces with building edges or other vertical features.

INTENT

2e To physically frame public spaces with vertical building edges

KEY STREETS AND FRONTAGES

Key Streets include streets or street segments where pedestrian-oriented design and visual interest is critical. These include streets that provide key neighborhood connections or are planned to be major placemaking destinations. Key Frontages are priority areas for pedestrian-oriented design. Located along major plazas, buildings adjacent to these areas should have a high degree of transparency and ground-level active uses. Key Streets and Frontages are mapped on the Urban Design Framework Map on page 5.

STANDARDS

2.8 Frame public spaces with building edges or other vertical features.

a. Along a Key Street, locate buildings at or near the primary street zone lot line to frame the sidewalk and streetscape.

b. Locate buildings along a plaza, gathering area, or event space to frame the public space. This is particularly critical along a Key Street or Frontage.

2.9 Design public spaces to coordinate with interior building activities.

a. Allow for building uses to "spill out" such as cafe seating.

b. Allow viewing of active building uses.

Consider incorporating paving designs to create visual interest.

Use paving materials to facilitate clear pedestrian navigation.

INTENT

2f To ensure paving withstands use and climatic conditions over time

2g To ensure surfaces support a variety of activities

2h To minimize maintenance

2i To maximize accessibility

2j To encourage visual demarcation of public space

2k To encourage visual interest

STANDARDS

2.10 Use paving materials to facilitate clear pedestrian navigation.

a. Use distinct paving materials to indicate areas of continuous travel.

b. Use distinct paving materials to highlight main pedestrian aisles in large spaces.

2.11 Use paving materials that facilitate accessibility for all.

a. Use paving materials and installation methods that maintain a flat, even walking surface over time.

b. Use paving materials that are slip resistant.

2.12 Design paving systems to be easily cleaned and maintained.

Use paving materials to differentiate between uses.

Use paving materials that facilitate accessibility for all.

GUIDELINES

2.13 Consider using paving materials to differentiate between uses. Appropriate strategies include:

a. Utilize different material types;

b. Vary color, finish, orientation, and/or texture; and

c. Use paving to highlight areas of importance such as building entries, gathering areas, major circulation intersection, gateways, or other prominent site features.

2.14 Consider choosing "cool" paving materials that reduce the urban heat island effect, such as paving materials that are more reflective and lighter in color. Examples include:

» Concrete;

» Paving with a clear binder and reflective aggregate; and

» Other emerging "cool" paving technologies.

2.15 Consider paving materials that reduce the need for de-icers and salts.

2.16 Consider incorporating paving designs to create visual interest.

DISTINCT PAVING MATERIALS

The City of Denver's Public Works Department reviews and approves paving materials and designs. Public Works may approve unique or distinctive paving designs if applicants have a program to ensure ongoing maintenance of paving.

Use landscaping to create visual interest.

Locate planting areas to maintain clear paths and sight-lines.

INTENT

2l To visually soften the campus

2m To provide visual interest

2n To ensure safe circulation

2o To maximize landscaping health and survival

2p To encourage landscape design that provides solar relief

GREEN INFRASTRUCTURE

Additional considerations should be made for incorporating Green Infrastructure and Low Impact Development (LID) strategies in landscaping design. For more information see page 50-51.

STANDARDS

2.17 Locate planting areas to maintain clear paths and sight-lines.

a. Avoid conflicts with buildings, utility corridors and other design elements that may reduce plant health and longevity.

2.18 Use landscaping to create visual interest.

a. Select planting palettes that provide varied seasonal interest.

2.19 Design planting areas to protect trees. Appropriate strategies may include:

a. Use slightly raised planter beds that protect trees from de-icing agents or other chemicals;

b. Use features that retain mulch, rock chip, or other ground covers in the planting bed; and

c. Use structural cells or suspended pavers in areas of high volume pedestrian traffic to prevent root compaction.

2.20 Design planting beds to support the root system of mature shade trees. Appropriate strategies may include:

a. Dimension tree pits by at least five feet wide by 15 feet long;

b. Where space allows, maximize rooting space;

c. Use structural soils to supplement and achieve additional soils volume; and

d. Use structural cells where vehicle access is required.

2.21 Avoid tree grates in all areas except for those with substantial pedestrian use. When tree grates are used plan and ensure spacing to accommodate mature trunk sizes. Tree grates are subject to Office of the City Forester approval.

2.22 Avoid plants that are known to be toxic to horses, humans, and livestock.

Use hardy and drought tolerant plants.

Place trees and planting beds to scale large spaces into smaller, human scale spaces.

GUIDELINES

2.23 Consider selecting tree and plant species resilient and easy to maintain.

a. Use hardy and drought tolerant plants.

b. Ensure tree species diversity.

c. Consider salt tolerant plants where subject to de-icing.

2.24 Consider designing planting areas to create a pollinator-friendly campus.

a. Plant diverse species that bloom throughout the season.

b. Plant clumps of the same species.

c. Avoid using chemical pesticides, if feasible.

d. Leave areas of bare soil for ground nesting bees.

2.25 Consider using trees and plants to provide solar relief during warm months.

2.26 Consider using trees and plants to define public spaces.

a. Place trees and planting beds to scale large spaces into smaller, human scale spaces, when feasible to still accommodate flexibility and event needs.

b. Use trees to define and provide safe passage for pedestrians and cyclists.

2.27 When existing trees are present, coordinate with the Office of the City Forester to assess and evaluate their health and viability. See Riverfront Character Area (page 14) for more detail.

DENVER CITY FORESTRY PERMIT

A permit is required from the Office of the City Forester (OCF) prior to planting or removing trees from the public right-of-way per Chapter 57 of the Municipal Code. Tree grates, planting areas, tree locations, tree species, and other details relating to trees must comply with current Office of the City Forester Vegetation Ordinance, Rules and Regulations, and Standards, which take precedence over the DSG.

TREE AND PLANT SPECIES

For a list of suitable tree and plant species within the public right-of-way, see the Denver Parks and Recreation Office of the City Forester website.

Provide site furnishings to encourage pedestrian activity.

Consider locating furnishings in strategic clusters that indicate areas of rest and pause.

INTENT

2q To encourage pedestrian activity

2r To ensure safe circulation

2s To maximize accessibility

2t To encourage incorporation of elements that add visual interest

FURNISHINGS

Furnishings are objects within public spaces that are used by pedestrians. For the purposes of this document, furnishings primarily include seating, tables, planters, small structures such as shelters and kiosks, waste receptacles, ash urns, and water fountains.

STANDARDS

2.28 Provide furnishings to encourage pedestrian activity. Appropriate furnishings may include:

- Benches;
- Tables;
- Planters/seat walls;
- Shelters and shade structures;
- Kiosks;
- Trash, composting and recycling receptacles;
- Water fountains;
- Pet waste bag dispensers; and
- Ash urns.

2.29 Locate site furnishings to avoid conflicts with utility corridors, access easements, and major circulation routes.

2.30 Locate furnishings near heavily used pedestrian areas, such as sidewalks, Pedestrian Priority Routes, public building entrances, and other public spaces.

2.31 Select furnishings that accommodate a variety of visitors needs, abilities, and activities.

Locate furnishings near heavily used pedestrian areas, such as sidewalks, Pedestrian Priority Routes, public building entrances, and other public spaces.

GUIDELINES

2.32 Consider locating furnishings in strategic clusters that indicate areas of rest and pause to pedestrians.

a. Co-locate furnishings with other pedestrian amenities such as public art, pedestrian lighting, wayfinding signage and bicycle racks.

2.33 Consider selecting furnishings specific to the needs of different types of public space.

a. In event and flexible spaces, use movable site furnishings that provide maximum flexibility and accommodate a variety of configurations.

b. In streetscapes ensure furnishings do not block main travel routes, place furnishings at relatively high frequency and regular intervals.

c. In plazas and gathering areas, strategically place furnishings to activate spaces and strengthen the relationship between buildings and adjacent spaces.

d. In riverfront and natural areas, select furnishings that are more durable in nature. Use furnishings that are suitable for the outdoor, natural habitat.

2.34 Consider incorporating artistic or decorative elements into furnishings.

CAMPUS-WIDE CONSISTENCY

Furnishings should be selected to create a consistent campus-wide experience, employing a similar thematic and material palette. The Design Standards and Guidelines provide guidance on overall furnishings and functional requirements and explain how furnishings may vary by space type. The NWC Design Handbook establishes what furnishings should be consistent throughout the campus and provides detailed direction as to what types of furnishings should be specified to maintain a cohesive campus character and identity.

PUBLIC SPACE TYPES

As defined in the introduction of this Chapter, public space on campus refers to all outdoor spaces. In order to provide specific guidance about how different spaces with varying functions should be designed and used, this document separates them into broader organizational categories. These organizational categories are defined below.

STREETSCAPES

Streetscapes are those areas of the Campus that are within and adjacent to the public street right-of-way, including setback areas and bridges and underpasses. These areas will be highly multi-modal with safe and comfortable travel prioritized. Streetscapes will be designed to include pedestrian amenities such as street trees and furnishings, clear demarcation of transportation facilities, and street level interest and activation.

GATHERING AREAS AND PLAZAS

Gathering areas and plazas include a variety of public and private spaces designed for pedestrian use. These areas will be used year-round by campus visitors, employees, neighbors, and residents and should therefore be activated and support flexible programs, gatherings, and events. These spaces offer opportunities for art, educational and interpretive features, and visibility of unique NWC activities.

RIVERFRONT AND NATURAL AREAS

Riverfront and natural areas are public spaces that are oriented to natural landscapes and recreation. They should include some activation and a variety of uses with an emphasis on the native landscape, the river, outdoor activities, and education about environmental best practices. These areas should include more vegetation and softscape materials.

EVENT AND FLEXIBLE SPACE

Event and flexible spaces should be open, unobstructed, and highly flexible. These areas will accommodate a wide range of programs including fairs, concerts, stock pens, and educational displays. Design elements should be located to maintain clear zones for event vehicle and emergency access. Materials should be used strategically to alert visitors of different uses. These spaces should include carefully designed and placed boundaries, gateways and other features that establish an intuitive spatial hierarchy.

BACK-OF-HOUSE

Back-of-house includes loading/unloading, utilities, storage, service and maintenance and operations areas. In order to accommodate one of the Campus's primary goals, to educate and engage visitors, back-of-house areas should allow for a managed level of safe access and provide examples of sustainable design, livestock and agricultural processes, and other campus wide systems.

Consider designing a streetscape to maintain visual continuity.

Use landscaping to add visual interest to the streetscape.

INTENT

2u To encourage visual continuity along a street

2v To encourage safe circulation

2w To encourage visual interest

STREETSCAPES

Streetscapes are those areas of the Campus that are within and adjacent to the public street right-of-way, including setback areas and bridges and underpasses. These areas will be highly multi-modal with safe and comfortable travel prioritized. Streetscapes will be designed to include pedestrian amenities such as street trees and furnishings, clear demarcation of transportation facilities, and street level interest and activation.

SITE CIRCULATION

Consider overall site circulation in streetscape design. For more information see Chapter 3: Site Circulation page 56-71.

GUIDELINES

2.35 Consider designing a streetscape to maintain visual continuity.

a. Use lines of trees, lights, furnishings, and other vertical elements.

b. Use paving and materials to define pedestrian and amenity zones.

2.36 Consider using design elements to add visual interest to the streetscape.

a. Use landscaping to add visual interest to the streetscape.

b. Use attractive functional elements such as decorative fences, seating, walls, and paving.

2.37 Consider using design elements to distinguish the desired use for different portions of the streetscape.

a. Locate landscaped areas, planters or pedestrian amenities to provide separation between vehicular and pedestrian/bicycle circulation.

2.38 Consider locating design elements outside of main paths of travels.

2.39 Consider designing streetscapes to respond to their surrounding context.

a. Along Key Streets establish a continuous pedestrian experience. Provide an expanded amenity zone to accommodate active uses along building frontages.

b. Along riverfront and natural areas, design streetscapes to be respectful of the natural environment by reducing light trespass, providing space for large planting areas, and reducing runoff.

c. Design streetscapes adjacent to event spaces, or streetscapes expected to host events, with additional flexibility. Consider including managed curb areas (flexibly allocated curb space for different uses throughout the day, targeting new mobility services), flexible lane configurations, removable bollards, accent paving, and temporary access points.

d. Design streetscapes to include continuous pedestrian facilities and furnishings and to limit curb cuts.

2.40 Consider designing streetscapes to promote development of a mature tree canopy.

a. Provide bulb-outs that allow space for larger canopy trees.

b. Consider the mature tree canopy when locating other streetscape amenities.

Use outdoor furnishings and planters to create intimate spaces for smaller events or gatherings and everyday use.

Use paving and furnishings to distinguish between areas of movement and pause.

INTENT

2x To maximize use

2y To visually articulate a large plaza space

2z To ensure a versatile surface that can accommodate a variety of activities

GATHERING AREAS AND PLAZAS

Gathering areas and plazas include a variety of public and private spaces designed for pedestrian use. These areas will be used year-round by campus visitors, employees, neighbors, and residents and should therefore be activated and support flexible programs, gatherings, and events. These spaces offer opportunities for art, educational and interpretive features, and visibility of unique NWC activities.

STANDARDS

2.41 Locate gathering areas and plazas where a high level of pedestrian activity is anticipated, such as along Key Streets and Primary Pedestrian Routes (see Framework Map on page 5 for more detail).

2.42 Use design elements to break up the scale of large plaza spaces.

a. Use outdoor furnishings and planters to create intimate spaces for smaller events or gatherings and everyday use.

b. Use changes in paving to break large plaza spaces into smaller human-scale spaces.

c. Use flexible site elements such as removable bollards to create a porous edge into plazas from adjacent street or parking areas

2.43 Use primarily hardscape materials in the areas that will need to accommodate large numbers of people, temporary parking, animal and vehicle circulation, and loading/unloading activities.

GUIDELINES

2.44 Consider designing spaces to accommodate a wide range of outdoor events. Appropriate strategies include:

a. Unobstructed space for booths, food trucks, and other mobile vendors;

b. Access to utilities such as electrical, water, and audio/visual hookups; and

c. Site furnishings that are moveable or located to not obstruct key programmable spaces or operational requirements of the campus.

2.45 Consider using paving and clusters of furnishings to distinguish between areas of movement and areas of pause within plazas and gathering areas.

Use design elements that are compatible with the natural context.

Integrate direct connections to the South Platte River.

INTENT

2aa To connect campus users and community members to the river

2ab To minimize adverse water quality impacts

2ac To ensure riverfront spaces can withstand flood events

2ad To ensure improvements are sensitive to and compatible with the natural environment

2ae To encourage specialized water quality design features

2af To encourage inclusion of interpretive and educational elements

RIVERFRONT AND NATURAL AREAS

Riverfront and natural areas are public spaces that are oriented to natural landscapes and recreation. They should include some activation and a variety of uses with an emphasis on the native landscape, the river, outdoor activities, and education about environmental best practices. These areas should include more vegetation and softscape materials.

STANDARDS

2.46 Use natural areas adjacent to the river and/or corridor to enhance water quality, erosion control, flood mitigation and passive and active recreation.

2.47 Integrate direct connections to the South Platte River.

2.48 Integrate amenities that encourage visitors to occupy riverfront and natural areas throughout the year. Appropriate strategies include:

- Seating areas;
- Walking paths;
- Play areas;
- Signage and wayfinding; and
- Shade structures, shelters, and pavilions.

2.49 Use design elements in the flood-way that can withstand flood events.

a. Design elements should not create a rise in the floodplain elevation.

2.50 Use design elements that are compatible with the natural context.

a. Limit the use of hardscape materials to areas where they are essential for planned programming, activities, and circulation.

b. Use natural elements such as stone and wood as design details and finishings.

2.51 Integrate flexible spaces for activation and programming. Appropriate programming may include:

- Small performances;
- Pop-up retail;
- Environmental education;
- Community gatherings/festivals;
- Markets; and
- Cafes/biergartens/coffee houses.

GUIDELINES

2.52 If locating art, consider works that reference the surrounding natural context, the river, or the history of the area.

2.53 Consider providing passive natural areas that benefit the local ecosystem. Appropriate features include:

- Rain gardens;
- Native planting and grass areas;
- Constructed wetlands; and
- Permeable surfaces.

2.54 Consider providing active or functional spaces that contribute to educational opportunities, food production, and recreation. Appropriate features include:

- Demonstration/community gardens;
- Interpretive displays;
- Exercise equipment; and
- Space for exercise classes.

Use primarily hardscape materials to accommodate large numbers of people, animal movements, temporary parking, and loading/unloading activities.

Design event and flexible spaces to provide large open areas for event needs.

INTENT

2ag To accommodate large scale events

2ah To support alternative uses during non-event times

2ai To safely accommodate service and operational activities

2aj To visually articulate a large plaza space

2ak To encourage design features that provide solar relief

EVENT AND FLEXIBLE SPACES

Event and flexible spaces should be open, unobstructed, and highly flexible. These areas will accommodate a wide range of programs including fairs, concerts, stock pens, and educational displays. Design elements should be located to maintain clear zones for event vehicle and emergency access. Materials should be used strategically to alert visitors of different uses. These spaces should include carefully designed and placed boundaries, gateways and other features that establish an intuitive spatial hierarchy.

STANDARDS

2.55 Use primarily hardscape materials to accommodate large numbers of people, animal movements, temporary parking, and loading/unloading activities.

2.56 Design event and flexible spaces to provide large open areas for event needs, moveable furnishings, and temporary structures.

2.57 Provide electrical and audio/visual infrastructure to support a large variety of events and programming. Key features include:

- » Electrical outlets for vendors;
- » Utility hookups for stages;
- » Sound/public announcement system;
- » Information Technology (IT) infrastructure; and
- » Security and surveillance.

2.58 Use design elements to create visual articulation and break up large event and flexible spaces.

a. Use changes in paving or lines of furnishings to distinguish vehicle access drives and loading/unloading areas.

b. Use materials, furnishings, and other design elements to distinguish major circulation routes from gathering areas.

c. Use trees, shade structures and other vertical elements along the perimeter of event and flexible spaces to define the edges.

GUIDELINES

2.59 Consider limiting sun exposure.

a. Incorporate design elements such as furnishings or tree canopy that sufficiently protect users from sun exposure.

b. Use flexible shading devices that respond to various events and times of year.

2.60 Consider providing mechanical and plumbing infrastructure to support large events. Key features include:

- » Hot water and cold water distribution;
- » Flush-mounted water outlets; and
- » Water supply and drains.

2.61 Consider using flexible or moveable site elements to accommodate a variety of event types and scales.

Design back-of-house areas to minimize visual impacts.

Co-locate service areas, utilities, and storage areas to minimize impacts on visitors.

INTENT

2al To minimize visual impacts of back-of-house areas on streets and Priority Pedestrian Routes

2am To ensure user safety relative to potentially dangerous back-of-house features and activities

BACK-OF-HOUSE

Back-of-house includes loading/unloading, utilities, storage, service and maintenance and operations areas. In order to accommodate one of the Campus's primary goals, to educate and engage visitors, back-of-house areas should allow for a managed level of safe access and provide examples of sustainable design, livestock and agricultural processes, and other campus wide systems.

STANDARDS

2.62 Locate service areas and utilities to avoid conflicts with adjacent programs.

2.63 Design back-of-house areas to minimize visual impacts.

a. Recess dumpsters, waste collection, sorting, and storage from Key Streets, Pedestrian Priority Routes, or plaza and gathering areas.

b. Screen dumpsters, utility infrastructure, and material storage.

2.64 Provide well-managed designated areas for storage of materials to minimize potential safety hazards.

a. Locate material storage away from Key Streets and Pedestrian Priority Routes.

GUIDELINES

2.65 Consider providing physical separation between service areas and utilities and Pedestrian Priority Routes. Appropriate strategies include:

- Planting beds;
- Furnishings;
- Boundary elements; and
- Public art.

2.66 Consider co-locating service areas, utilities, and storage areas to minimize potential impacts on campus visitors.

2.67 Consider changes in paving to delineate where back-of-house areas begin and to signal the edge of the pedestrian zone. Paving in back-of-house areas can be more simple and should be more durable than the rest of the campus.

BOUNDARIES

Integrate boundaries into the site design so that they function as barriers without appearing out of place.

INTENT

2an To ensure safety and security by limiting access to certain areas

2ao To ensure intensive outdoor activities are screened from pedestrian-oriented public space

2ap To ensure that screening provides visual interest to an adjacent public space

BOUNDARIES

Boundaries are those elements that block or guide access to different areas of the site. Boundaries can be solid, like fences and walls or more permeable like bollards or landscaping. These elements are intended to guide pedestrian travel without appearing out of place or detracting from the visitor experience.

STANDARDS

2.68 Use boundary elements to define event spaces or other limited access areas and controlled entry locations. Appropriate strategies include:

- » Fences;
- » Walls;
- » Landscaping;
- » Bollards;
- » Rocks; and
- » Water features.

GUIDELINES

2.69 Consider integrating boundaries into the site design so that they function as barriers without appearing out of place. Appropriate strategies include:

- » Decorative fences and walls;
- » Incorporating public art;
- » Boundaries that can double as seating;
- » Matching adjacent materials;
- » Blending with the natural or newly installed landscape; and
- » Reuse of historic materials.

2.70 Consider using boundary elements to direct queuing into major event spaces.

KEY INTERSECTIONS

Create entry features and gateways at Key Intersections that welcome visitors.

Consider incorporating iconic or vertical elements at Key Intersections that can function as meeting areas or navigational tools

INTENT

2aq To ensure that key locations are designed to be visually iconic and memorable

2ar To visually signal entry to the campus at gateways

KEY INTERSECTIONS

Several Key Intersections will exist on the Campus. These are highly visible locations where visitors pass an important threshold into the Campus or where two or more key circulation routes converge. They should be celebrated with iconic gateways, monuments, architectural features, and pedestrian-oriented public spaces. Key Intersections are mapped on the Urban Design Framework Map on page 5.

STANDARDS

2.71 Create entry features, gateways, and gathering spaces at Key Intersections that welcome visitors. Appropriate strategies include:

- » Architectural elements;
- » Landscape features;
- » Lighting elements;
- » Monument signs;
- » Public art; and
- » Plazas or other outdoor spaces.

GUIDELINES

2.72 Consider co-locating Key Intersections and pedestrian-oriented public spaces.

2.73 Consider incorporating wayfinding elements at Key Intersections to help direct visitors through the site.

2.74 Consider incorporating iconic or vertical elements at Key Intersections that can function as meeting areas or navigational tools.

GREEN INFRASTRUCTURE AND LOW IMPACT DEVELOPMENT

In order to meet the Campus and city-wide goal of sustainability and regeneration, Green Infrastructure and LID principles should be a priority for large and small scale site design. These strategies improve stormwater capacity, reduce flooding, and minimize pollutant discharge. A more in depth description of how these strategies are executed and the benefit they provide is outlined below. For a more technical understanding, see the City of Denver Ultra-Urban Green Infrastructure Guidelines.

STORMWATER RUNOFF DISTRIBUTION

Distributing stormwater allows for more time and area for water to infiltrate. Strategies include permeable paving, swale conveyance, water storage and reuse, and limiting impermeable surfaces such as parking lots. Stormwater reuse includes rerouting flows for other purposes such as irrigation or greywater.

Permeable paving systems allow water to pass around pavers and infiltrate into the soil, reducing runoff and filtering stormwater.

Open swale conveyance channels allow water to move across the site in a natural setting that increases water infiltration.

STORMWATER FILTRATION AND INFILTRATION

Stormwater filtration and infiltration strategies store stormwater to provide more storm capacity and increase time for water to filter into the ground. Strategies include subsurface infiltration, which uses underground chambers to store water during a storm event, as well as tree trench filters, bioretention areas, rain gardens, and infiltration planters.

Tree trench filters are tree planting areas, often covered with a grate, that include large underground areas with materials that store and filter stormwater

Bioretention areas or rain gardens are planted areas with subsurface materials that store and filter stormwater while supporting vegetation

Infiltration planters are bioretention areas with deeper above ground containers to allow water to sit and slowly filtrate and infiltrate

GREEN INFRASTRUCTURE AND LOW IMPACT DEVELOPMENT

Incorporate Green Infrastructure and Low Impact Development (LID) features into public spaces, when feasible.

INTENT

2as To ensure that key locations are designed to be visually iconic and memorable

2at To visually signal entry to the campus at gateways

ULTRA-URBAN GUIDELINES

The City of Denver is making Green Infrastructure a fundamental part of the city's long-term stormwater management strategy. The Ultra-Urban Green Infrastructure Guidelines provide valuable information and should be consulted when incorporating Green Infrastructure and LID strategies.

STANDARDS

2.75 Use multiple strategies to reduce site runoff. Appropriate strategies include:

- » Permeable paving;
- » Water storage/reuse;
- » Open swale conveyance; and
- » Limiting impermeable surfaces.

2.76 Use multiple strategies to allow for stormwater filtration and infiltration. Appropriate strategies include:

- » Bioretention areas (rain gardens);
- » Subsurface infiltration;
- » Tree trench filters; and
- » Infiltration planters.

GUIDELINES

2.77 Consider integrating Green Infrastructure and LID strategies into all planting areas.

2.78 Incorporate Green Infrastructure and Low Impact Development (LID) features into public spaces, when feasible.

a. In event and flexible spaces, use permeable paving in locations that don't interfere with major event traffic.

b. In streetscapes use the amenity zone to accommodate water strategies such as bioretention areas and tree trench filters.

c. In plazas and gathering areas, use permeable paving, when feasible. Direct runoff to planting areas

d. In riverfront and natural areas, use low-runoff paving, constructed wetlands, detention channels and ponds, and filtration facilities, when feasible. Treat stormwater runoff before it enters the river.

2.79 Consider including educational and demonstration elements into Green Infrastructure, when feasible.

2.80 Consider incorporating planting features that are educational and environmentally friendly. Appropriate features may include:

- » Stormwater planters;
- » Demonstration gardens;
- » Educational signage; and
- » Interactive exhibits.

2.81 Consider water saving techniques for irrigation system designs.

PUBLIC ART

The Campus will be home to a variety of public art of different sizes, themes, and applications. Art should be incorporated into the Campus setting wherever feasible and support the over all mission and principles of the NWC. Art can be integrated at a small scale with decorative or functional features such as screens, grates, or lighting as well as larger scale iconic art pieces placed at strategic locations throughout campus. Art that engages visitors through play, education, or interpretive elements is also encouraged. Some potential art applications are shown below. Consult the Campus Cultural Plan and the Public Art Master Plan for more information.

Art incorporated into facades, walls, or windows

Art that adds volume to facades or walls

Artistic or decorative screens or shade structures

Interactive sculptural elements

Art integrated into tree grates or other landscape elements

Artistic or decorative lighting elements

Vertical art elements or gateways

Art that educates

Iconic sculptures or statues

PUBLIC ART

Consider co-locating public art with major gateways and highly active areas.

Consider integrating artwork and murals into public spaces.

INTENT

2au To maintain safety for motorists, cyclists, pedestrians and other modes

2av To add visual interest

2aw To encourage public art at campus gateways

PUBLIC ART MASTER PLAN

Denver's Public Art Program works to provide a variety of artistic elements across the City. This program also facilitated the creation of the NWC Public Art Master Plan, which provides guidance on appropriate placement and thematic content for art on the Campus.

STANDARDS

2.82 Ensure public art is in compliance with the safety and event needs of the campus. Do not locate art within necessary clear zones for emergency vehicles and event traffic.

GUIDELINES

2.83 Consider integrating artwork and murals into public spaces.

2.84 Consider co-locating public art with major gateways and highly active areas.

2.85 Consider integrating public art or artistic elements into functional features of the campus. Appropriate strategies include incorporating art into:

- Boundaries;
- Paving;
- Walls;
- Signage and wayfinding;
- Furnishings; and
- Bike parking.

SITE TOPOGRAPHY

Use the site's natural topography as a creative design feature.

Address changes in grade in a manner that is integrated with the overall site design.

INTENT

2ax To minimize grading

2ay To minimize disturbance to contaminated soils

2az To integrate topography into a site design

SITE GRADING

Ensure grading is consistent with the DZC Site Grading Standards found in Chapter 10.6, the intent of which is to minimize the negative impacts of grade changes on adjacent properties and neighborhoods.

STANDARDS

2.86 Minimize disturbance of contaminated soils.

2.87 Work with existing topography in order to minimize grading.

2.88 Use stairs, ramps, or other accessibility features to ensure changes in grade are accessible and comfortable for all visitors.

GUIDELINES

2.89 Consider addressing changes in grade in a manner that is integrated with the overall site design.

a. If a street or sidewalk must slope, use landscape walls, fences, and other elements to address the change in grade.

b. Use landscaping and site design to rectify the differences in grade change.

2.90 Consider using the site's natural topography as a creative design feature.

a. Incorporate stairs, ramps, terraces, and overlooks in areas with significant grade change.

b. Consider using grade change as a design element to separate areas from each other.

c. Consider opportunities to create views when modifying the topography.

SITE WALLS

Incorporate textured or decorative materials to break-up large areas of walls.

Consider incorporating public art or decorative elements into wall design.

INTENT

2ba To limit visually impermeable retaining walls

2bb To reduce the perceived scale of a retaining wall

2bc To create visual interest

STANDARDS

2.91 Locate walls only as needed for grading needs or access control.

2.92 Do not locate walls where they will block views or pedestrian access to major campus features including Key Streets, Key Intersections, Key Facades, Pedestrian Priority Routes, and public building entrances.

2.93 Incorporate textured or decorative materials to break-up large areas of walls.

GUIDELINES

2.94 Consider incorporating landscaped areas at the base of site walls to add visual interest.

2.95 Consider incorporating public art or decorative elements into wall design.

CHAPTER 3: CIRCULATION

IN THIS CHAPTER:

INTRODUCTION

Campus circulation should provide an amenity to the area and ensure access to the campus for all.

MASTER PLAN CIRCULATION

One of the primary goals of the NWC Master Plan was to create both internal and external connections. Specific suggestions include providing improved pedestrian and bicycle circulation; providing bridges, catwalks or underpasses to connect across site boundaries; increasing transportation options and improving transit infrastructure; and connecting primary paths to the surrounding neighborhoods and amenities.

To ensure that all the spaces and destinations are accessible and that travel through the Campus is safe and efficient, a cohesive and multi-modal approach should be taken for campus circulation. The intent statements, standards, and guidelines in this chapter speak to the design of various facilities and how they work together to create a complete transportation network.

While all modes are essential to the success of the Campus, each requires varied approaches. A comfortable pedestrian experience is particularly essential to the vision and goals, as each campus trip will require some amount of pedestrian level travel. Pedestrian paths should be easily distinguishable and safe for all users. Bridges, catwalks, and underpasses will be needed to provide safe pedestrian travel across major barriers. Bicycle facilities should be designed for maximum safety and efficiency. Transit facilities will be more interspersed and strategically located, connecting the Campus to the surrounding neighborhoods and the rest of Denver. The vehicular network will include public streets and interior spaces that facilitate building ingress and egress, emergency vehicles, and event needs. Vehicle access should be designed to minimize conflicts with other modes.

The circulation system should provide key connections and access to the surrounding neighborhoods. Campus circulation should provide an amenity to the area and ensure access for all.

CIRCULATION TYPES

The Campus circulation system should distinguish between different modal uses. Circulation facilities should also take into account the growing use of scooter, bicycle, and vehicle share by providing pickup/dropoff areas and parking for them. The six key circulation types addressed in this chapter include:

PEDESTRIAN CIRCULATION

Pedestrian comfort and safety should be a campus-wide priority. A complete network of pedestrian paths will traverse the Campus, connect to the surrounding neighborhoods, and provide access to interior public and event spaces, building entries, and bicycle and transit facilities. Pedestrian routes should be clearly marked and visually distinguished from other modes.

ANIMAL CIRCULATION

The presence of animals is one of the many things that makes the Campus unique. Animal circulation requires special considerations to ensure their safety and comfort. Areas through which animals circulate should be free of potential obstacles or stressers. When feasible, these areas should be separated from other circulation types.

BICYCLE CIRCULATION

Well-marked, unobstructed bike circulation should be provided along major campus connections. Facilities that provide separation from vehicular traffic should be prioritized wherever feasible and should connect major destinations on campus to the surrounding neighborhoods and transit facilities. Bike parking and sharing should be provided at frequent intervals.

TRANSIT STATION AREAS

In addition to the 48th Street and Brighton Boulevard Commuter Rail Station on the North Metro Rail Line, several key transit stops and corridors will be provided in and around the Campus. Transit facilities should include signage and wayfinding, pedestrian furnishings and lighting, shelters, and space for bike and scooter share.

VEHICLE CIRCULATION

Vehicle circulation and access will be needed along campus streets and interior public spaces. Routes must be provided for event trucks, trailers, and emergency vehicles. These routes can be co-located with utility corridors and designed to accommodate pedestrian use.

Parking areas will be provided, but their visual impacts on the public realm and conflicts with non-vehicular modes should be minimized.

INFRASTRUCTURE ELEMENTS

Several natural and human-made boundaries exist on the NWC Campus, such as the river and rail lines. Bridges and underpasses will be constructed to facilitate movement across these obstacles. Bridges, underpasses, and catwalks should be an extension of public spaces, with furnishings and materials that encourage use and provide comfort. These infrastructure elements should be designed to maximize safety and reduce conflicts between modes.

OVERALL SITE CIRCULATION

Design streets and circulation routes to integrate multiple modes of transportation, providing a seamless transition from one mode to another.

INTENT

3a To maximize ease of navigation

3b To maximize circulation safety

3c To ensure efficient, uninterrupted transportation facilities

DENVER MOVES

As part of the City of Denver's Denveright outreach and planning effort, the City has created comprehensive transportation plans for Transit, Pedestrians, and Trails. The documents aim to create a reliable, safe, and efficient transportation network. These plans are split into two topics:

» *Denver Moves Peds and Trails*

» *Denver Moves Transit*

STANDARDS

3.1 Create a campus circulation system that is easy and safe for visitors to navigate.

a. Consider overall circulation and major destinations when designing streets and circulation routes.

b. Layout circulation routes to easily and efficiently direct people to major gateways and destinations.

3.2 Create a clear guide and pathway for visitors to experience the Campus.

a. Design an integrated signage and wayfinding system. For more information see Chapter 6: Sign Design, page 98-104.

b. Create unobstructed access to major connections.

c. Ensure circulation routes connect to each other and do not end abruptly.

3.3 Ensure a seamless transition between campus circulation routes and connections to the surrounding network.

3.4 Locate transportation facilities to encourage multi-modal travel.

a. Locate bike parking and bike and scooter share facilities at regular intervals and at major entries and destinations.

b. Locate bike facilities and ride-share pick-up and drop-off areas near transit stops.

PEDESTRIAN FACILITIES

Provide wayfinding and signage that is oriented to the pedestrian.

Provide separation between pedestrians and faster modes of travel.

INTENT

3d To create an efficient, uninterrupted pedestrian facilities

3e To ensure pedestrian circulation is easily navigable and intuitive

3f To reduce conflicts with other travel modes

3g To ensure pedestrian facilities are sized to accommodate comfortable two-way movement

PEDESTRIAN PRIORITY ROUTES

The NWC Campus is intended to be highly walkable, interactive, and engaging. Visitors are encouraged to explore the Campus and learn about the facilities. As such, it is critical that the Campus is a walkable environment so people can move freely. Certain areas of the Campus are deemed as "pedestrian priority" and should be designed for the pedestrian above all else. These areas include plazas, gathering areas, major internal connections, and sidewalks along Key Streets. Pedestrian Priority Routes are mapped on the Urban Design Framework Map on page 5.

STANDARDS

3.5 Design pedestrian routes as efficient, uninterrupted facilities.

a. Design pathways around building edges, through plazas, gathering areas, and event spaces, and along streetscapes to seamlessly connect to one another.

3.6 Design pedestrian facilities to be easily navigable.

a. Provide wayfinding and signage that is oriented to the pedestrian.

3.7 Design pedestrian facilities to minimize conflicts with other modes.

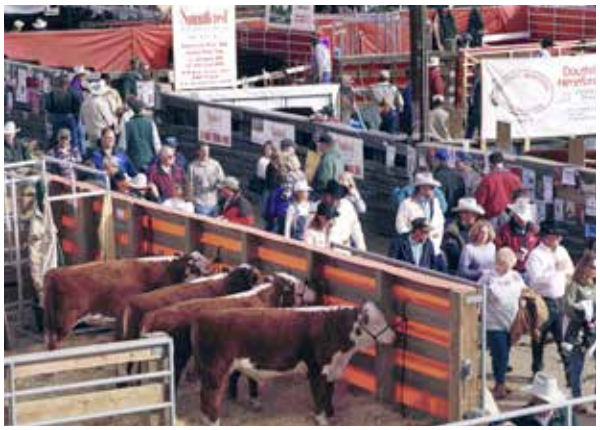
a. Visually distinguish a pedestrian facility.

b. Where there is a high potential for conflict between pedestrians and faster modes of travel, provide separation between pedestrians and faster modes of travel.

3.8 Provide adequate space along pedestrian routes for groups of pedestrians to move comfortably along side each other.

ANIMAL CIRCULATION

Many different types of animals will be on Campus throughout the year. These animals will include livestock during the National Western Stock Show (NWSS), resident animals, visiting animals, veterinary patients, therapy animals, show animals, and breeding animals. They will have a variety of different needs in terms of circulation and their ability to mix with other modes. Some of these animal users are described in more detail below.



STOCK SHOW/EVENT ANIMALS

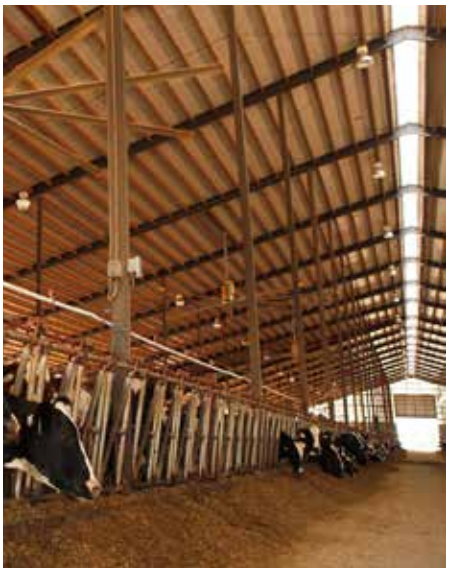
NWSS equestrian events, breeding, and stock shows will bring a wide variety of animals to the campus. These animals will be temporary visitors but it is crucial that the site design accommodates their comfort and safety. Animals will include everything from horses, cattle, and llamas to chickens, goats, and pigs.

OTHER RESIDENT AND VISITOR ANIMALS

Throughout the year many other animals will find a home on the Campus. These animals could include visitors to the Animal Health Facility, educational or therapeutic animals that reside on campus or visit for special events or expositions, and the personal pets of the site's residents or residents of the surrounding neighborhoods using the Campus for recreation.

ANIMAL CIRCULATION

Design animal circulation areas to minimize potential obstacles.



Ensure a clear path of travel with no interruptions in the ground plane.

INTENT

3h To promote efficient, uninterrupted routes for animals

3i To reduce conflicts with other travel modes

3j To ensure sensitivity to animals

STANDARDS

3.9 Locate animal circulation to reduce conflicts between modes.

a. Locate animal circulation adjacent to back-of-house, service, and loading areas.

b. Separate animal circulation from Pedestrian Priority Routes when feasible.

c. Keep fast moving traffic away from animal circulation areas.

3.10 Design animal circulation areas to minimize potential obstacles.

a. Avoid harsh contrasts between light and shadow.

b. Ensure animal circulation areas are efficiently drained to prevent standing water.

c. Ensure a clear path of travel with no drain grates or other interruptions in the ground plane.

d. Avoid highly reflective materials.

3.11 Provide adequate space along animal circulation routes for the specific functional needs of animals.

a. Provide room for animal "push piles."

b. Provide temporary storage space for feed and bedding.

GUIDELINES

3.12 Consider designing animal circulation paths to be curvilinear to mimic more natural movement patterns.

BICYCLE FACILITIES

Locate bicycle runnels along stairways so cyclists can walk up or down them.

Use striping, vertical separation elements, or other design features to provide separation between bikes and major vehicular routes.

INTENT

3k To encourage bicycling by providing useful amenities

3l To locate bicycle facilities to maximize use

HIGH EASE-OF USE FACILITY

High ease-of-use bike facilities are defined by Denver Public Works as any bike facility that has a physical separation from vehicular traffic. These facilities include bike boulevards, cycle tracks, and shared use sidewalks.

STANDARDS

3.13 Incorporate bicycle amenities to encourage cycling.

a. Locate bicycle runnels along stairways so cyclists can walk up or down them.

b. Include bike stations with information and bike repair equipment at major mobility nodes, entries or access points, when feasible.

3.14 Design bike facilities that minimize conflicts with pedestrians.

a. Limit bike facilities along Pedestrian Priority Routes or in plazas and gathering areas.

b. Separate bike facilities and adjacent sidewalks or public spaces, where feasible.

GUIDELINES

3.15 Consider locating high ease-of-use facilities along Key Streets, when feasible. If high ease-of-use facilities are not feasible, provide the safest bike facility that the roadway can accommodate.

3.16 Consider providing a clear connection to an adjacent bike facility when terminating a bike route.

3.17 Consider designing bike facilities to minimize conflicts with other modes.

a. Use striping, vertical separation elements, or other design features to provide separation between bikes and major vehicular routes.

3.18 Consider using design elements to create a more easily navigable bike network.

a. Use signage and wayfinding along bike routes to direct cyclists through the campus and to signal connections to surrounding neighborhoods.

b. Use materials, vertical elements, or signage to distinguish and signal areas where bicycle traffic is likely to occur.

Provide bike parking along dedicated bicycle facilities, in areas that are visible from the streetscape or bike route, in highly active areas, at Key Intersections and near transit stations.

INTENT

3m To ensure safe pedestrian travel

3n To maximize use

3o To encourage anticipation of new forms of transportation, such as bikeshare and dockless scooters, that may be clustered with conventional bicycle parking

3p To encourage bicycle parking that contributes to visual interest and sense of place

BIKE PARKING REQUIREMENTS

The DZC provides specific requirements for fixed bicycle parking. The DSG on this page are intended to build on DZC requirements with additional guidance regarding the placement and character of bicycle parking.

STANDARDS

3.19 Locate bicycle parking to maintain safe travel and circulation.

a. Ensure bicycle racks do not impede pedestrian traffic.

b. Locate bicycle racks a minimum of 4 feet from street trees, curb ramps, driveway ramps, street furnishings, and buildings.

3.20 Locate bicycle parking to maximize use.

a. Provide bike parking along dedicated bicycle facilities, in areas that are visible from the streetscape or bike route, in highly active areas, at Key Intersections, as defined by the Urban Design Framework Map, page 5, and near transit stations.

GUIDELINES

3.21 Consider providing flexible and well-marked areas that can accommodate bike and scooter share and other potential dock-less mobility options.

3.22 Consider incorporating creative designs, public art, and other placemaking features into bike parking.

TRANSIT FACILITIES

Consider incorporating art, branding, and wayfinding elements.

Furnish transit stops with seating and other amenities, when feasible.

INTENT

3q To maximize use

3r To ensure efficient transitions between transit and other travel modes

3s To encourage transit facilities that contribute to visual interest and sense of place.

FIRST AND FINAL MILE

First and Final Mile connections are the facilities that provide people access to and from transit stops to their destination. Making these connections safe and straightforward increases the likelihood of people using public transportation.

STANDARDS

3.23 Locate transit and bus stops near main building entries and prominent campus destinations.

3.24 Co-locate transit stops with other First and Final Mile facility connections. Appropriate facilities include:

- » Bike parking;
- » Bicycle share;
- » Scooter share;
- » Bike routes;
- » Vehicle pick-up/drop-off; and
- » Pedestrian routes.

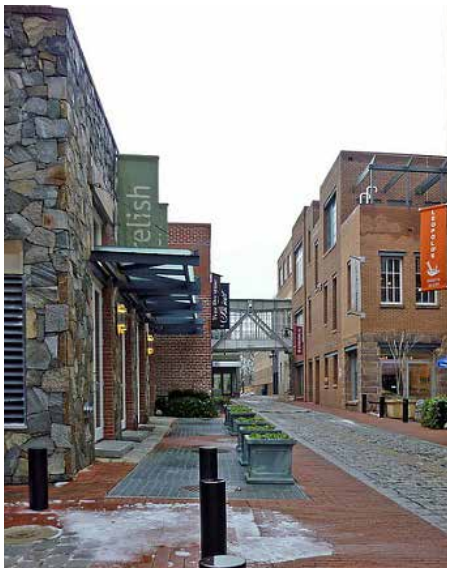
GUIDELINES

3.25 Consider designing priority transit shelters to provide shade and weather protection.

3.26 Furnish transit stops with seating and other amenities, when feasible.

3.27 Consider incorporating art, branding, and wayfinding elements.

VEHICLE ACCESS



Co-locate vehicle access points with back-of-house areas.

Clearly identify vehicle access to raise awareness of ingress/egress with distinguishing design elements such as paving materials, colors, or patterns and signs.

INTENT

3t To minimize conflicts between vehicles and other travel modes

3u To accommodate functional requirements of large vehicles

3v To reduce the visual impacts of vehicle access on plazas, gathering areas, event spaces and streetscapes

VEHICLE ACCESS REVIEW

Vehicle access is subject to review and approval by the City of Denver's Department of Public Works. In some cases, Public Works review may result in required changes that deviate from the DSG.

Use landscaping or other vertical elements to screen or provide visual interest.

STANDARDS

3.28 Minimize conflicts between vehicles and other travel modes. Appropriate strategies include:

a. Limit the width of vehicle access points;

b. Clearly identify vehicle access to raise awareness of ingress/egress with distinguishing design elements such as paving materials, colors, or patterns and signs;

c. Co-locate vehicle access points with back-of-house areas; and

d. Use bollards in areas that may only require occasional vehicle access.

3.29 Use landscaping or other vertical elements to screen or provide visual interest at vehicle access points.

3.30 Accommodate the functional needs of the campus.

a. Provide adequate turning radii for large trucks and trailers.

GUIDELINES

3.31 Consider designating vehicle pick-up and drop-off areas.

Screen permanent surface lots from adjacent pedestrian-oriented public spaces.

Provide safe, convenient pedestrian connections from parking areas to adjacent uses.

INTENT

3w To minimize the visual impacts of parking lots on pedestrian-oriented public space

3x To ensure safe and efficient connectivity between surface parking areas and campus destinations

3y To encourage anticipation of future redevelopment of surface parking lots

3z To encourage accommodation of temporary use of parking areas for non-parking events and activities

3aa To encourage inclusion of space for additional mobility options, such as scooter or dockless bikeshare parking, within surface parking areas

PARKING SCREENING

The DZC provides specific requirements for surface parking lot landscaping, including perimeter planting strips with deciduous tree canopy; screening devices (garden wall); and pedestrian access.

GREEN INFRASTRUCTURE

Green Infrastructure and LID principles should be used to reduce and treat runoff from surface parking lots. For more information see Chapter 2: Public Space Design, page 50-51.

STANDARDS

3.32 Screen permanent surface lots from adjacent pedestrian-oriented public spaces. Appropriate screening devices include:

- Landscaping;
- Trees;
- Garden walls;
- Public art; and
- Decorative fencing.

3.33 Provide safe, convenient pedestrian connections from parking areas to public sidewalks, building entries, street crossings, and other pedestrian-oriented public space and adjacent uses.

3.34 Incorporate signage and wayfinding to direct the user to and through parking areas.

GUIDELINES

3.35 Consider locating surface parking lots to preserve flexibility for development at a later time.

3.36 Consider designing parking lots to provide flexibility for events and community gatherings. Appropriate design elements include:

- Temporary bollards;
- Movable furnishings;
- Landscaping and other perimeter elements;
- Lighting and electrical hookups; and
- Durable paving materials.

3.37 Consider including space for bike, scooter, or motorcycle parking in surface lots.

3.38 Consider including space for electric vehicle charging stations in surface lots.

Visually integrate parking structures into a building's overall facade design.

Design parking structures to limit the view of parked cars and angled ramps from adjacent pedestrian-oriented public spaces.

INTENT

3ab To minimize the visual impacts of parked cars on public space

3ac To minimize conflicts between vehicles and other modes.

3ad To ensure the ground floor façade of a parking structure provides visual interest

3ae To ensure structured parking is visually compatible with adjoined buildings

3af To maintain the potential to convert parking to other uses

3ag To encourage inclusion of space for additional mobility options, such as scooter or dockless bikeshare parking, within parking structures

STANDARDS

3.39 Design parking structures to limit the view of parked cars and angled ramps from adjacent pedestrian-oriented public spaces. Appropriate screening devices include:

- » Active uses;
- » Architectural elements;
- » Murals; and
- » Plants.

3.40 Design parking structures to limit conflicts with pedestrian uses.

a. Keep vehicle access off of Key Streets or Priority Pedestrian Routes, when feasible.

3.41 Design structured parking to allow conversion to future non-parking uses. Strategies include:

a. Provide adequate floor to ceiling heights to accommodate other uses; and

b. Incorporate mostly level floors as opposed to speed ramps or other continually sloping surfaces.

3.42 Visually integrate parking structures into a building's overall facade design. Appropriate techniques include:

a. Continue similar building materials across facade areas; and

b. Continue vertical and horizontal articulation across facade areas.

3.43 Design the ground floor of parking structures to provide visual interest along streetscapes and other public spaces. Appropriate techniques include:

a. Wrap the ground floor with an active use, when feasible;

b. Incorporate art or decorative elements; and

c. Incorporate landscaped areas and trees.

GUIDELINES

3.44 Consider including space for bike, scooter, or motorcycle parking in parking structures.

3.45 Consider including space for electric vehicle charging stations in parking structures.

BRIDGES AND CATWALKS

Design bridges and catwalks to maximize pedestrian safety and accessibility.

Use traffic calming devices and design elements to discourage high speed traffic.

INTENT

3ah To ensure adequate capacity for safe circulation

3ai To maximize accessibility

3aj To ensure bridges and catwalks stand up to stresses over time

3ak To encourage bridges and catwalks designed to contribute to sense of place

STANDARDS

3.46 Design bridge and catwalk deck surfaces with durable materials able to withstand the Colorado sun, freeze/thaw, salt, snow melt and regular maintenance.

3.47 Design bridges and catwalks to maximize pedestrian safety and accessibility.

a. Provide pedestrian lighting to avoid extreme contrasts between light and shadow.

b. Integrate non-slip surfaces.

3.48 Provide a minimum 6 foot clear pedestrian/bicycle zone in each direction on all bridge decks.

GUIDELINES

3.49 Consider incorporating site furnishings and seating areas along the bridges and catwalks, when feasible. Locate these elements to maximize view opportunities such as:

» Views to Downtown Denver;

» Views to the mountains;

» Views along the river;

» Views across the Campus and to prominent Campus features; and

» Views of adjacent neighborhoods.

3.50 Consider using traffic calming devices and design elements to discourage high speed bike and automobile traffic.

3.51 Consider incorporating gateway features and public art to help establish bridges and catwalks as distinct places.

UNDERPASSES

Consider incorporating gateway features and public art to help establish underpasses as distinct places.

INTENT

3al To minimize conflicts between travel modes

3am To ensure a sense of safety

3an To encourage underpasses to be designed as visually iconic and interesting campus elements

STANDARDS

3.52 Design underpasses to minimize modal conflicts.

a. Use pedestrian and bicycle scaled lighting within all underpasses to ensure all users and paths are visible.

b. Provide signage and wayfinding to clearly identify the path of travel.

c. Ensure clear sight lines and visibility in underpass approach areas. This means ensuring that a person in the underpass can clearly see another person approaching from outside the underpass or vice versa.

d. Provide a minimum 8 foot clear pedestrian/bicycle zone within all underpasses to prioritize a safe path of travel for those modes.

GUIDELINES

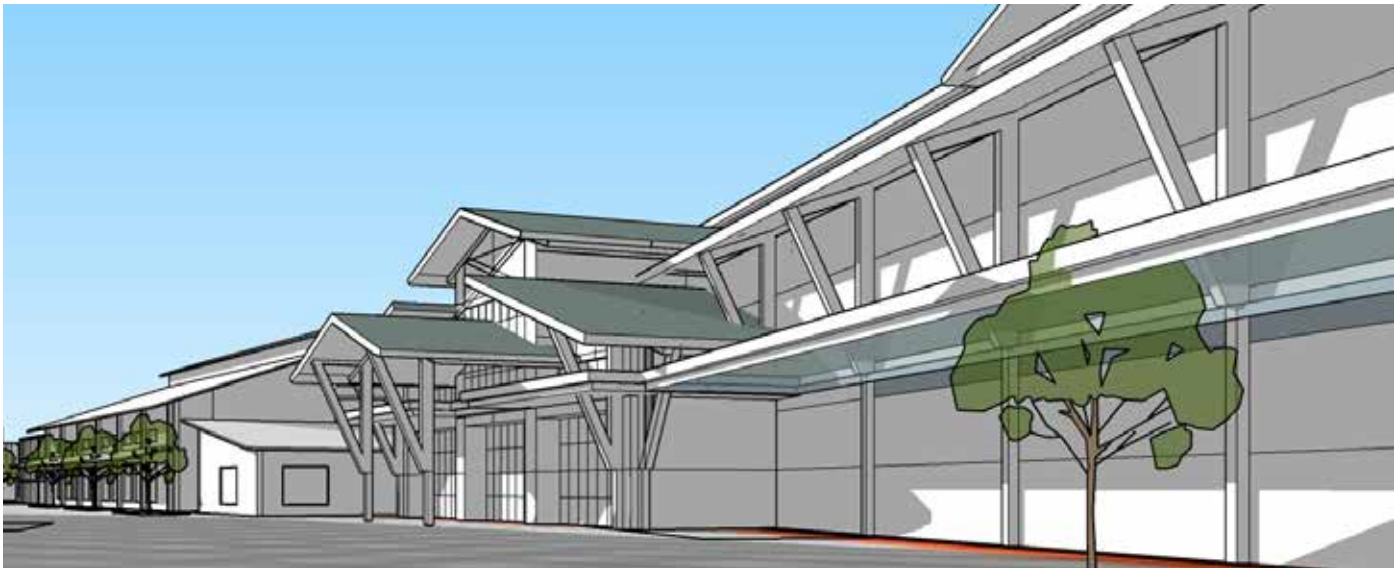
3.53 Consider using traffic calming devices and design elements to discourage high speed bike and automobile traffic.

3.54 Consider incorporating gateway features and public art to help establish underpasses as distinct places.

CHAPTER 4: BUILDING DESIGN

IN THIS CHAPTER:

INTRODUCTION



The Campus will include a diverse range of building types with different designs and functions.

The Campus will include a diverse range of buildings with different designs and functions. Some building types are already being planned, such as arenas and barns for the National Western Stock Show. Other building types are yet to be determined but must fit within the vision for the Campus. To this end, this chapter provides flexibility to accommodate a range of building types.

This chapter establishes baseline design DSG applicable to ***all buildings*** throughout the Campus. More detail is provided for specific contexts in Chapter 1: Character Areas, which reflect the themes and uses envisioned for each discrete area of the Campus. Designs will also need to vary based on functional requirements, and more flexibility may be appropriate for certain building types.

The building types on the next pages are offered to show potential buildings that may occur on the Campus. Some buildings may fall into more than one building type category and should be designed to meet the needs of these various uses.

BUILDING TYPES

These building types are shown to aid in applying the intent statements, standards, and guidelines in this chapter. Some buildings may fall into more than one of the categories below.

ARENAS

Arenas, small and large, are planned as part of the Campus to host equestrian, livestock, agricultural, educational, musical, athletic, and other events. They are designed to be flexible in use. Arenas will occur mostly in the Festival Grounds. However, the 1909 Stadium Arena will be preserved, with the potential for another large arena to be built, in the Triangle (North and South) Character Areas.

TYPICAL CHARACTERISTICS

- Simple massing, long articulated walls
- Sloping roofs (gable and shed), possibly some flat roofs
- Metal siding as the primary material
- Masonry (stone/concrete/brick) at base
- Daylighting clerestories and monitors
- Large loading docks and doors
- More refined materials, transparency, and details at primary entrances and along Key Streets
- Exterior sustainable features (solar arrays, green roofs, light shelves, etc.)

BARNS

Two large barns, the Equestrian Barn and Livestock Barn, are planned for the Festival Grounds Character Area. Other, smaller barns may occur throughout the Campus. These buildings will be primarily utilitarian in design with necessary loading/unloading areas for animals, exhibitors, and patrons. These barns may also be used for other events throughout the year, and therefore will be designed to be flexible in use.

- Simple massing, long articulated walls
- Sloping roofs (gable and shed)
- Metal or wood siding as the primary material
- Masonry (stone/concrete/brick) at base
- Daylighting clerestories and monitors
- Large loading docks and doors
- More refined materials, transparency, and details at primary entrances and along Key Streets
- Exterior sustainable features (solar arrays, green roofs, light shelves, etc.)

RESEARCH AND DEVELOPMENT AND EDUCATIONAL OUTREACH

As part of the NWC's vision for agricultural innovation, the Campus will host high-tech, research, educational outreach, and lab facilities. These buildings, which include many of the CSU facilities, have unique requirements for programming and design. They should exhibit current trends in technology, conservation, re-generation, and food production.

- Varied massing and windows, reflecting internal functions
- Higher degree of transparency at primary public entrances and along Key Streets
- Varying roof forms
- Wide range of building materials
- Exterior sustainable features (solar arrays, green roofs, light shelves, etc.)
- Service and loading areas

CIVIC / VISITOR-RELATED

Some buildings, such as the planned WSSA Legacy Building and CSU Center, will include a mixture of welcome center, educational facility, and museum. They will help activate the Campus on a daily basis with employees, tour buses, school buses, and visitors.

- Varied massing and windows, reflecting internal functions
- Higher degree of transparency at primary public entrances and along Key Streets
- Varying roof forms
- Wide range of building materials
- Exterior sustainable features (solar arrays, green roofs, light shelves, etc.)

BUILDING TYPES

UTILITY AND MAINTENANCE

Numerous support buildings will be located on campus, including the NWC Maintenance Facility. These buildings will be utilitarian in function and architectural design. They should be afforded maximum flexibility to meet the needs of the Campus. When visible from pedestrian-oriented public spaces, the design should consider some level of interest and activation, when feasible.

TYPICAL CHARACTERISTICS

- Simple massing with articulation
- One or two stories
- Sloping or flat roofs
- Metal siding as the primary material, as well as CMU, brick, or masonry
- Loading docks and large doors
- Potential for more refined materials and details along Key Streets
- Flexible design to accommodate functional needs

MIXED-USE

Mixed-use buildings that include various combinations of commercial and residential activities are anticipated on some parts of the Campus. The term "mixed-use" applies to a specific building type of two or more stories with active uses at the ground level and housing, offices, or hotel uses above.

- Varied massing
- Pedestrian-oriented building frontage, usually with storefronts
- A high degree of transparency at the street level
- Some transparency at upper floors
- A range of roof forms
- A mix of building materials (often masonry, wood, metal, and glass)

RESIDENTIAL

Residential buildings can help activate and enliven the Campus on a daily basis. They can also help Denver meet city-wide initiatives for design excellence, diverse forms, and sustainability. These may include townhouses and multi-level apartment and condominium buildings.

- Pedestrian-oriented frontage, with a primary lobby entrance or individual entries with stoops
- A moderate degree of transparency at the street level
- Some transparency at upper floors
- A range of roof forms
- A mix of building materials (often masonry, wood, metal, and glass)

HOSPITALITY

Hotels are a possible use on the Campus. These building forms are similar to mixed-use and residential types, but have unique requirements for drop-off, parking, and signage and should include an active lobby space with a transparent ground floor.

- Pedestrian-oriented frontage, with a primary lobby entrance
- A high degree of transparency at the street level
- Some transparency at upper floors
- A range of roof forms
- A mix of building materials (often masonry, wood, metal, and glass)

Ground floor wall offsets provide relief at the pedestrian level to avoid a long wall.

Vary the massing of a building to provide visual interest and reduce perceived scale.

INTENT

4a To provide visual interest

4b To reduce mass and scale of a large building

4c To consider access to sunlight and views

MASS VARIATION

Mass variation methods reduce building mass and scale, which is especially important for large buildings. These methods modulate a building floor or wall in a manner that creates a physical relief in an architectural form.

CHARACTER AREAS

Mass variation is particularly important in the Triangle Character Areas, South Campus, the Festival Grounds, and in the northern portion of the Innovation Campus.

STANDARDS

4.1 Vary the massing of a building to provide visual interest and reduce perceived scale, especially on a facade that faces a Pedestrian Priority Route or Key Street, as mapped on the Urban Design Framework Map, page 5. Use one or more of the following techniques to vary massing. See the table on the following page for more detail.

a. Height variation - Vary the height of a building to add interest. This should occur strategically and in concert with other design methods (i.e. articulation and material changes).

b. Ground floor wall offsets - Provide relief at the pedestrian level to avoid a long wall. Wall offsets should help frame and activate a street, sidewalk, pathway, or public space.

c. Upper story setback - Step back upper floors to reduce mass at the pedestrian level. This helps a large building fit into sensitive contexts such as when adjacent to a historic building or residential neighborhood.

d. Middle setback - Carve out space in the middle of a building on upper floors to reduce its central mass. This is particularly useful to allow in natural light and air and to create public spaces for occupants to enjoy.

GUIDELINES

4.2 Consider varying massing to maximize solar access to a street or public space.

a. An upper floor setback on a taller building will enhance solar access.

4.3 Consider locating the taller portion of a building away from a sensitive edge, such as a neighboring residential or historic building of lower scale.

4.4 Consider designing buildings to promote development of a mature tree canopy.

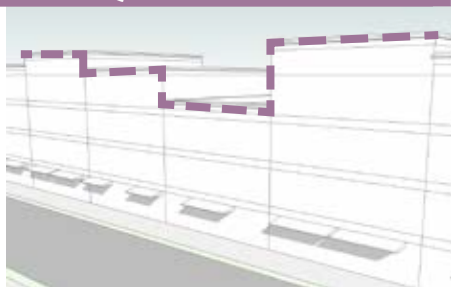
a. Step buildings back by approximately five feet above the second or third floor to allow room for symmetrical canopy growth.

Building massing variation techniques can reduce the overall scale of a building while also helping to create a more interesting form. Below are examples of the strategies listed on the previous page. Often, these strategies are used in concert with one another in a single building.

HEIGHT VARIATION

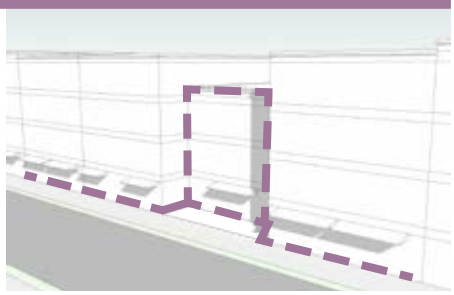
Vary the height of a building to add interest. This should occur strategically and in combination with other design methods (i.e. articulation and material changes).

TECHNIQUE EXAMPLE



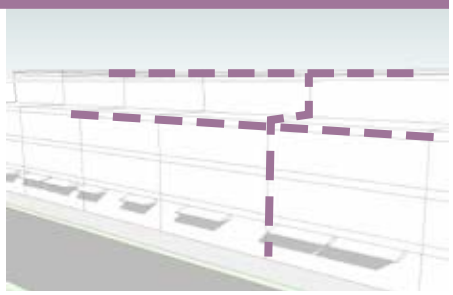
GROUND FLOOR WALL OFFSET

Provide relief at the pedestrian level, to avoid a long wall and help frame and activate a street, sidewalk, pathway, or public space. A wall offset should be integrated into the overall wall design.



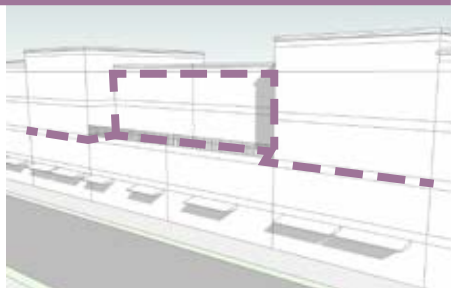
UPPER STORY SETBACK

Set back upper stories to reduce mass and street wall height at the pedestrian level. This helps a large building fit into a sensitive context such as adjacent to a historic building or residential context of a lower scale.



MIDDLE SETBACK

Carve out space in the middle of a building on upper floors to reduce its central mass. This is particularly useful to allow in natural light and air and to create public spaces for occupants to enjoy.



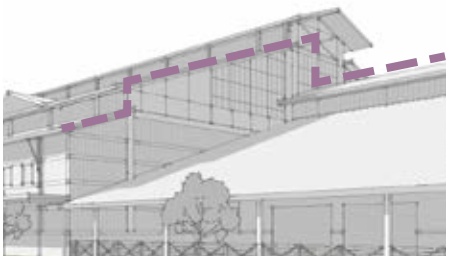
Techniques for Barns and Arenas

These techniques should be considered for varying the mass of barns, arenas, and other buildings that have more utilitarian functions.

HEIGHT VARIATION

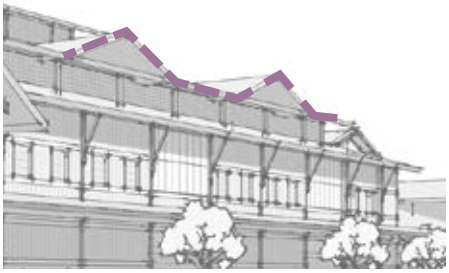
Height variation may occur with changes in wall heights for different building modules.

TECHNIQUE EXAMPLE



VARIATION IN ROOF FORM

Clerestories, monitors and cross-gables can provide variation in roof lines. These variations can also provide an opportunity to daylight these building interiors.



MASSING SETBACK

In some cases a portion of a wall may be set back, sometimes expressing the internal truss system. This can also be achieved through ground floor wall offsets, as seen on the previous page.

Include articulation techniques that provide visual interest and human scale.

Integrate architectural details with facade articulation.

INTENT

4d To provide a visually interesting facade

4e To reduce perceived scale of a building

ARTICULATION

Articulation methods reduce perceived building mass and contribute to a more pedestrian-friendly environment.

STANDARDS

4.5 Include articulation techniques in the design of building facades that provide visual interest and express a human scale. See the table on the following page for more detail. Articulation methods include:

- » Accent lines;
- » Wall recesses, projections or banding;
- » Changing patterns of window composition;
- » Balconies, canopies and awnings;
- » Change in color; and
- » Change in material.

GUIDELINES

4.6 Consider employing articulation methods that create shadow lines to show depth and detail.

4.7 Consider integrating architectural details with facade articulation.

a. Use exposed posts, beams, trusses and brackets.

b. Contemporary methods include integrated photovoltaic cells, curtain wall expressions, and shading devices.

Use the following articulation methods when designing a building elevation. Articulation is particularly important for mixed-use, civic/tourism, residential and hospitality building types, any building edge that faces a Pedestrian Priority Area, and along Key Streets connecting to surrounding neighborhoods.

ACCENT LINES

These include vertical and horizontal features on a building wall. An accent line often projects from the wall. Examples include moldings, sills, cornices, pilasters, and spandrels.

TECHNIQUE EXAMPLE

PROJECTIONS

These elements extend from the primary wall plane. They usually relate to structural bays in a building.

WINDOW COMPOSITION

Windows of familiar dimensions can convey a human scale. Aligning windows horizontally and vertically creates a visual rhythm.

BALCONIES, AWNINGS, & CANOPIES

These elements help provide interest and human scale to a building. They should be detailed to be integral to the architecture.

MATERIAL/COLOR CHANGES

Material or color changes help reduce the perceived scale of a large building. For more information see Building Materials on page 84.

Design all sides of a building that will be viewed from pedestrian-oriented public spaces to provide visual interest.

INTENT

4f To provide a visually interesting building facade from all public view points

PRIMARY FACADE

A primary facade is any wall that faces onto a Key Street or Key Frontage, as mapped on the Urban Design Framework Map, page 5. This could mean that two (or more) building faces are considered "primary."

CHARACTER AREAS

Four-sided design is particularly important in the core event areas of the Campus, including the northern portion of the Innovation Campus, the Festival Grounds, and the Triangle Character Areas.

STANDARDS

4.8 Design all sides of a building that will be viewed from pedestrian-oriented public spaces to provide visual interest.

GUIDELINES

4.9 Consider including architectural details to reduce the visual impact of a Tertiary Wall. Use a variety of methods, including:

a. Windows and doors;

b. Building articulation techniques;

c. Service areas and utilities integrated into in the facade design;

d. Site walls and raised planters; and

e. Decorative wall treatment such as wall art, murals, display windows/cases and green walls.

Four-Sided Design

Four-sided design is particularly important in a campus setting. This means that all exterior facades that will be visible to the public should be designed to create visual interest, convey a sense of human scale, and in some cases, activate public spaces. At the same time, differences in the degree of detailing will vary based on the degree of exposure to the public and the building's functional requirements.

PRIMARY FACADE

This facade type is highly visible to the public and is important in conveying a sense of scale, visual interest, and pedestrian-oriented activity for the building and adjacent public spaces. This is the "front" of a building, either facing a Key Street or a Pedestrian Priority Route.

SECONDARY FACADE

This facade type is in relatively high traffic areas, but internal functions do not lend themselves to designs with an extensive amount of transparency. Using alternative means of adding interest and activation is appropriate. For more information see Pedestrian Level Design, Interest and Activation on page 88-89.

TERTIARY FACADE

This facade type has less public exposure and is often viewed less frequently or from a distance, such as from a loading area or commuter rail. Even so, the objective is to assure that it is seen as part of a coherent design composition. A modest level of detail is appropriate.

Choose materials that are likely to maintain an intended finish over time.

Use building materials that contribute to visual interest and convey a sense of human scale.

INTENT

4g To ensure that building materials provide visual interest and a sense of scale

4h To avoid materials that have flat or featureless surfaces

4i To encourage use of innovative and sustainable materials

4j To ensure the use of durable building materials.

STANDARDS

4.10 Use building materials of proven durability. Note that applicants may be required to demonstrate the durability of unproven or unusual materials.

a. Choose materials that are proven to be long-lasting and low maintenance in the Colorado climate.

b. Choose materials that are likely to maintain an intended finish over time or acquire a patina, when it is understood to be a desired outcome.

4.11 Minimize the use of cementitious stucco on the ground level (that portion of a building extending upward approximately 10-20' from the ground plane).

4.12 Use building materials that contribute to visual interest and convey a sense of human scale. Strategies include:

a. Use materials that have texture, finish, and detailing; and

b. Apply materials in ways that create shadow, contrast, and depth.

4.13 Use building materials that are easy to clean and/or graffiti proof.

GUIDELINES

4.14 Consider using materials that are innovative and demonstrate best practices in sustainability.

Windows and Transparency

Provide windows at the pedestrian level to permit visibility to indoor activities to the extent feasible.

Locate windows to express a rhythm and create visual interest.

INTENT

4k To create a sense of human scale and visual interest

4l To enhance safety with "eyes on the street"

4m To facilitate views of inside activities from public spaces

STANDARDS

4.15 Provide windows at the pedestrian level to permit visibility to indoor activities.

a. The degree of transparency will vary by the internal use and adjacent public space.

b. Provide a higher degree of transparency along Key Streets and Priority Pedestrian Routes.

c. Transparency is particularly important for mixed-use, civic/tourism, residential and hospitality building types. It is less critical for maintenance and utility buildings.

4.16 Locate windows to express a rhythm and create visual interest.

a. Provide a generally consistent pattern of spacing between windows.

b. If a curtain wall is used, use spandrels, moldings, awnings, sills or shading devices to provide vertical and horizontal expression.

Design a facade to accommodate pedestrian-oriented signage.

Consider accommodating large scale signage on buildings intended for public use, such as arenas.

INTENT

4n To ensure that a facade accommodates pedestrian-oriented signage

4o To encourage a facade design that harmoniously integrates identification signage

4p To encourage that a key facade on a building that is intended for public use can accommodate large signage

SIGN DESIGN

Consider overall sign design guidelines when designing facades for signs. For more information see Chapter 6: Sign Design page 98-104.

STANDARDS

4.17 Design a facade to accommodate pedestrian-oriented signage. Strategies include:

a. Incorporate a designated band or area above the pedestrian level for signage;

b. Design a canopy or awning to accommodate signage; and

c. Designate an area to accommodate tenant or directory signage, near a primary entrance.

GUIDELINES

4.18 Consider accommodating large scale signage on buildings intended for public use, such as arenas.

a. Reserve an area on the roof parapet, or integrated into the roof cap feature, for future large-scale signage. Note: This type of sign will only be allowed through the creation of a District Sign Plan, pending enabling via the NWC Zoning Amendment.

Design a building entrance to be clearly identifiable.

Front primary pedestrian entrances onto a street or public space.

INTENT

4q To create a strong visual connection between a public space and building

4r To ensure pedestrian entrances are clearly identifiable

CHARACTER AREAS

The orientation and emphasis of building entries is particularly important in the core event areas of the NWC, including the Festival Grounds and the northern portion of the Innovation Campus, as well as the Triangle Character Areas, South Campus, and the Elyria/Swansea Gateway.

STANDARDS

4.19 Front primary pedestrian entrances onto a street or pedestrian-oriented public space.

a. Place a pedestrian entrance along a Key Street or Pedestrian Priority Route, when feasible.

4.20 Design a building entrance to be clearly identifiable.

a. Use architectural elements to highlight a primary entrance.

b. Add variation in building mass and height to highlight a primary entrance.

GUIDELINES

4.21 Consider designing a building entrance to provide weather protection.

Ensure facades that are located adjacent to a Pedestrian Priority Route or Key Street provide visual interest.

Provide public building entrances adjacent to a public space.

INTENT

4s To provide visual interest at the pedestrian level of a building

4t To encourage activation of public spaces near buildings

BY BUILDING TYPE

Interest and activation is particularly important for mixed-use, civic/tourism, residential, and hospitality building types. It is less critical for utility and maintenance buildings.

TRANSPARENCY

The DZC includes transparency and transparency alternative requirements. See the NWC Campus District for more information.

Note: This section of the Zoning Code is currently being revised as part of the CPD Regulatory Package Update.

STANDARDS

4.22 Ensure facades that are located adjacent to a Pedestrian Priority Route or Key Street provide visual interest. Where possible, activate a public space by orienting a public entrance toward it. This applies generally to the first twenty vertical feet of a building wall from the ground plane. Strategies are listed below and example photos are provided on the following page.

a. Provide public building entrances adjacent to a public space. When that is not feasible, use other methods such as:

b. Windows that allow viewing of activities inside the building;

c. Awnings, canopies, arcades, colonnades, etc.;

d. Architectural details (unique masonry design, pilasters, exposed columns, structural supports, lighting, etc.);

e. Wall art or murals;

f. Display cases;

g. Architectural screens; and

h. Landscape features.

The character of a building's ground floor strongly impacts the pedestrian experience of adjacent public spaces. A featureless wall at the pedestrian level can diminish the quality of the pedestrian experience. A building should be designed to promote pedestrian interest at the street level. Where possible, a building should also activate the space with a public entry. The following techniques are examples:

ACTIVE PUBLIC ENTRANCE

Active public entrances with transparency and visual interest are desired, but not always feasible.

WINDOWS

Use windows to allow people to see activities inside.

AWNINGS, CANOPIES, ETC.

Architectural elements such as awnings and canopies provide weather protection and add interest to the pedestrian level.

ARCHITECTURAL DETAILS

Architectural details can provide a sense of human scale to a building.

WALL ART AND MURALS

Artistic elements integrated into the facade add delight to the pedestrian experience.

DISPLAY CASES

When a view into a space isn't feasible, a display case can provide interest.

ARCHITECTURAL SCREENS

Innovative architectural screens can provide visual interest.

LANDSCAPE FEATURES (GREEN WALL)

Green, or "living walls," and vertical planters provide interest and integrate more green space into the Campus.

LANDSCAPE FEATURES (PLANTER)

Landscaping and planters add texture, green elements, and scale.

REHABILITATION/REUSE OF EXISTING BUILDINGS

Utilize traditional materials that are in keeping with the historic building.

Do not change the style of the building to make it appear older or newer than its actual age.

INTENT

4u To retain examples of the heritage of the NWC Campus while accommodating new uses

4v To retain the historic character and the ability to perceive a building's original function

4w To encourage adaptive reuse

EXISTING BUILDINGS INVENTORY

These buildings are a part of the heritage of the Campus and may have potential for reuse:

- *Livestock Exchange Buildings*
- *McConnell Welders*
- *Artist Studio*
- *Hay Barn #3 (King Energy Building)*
- *Chute Office*
- *Scale House #6*
- *Guard Shack*
- *Brands Building*
- *4701 Brighton Blvd.*
- *Commercial and Residential Buildings on Baldwin Ct. and 47th. Ave.*

INTRODUCTION

The National Western Center Campus includes a number of existing buildings (at the time of publishing this document) that reflect traditional building designs from earlier eras and are part of the heritage of the campus. Some of these buildings may be preserved, while others will not. In some cases, buildings may be relocated and adapted to new uses. Additions and other alterations also may occur.

When rehabilitating and reusing any of these existing buildings, consider applying best practices reflected in the standards below. Note that a few other properties are to be designated a Denver landmarks, for which a separate review process will apply. These landmark quality properties include the Stock Exchange Building, the Armour Office Building and the 1909 Arena.

The standards on this page only apply if and when an existing building is preserved.

STANDARDS

4.23 Respect the historic character of the building.

a. Consider an addition to a historic building, rather than demolition.

b. Retain the character defining features of the building.

c. Do not change the style of the building to make it appear older or newer than its actual age.

d. When possible, maintain the character on the front facade, with greater flexibility on rear and side elevations.

REHABILITATION/REUSE OF EXISTING BUILDINGS

Preserve building features in order to maintain the ability to perceive the fundamental function and organization of a building.

STANDARDS (CONTINUED)

4.24 Utilize traditional materials that are in keeping with the historic building.

a. Traditional materials should be preserved and re-utilized when feasible.

b. New or alternative materials that are in keeping with the character of the historic building (in terms of color palette and texture) are appropriate.

4.25 Preserve building features in order to maintain the ability to perceive the fundamental function and organization of a building.

a. Retain the fenestration pattern, which includes the fundamental spacing, rhythm and dimensions of windows and doors.

b. When feasible, retain character defining architectural features and details

4.26 Maintain a roof form that is compatible with that of the original building.

a. Roof materials should be in keeping with the texture, color and overall character with traditional materials.

4.27 Design an addition or alteration to respect the existing building and maintain its aesthetic and structural integrity.

a. An addition should relate to the original building in mass and scale, but should be differentiated as new.

b. When constructing an addition to an existing building, maintain the ability to visually perceive the original.

c. When constructing an addition, do not try to emulate an existing style to make the addition look older than its actual age.

d. A contemporary design for an alteration or addition to an existing building should not be discouraged if it retains the character-defining features and is compatible with the existing building.

PRESERVATION BEST PRACTICES

Stabilization (mothballing) of existing buildings:

» *When funds are not currently available to restore or reuse an existing building, it should be closed up to protect it from vandalism and deterioration. For more information, see "Mothballing Historic Buildings" https://www.nps.gov/tps/how-to-preserve/briefs/31-mothballing.htm*

Relocation of an existing building:

» *When funds are available, relocation may also be an option for some existing buildings, within the NWC campus or elsewhere in the surrounding neighborhoods. For more information, see "Moving Historic Buildings" https://www.nps.gov/tps/how-to-preserve/preservedocs/Moving-Historic-Buildings.pdf*

CHAPTER 5: LIGHTING DESIGN

IN THIS CHAPTER:

INTRODUCTION

High-quality lighting can heighten the user experience by providing a sense of wayfinding, safety, and security.

LIGHTING REGULATIONS IN THE DENVER ZONING CODE

The DZC regulates Outdoor Lighting. It provides guidance on lighting sources and design standards, with the intent of creating safe, effective lighting while eliminating adverse impacts of light through glare and spillover. See the DZC for more information and specific requirements.

GLARE AND LIGHTING DESIGN

Glare reduces nighttime visibility and is an important obstacle to address for campus lighting. Glare should be minimized in the design of all types of campus lighting.

CITY LIGHTING STANDARDS

The City and County of Denver's Street Lighting Design Standards apply to all areas within the public Right-of-Way.

This chapter addresses lighting needed for quality streets, safe pedestrian circulation, and visual interest throughout the Campus. Lighting can provide campus safety and security and highlight features such as art and gateways that enrich the visitor experience.

Given the NWC's commitment to sustainability and environmental stewardship, dark sky must be addressed and light trespass mitigated. Dark sky refers to a type of lighting design that reduces glare and light pollution into the sky from direct and reflected light. Light trespass is light that shines onto neighboring sites or properties. It is especially important to consider when adjacent to riverfront and natural areas or residential neighborhoods.

OVERALL LIGHTING DESIGN

Consider locating and spacing lighting in coordination with design elements, circulation patterns, buildings, and different site programs.

INTENT

5a To scale lighting to its intended purpose

5b To minimize glare to adjacent properties or public rights-of-way

5c To minimize impacts on the night sky

ADDITIONAL LIGHTING RECOMMENDED PRACTICES

The Illuminating Engineering Society of North America (IESNA) Lighting Handbook includes recommended practices for various site design topics. IESNA RP-33 should be referenced for more information on Exterior Environments, RP-8 for more information on Roadway Lighting, and RP-20 for more information on Parking Facilities.

STANDARDS

5.1 Design campus lighting to reduce glare and minimize light trespass.

a. Use shielding to reduce light pollution.

b. Downcast and shield all security lighting.

c. Limit back-lighting as much as possible.

d. Use low light levels and lighting controls.

5.2 Design campus lighting to provide a safe environment for all users.

a. Reduce glare to improve visibility for all users.

b. Design lighting to be non-distracting, particularly along streetscapes and other areas where vehicles and pedestrians interact.

c. Use lighting to illuminate hazards.

5.3 Utilize lighting that is warmer in color to minimize the harsh visual impacts of cooler lighting.

5.4 Use LED luminaires and control systems to reduce energy consumption.

5.5 Scale the size and brightness of lighting fixtures appropriately to meet the needs of their intended user and ensure they are not smaller, dimmer, larger, or brighter than is needed.

GUIDELINES

5.6 Consider creating a unique experience through the use of innovative, decorative, and feature lighting.

PUBLIC SPACE LIGHTING

Locate public space lighting to improve campus wayfinding.

Provide varying levels of light on landscaping, paving, furnishings, stairs, and site walls to create visual interest.

INTENT

5d To enhance safety by lighting circulation routes

5e To assist in wayfinding and navigation

5f To ensure lighting is sensitive to animals

5g To ensure lighting reflects the character and function desired for various public space types

5h To encourage lighting that creates visual interest

FEATURE LIGHTING

Feature lighting is distinctive or iconic lighting that highlights site features such as landscaping, furnishings, or art. It creates visual interest and supports wayfinding by giving pedestrians a beacon in nighttime environments.

TREE CANOPY

Consider the development of a mature tree canopy in the placement of lighting features to avoid future conflicts.

STANDARDS

5.7 Locate public space lighting to improve campus wayfinding.

a. Light Pedestrian Priority Routes and other circulation routes to act as a visual guide for pedestrians along the intended path of travel.

b. Identify prominent entries and gateways.

5.8 Design lighting to respond to the needs of different public space types.

a. Along streetscapes use consistently spaced lighting to ensure safe travel for all modes and reduce conflicts. Enhance the lighting of crosswalks.

b. In gathering areas and plazas use adjustable aiming light sources to properly light daily activities while remaining flexible for festivities and events.

c. In event and flexible spaces use control systems and dynamic aiming to allow for flexibility in the design of permanent event lighting.

d. Limit lighting along riverfront and natural areas to protect the natural context.

e. In back-of-house areas provide functional lighting and enhanced illumination to safely accommodate service and maintenance activities.

GUIDELINES

5.9 Consider providing varying levels of light on landscaping, paving, furnishings, stairs, and site walls to create visual interest.

5.10 Consider designing lighting to be sensitive to the specific needs of animals.

a. Avoid animated or overly bright lighting along animal paths.

b. Provide consistent and even low level lighting along animal paths.

c. Design lighting to turn off when people are not present.

5.11 Consider locating public space lighting to highlight and add visual interest to major campus features.

a. Use accent lighting for art work and other iconic elements.

b. Use feature lighting on landscape and architectural features to add depth and visual interest to the space.

5.12 Consider incorporating low level lighting into design elements including:

» Stairs;

» Benches;

» Low walls; and

» Bollards.

BUILDING LIGHTING

Use lighting techniques such as wall grazing to accentuate facade textures.

Provide varying levels of light on building edges and walls to create visual interest.

INTENT

5i To ensure lighting is integrated with architecture

5j To highlight visually interesting architectural features

5k To help identify building entries

STANDARDS

5.13 Locate building lighting to fit within its architectural context.

a. Integrate building lighting with architectural features.

b. Locate building lighting to avoid obscuring architectural features.

5.14 Use building lighting to improve campus wayfinding.

a. Ensure building signs are clearly visible. For more information see Chapter 6: Sign Design, page 104.

b. Ensure pedestrian entrances are well-lit and easy to navigate.

GUIDELINES

5.15 Consider providing varying levels of light on building edges and walls to create visual interest.

5.16 Consider designing building lighting to enhance the building and adjacent public spaces.

a. Highlight the distinctive or historic features of a building.

b. Use lighting techniques such as wall grazing to accentuate facade textures.

c. Highlight building edges to help define surrounding spaces.

CHAPTER 6: SIGN DESIGN

IN THIS CHAPTER:

INTRODUCTION

Signage should be compatible with the vision, goals, and desired character of the Campus and contribute to an easy-to-navigate wayfinding system.

SIGN REGULATIONS

Sign design on the Campus is also subject to the regulations in the City of Denver's Sign Code and to a special sign plan that will be adopted.

Signs are an important feature of the Campus and contribute to the overall character of the Campus. They should balance functional requirements associated with building and business identification with the objective to create a high-quality, cohesive character across the Campus. Many of the signs on site should be flexible enough to accommodate different messaging for various events. Signage should be compatible with the vision, goals, and desired character of the Campus and contribute to an easy-to-navigate wayfinding system. Factors that should be considered in the design of signage include:

- Placement;
- Design Character;
- Materials; and
- Lighting.

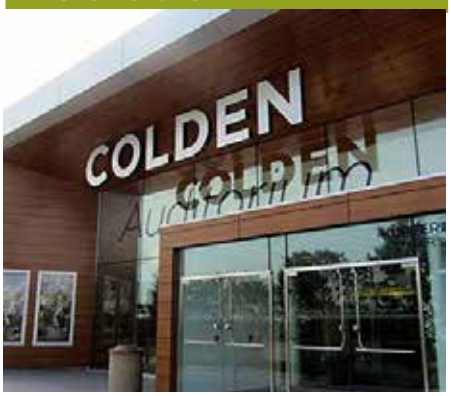
SIGN TYPES

The typical DZC sign types are defined and illustrated below. The DSG for sign location, character, materials, and lighting laid out in the rest of the chapter should apply to all the following sign types.

PROJECTING SIGNS

A sign or graphic, other than a wall sign, that is attached to and projects from the wall, soffit, or eave of a building, is not in the same plane as the wall, soffit, or eave to which it is attached.

ARCADE SIGNS



A wall or projecting sign attached to the roof or wall of an arcade and totally within the outside limits of the structural surfaces which are delineating the arcade.

GROUND SIGNS

A sign supported by poles, uprights, or braces extending from the ground or an object on the ground, but not attached to any part of any building.

WALL SIGNS

A sign attached to, painted on, or erected against a wall, fascia, parapet wall, or pitched roof of a building or structure, and no part of which sign projects above the roofline.

WINDOW AND DOOR SIGNS

A sign which is applied or attached to, or located within three feet of the interior of a window or door, which sign can be seen through the window or door from the exterior of the building.

JOINT IDENTIFICATION SIGNS

A sign which serves as a common or collective identification for three or more businesses or industrial uses by right on the same zone lot excluding, however, the identification of products.

SIGN LOCATION

Locate signage to fit within the overall context of a building and its site.

Locate signage to ensure visibility for its intended audience.

INTENT

6a To ensure signs are highly visible

6b To ensure signage is integrated with architecture

TREE CANOPY

Consider the development of a mature tree canopy in the placement of signs to avoid future conflicts.

STANDARDS

6.1 Locate signage to fit within the overall context of a building and its site.

a. Place a sign to fit within or highlight architectural features.

b. Place a sign to avoid obscuring architectural features.

c. Locate signs to accentuate a pedestrian entry.

6.2 Locate signage to ensure visibility for its intended audience.

a. Orient a sign intended for pedestrians to be visible from the street or plaza level.

b. Orient a sign intended for vehicles to oriented to and visible from the street.

6.3 Locate signage to be subordinate to the building or structure it is attached to.

SIGN CHARACTER AND MATERIALS

Consider designing signs to be creative and iconic whenever possible.

Construct signs with durable materials that will maintain their quality over time.

INTENT

6c To ensure signs withstand solar and weather impacts over time

6d To create visual interest

WAYFINDING & SIGNAGE

For more information about the cohesive character of signage on the Campus, see the Wayfinding & Signage Vision Memo (2018).

STANDARDS

6.4 Construct signs with durable materials that will maintain their quality over time. Appropriate materials include:

a. Metal (that can withstand moisture and drains properly to address freeze/thaw);

b. Painted or carved wood;

c. Individual wood or cast metal letters or symbols;

d. Stone such as slate, marble, or sandstone; and

e. Painted, gilded, or sandblasted glass.

GUIDELINES

6.5 Consider designing signs to provide flexible messaging that can be adapted for different event needs.

6.6 Consider designing signs to be creative and iconic whenever possible.

6.7 Considering designing signs to use distinctive craftsmanship, whenever possible.

SIGN LIGHTING

Direct sign lighting toward signs.

Integrate sign lighting into the design of the facade.

INTENT

6e To minimize glare to adjacent properties or public rights-of-way

6f To minimize impacts on the night sky

LIGHTING

For information about campus public space and building lighting, see Chapter 5: Lighting Design, page 92-97.

STANDARDS

6.8 Integrate sign lighting into the design of the facade. Appropriate strategies include:

a. Built-in indirect back-lit/halo lighting;

b. Built-in goose neck or lighting arms; and

c. Sign lighting that is integrated into an architectural feature on the building facade.

6.9 Direct sign lighting toward signs. Appropriate strategies include:

a. Focus lighting directly towards the sign; and

b. Incorporate hoods or caps to avoid casting light upwards unnecessarily.

6.10 Shield sign lighting so as to minimize light pollution.

GUIDELINES

6.11 Consider designing sign lighting to maintain a consistent character with the overall building lighting. Appropriate strategies include:

a. Use the same color of lighting; and

b. Use the same or a similar material palette.

CHAPTER 7: DESIGN REVIEW

REVIEW PROCESS

STRATEGIC DESIGN LEADERSHIP

The Strategic Design Leadership (SADL, pronounced saddle) is a committee comprised of subject matter experts across a broad range of planning and design expertise. SADL will advise the Mayor's Office of the National Western Center (NWCO) and the National Western Center Authority (NWCA) regarding the design of campus development and site improvements.

SADL Design Review has its own submittal requirements and process, separate from the review conducted by the City and County of Denver. Please consult the NWC Design Handbook for SADL Design Review details and process.

These DSG will serve as the basis during site plan review under Section 12.4.3 of the Denver Zoning Code. The applicable City staff will review all site plan submittals against these DSG, as well as compliance with zoning and all other applicable city regulations. A site development plan subject to the DSG shall not be approved unless City staff finds it in compliance with the intent of the DSG.

The Site Development Plan Review process may be initiated by scheduling a pre-application concept plan review and is mandatory before submittal of a formal site development plan application. During the concept plan review, the City staff will confirm the applicability of site development plan review to the proposed development activity and the specific procedures and submittal requirements the applicant will follow. It also provides an opportunity for informal discussion of the specific circumstances of a project and how the DSG might affect its development. Submittal requirements to show compliance with the DSG should also be discussed at the pre-application meeting.

At the Concept and/or Site Development Plan submittal, the applicant must submit a comprehensive analysis of these DSG and how they apply to the project that is the subject of the site development plan submittal.

The sign DSG are supplemental and complimentary to the Denver Zoning Code that Development Services staff refers to when reviewing signage applications, and compliance is not assured through site plan review, but through separate procedures. All signs must be approved by all applicable City agencies. Staff will review all sign submittals for conformance with the DZC sign code and the National Western Center Design Standards and Guidelines.

REVIEW PROCESS

MODIFICATIONS

The DSG are intended to be flexible. The applicable City staff may grant modifications to a design standard if the applicable City staff finds the applicant has shown the following:

1. The modification is consistent with the stated intent of the design standard at issue;
2. The modification achieves or implements the stated intent to the same degree or better than strict compliance with the standard would achieve; and
3. The modification will not result in adverse impacts on properties abutting the site.

The applicable City staff shall review the proposed modification and shall approve or deny the request within 14 calendar days of receiving a complete request.

LETTER OF SADL APPROVAL

At the time of vertical site development plan submittal, the applicant also must submit a letter confirming or waiving review/approval by SADL.

STATE-OWNED PROPERTIES

There are some state-owned properties on the Campus; in addition to City and County of Denver Regulations, these properties are subject to state regulations and requirements.

This page intentionally left blank.