
USING THE GUIDELINES

Good design cannot be explicitly legislated, but it should not be left to chance either. The design guidelines for the Bassett Creek Valley are a tool that communicates the design vision and desired character for the area (see Figure C.1). They are intended to guide property redevelopment and rehabilitation and provide direction while leaving room for the kind of individual expression needed for a varied and dynamic urban experience.

Design guidelines:

- Define the relationship and transition between public and private spaces
- Define both design and environmental performance
- Build upon zoning requirements
- Could be used as a basis for development and rehabilitation proposal review
- Could be one of the determining factors in public financial participation

DESIGN GUIDELINES – WHERE DO THEY APPLY?

The design guidelines address both the public realm (streets & public spaces) and the private realm (yards and buildings). This is done because successful urban spaces have a certain synergy where the public and private realms interface and compliment each other. Therefore, they should be considered together, as two parts of the same whole.

Streets and Streetscape

Because streets occupy the most space within public realm they have a huge impact on how people experience a place. Different street types outlined in these guidelines provide functions for different types of users. Since streets are shared by parking

uses, pedestrians, cyclists, and through traffic the design guidelines do not deal exclusively with traffic flow but also concentrate on the equally important spatial and experiential aspects of a street. Specific issues addressed for each street type are: pedestrian circulation, amenities, parking lanes, landscaping, lighting, traffic calming, stormwater treatment and building frontage

Building Frontage

Frontage is the transition between the public and private. These guidelines address a variety of frontage types appropriate for the land uses and street types outlined in this plan. Issues addressed in frontage type are building style and how each style should address and interface with the public street.

Parking Areas

Parking areas are often the “touchdown point” for many visitors and because of their sheer size, they have tremendous impact on the character and quality of an area. Design guidelines consider placement, pedestrian movement, screening, lighting, and stormwater treatment are addressed.

Stormwater Treatment

The public stormwater system conveys stormwater and its associated pollution into Bassett Creek and the Mississippi River. These guidelines focus on strategies to integrate stormwater management into every aspect of development to overall reduce the amount of stormwater created. Strategies focus on restoring a more natural hydrology and include: reducing impervious surfaces; use of green roofs; pervious pavement; bioretention basins; NURP ponds and other storage devices.

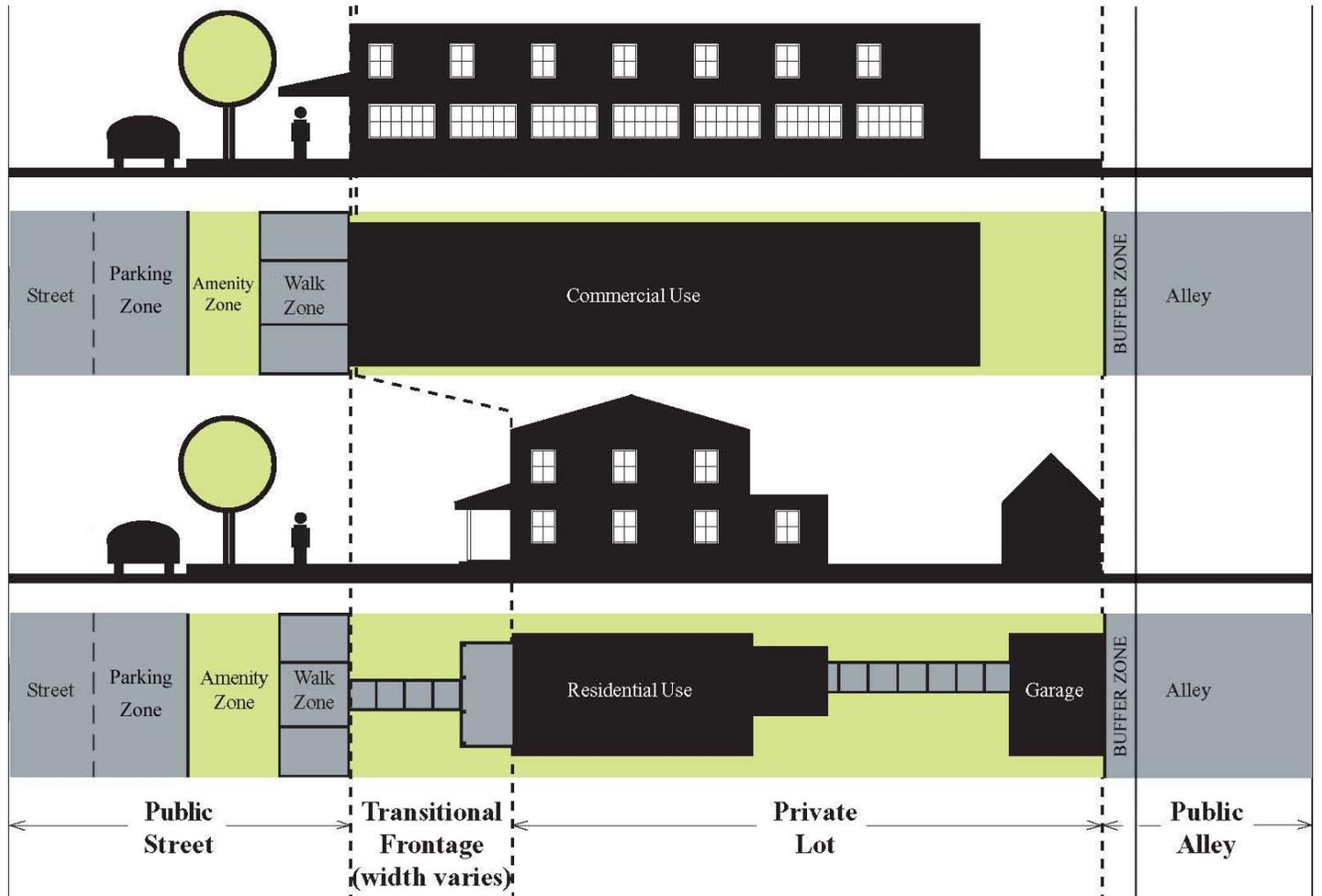


Figure C.1 Design Guidelines apply to public spaces and the transitional frontage between public and private zones.

Critical definitions:***Street Type***

There are numerous styles or types of streets suggested for Bassett Creek Valley (see the Street Type Diagram, Figure C.2). Each street type has its own set of design guidelines. Guidelines can be used by agencies and developers in guiding street design.

Frontage Type

Land uses suggested for Bassett Creek Valley can be organized into several styles of buildings. Descriptions of how various building styles & parking scenarios should address the public street are called frontage types.

Design Guideline Matrix

Suggests what range of frontage types are appropriate given the street type along which a property is located (see Figure C.3).

Directions:***For Building and Parking Design***

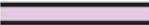
- Using the Street Type Diagram, determine street type on which parcel in question is located.
- Using the Guideline Matrix, select a frontage type appropriate to the building's use from among those allowed by street type.
- Consult design guidelines for direction about building and parking frontage design.
- Consult the Stormwater Treatment Guidelines for further explanation of design strategies suggested in the Frontage Types.

For Street Design

- Locate the street on the Street Type diagram to determine type.
- Consult design guidelines for direction about street and streetscape design.
- Consult the Stormwater Treatment Guidelines for further explanation of design strategies suggested in the Frontage Types.

STREET TYPE DIAGRAM

Legend

-  Commercial Corridor
-  Commercial Side Street
-  Office/Industrial Street
-  Residential Street
-  Parkway
-  Green Street
-  Greenway
-  Alley

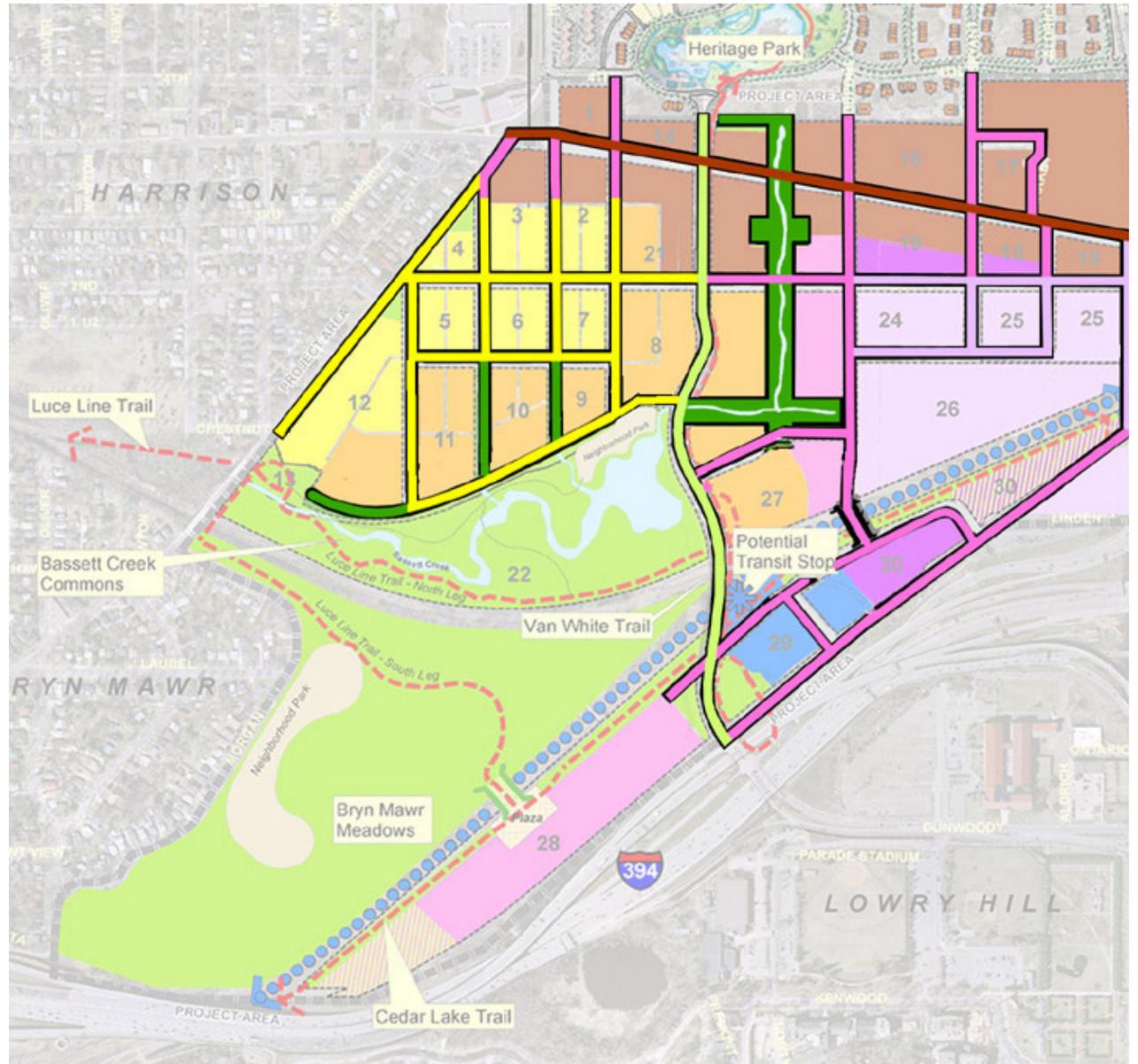


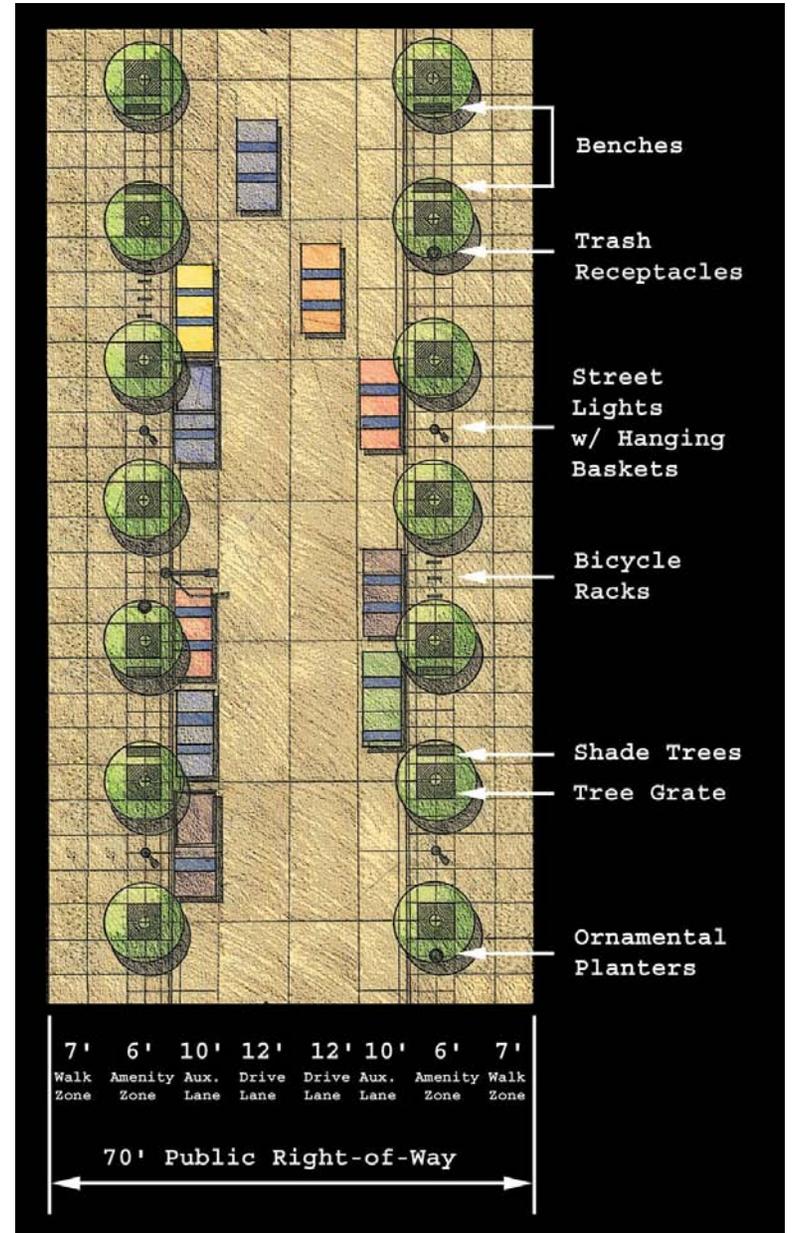
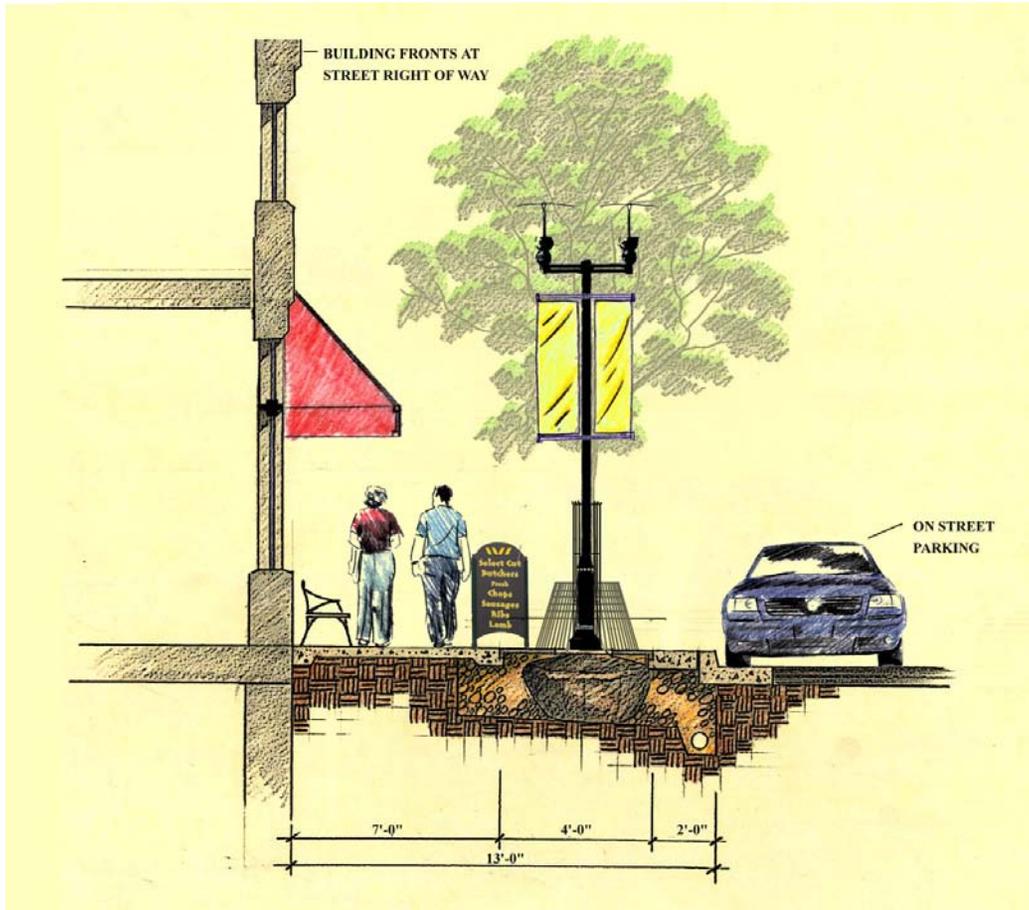
Figure C.2 Street Type Diagram

DESIGN GUIDELINE MATRIX

		FRONTAGES						
		Store Front	Door Yard	Front Yard	Common Yard	Garage	Parking Lot	Parking Garage
STREETS	Commercial Corridor	●						●
	Commercial Side Street	●	●				●	●
	Office/Industrial Street		●					
	Residential Street		●	●	●			
	Parkway	●	●		●			
	Green Street			●	●			
	Greenway		●		●			
	Alley					●	●	●

Figure C.3 Design Guideline Matrix

STREET TYPE - COMMERCIAL CORRIDOR



DESIGN GUIDELINES - COMMERCIAL CORRIDOR

Walk Zone

7-10 feet clear; paved surface of brick, stone or concrete; intermittent canopy from building awnings.

Amenity Zone

6-8 feet wide; paved surface of brick, stone or concrete; location for boulevard trees, street lights, landscape accents, kiosks, benches, bike racks, trash receptacles, parking meters, temporary store displays and café seating.

Parking Lane

To be located along entire length of street frontage; 8-12 feet wide; either dedicated parking lane or rush hour auxiliary drive lane.

Landscaping

Street trees planted in engineered soil with tree grates at roughly 60-foot spacing; hanging baskets and/or raised planter islands in accent areas.

Lighting

Ornamental light standards and “dark sky-friendly” fixtures with banner arms and receptacles and plant basket hangers in accent areas; system design and pole spacing for roadway and sidewalk illumination; use lamps with high quality color rendering and emerging energy saving technology; tree up-lighting in accent areas; install receptacles at base of street trees for holiday tree lighting.

Traffic Calming

Textured paving at crosswalks; parked cars; street trees.

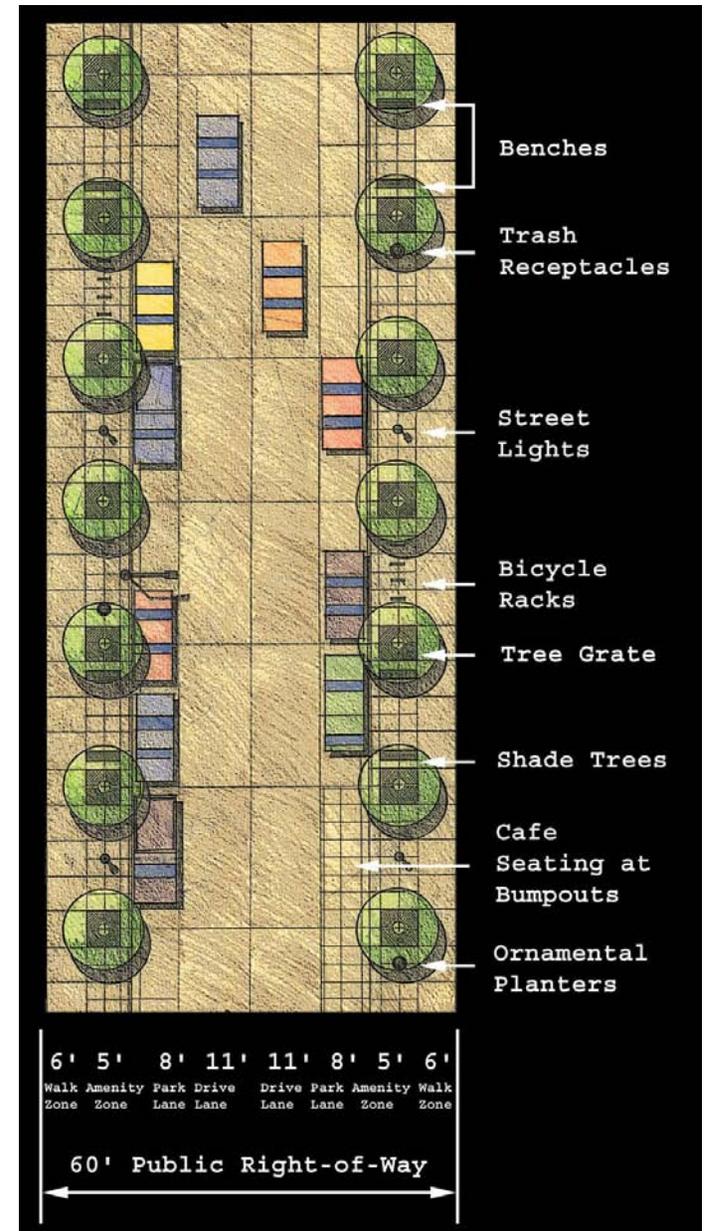
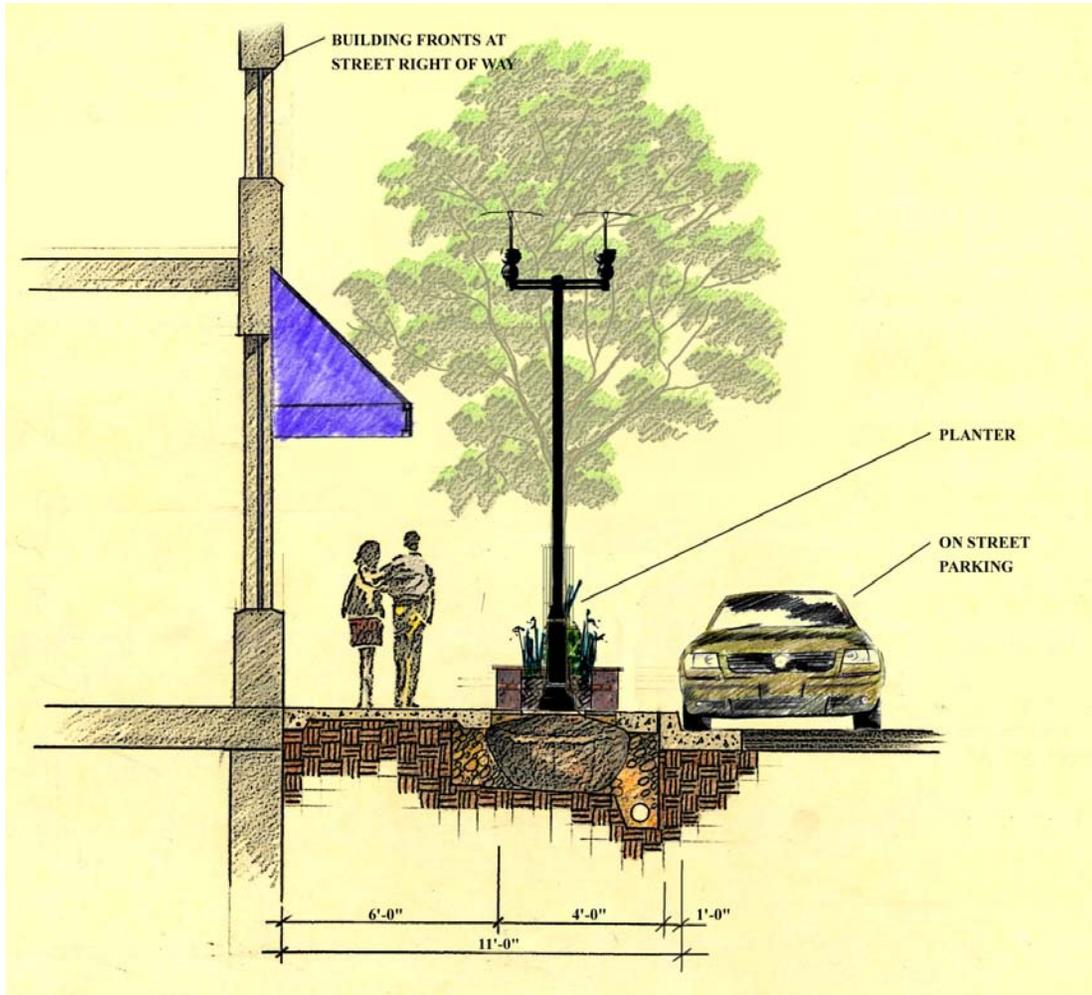
Stormwater

Pervious paving and infiltration trenches in amenity zones.

Building frontage extensions into streetscape zone (minimum 5-foot clear walk zone)

Café seating; sandwich sign boards; temporary merchandise displays; awnings cantilevered façade signs.

STREET TYPE - COMMERCIAL SIDE STREET



DESIGN GUIDELINES - COMMERCIAL SIDE STREET

Walk Zone

6-8 feet clear; paved surface of brick, stone or concrete; intermittent canopy from build awnings.

Amenity Zone

5-8 feet wide; paved surface of brick, stone or concrete; location for boulevard trees, street lights, landscape accents, kiosks, benches, bike racks, trash receptacles, parking meters, temporary store displays and café seating.

Parking Lane

To be located along entire length of street frontage; 8-foot wide dedicated parking lane.

Landscaping

Street trees planted in engineered soil with tree grates or landscaped planters at roughly 60-foot spacing; hanging baskets and/or raised planter islands in accent areas.

Lighting

Ornamental light standards and “dark sky-friendly” fixtures with banner arms and receptacles and plant basket hangers in accent areas; system design and pole spacing for roadway and sidewalk illumination; use lamps with high quality color rendering and emerging energy saving technology; tree up-lighting in accent areas; install receptacles at base of street trees for holiday tree lighting.

Traffic Calming

Textured paving at crosswalks; curb bump-outs at intersections; parked cars; street trees.

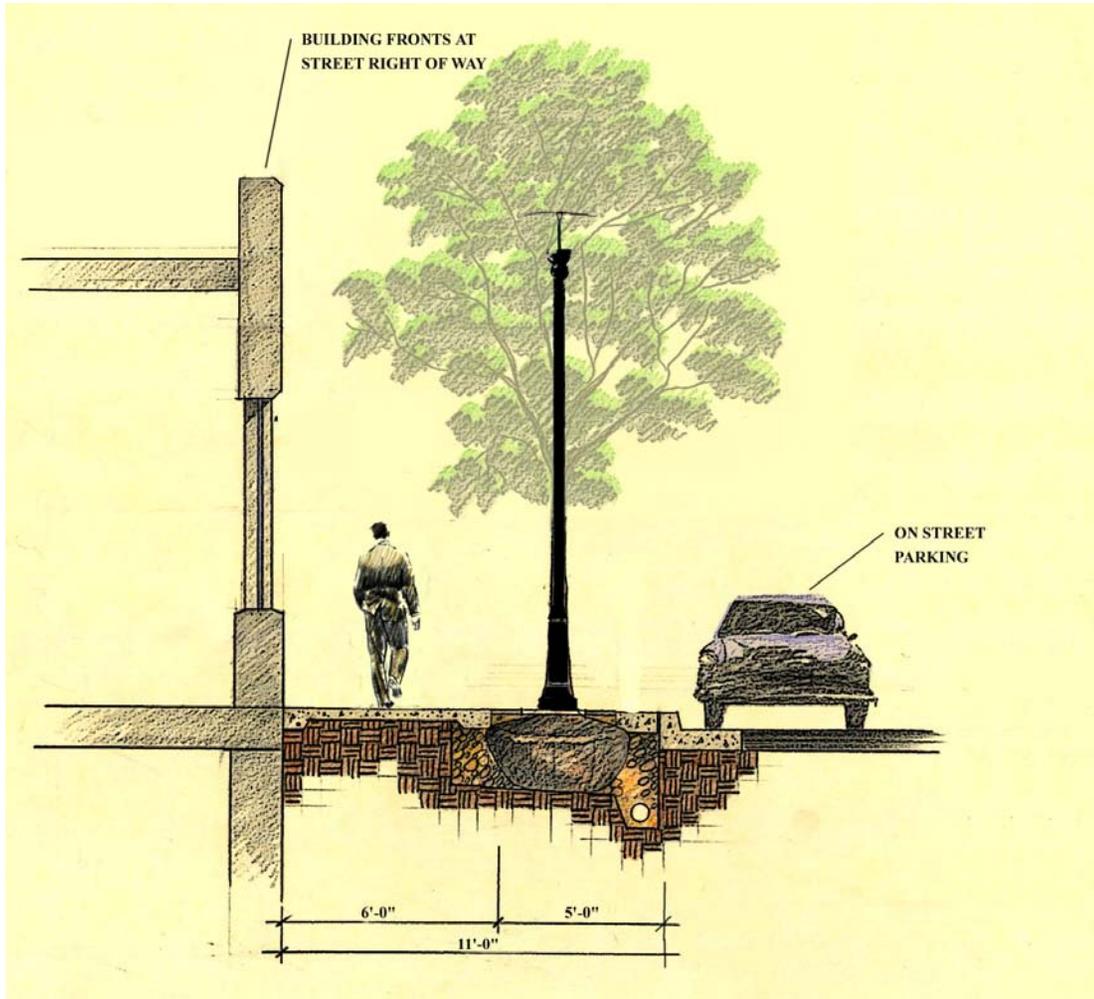
Stormwater

Pervious paving and infiltration trenches in amenity zones.

Building frontage extensions into streetscape zone (minimum 5-foot clear walk zone)

Café seating; sandwich sign boards; temporary merchandise displays; awnings cantilevered façade signs.

STREET TYPE - OFFICE / INDUSTRIAL STREET



DESIGN GUIDELINES - OFFICE / INDUSTRIAL STREET

Walk Zone

6 feet clear; paved surface of brick or concrete.

Amenity Zone

5-8 feet wide; tree lawn (turf) or paved surface of brick, stone or concrete; location for boulevard trees, street lights, landscaping, bike racks.

Parking Lane

To be located along entire length of street frontage; 8-foot wide dedicated parking lane.

Landscaping

Street trees planted at roughly 50-foot spacing.

Lighting

Ornamental light standards and “dark sky-friendly” fixtures with banner arms; system design and pole spacing for roadway and sidewalk illumination; use lamps with high quality color rendering and emerging energy saving technology.

Traffic Calming

Textured paving at crosswalks; parked cars; street trees.

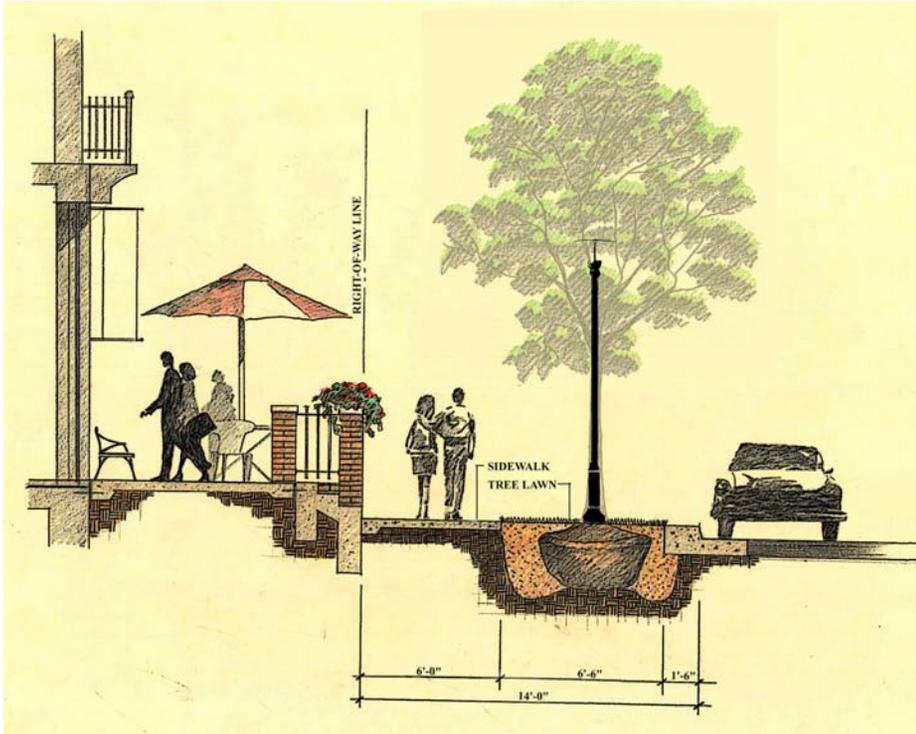
Stormwater

Rainwater gardens in amenity zones.

Building frontage extensions into streetscape zone (minimum 5-foot clear walk zone)

Awnings.

STREET TYPE - RESIDENTIAL STREET



Street Type - Multi Family Residential Street



Street Type - Single Family Residential Street



Street Type - Single Family and Multi Family Residential Street

DESIGN GUIDELINES - RESIDENTIAL STREET

Walk Zone

6 feet clear; paved surface of brick or concrete.

Amenity Zone

5-8 feet wide; tree lawn (turf); location for boulevard trees, street lights, landscaping.

Parking Lane

To be located along entire length of street frontage; 6-foot wide dedicated parking lane.

Landscaping

Street trees planted at roughly 32-foot spacing.

Lighting

Ornamental light standards and “dark sky-friendly” fixtures; system design and pole spacing for roadway and sidewalk illumination; use lamps with high quality color rendering and emerging energy saving technology.

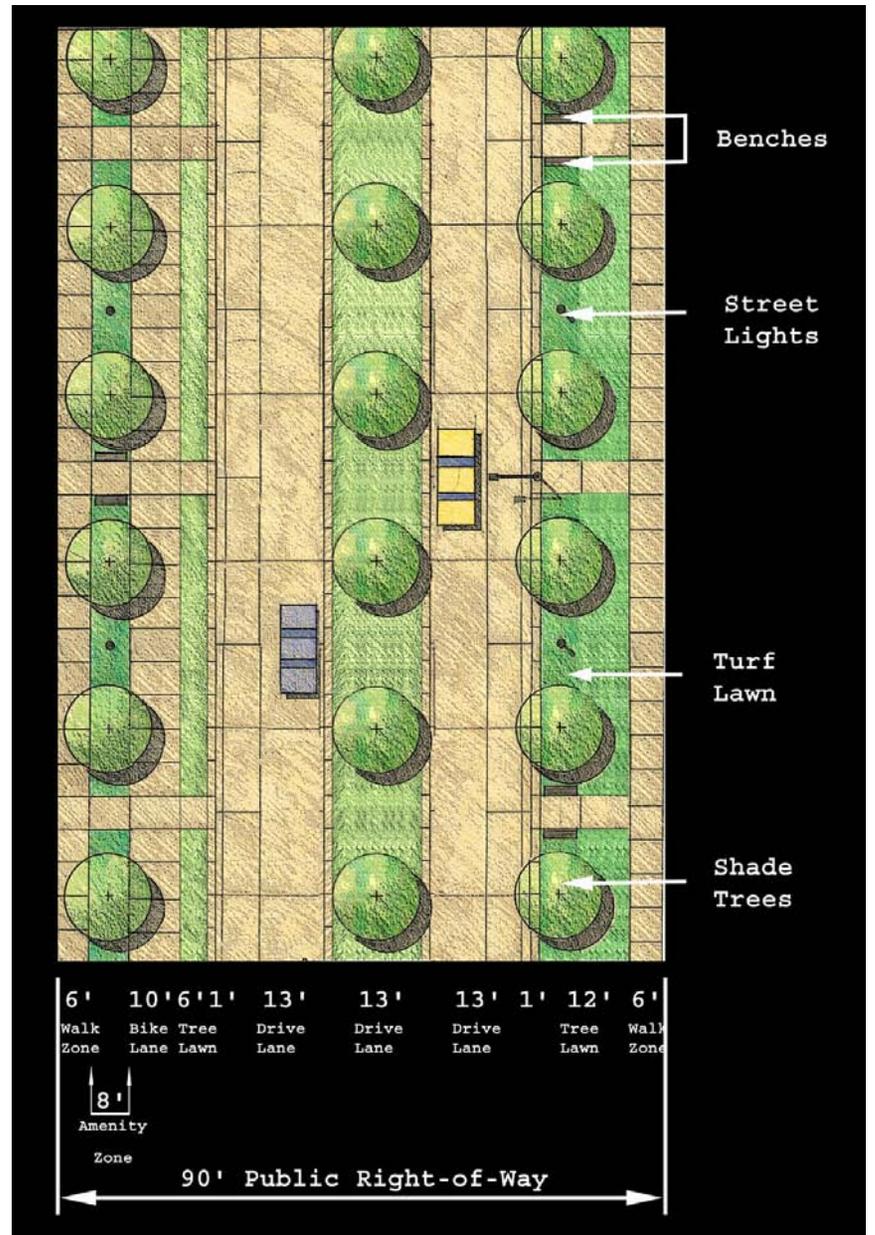
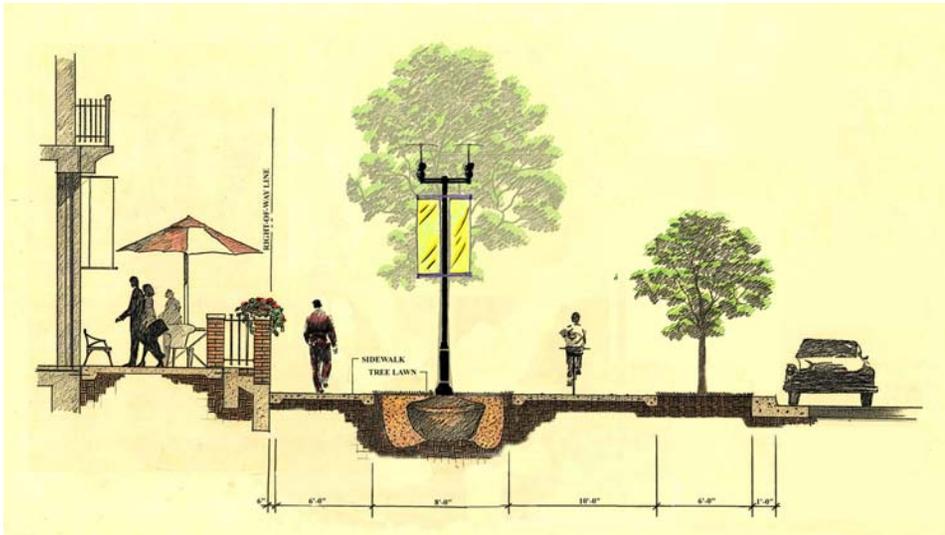
Traffic Calming

Textured paving at crosswalks; curb bump-outs at intersection and mid-block; parked cars; street trees.

Stormwater

Rainwater gardens in amenity zones.

STREET TYPE - PARKWAY



DESIGN GUIDELINES - PARKWAY

Walk Zone

6 feet clear; paved surface of brick or concrete.

Amenity Zone

8-12 feet wide; tree lawn (turf) in residential setting or in commercial setting use paved surface of brick, stone or concrete; location for boulevard trees, street lights, landscape accents, kiosks, benches, bike racks, trash receptacles, parking meters, temporary store displays and café seating.

Bike Lane

10 feet clear; paved surface of asphalt or concrete.

Landscaping

Street trees planted in engineered soil with tree grates or landscaped planters at roughly 32-foot spacing in residential setting and 60-foot spacing in commercial setting; hanging baskets and/or raised planter islands in accent areas.

Lighting

Ornamental light standards and “dark sky-friendly” fixtures with banner arms and receptacles; with plant basket hangers in commercial areas; system design and pole spacing for roadway, sidewalk and trail illumination; use lamps with high quality color rendering and emerging energy saving technology; tree up-lighting in commercial areas; install receptacles at base of street trees for holiday tree lighting.

Traffic Calming

Textured paving at crosswalks; street trees.

Stormwater

Rainwater gardens, pervious paving and infiltration trenches in amenity zones.

Building frontage extensions into streetscape zone (minimum 5-foot clear walk zone)

Café seating; sandwich sign boards; temporary merchandise displays; awnings cantilevered façade signs.

STREET TYPE & DESIGN GUIDELINES - GREEN STREET

Walk Zone

Two corridors - 6 feet clear and 12 feet clear; paved surface of brick or concrete.

Amenity Zone

35-45 feet wide lawn and landscaping; location for boulevard trees, street lights and benches.

Landscaping

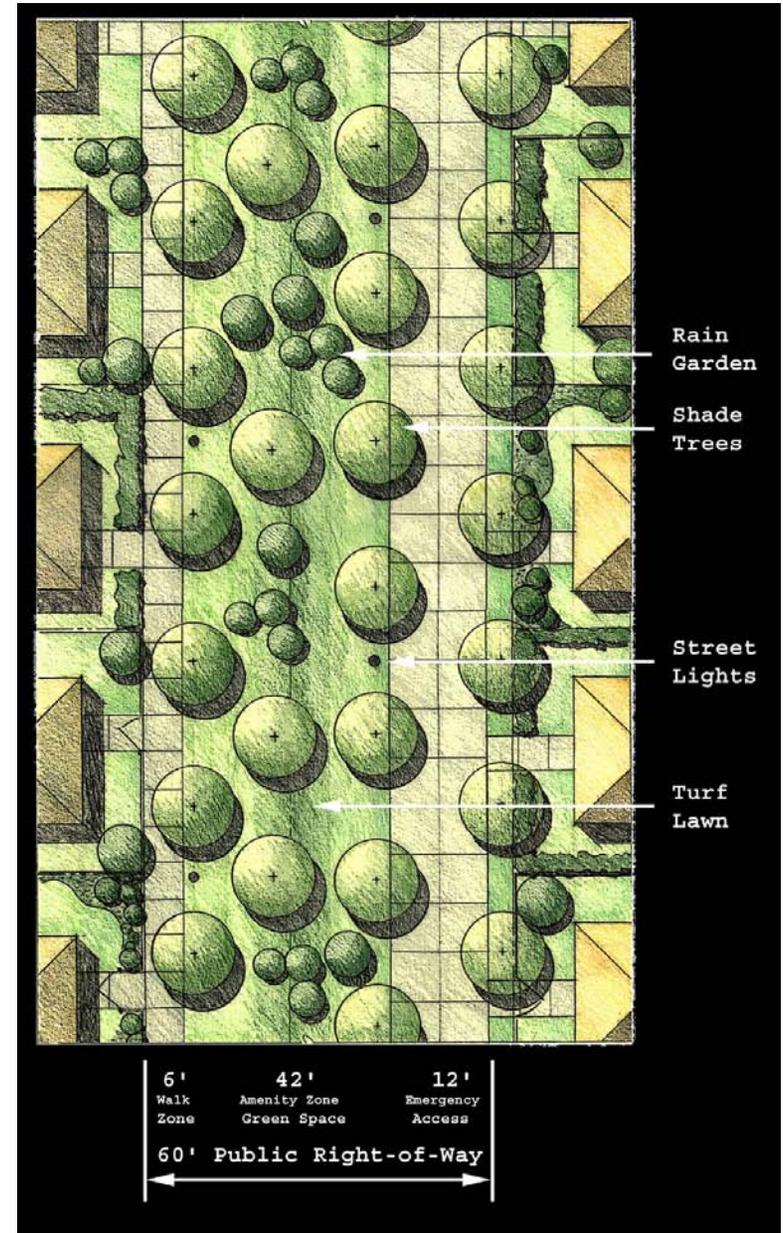
Street trees planted at roughly 32-foot spacing; landscaping accents for space definition.

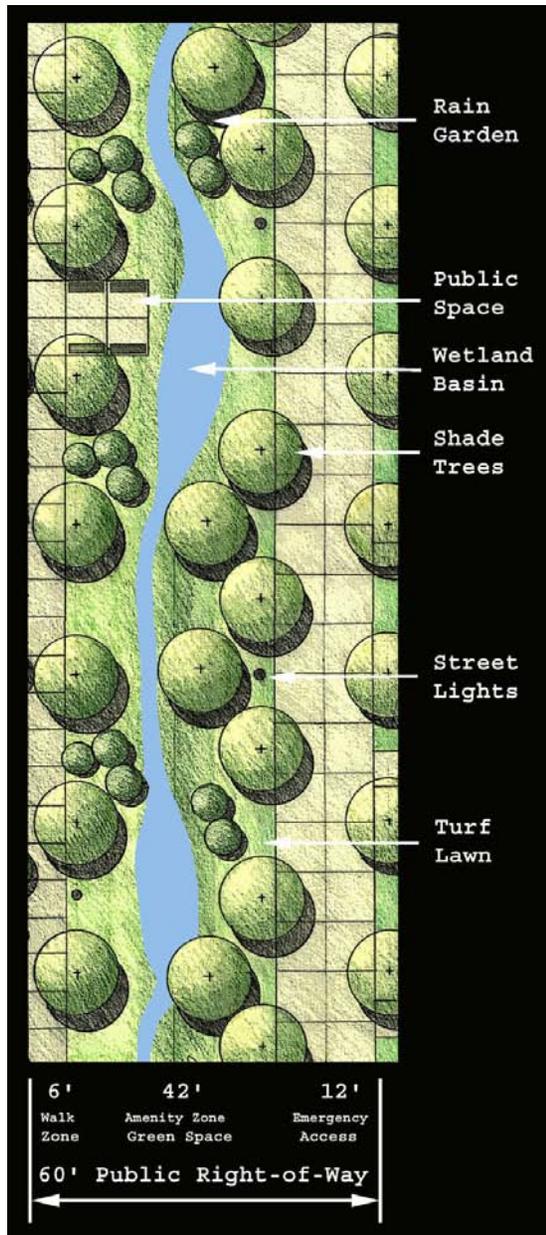
Lighting

Ornamental light standards and "dark sky-friendly" fixtures; system design and pole spacing for sidewalk and turf area illumination; use lamps with high quality color rendering and emerging energy saving technology.

Stormwater

Rainwater gardens, pervious paving and infiltration trenches.





STREET TYPE & DESIGN GUIDELINES - GREENWAY

Walk Zone

Two corridors - 6 feet clear and 12 feet clear; paved surface of brick or concrete.

Amenity Zone

35-60 feet wide lawn, landscaping and creek feature; location for benches, trash receptacles and café seating.

Landscaping

Trees, landscaping and creek shoreline plantings.

Lighting

Pedestrian-scale “dark sky-friendly” fixtures; system design for sidewalk illumination and space security; use lamps with high quality color rendering and emerging energy saving technology.

Stormwater

Rainwater gardens, pervious paving and creek feature.

Building frontage extensions into plaza zone

Café seating; temporary merchandise displays; awnings cantilevered façade signs.



STREET TYPE & DESIGN GUIDELINES - ALLEY

Amenity Zone

3-5 feet wide, landscaped buffer between garages/carriage house and alley pavement; dumpster enclosures.

Landscaping

Flowers, low shrubs, groundcovers and vines in buffer.

Lighting

No public lighting but wall sconces encouraged on garage walls facing alley.

Stormwater

Rainwater gardens in buffer, pervious alley paving.



FRONTAGE TYPE & DESIGN GUIDELINES - STORE FRONT

General Description

A building frontage designed for merchandising, dining and service retail types of uses at street level where the public is invited to enter. Upper stories may duplicate street level uses or may be other uses such as residential or office. The goal of this frontage type is to create a vibrant, energized and penetrable building frontage that creates interaction with the streetscape visually with transparent windows and physically with building architecture and uses that “spill” out onto the streetscape.

Building Placement and Bulk

Frontage to touch adjacent sidewalk (zero-foot front and side-yard build-to-lines); height minimum 2 stories; upper stories could be set back (bulk reduction) along street frontage or at back of building to create rooftop garden spaces.

Architectural Elements

Frontage to reinforce an architectural cadence along the street with spacing of vertical supports or columns at regular intervals; street-level frontage to be mostly transparent and visually capped with a protruding lintel; frontage to be creative reflection of traditional storefront/façade elements such as street-level display and transom windows, regularly spaced upper-story windows, columns, lintel and cornice; windowless frontages are not acceptable.



Building Entry

Building architecture should highlight entries; entries to be recessed or framed by sheltering elements; doors to be mostly transparent.

Lighting and Signage

Building façade lighting and signage should contribute to the streetscape composition and be an artistic statement about the business or building represented; signage to be sized and oriented for passing pedestrians and vehicles and generally readable at not more than 1-block distance; signs and lighting oriented to skyline viewing (at building tops) are not appropriate; pylon signs are not appropriate; back-lit box or back-lit awning signs are not appropriate.

Materials

Frontage materials should convey integrity, durability and innovation; materials should possess depth of interest at close range; selections should be made with the assumption that the building will have a life of more than a century.

Environmental Considerations

LEED building certification; Green roofs; pervious paving, rainwater gardens, infiltration trenches and tree canopy in parking areas.

- *Building uses support sidewalk life*
- *Human scale building fronts*
- *Diversity of building fronts*
- *Pedestrian scale lighting*
- *Awnings as sidewalk roof*
- *Street trees*
- *At grade entry*
- *Retail on ground floor*
- *Plenty of display window*
- *Outdoor seating provided*
- *Merchandise on display*
- *Zero building setback*
- *On-street parking shields pedestrians from traffic*

- Human scale building elements
- Pedestrian scale lighting
- Street Trees
- Shallow urban yard
- Semiprivate garden or paved patio
- Entries visible from street
- Entry is recessed and sheltered by balcony
- Raised elevation for privacy
- Primary living spaces face street and receive sunlight
- 8-12 foot building setback
- Low street wall or fence
- On-street parking shields pedestrians from traffic

FRONTAGE TYPE & DESIGN GUIDELINES - DOOR YARD

General Description

A building frontage designed for higher-intensity residential use varying from townhomes to high rises and corner service retail or dining. This frontage encourages a narrow transition zone (door yard) from public sidewalk to private entries and building heights that are lower closest to the street and may step up farther back. The goal of this frontage type is to create a human-scale residential building frontage that contributes to a lively streetscape, allows for private outdoor spaces between the streetscape and building façade and also allows for higher urban densities.



Building Placement and Bulk

Frontage to be set back 8-12 feet from adjacent sidewalk; zero-foot side yard build-to-line; height range of 2½ - 4½ stories within 30 feet of adjacent sidewalk (bulk-reduction area) and no limitation beyond; bulk-reduction area could have pitched roofs or rooftop gardens.

Architectural Elements

Door yard area to be usable space by adjoining residence or commercial use and separated from public sidewalk by a 3-5 foot transparent barrier of decorative fencing, hedge or knee wall; building facade to contain a range of architectural relief such as box-outs, bay windows, porches etc.; architecture and material selection to provide variety in frontage character; main-level interior residential spaces along frontage to be public living spaces such as living rooms and great rooms; frontage to be creative reflection of traditional urban residences with some commercial corners; windowless frontages are not acceptable.

Building Entry

Building entry should be considered a transitional experience from public to private space rather than a door between outside and in; an entry gate or gateway to be at or near the public walk; dooryard to be garden or patio space; doorways to be raised above the sidewalk elevation 3-5 feet; doorway stoops to be sheltered from the elements.

Lighting and Signage

Building façade lighting and signage should contribute to the streetscape composition and be an artistic statement about the building or commercial establishment represented; pedestrian-scale fixtures to compliment adjacent streetscape lighting; system designed for walkway illumination and security; use lamps with high quality color rendering and emerging energy saving technology. Building marques and commercial signs to be low-key and sized for passing pedestrians and vehicles and generally readable at not more than ½-block distance; signs and lighting

oriented to skyline viewing (at building tops) are not appropriate; pylon signs are not appropriate; back-lit box or back-lit awning signs are not appropriate.

Materials

Frontage materials should convey integrity, durability and innovation; materials should possess depth of interest at close range; selections should be made with the assumption that the building will have a life of more than a century.

Environmental Considerations

LEED building certification; green roofs; front setback and parking areas to contain pervious paving, rainwater gardens, infiltration trenches and tree canopy.



- *Human scale building elements*
- *Pedestrian scale lighting*
- *Street Trees*
- *Landscaped garden or turf lawn*
- *Private yet welcoming from the street*
- *Entries visible yet covered by porch or portico*
- *Raised elevation for privacy*
- *Low fence or hedge to increase privacy*
- *Primary living spaces face street and receive sunlight*
- *25' building setback*
- *8' minimum porch depth*
- *On-street parking shields pedestrians from traffic*

FRONTAGE TYPE & DESIGN GUIDELINES - FRONT YARD

General Description

A traditional, single-family residential frontage. The goal is to create a low-intensity residential building frontage with surrounding yard that contributes to a quiet, tree-lined street. This frontage can be used in combination with a carriage house unit on the same lot with frontage on an alley.

Building Placement and bulk

Set building facade back 25-30 feet from adjacent sidewalk; front porch or entry canopy set within setback zone; five-foot side yard setbacks; house footprint to be less than 1/3 of the lot area; main floor to be 2-5 feet higher in elevation than public sidewalk.

Architectural Elements

Front yard to be landscaped lawn area; front porch or entry canopy is encouraged; porches to be open to the outdoors with a minimum 7-foot depth for functionality; entry walkway to connect public sidewalk with front door; building facade to contain a range of architectural relief such as eaves, bay windows, porches etc.; architecture and material selection to provide variety in frontage character; main-level interior residential spaces along frontage to be public living spaces such as living rooms and great rooms; frontage to be creative reflection of traditional homes; windowless frontages are not acceptable.

Building Entry

Building entry should be considered a transitional experience from public to private space rather than a door between outside and in; front door to be sheltered from the elements by porch or canopy; stairs or ramps from the public sidewalk to the front porch heighten the sense that one is entering a private residence.

Materials

Frontage materials should convey integrity, durability and innovation; materials should possess depth of interest at close range; selections should be made with the assumption that the building will have a life of more than a century.

Environmental Considerations

LEED building certification; front yards to contain rainwater gardens, infiltration trenches and tree canopy.



FRONTAGE TYPE & DESIGN GUIDELINES - COMMON YARD

General Description

A traditional residential frontage for attached housing that blends well with the Front Yard frontage type. This frontage is the same as the Front Yard frontage with exception to the lack of side yards. The goal is to create a low-intensity residential building frontage with surrounding yard that contributes to a quiet, tree-lined street. This frontage can be used in combination with carriage house units on the same parcel with frontage on an alley.

Building Placement and Bulk

Set building facade back 25-30 feet from adjacent sidewalk; front porch or entry canopy set within setback zone; house footprint to be less than 1/2 of the lot area; main floor to be 2-5 feet higher in elevation than public sidewalk.

Architectural Elements

Front yard to be landscaped lawn area; front porches or entry canopies are encouraged; porches to be open to the outdoors with a minimum 7-foot depth for functionality; entry walkway to connect public sidewalk with front door; building facade to contain a range of architectural relief such as eaves, bay windows, porches etc.; architecture and material selection to provide variety in frontage character; main-level interior residential spaces along frontage to be public living spaces such as living rooms and great rooms; frontage to be creative reflection of traditional homes; windowless frontages are not acceptable.

Building Entry

Entry should be considered a transitional experience from public to private space rather than a door between outside and in; front door to be sheltered from the elements by porch or canopy; stairs or ramps from the public sidewalk to the front porch heighten the sense that one is entering a private residence.

Materials

Frontage materials should convey integrity, durability and innovation; materials should possess depth of interest at close range; selections should be made with the assumption that the building will have a life of more than a century.

Environmental Considerations

LEED building certification; front yards to contain rainwater gardens, infiltration trenches and tree canopy; paved parking and driveway areas to use pervious pavement.



- *Human scale building elements*
- *Pedestrian scale lighting*
- *Street Trees*
- *Garden or lawn with no fences or hedges in-between*
- *Entire bloc as communal front yard*
- *Diversity of building widths and heights*
- *Raised elevation for privacy*
- *Low landscaping to soften building facades*
- *Primary living spaces face street and receive sunlight*
- *25' building setback*
- *On-street parking shields pedestrians from traffic*

- *Human scale building elements*
- *Pedestrian scale lighting*
- *Alley provides vehicle and service access to buildings*
- *Attached and detached garages allowed*
- *Accessory units up to 600 sf allowed on single family lots larger than 5,000 sf*
- *Screen views of trash cans with 6' high fence or hedge*
- *3' minimum landscaped buffer in alley right-of-way*
- *Accessible from alley only - no driveways to street*

FRONTAGE TYPE & DESIGN GUIDELINES - GARAGE

General Description

A garage is an enclosed parking area with alley access that may have living units above. In the case of single-family lots, garages are freestanding structures at the back of lots. In the case of attached-family living units, garages could either tuck under the main living unit or be a separate structure from the living unit. Carriage house units above garages offer a unique housing alternative as well as a great way to bring added life to an alley street type. The goal is to create attractive and secure parking as well as contribute to the quality of an alley setting.

Building Placement and Bulk

In combination with front yard and common yard frontages, the garage build-to line is 3-5 feet from alley and the maximum structure frontage is 50% of lot width. In combination with door-yard frontage, garages may tuck under primary structure with a rear-yard setback of 20 feet; detached garage height should not exceed one level of living space above garage.

Architectural Elements

Building facades visible from alley to contain a range of architectural relief such as eaves and dormers; architecture and material selection to provide variety in frontage character; detached garages to be a creative reflection of primary structure; paved walkway should connect front walkway to carriage house units; driveway accessing garages should be sized to accommodate parked vehicle; setback area between alley and garage to be garden space and trash enclosure.

Building Entry

Garage doors of detached garages should face the side yard; pedestrian door into detached garage and doorway to living units above garages should face yard and should be canopied; garage doors of tuck-under units should be recessed at least 5 feet from the building face; garage doors should be fenestrated with raised or windowed panels.

Lighting

System designed for alley and driveway illumination and security; use lamps with high quality color rendering and emerging energy saving technology.

Materials

Frontage materials should convey integrity, durability and innovation; materials should possess depth of interest at close range; materials should compliment those used in primary structure on the lot.

Environmental Considerations

LEED building certification; setback areas to contain rainwater gardens; paved parking and driveway areas to use pervious pavement.



FRONTAGE TYPE & DESIGN GUIDELINES - PARKING LOT

General Description

Surface parking (typically for commercial or industrial uses) abutting a public street or alley.

Placement

Parking lots and their driveway entries are to be in side or rear yard; parking in front yard is not appropriate. A minimum 8-foot landscaped buffer is to be placed between parking area and public street or alley.

Layout

Design with parking aisles parallel to main pedestrian flow; in cases where pedestrian flows cross the grain, provide designated pedestrian routes and marked pedestrian crossings in drive aisles;

Landscaping

Perimeter landscaping to form an opaque screen between zero and three feet in height, general transparency between four and seven feet in height and tree canopy above eight feet in height; landscaping interior to the parking lot to be clustered into meaningful landscape areas of not less than roughly 200 square feet in area; roughly 1/3 of paved surface to be covered by tree canopy when trees are calculated at 2/3 mature size.

Lighting

Ornamental light standards and “dark sky-friendly” fixtures; system design and pole spacing for illumination of auto and pedestrian spaces; use lamps with high quality color rendering and emerging energy saving technology.

Stormwater

Pervious paving, infiltration trenches and rainwater gardens.



- *Human scale to dimensions*
- *Pedestrian scale lighting*
- *Accessible from alley only - no driveways to street*
- *Located to side or rear of building - not in front*
- *Share facilities to minimize area of impervious surface*
- *Landscaped walkways to building entries*
- *Landscaped buffer along sidewalk to separate vehicles and pedestrians*
- *Trees to provide shade*
- *Vegetated areas infiltrate stormwater runoff*

- *Human scale building elements*
- *Pedestrian scale lighting*
- *Accessible from alley only - no driveways to street*
- *Retail on ground floor with parking above*
- *Share facilities to minimize the number of parking stalls*
- *Connection from garage to street level*

FRONTAGE TYPE AND DESIGN GUIDELINES - PARKING GARAGE

General Description

A building frontage designed for above-ground structured parking. This frontage will most often be used in combination with the storefront and door yard frontages. This frontage encourages parking garages to be visually and functionally integrated with the surroundings.

Building Placement and Bulk

Frontage to match placement and bulk of adjacent buildings it serves; wherever possible, wrap garage with a street-level liner of retail or housing;

Architectural Elements

Garage to be designed with the same architectural treatment as the adjacent buildings it serves; frontage to reinforce an architectural cadence along the street with spacing of vertical supports or columns at regular intervals; sloping ramps within the parking structure are to be creatively masked from street view.

Building Entry

Vehicle entries to appear as courtyard entries that pierce building frontage; pedestrian entries to be at the streetscape and recessed or framed by sheltering elements; pedestrian doors to be mostly transparent.

Lighting and Signage

Building façade lighting and signage should contribute to the streetscape composition and be an artistic statement; signage to be sized and oriented for passing pedestrians and vehicles and generally readable at not more than 1-block distance; signs and lighting oriented to skyline viewing (at building tops) are not appropriate; pylon signs are not appropriate; back-lit box or back-lit awning signs are not appropriate.

Materials

Frontage materials should convey integrity, durability and innovation; materials should possess depth of interest at close range;

Environmental Considerations

LEED building certification; Green roofs.



DESIGN GUIDELINES - STORMWATER TREATMENT

Definitions

Best management practices (BMP) – Best Management Practices in the context of stormwater are a combination of management, cultural, and structural practices that are recognized by a broad spectrum of agencies to control erosion, prevent sedimentation, and protect the quality of downstream water bodies and groundwater.

Filtration – Filtration is the act of passing stormwater through vegetation or a granular media to capture sediment, nutrients, and metals; this typically does not reduce the total volume of runoff.

Flood Attenuation – This is the process of temporarily detaining storm runoff in a stable location in order to protect vulnerable downstream facilities.

Hydrodynamic Separator – These are either single or two-unit underground structures in which stormwater, via storm sewer pipes, flow through a settling or separation unit that removes sediment and other pollutants associated with stormwater. The energy of the flowing water drives the system, and therefore, no outside power source is required.

Infiltration – Infiltration occurs when stormwater seeps into the soil and enters the groundwater table. Infiltration not only provides the benefits of filtration but also reduces runoff volumes.

Low Impact Development (LID) – Low Impact Development is a comprehensive land planning and engineering design approach with a goal of maintaining and enhancing the pre-development hydrologic regime of urban and developing watersheds. Basic principles include:

- Conserve natural features
- Minimize impervious surfaces

- Minimize amount of runoff entering storm sewers
- Disburse runoff
- Biological remediation of environmental contamination

NURP Pond – This typically refers to a pond with a permanent pool of water that has a surface area equal to 1 – 3% of the watershed area and a permanent storage volume capable of achieving 90% removal of total suspended solids. NURP stands for the Nationwide Urban Runoff Program.

Runoff Reduction – Methods used to reduce the total amount, or volume, of stormwater leaving a given site. This can be accomplished by the reduction of hard surfaces, encouraging infiltration, and by the use of native vegetation.

Rate control or rate attenuation – Methods used to control the rate at which stormwater leaves a given site; these typically do not reduce the total volume of runoff.

TSS – Total suspended solids.

Treatment Train – A stormwater treatment train is a combination of BMPs that are laid out in series to manage the volume, rate, and quality of stormwater flowing through and departing from a site, each BMP performing a different treatment function.

Urban Heat Island - The urban heat island effect is the overheating of urban and suburban areas, relative to the surrounding countryside, due to increased pavement and hard surface areas.

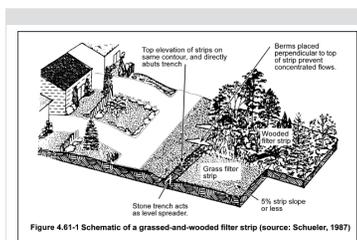


Rainwater Gardens capture runoff from small storms, promote infiltration, and are an attractive amenity in any landscape.

DESIGN PRINCIPLES

Stormwater management will be an integrated aspect of the Bassett Creek Redevelopment Plan. The goal is to integrate a variety of strategies, techniques, and innovations that will:

- Meet or exceed the requirements of the Bassett Creek Watershed Management Commission (BCWMC), the City of Minneapolis's stormwater ordinance, and NPDES Phase II for stormwater quality and quantity;
- Incorporate water quality devices and runoff reduction practices within residential blocks and smaller redevelopment parcels;
- Incorporate water quality, runoff reduction practices, and, where feasible, flood control measures within larger redevelopment parcels that have a campus setting;
- Provide rate attenuation to preserve existing storm sewer systems within the redevelopment parcels, where feasible;
- Typically manage flood control on a regional basis, accepting peak discharges from the individual blocks via planned overflow routes;
- Have developments analyze their hydraulic loading to ensure that the resulting flood potential is not worse than existing condition;
- Reinforce the historic corridor of Bassett Creek;
- Respond to site constraints of contamination and poor soils such that stormwater treatment practices do not exacerbate the effects of the those conditions on their surroundings;
- Use the forms and methodologies for stormwater management similar to those in Heritage Park while responding to specific needs and issues of the parcels in the project area.



DESIGN STRATEGIES

Minimize impervious surfaces

Reducing the amount of impervious surface reduces the amount of stormwater runoff that will need to be managed by treatment devices. Wherever possible, runoff from impervious surfaces and roof gutter systems of new construction should be directed onto landscaped areas or other pervious surfaces to allow for some degree of infiltration, filtration, and rate attenuation.

Green roofs

A green roof is a multilayered, constructed material consisting of a vegetative layer, growing media, a geotextile layer, and a synthetic drain layer. Green roofs are highly effective in reducing total runoff volume by reducing the percentage of impervious surface. Recent studies also indicate that green roofs can reduce the “Urban Heat Island Effect” (plant transpiration and evaporation of retained stormwater lowers air temperatures and soil and vegetation absorbs and re-radiates less heat than conventional stone, tar, or shingle roofs).

Pervious/permeable/porous pavement

Systems are commonly made up of a matrix of concrete blocks or a plastic web-type structure with voids filled with sand, gravel, or soil. These voids allow stormwater to infiltrate through the pavement into the underlying soil. These can be more expensive than traditional pavement, but costs are typically offset by reduction in curb, gutter, and storm sewer costs. These are most appropriate for low-volume vehicular traffic areas or for pedestrian areas.

Bioretention basins

Rain gardens, bioswales, and the like are used as stormwater treatment for small storms (runoff from a 1.25-inch rainfall is typical) to remove TSS, nutrients, heavy metals, oil, and grease. These should be incorporated as feasible on lots with new construction; a covenant describing their purpose and maintenance will need to be included with all property sales.

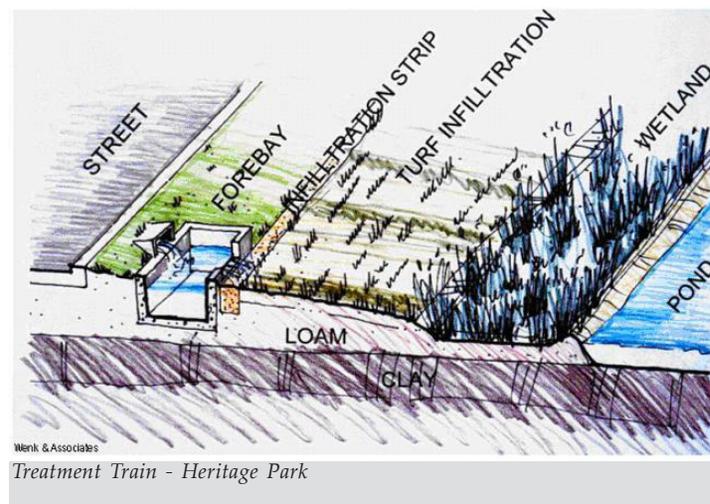
Wherever possible point discharges from parking areas and streets should be eliminated via level spreaders or by encouraging sheet flow. A filter strip should also be used to reduce sediment loading into the basin.

Alternative storage devices

Some parcels could selectively choose to incorporate underground or above ground cisterns as part of the treatment train to store water for future irrigation needs of lawns and landscaped areas. If not used in conjunction with a bioretention basin, then a hydrodynamic separator should be used upstream to eliminate sedimentation within the cistern.

NURP ponds

Include traditional wet detention ponds that meet BCWMC's criteria to provide additional water quality treatment. The design of the ponds should incorporate enough active pool to also provide flood attenuation for the tributary area.



Pervious Pavement



Fig. 12 – Vancouver Public Library Green Roof
Vancouver, British Columbia, Canada
Photograph courtesy of Hydrotech



Green Roof



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