Elements of Urban Design

A Visual Guide

November 2023

District of Columbia Office of Planning MEARE GOVERNMENT OF THE DISTRICT OF COLUMBIA DC MURIEL BOWSER, MAYOR

What is a Visual Guide?

The Office of Planning is excited to share the Visual Guide to Elements of Urban Design. This Visual Guide is intended to make technical terms accessible to more residents so that voices across all Wards of the District can participate in discussions about how we design our city.

This tool, with its visuals and explanations, will enhance the quality of projects and the livability of the city by providing a common language for engagement, communication, and advocacy around the natural and built environment.

This Visual Guide will be a living document that the Office of Planning will update as we receive feedback from community members. We look forward to receiving your input.

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01 INTRODUCTION

"The main purpose of planning is to see where we are going in terms of where we have been, and then to assist in changing the direction toward where we want to go." – Samuel J. Cullers

INTRODUCTION

Urban design in the history of Washington, DC has shaped the city's symbolic identity, preserved its historical legacy, and fostered distinct neighborhoods, while also emphasizing public spaces and cultural diversity. The Visual Guide aims to develop a shared understanding and language through which District residents can evaluate, discuss, and advocate for good urban design.

This Guide can be used as a reference to:

- Inform conversations about the physical planning and design;
- Discuss ideas for how to enhance design in your community; and
- Help shape recommendations that encourage good urban design principles.



The Wharf in Southwest DC Image Source: Jeff Goldberg/Esto

WHAT IS URBAN DESIGN ?

Urban Design is a collaborative and multidisciplinary process that focuses on how the elements of our city - buildings, streets, parks, and plazas are designed, built, and arranged in relation to one another, and how people experience the city.

Urban Design employs and connects principles from the fields of architecture, civil engineering, landscape architecture, and urban planning to shape the physical environment and create places where people want to linger.



Elements of Urban Design for Life, Space and Building Image Source: Gehl



WHO SHOULD USE THIS GUIDE ?

The public – to empower District residents with tools to participate more effectively in the design process and planning conversations.

The government – to support consistent design feedback across different levels of government to foster an equitable DC that is aligned with city policies and priorities.

The developer – to demonstrate how developers and other real estate professionals can incorporate good design principles into their projects and in turn create vibrant communities.

The professional – to provide architects, designers, planners, and other professionals with considerations to design the city in a holistic and cohesive manner.



Design Workshop for Southwest DC Image Source: Office of Planning

02 ELEMENTS OF URBAN DESIGN & THEIR DEFINITIONS

URBAN DESIGN IN THE DISTRICT

The Comprehensive Plan for the **National Capital: District Elements** establishes in Chapter 9: Urban Design Element that, "The overarching goal for urban design in the District is to enhance the beauty, equity, and livability of Washington, DC by reinforcing its historic design legacy and the identity of its *neighborhoods and centers,* harmoniously integrating new construction with existing buildings and the natural environment, and improving the vitality, appearance, and function of streets and public spaces." 901 1

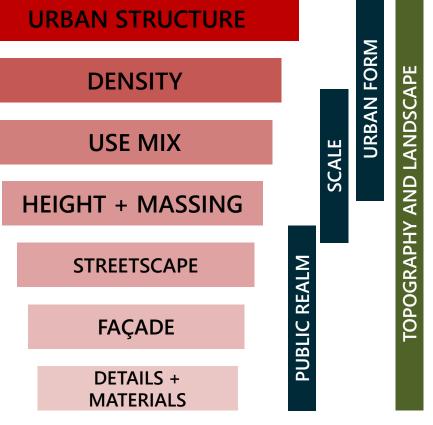


ELEMENTS OF URBAN DESIGN

Urban design is comprised of varied elements that can be organized in a hierarchical framework. The elements range from the broadest concept of **Urban Structure** to the finest grain of **Details and Materials**.

Urban Form delves into the physical shape, density, and mix of uses, while **Scale** explores height and massing considerations. The **Public Realm** encompasses streetscapes, façades, and details and materials that shape the public experience.

Topography and Landscape factor in natural terrain and landscaping, while **Social and Economic Fabric** considers demographic, cultural, and economic influences.



Elements of Urban Design Image Credit: Australian Sustainable Built Environment Council (ASBEC); Office of Planning FABRIC

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URBAN STRUCTURE

Urban Structure refers to the overall layout, organization, and arrangement of a city or urban area.

Urban Structure includes the overall form and pattern of streets, buildings, open spaces and infrastructure, as well as the relationships and interactions between these components.

DC Aerial Photo Image Source: The GW School of Business Georgetown L'Enfant's Washin L'Enfant's Plan in Context Image Source: Matt Johnson Tracktwentynine.blogspot.com 11



URBAN FORM

Urban Form refers to the physical shape, layout, and arrangement of buildings, streets, public spaces, and other elements that make up a city or urban area.

Urban Form includes the size, scale, shape of buildings, the configuration and alignment of streets and transportation networks, the distribution and arrangement of open spaces and parks, and the relationship between different land uses and areas within the city.

Aerial Photo of Hill East Phase 1 Development Image Source: McCullough Construction Proposed Plan for Hill East in Southeast DC Image Source: Office of Planning



Density refers to how closely people, buildings, and activities are concentrated within a specific area of the city, impacting development intensity, building heights, and land use.

Dupont Figure Ground Map Image Source: BeyondDC

Dupont Circle: A Dense Urban Area

Image Source: NCPC



Use Mix refers to the integration of diverse activities such as residential, commercial, institutional, or recreational uses within a single area or development, promoting a vibrant and walkable urban environment.

Zoning regulates the permitted mix of uses and may limit or promote a diversity of uses on a development site.



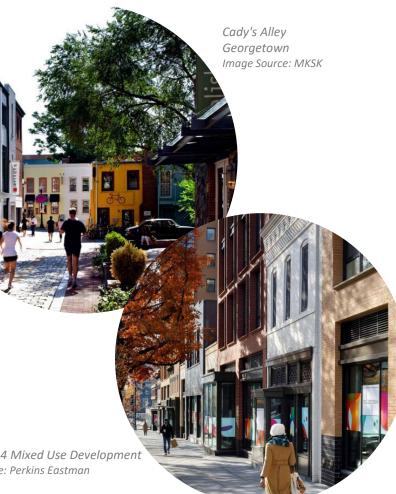


Scale refers to the proportion and relationship of buildings, streets, and other elements within the city.

Scale involves how these elements relate to each other in terms of height, width, and overall appearance.

Scale determines the visual impact and overall character of the city, influencing how people perceive and engage with the urban environment.

> Collection 14 Mixed Use Development Image Source: Perkins Eastman





Height refers to how tall a building is.

Massing relates to the overall size and shape of a building and how it fits with nearby buildings and the surrounding area.

Height and Massing create the sense of openness or enclosure, and affect how people experience streets, spaces, and other buildings. Center Block at Capitol Crossing Massing Diagram Image Source: Ennead Center Block at Capitol Crossing Design Rendering Image Source: Ennead



Public Realm refers to the collective spaces and areas that are accessible and shared by the general public. The public realm includes streets, sidewalks, parks, and plazas.

Public Realm shapes the city's character, facilitates social interactions, and provides opportunities for recreation, culture, and mobility.

St. Elizabeths East Gateway Pavilion Image Source: ArchDaily

> St. Elizabeths East Gateway Pavilion as Public Gathering Place Image Source: Davis Brody Bond



STREETSCAPE

Streetscape refers to the visual elements and features of a street, including adjoining buildings, sidewalks, street furniture, trees, lighting, signage, and more, that combine to form the street's character.





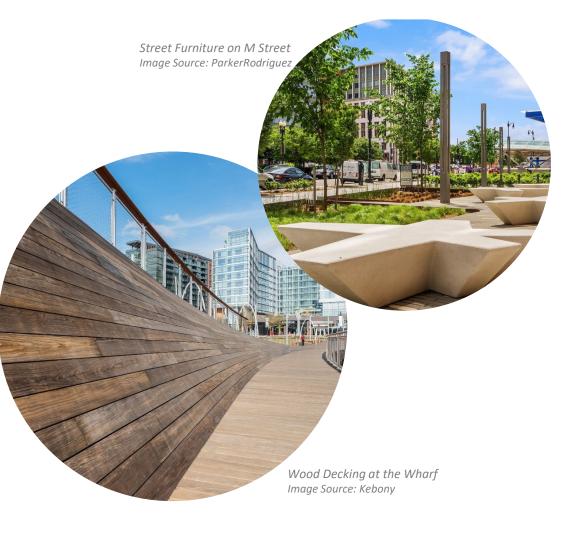
Façade (sounds like fuh·**saad**) refers to the exterior or face of a building that is visible from the street or public space. The façade plays a significant role in defining the character of a building and contributes to the overall visual appeal of a street or urban environment.





Details refer to smaller-scale elements or features that enhance the design of buildings, streets, and public spaces. **Details** include items such as decorative features, lighting, signage, and street furniture.

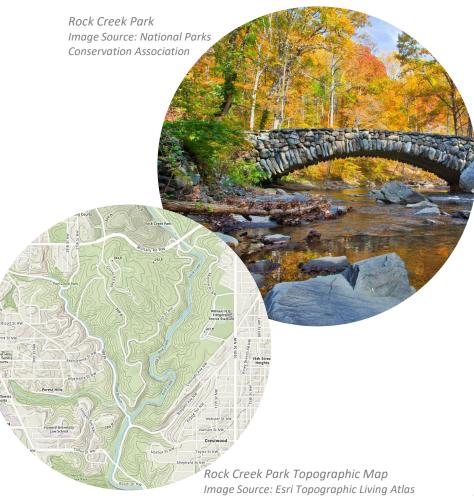
Materials refer to the substances used to build and design structures, like concrete, brick, stone, glass, wood, metal, and synthetic materials. The choice of materials contributes to human comfort, safety, and enjoyment of the urban environment.



TOPOGRAPHY + LANDSCAPE

Topography refers to the natural and man-made physical features of land surfaces. **Topography** includes elements such as elevation, slopes, contours, and natural drainage patterns.

Landscape refers to the visible features of the outdoor environment, including both natural and constructed elements, such as vegetation, water bodies, open spaces, parks, and gardens. The city's landscape contribute to its identity, offering places for recreation, nature interaction, and cultural appreciation.



SOCIAL + ECONOMIC FABRIC

Urban Design is not just about how things look, but also how they work for everyone. This includes thinking about how people interact and how money and jobs flow.

Social Fabric describes the human aspect of a city and how the spaces where people live, interact, and form bonds influence the quality of life and well-being of residents.

Economic Fabric is about creating opportunities for businesses, jobs, and a strong economy. These pieces fit together to make the city a great place to live, work, and enjoy life. H Street Festival 2019 Image Source: Atlas Performing Art Center

DC Streatery Program Image Source: DDOT

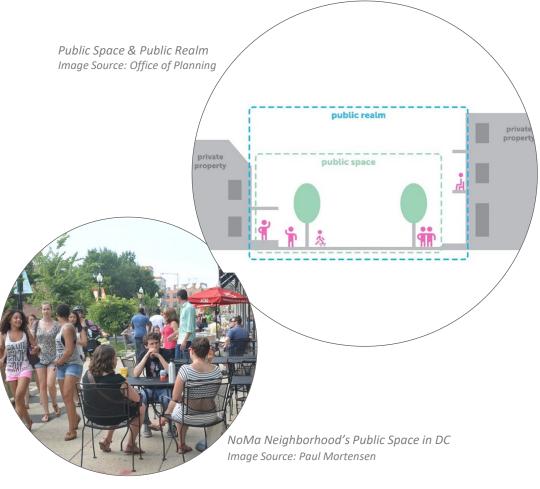
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03 UNDERSTANDING URBAN DESIGN PROCESSES & CONCEPTS

"Architecture should be working on improving the environment of people in their homes, in their places of work, and their places of recreation. It should be functional and pleasant, not just in the image of the architect's ego." – Norma Merrick Sklarek

PUBLIC SPACE

Public Space refers to areas under public ownership that are open and accessible to people, including parks, streets, and plazas. These spaces are designed to enhance the livability and character of a city, providing venues for gatherings, cultural events, and relaxation. The design of public space considers accessibility, aesthetics, safety, and the diverse needs of the community to create inclusive and functional environments.



GREEN SPACE

Green Space refers to areas partly or completely covered with grass, trees, shrubs, or other vegetation.

Green Space includes parks, community gardens, and cemeteries. These spaces offer recreational opportunities, enhance aesthetics, and promote environmental wellbeing.

Franklin Park in Downtown DC Image Source: DowntownDC BID SW Community Garden Image Source: SW Gardens at 25 Lansburgh Park

PUBLIC SPACE ACTIVATION

Public Space Activation involves deliberate actions to enliven and optimize the use of public spaces. This includes organizing events, installations, and interactive elements that promote community interaction, cultural expression, and recreational activities.

Public Space Activation aims to enhance the vibrancy and overall appeal of public spaces.

Dupont Circle Jazz Concert Image Source: Office of Planning MERIDIAN by Cheryl Wing-Zi Wong Pennsylvania Avenue NW Pop-up Park

Image Source: Cheryl Wing-Zi Wong

PLACEMAKING

Placemaking involves creating places for people, focused on transforming public spaces to strengthen the connections within a community.

Placemaking is a process centered on people and their needs, aspirations, desires, and visions, which relies strongly on community participation.

Creative Placemaking: Ward 7 Play Stop Image Source: Office of Planning

> No Kings Collective 8th Anniversary Block Party on 14TH Street Image Source: Office of Planning

here, climb there,

PLACEKEEPING

Placekeeping is the active care and maintenance of a place by the people who live and work there. **Placekeeping** involves preserving the cultural memories associated with a locale, while supporting the ability of local people to maintain their way of life.

Placekeeping goes beyond the planning and design of public spaces. **Placekeeping** involves elements of partnership working, decision-making, design and management, policy, funding, and evaluation.



TACTICAL URBANISM

Tactical Urbanism involves the rapid, often low-cost transformation of public spaces. Initiatives like pop-up parks, street murals, and temporary installations are used to quickly test and demonstrate potential improvements.

Tactical Urbanism encourages collaboration, experimentation, and the exploration of innovative solutions to urban challenges. Boombench at Minnesota Avenue and Benning Road, NE Image Source: Office of Planning

> Ward 8 Infinity Beacon Image Source: Office of Planning

BUILT ENVIRONMENT

Built Environment refers to human-made structures that we live, work, and play in, ranging from buildings and infrastructure to parks and green spaces. The **Built Environment** plays a crucial role in shaping the city's appearance, functionality, and quality of life.

Canal Park in Capitol Riverfront Neighborhood Image Source: Sam Kittner Capitol Riverfront Neighborhood Image Source: washington.org 30

ARCHITECTURE

Architecture involves the design of buildings and other structures.

Architecture shapes the visual character and functionality of urban spaces, influencing how people interact with their environment.

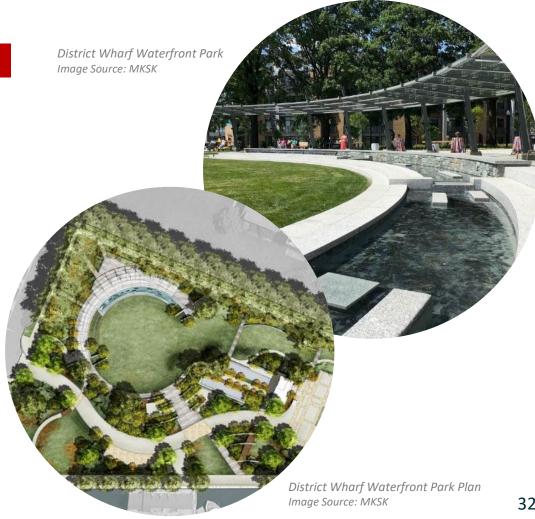
Architecture considers factors like building form, material, scale, and integration with the surrounding environment to achieve a cohesive and visually appealing urban fabric. International Spy Museum Architectural Diagram Image Source: ArchDaily

> International Spy Museum Image Source: ArchDaily

LANDSCAPE ARCHITECTURE

Landscape Architecture involves the planning, design, and management of outdoor spaces such as parks, public plazas, streetscapes, and trails.

Landscape Architecture involves creating functional and visually appealing environments that improve quality of life and environmental health.



DESIGN PROCESS

The design process typically consists of several stages:

Schematic Design: This phase generates initial design concepts and visualizes the project's broad direction.

Design Development: It refines the chosen concept, develops detailed plans, and addresses structural considerations.

Construction Documents: These documents translate the design into comprehensive, actionable plans for construction, ensuring compliance with regulations and guiding contractors. Schematic Design Drawing for Cleveland Park Library Image Source: Perkins Eastman/ DC Public Library

MACOMB GROVE

Schematic Design Floor Plan Drawing for Cleveland Park Library Image Source: Perkins Eastman/ DC Public Library

CHARRETTE

Charrette is an intensive collaborative workshop where designers, planners, community members, and government officials come together to brainstorm and develop design solutions for specific challenges.

A **Charrette** encourages active participation and collective decisionmaking, resulting in innovative and inclusive design concepts that guide further development and implementation. Southwest Community Workshop Image Source: Office of Planning

> Chevy Chase Community Meeting Image Source: Office of Planning

DESIGN GUIDELINES

Design Guidelines are a set of principles and standards that provide specific guidance for the physical aspects of urban development.

Design Guidelines outline recommended design approaches and criteria for various elements, including building design, site layout, streetscape, public spaces, and materials.

Design Guidelines aim to ensure consistency, quality, and compatibility with the existing urban fabric, historic context, and desired vision for the city.



DESIGN VISUALIZATION

Design Visualization involves using visual tools and techniques like drawings and 3D models to communicate design concepts for urban spaces.

Design Visualizations can include an illustrations or renderings and help stakeholders understand how proposed designs will look and feel, aiding decision-making and public engagement. Connecticut Avenue Visualization (Photo Simulation) in Chevy Chase Small Area Plan Image Source: Office of Planning

> Watercolor Rendering for Redevelopment in Chevy Chase Small Area Plan Image Source: Office of Planning

DESIGN ILLUSTRATION

Design Illustrations are visual representations or drawings that depict design concepts. They help communicate and visualize the intended design ideas to stakeholders and facilitate discussion and feedback during the design process.

2D illustrations include plans, elevations, sections, and diagrams.

3D illustrations include rendered images, computer-generated models, physical models, diagrams, or vignettes that show the design from different angles and perspectives.



RENDERING

Renderings are visual representations that depict how proposed projects or changes will look once implemented.

Renderings capture textures, lighting, materials, and landscaping, aiding stakeholders and the public in envisioning the project's final appearance.

Renderings play a crucial role in conveying design intent, supporting decision-making, and fostering engagement. Digital Rendering, Buzzard Point Vision Framework+ Design Review Guide Image Source: Office of Planning

> Watercolor Rendering, Chevy Chase Small Area Plan Image Source: Office of Planning