

Mission Rock

Design Controls



MISSION ROCK

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DESIGN
CONTROLS

DRAFT 09/12/17





MISSION ROCK

DESIGN CONTROLS

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MISSION ROCK DESIGN DOCUMENTS

The Design Controls (DC) comprise the second document in a set of five documents which together describe the requirements for the development of Mission Rock.



MISSION ROCK VISION AND DESIGN INTENT

This document contains the big picture thinking and aspirations that will guide the process for the design and implementation of Mission Rock.

CHAPTERS:

1. Vision
2. Context
3. Design Intent
4. Frameworks



MISSION ROCK DESIGN CONTROLS (DC)

This document guides the development of the open spaces, streets, and buildings at Mission Rock. The DC ensures that the site will be developed in a way that is consistent with the project vision.

CHAPTERS:

1. Land Use
2. Public Realm
3. Streets
4. Open Spaces
5. Ground Floor
6. Building Form
7. Building Design



MISSION ROCK

SUSTAINABILITY STRATEGY

MISSION ROCK SUSTAINABILITY STRATEGY

This document outlines targets for site-wide performance and explains how the infrastructure, buildings, and community will work together to achieve these targets, in a way that is consistent with the DC.

CHAPTERS:

1. Adaptability & Resilience
2. Water
3. Energy
4. Transportation
5. Waste Reduction
6. Health & Wellness
7. Sustainable Materials
8. Habitat & Ecosystem Function
9. Community Identity
10. GHG Emission Assessment



MISSION ROCK

INFRASTRUCTURE PLAN

MISSION ROCK INFRASTRUCTURE PLAN

This document regulates the complex coordination of streets, utilities, and services at Mission Rock. It ensures a holistic and integrated approach with the design of the landscape, buildings, and sustainability strategies.

CHAPTERS:

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Introduction 2. Sustainability 3. Environmental Remediation 4. Site Demolition 5. Site Resiliency 6. Geotechnical Condition 7. Site Grading 8. Street And Transportation Infrastructure 9. Open Space & Parks | <ol style="list-style-type: none"> 10. Utility Layout And Separations 11. Low Pressure Water System 12. Sanitary Sewer System 13. Storm Drain System 14. Auxiliary Water Supply System 15. Central Utility District Infrastructure 16. Stormwater Management System 17. Dry Utility Systems |
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MISSION ROCK

TRANSPORTATION PLAN

MISSION ROCK TRANSPORTATION PLAN

This document describes the ways in which the site will be designed to support the mobility choices of all users, with a special emphasis on safe and comfortable conditions for pedestrians and cyclists.

CHAPTERS:

1. Introduction
2. Project Context
3. Getting Around at Mission Rock
4. Transportation Demand Management
5. Event Management

CHAPTER SUMMARY

LAND USE

01 LAND USE

The first chapter of these Design Controls (DC) explains the permitted land uses at Mission Rock, and how the district will achieve a diverse, balanced mix of uses that activate the site around the clock.

PUBLIC REALM

02 PUBLIC REALM

This chapter identifies key site-wide concepts and requirements that will govern the interconnected network of open spaces and streets at Mission Rock. Founded on the Mission Rock Vision, these controls frequently reference the Mission Rock Infrastructure and Transportation Plans and the Sustainability Strategy. All open spaces, shared streets, and streetscapes must satisfy the requirements of this chapter in addition to the specific requirements described in Chapters 3 and 4.

03 OPEN SPACE

This chapter describes the open space relationships, qualities, and functions that are essential to creating a unique, vibrant, urban open space network. The parks, plazas, and paths at Mission Rock will provide a comprehensive variety of recreational opportunities to the district, city, and region. This chapter also governs kiosks and park structures. Each open space in this chapter must satisfy its specific requirements, as well as the Public Realm requirements described in Chapter 2.

04 STREETS

This chapter describes the requirements for streets that will prioritize pedestrians and cyclists. This chapter, together with the ground-floor controls, describe the character and design of the urban experience at Mission Rock's unique shared streets, paseos, and lively, walkable neighborhood streets. Each street in this chapter must satisfy its specific requirements, as well as the Public Realm requirements described in Chapter 2.

BUILDINGS

05 GROUND FLOOR

This chapter contains the set of standards and guidelines which control the design of the ground floor of all blocks. The ground floor of each building will be designed in coordination with the design development of the streets, open spaces and adjacencies, so as to describe the way that each ground floor engages with the street or open space within Mission Rock. It also describes the controls for the day-to-day servicing and loading functions of buildings at Mission Rock.

06 BUILDING DESIGN

Chapter 8 describes the design requirements for buildings above the ground floor. This chapter is rich with reference images to illustrate and support the standards and guidelines, and convey the level of quality and attention for both residential and commercial buildings which Mission Rock aims to achieve.

07 BUILDING FORM

This chapter controls the look of each building which is defined as having two parts: the Base Building and the Upper Building. It describes the requirements for maintaining the streetwall at the base building, and for shaping the upper building. It also describes height requirements for both the base and the upper building.

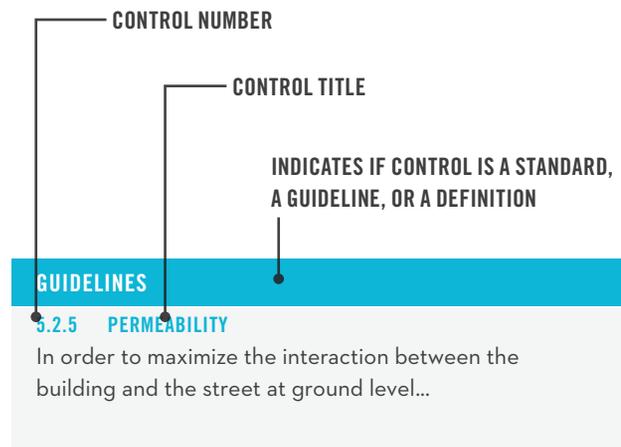
APPENDIX

A APPENDIX: BLOCK CONTROLS

This appendix has been provided as a summary of controls for each block. While this summary is meant to be a helpful tool, satisfying only the controls described in the Block Standards alone does not constitute compliance with this DC.

DESIGN CONTROLS (DC) USER GUIDE

This Design Controls (DC) document describes the comprehensive set of design criteria of Mission Rock for developers, designers, and permitting agencies.



ABOVE: A sample guideline. Throughout the document, each control item is listed under a subheading which indicates that it is a Standard or a Guideline. All of the controls are numbered by Chapter number first, and have a title which explains the subject of the control.

All of the design controls contained in this document are made up of two levels of regulation: Standards and Guidelines.

Standards are typically quantifiable so that compliance can be measured and easily demonstrated. In some cases Standards are not quantifiable but are nonetheless mandatory. Any deviation from Standards requires discretionary approval from the appropriate public agency, as detailed in the Special Use District and transactional approval documents.

Guidelines are also mandatory, but are generally more qualitative or performance-based, and can be more difficult to measure. As applied to a specific development proposal, one Guideline might potentially be in conflict with another or there may be a circumstance or compliance strategy that was not contemplated when the Guidelines were drafted. Alternatively, the sponsor may find an appropriate, alternative approach that meets the intent of the Design Controls, or, for example, may establish that deviation results on a better design or more sustainable development. Each development submittal is expected to comply with Guidelines unless the project sponsor can establish that there is a justification for a deviation based on the application of the Guidelines to a specific project, and that with the deviation, the project will continue to meet the intent of the Design Controls and Vision Document.

Embedded in every set of controls is an explanation of the purpose or intent, so that a developer, designer, or reviewing agency will be able to understand the goal behind each standard or guideline.

In addition to standards and guidelines, there are also definitions included in some chapters. These definitions are specific to Mission Rock, and give further clarification to the standards and guidelines to which they apply.

In every case, the Mission Rock Vision and Design Intent acts as the foundation for all design decisions at Mission Rock. The development of any space or building designed for this site should hold the pursuit of Mission Rock's vision as it's central objective.

01

LAND USE

The Land Use chapter explains the permitted land uses at Mission Rock, and how the district will achieve a diverse, balanced mix of uses that activate the site around the clock.

Land Use controls for the Mission Rock neighborhood are intended to allow for an intense mix of uses on individual blocks and throughout the site.

Office buildings will bring people who occupy the site's streets and parks during the daytime, while residences will bring a vital population who continually inhabit the site into the evenings and on weekends. Space for production will allow for the past uses of the working waterfront to continue on in place.

Each street shall be lined with uses specifically chosen to bring interest, activity and variety to the pedestrian realm, including shops, cafes, entertainment venues,

community spaces, and working waterfront uses. The result will be an urban neighborhood that is rich with the diversity of people that it serves and variety of experiences it creates.

The requirements for creating an active ground floor are explained in their own chapter of this DC - Chapter 5: Ground Floor, which outlines controls for use, size, and design of the Ground Floor of each block and how it fits into a site-wide pedestrian experience.

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1.2	Land Use Categories	12
1.3	Land Use Controls	14

RELATED CHAPTERS: This chapter is frequently referenced in chapter 5: ground Floor.

1.1 LAND USE PLAN

Primary Uses

Distributing a mix of uses across the site is a key strategy in creating a vibrant, round the clock neighborhood. The land use plan ensures that each open space will be fronted by a mix of uses to create activity from diverse users throughout the day and into the evening.

Figure 1.1 - Land Use Plan indicates the required minimum amount of a primary use for each block. Within each of these blocks, a mix of uses at the ground level is required - incorporating retail, active uses, and production. For guidance on uses specific to ground floor frontages see *Chapter 5: Ground Floor*.

PRIMARY USES

- Residential Mixed Use
- Commercial Mixed Use
- Flex (Residential MU or Commercial MU)
- Active, Production and District-Serving Utility
- Structured Parking
- Open Space

Also see Figure 5.5 - Ground Floor Frontage Zones for land uses required for the ground floor frontage of each block.



FIGURE 1.1 - Land Use Plan

Ground Floor Frontages

The intersection between the public realm and the ground floor of a building defines the street-level experience of the site. Each building frontage at Mission Rock has a role to play in the activation of the streets and open spaces. *Figure 5.5 - Ground Floor Frontages* shows the way that the frontage of each building will participate in the creation of a variety of ground floor experiences throughout Mission Rock, which are directly related to the character of the streets or open spaces they face.

Chapter 5 describes each of these zones in detail, as well as the design elements that support this relationship between the building and the public realm. *Table 5.5 - Ground Floor Frontage Zone Controls* provides a compiled summary of the controls for each zone.

GROUND FLOOR FRONTAGES

- High Retail Zone
- Parkfront Zone
- Working Waterfront Zone
- Neighborhood Street Zone

Zones are illustrative and not to scale; for minimum depth dimensions see Table 5.5 - Ground Floor Frontage Zone Controls.



FIGURE 5.5 - Ground Floor Frontages

1.2 LAND USE CATEGORIES

The categories here describe the intent for the various land uses that are permitted at Mission Rock. These land uses and the ways they can combine within the different blocks at Mission Rock are controlled by the Land Use Controls listed in Section 1.3.

The Special Use District for Mission Rock includes additional details regarding Mission Rock Land Uses. In the event of any conflict between the SUD and the Design Controls, the SUD governs, and should be consulted for additional detail. The list of uses described here is for summary purposes only; please see the SUD and the Land Use Chart in Appendix C for a full use of permitted uses.

DEFINITIONS

1.2.1 RESIDENTIAL

All types of residential uses falling under the Residential Use category shall be permitted. This includes dwelling units, group housing, residential hotels, homeless shelters, live/work units, senior housing, single room occupancy units, and student housing.

1.2.2 COMMERCIAL

Commercial Uses include all commercial, non-retail uses (Office, Non-Retail Sales and Services, and Institutional Uses) that are permitted in Mission Rock, except as otherwise excluded in Appendix C and the SUD.

1.2.3 HOTEL

Hotel is considered a subset of Retail Uses within Mission Rock, except as otherwise provided below. It refers to a use which provides tourist accommodations including guest rooms or suites, which are intended or designed to be used, rented, or hired out to guests (transient visitors) intending to occupy the room for less than 32 consecutive days. Hotels shall be designed to include all lobbies, offices and internal circulation to guest rooms and suites within and integral to the same enclosed building or buildings as the guest rooms or suites.

Hotel uses are considered a subset of the Residential use category for purposes of location, building form, building design and design controls, with the exception of the following:

- ▶ Hotels shall be exempt from dwelling unit exposure, and usable open space requirements.
- ▶ For the purposes of signage, hotels shall be considered a business or commercial use.
- ▶ For the purposes of bike parking ratios and showers and lockers requirements, hotels shall be considered a retail use.

Up to 300 keys may be developed at Mission Rock on Blocks where Residential Uses are permitted, and Hotels shall be considered a Residential Use for purposes of calculating the 60%/40% ratios described in Section 1.3.

1.2.4 RETAIL

Retail Uses shall generally include the uses that fall under Retail Sales and Services, and Entertainment, Arts, and Recreation categories, except as otherwise excluded in Appendix C and the SUD.

Retail generally means uses that provide goods and/or services to the general public such as , services, restaurants, bars, and entertainment venues, florists, book stores, car rental, etc. Neighborhood-serving uses which enhance the livability of the neighborhood, such as grocery stores, and self-service laundromats are also strongly encouraged.

Any use that is not generally open to the public, such as a company cafe which is only for employees is not considered a retail use.

Within areas designated for retail use, the following non-retail active uses are allowed:

- ▶ Building lobbies are allowed, so long as they do not exceed the maximum dimensions given in Table 5.5 - Ground Floor Frontage Zone Controls.
- ▶ Because childcare centers desire adjacency to open space, and spaces at Mission Rock that front directly onto open space are required to be retail uses, child care centers may also be located within retail use zones.

While retail may be required at the ground floor in certain locations, it is also allowed in the floors above.

DEFINITIONS

1.2.5 ACTIVE USES

An "active use" shall mean any use that by its nature does not require non-transparent walls facing a public street or involves the storage of goods or vehicles.

Spaces accessory to residential uses, such as fitness or community rooms, are considered active uses only if they meet the intent of this section and have access directly to the public sidewalk or street.

Building lobbies for other uses are allowed, so long as they do not exceed the maximum dimensions given in *Table 5.5 - Ground Floor Frontage Zone Controls*.

While active uses may be required at the ground floor at certain locations, they are also allowed in the floors above.

1.2.6 PRODUCTION

Production includes Industrial and Agricultural uses, except as otherwise excluded in Appendix C and the SUD. Production shall mean those spaces where goods are produced or fabricated. This can include the creation of handicrafts, art, consumable goods, clothing, furniture, equipment, and so on.

This use zone can also include uses that are accessory to production such as: retail, restaurant, office, and educational uses. Up to 33% of a single user area can be allocated to such accessory uses, subject to meeting the additional accessory use requirements of the SUD and the Planning Code.

The allowance of accessory uses is intended to create an environment where production uses can be public-facing, but are not to be the primary use of the production space. For example, a "winery" which only sells wine and does not produce wine on site is not considered a production use.

Catering, butchery, breweries, and other types of preparation of consumable goods for off-site sale, or limited on-site sale is consistent with the intent of the definition of production.

1.2.7 OPEN SPACE

Open Space blocks at Mission Rock shall be developed as public and publicly accessible open space. This land use can also contain programmatic elements that support recreation and leisure activities. Refer to Chapter 3: Open Space for detailed controls on programming.

A limited number of small structures may be built within Open Space zones, such as food or equipment rental kiosks, for the purpose of activating these spaces. The controls regulating the development locations and design of these kiosks and lightweight structures are outlined in *Section 3.8 - Kiosks and Lightweight Structures*.

Open Space zones may also include temporary uses which directly support public recreation and leisure activities and serve to activate the open space.

See the SUD, DDA and DA for more details on permitted uses, including temporary and interim uses, within areas designated for Open Space use within Mission Rock.

1.2.8 PARKING

Surface parking lots are not permitted at Mission Rock except on a temporary or interim basis, or as an existing use, as described in the SUD, DA and DDA documents.

There are two types of parking structures allowed at Mission Rock:

- Off-street parking spaces are permitted at the Parcel D2 parking garage or a combination of the Parcel D2

parking garage and a below grade parking garage beneath Mission Rock Square (controls are described in *Section 7.7 - Parking Structure*)

- Off-street parking in individual buildings (controls are described in *Section 7.6 Off-Street Parking*)

Stand-alone, above grade structured parking is not a permitted use except on Block D2, where the Parking Structure is located.

1.2.9 OTHER USES

Other uses include Community Recycling Center, Open Recreation Area, Passive Outdoor Recreation, Public Transportation Facility, Utility Installation (District-Serving Utility Installation only) and Wireless Telecommunications Services Facility.

District-Serving Utility Installations

A district-serving utility and infrastructure use that includes, but is not limited to a central utility plant or graywater treatment and distribution plant. These uses are described under the category of "Other" permitted uses in Mission Rock in the SUD.

This use must be contained within the envelope of a building, with the exception of cooling or venting structures, which must be properly screened (for screening requirements, see *Section 7.2.4 - Mechanical Equipment* and *Section 7.2.6 - Mechanical Screening*).

Those elements of the system which are located on the roof must comply with the height, screening, and general design requirements for sustainable infrastructure described in *Section 7.2.5 - Roofscapes*.

1.3 LAND USE CONTROLS

Land use at Mission Rock is controlled at the block scale to ensure a minimum mix of uses throughout the site and facing each open space. Residential and commercial buildings take on different forms, and the mix of uses at the site has taken into consideration the form of these different buildings and their ability to add variety to the public realm, the way they combine to frame views to and through the site, and the way they will allow sunlight and views to open space.

While each block is given a primary use (residential or commercial) with a minimum amount of that use required, any number of other uses can combine within the building to create an intensely mixed use district. For example, a Residential Mixed Use building that provides the minimum amount of residential required can also include commercial uses, a central utility plant, retail, and other active uses at the ground floor.

STANDARDS

1.3.1 PERMITTED USES

All use categories listed within these Design Controls are permitted unless expressly excluded.

The intent is that these permitted uses be interpreted broadly, with the intent to allow for uses that might not yet exist but that are consistent with the general classes of uses permitted under each category.

Primary permitted uses are: Residential, Commercial, Retail, Production, and Other Uses as defined in Section 1.2 Land Use Categories and further elaborated in the Land use Chart in Appendix C. Hotel, Active Uses, Open Space, Parking and District-Serving Utility Installation are uses that are described in more detail in Section 1.2 as either (1) subsets of permitted uses within another land use category with unique characteristics, or (2) uses that are permitted within certain Blocks.

1.3.2 GROUND FLOOR USES

The ground floor of every building shall contain a mix of Retail, Production, and/or Active Uses as described in Chapter 5: Ground Floor.

1.3.3 RESIDENTIAL MIXED USE

On Blocks primarily designated as Residential Mixed Use, at least 60% of the gross square footage of the Buildings above the ground floor in each Block shall consist of Residential Uses. The minimum 60% requirement shall be considered cumulatively on each subject Block, starting with the first Vertical Improvement on the Block. No Vertical Improvement or change of use may be approved if it causes the gross square footage on the Block as a whole, considering all existing and approved uses on

the Block, to fall below 60% Residential Uses. Once the minimum for this primary use is satisfied, any number of additional permitted uses are allowed.

1.3.4 COMMERCIAL MIXED USE

On Blocks primarily designated as Commercial Mixed Use, at least 60% of the gross square footage of the Buildings above the ground floor in each Block shall consist of Non-Residential Uses. The minimum 60% requirement shall be considered cumulatively on each subject Block, starting with the first Vertical Improvement on the Block. No Vertical Improvement or change of use may be approved if it causes the gross square footage on the Block as a whole, considering all existing and approved uses on the Block, to fall below 60% Non-Residential Uses. Once the minimum for this primary use is satisfied, any number of additional permitted uses are allowed.

1.3.5 FLEX USES

Blocks H, I, and J are indicated as “Flex” blocks, which means they can be developed as either Residential Mixed Use or Commercial Mixed Use. Development on these Blocks must follow the appropriate set of Building Design guidelines and standards for whichever land use is applicable, as set out in Chapter 7: Building Design.

1.3.6 TEMPORARY, INTERIM, NON-CONFORMING AND ACCESSORY USES

Temporary, interim, non-conforming and accessory uses are described in the SUD.

PUBLIC REALM

CHAPTER 2: PUBLIC REALM	CHAPTER 3: OPEN SPACE	CHAPTER 4: STREETS
2.1 An Inclusive Public Realm 18	3.1 Open Space Network 44	4.1 Street Controls 78
2.2 Street Typologies 20	3.2 China Basin Park 46	4.2 Shared Public Way 80
2.3 Pedestrian Circulation + Accessibility 22	3.3 Mission Rock Square 48	4.3 Terry A Francois Boulevard 90
2.4 Vehicular + Bicycle Circulation 24	3.4 Channel Lane 66	4.4 Bridgeview Street 98
2.5 Loading, Servicing, + Parking 26	3.5 Channel Wharf 68	4.5 Exposition Street 104
2.6 Materials: Paving + Site Elements 28	3.6 Pier 48 Apron 70	4.6 Long Bridge Street 108
2.7 Urban Forest 30	3.7 Channel Street 72	4.7 3rd Street 112
2.8 Sustainable Water Systems 34	3.8 Kiosks + Small Park Structures 74	4.8 Mission Rock Street 116
2.9 Lighting + Nighttime Identity 36		
2.10 Wayfinding 38		
2.11 Public Art 40		



The public realm of Mission Rock will be a vital link in San Francisco’s waterfront open space, a dynamic addition to the Mission Bay neighborhood, and a foundational aspect of the new district. The public realm, land use, and building strategies will work in concert to create a safe, inviting, and sustainable landscape, providing a diversity of experiences that will enrich the city at multiple scales.

02

PUBLIC REALM

The public realm will be a network of special, distinct open spaces and lively, pedestrian-oriented streets. A unique component of the plan will be the introduction of more intimate spaces across the site to support active and vital streetlife. The integrated combination of public realm experiences and active ground-floor building design and uses will create an inviting and memorable urban district.

The key public realm features of Mission Rock will be China Basin Park, situated on China Basin at the mouth of Mission Creek as it enters the Bay; Mission Rock Square, the heart of the neighborhood; the Shared

Public Way, an active retail spine that will connect through the neighborhood to the waterfront; Channel Lane, an intimate open space that will link Mission Rock Square to the Bay edge; Channel Wharf, which will serve active maritime use and public access to the bay; and the Working Waterfront (Terry A Francois Boulevard), a unique urban waterfront experience that will encompass the actively used piers and provide pedestrian and bicycle waterfront access via the Blue Greenway. These features will be connected by generous pedestrian and bicycle circulation. Chapter 2 describes how these places and experiences will be unified at Mission Rock.

2.1	An Inclusive Public Realm	18
2.2	Street Typologies	20
2.3	Pedestrian Circulation + Accessibility	22
2.4	Vehicular + Bicycle Circulation	24
2.5	Loading, Servicing, + Parking	26
2.6	Materials: Paving + Site Elements	28
2.7	Urban Forest	30
2.8	Sustainable Water Systems	34
2.9	Lighting + Nighttime Identity	36
2.10	Wayfinding	38
2.11	Public Art	40

RELATED CHAPTERS: The design of each open space and street described in Chapters 3 and 4 must satisfy the requirements of this chapter. This chapter should be read with Chapter 5: Ground Floor to describe intended integration of the public realm and vertical development. These controls occasionally refer to Chapter 7: Building Design.

2.1 AN INCLUSIVE PUBLIC REALM

Together, Mission Rock’s open spaces and streets will create a unique neighborhood comprised of varied places and landscape types -- an inclusive, urban, and active district that welcomes and facilitates a variety of uses and activities.

The Chapter 2 Public Realm controls prescribe and characterize elements that must be coordinated across the entire network of streets and open spaces. These elements include the various aspects of a vibrant public realm – paving and site elements, the urban forest, stormwater management, wayfinding, lighting, and public art – that will characterize Mission Rock’s public spaces.

Each open space, shared street, and neighborhood street must satisfy the controls in Chapter 2 to comply with the Mission Rock DC document and with the project’s goals for the public realm.

The public realm will function socially, programmatically, and ecologically, with consideration for climate responsiveness, resiliency, and resource conservation. Suitable plant species will be selected and sustainable maintenance regimes devised to maintain the ecological health and aesthetic integrity of the public realm network.

Please note: illustrative material in this document does not represent a design proposal. All illustrative material is included to demonstrate one potential application of the controls herein.





KEY PUBLIC REALM LOCATIONS AND CORRESPONDING DC CHAPTERS:

-  Chapter 3: Open Space
-  Chapter 4: Shared Streets
-  Chapter 4: Streets
-  Chapter 4: Paseos

FIGURE 2.1.1 Location Plan of Public Realm streets and open spaces and their chapter locations in this DC document.

*NIC = Not In Contract. Please refer to Glossary.



2.2 STREET TYPOLOGIES

While anchored by its open spaces, the public realm at Mission Rock will be activated by social life that will occur as much in its streets as in its parks.

Mission Rock will include several complementary street typologies that create a variety of different experiences for different visitors, from residents and workers to families visiting on a weekend afternoon to ballpark event crowds. These varied street types facilitate different speeds of moving, from an afternoon stroll to a morning bicycle ride to work.

Streets at Mission Rock will be pedestrian- and bicycle-friendly, with generous sidewalks, narrow vehicular travel lanes, and no on-street parking, to discourage unnecessary vehicular traffic and to create a feeling of pedestrian priority. Street types and designs will conform to the intent of the Better Streets Plan.

Every opportunity will be taken in the public realm to create moments that support varied social interactions, especially in each street's Streetlife Zone. This area will add to Mission Rock's civic vitality and retail activity. "Street Rooms" - intimate social spaces within streetscapes that are characterized by their small scale and special materials - as well as stormwater gardens that have both aesthetic value as small urban gardens and ecological value as stormwater treatment facilities, will provide a fine grain to the street network as places for people.

STANDARDS

2.2.1 STREET TYPOLOGIES

Several unique street types with distinctive character, planting, traffic speed, and streetlife elements shall comprise the Mission Rock street network. See Figure 2.2.1 for the distribution of these typologies across the site.

A) Definitions

- ▶ **Shared Public Way:** Pedestrian-oriented, shared street with one-way traffic, curbless.
- ▶ **Working Waterfront:** Shared street with two-way traffic that integrates industrial and maritime uses with the Bay Trail/Blue Greenway; flush curbs.
- ▶ **Neighborhood Street:** Streets with generous sidewalks, stormwater treatment gardens, and slow traffic; vehicular travelway curb-separated from sidewalk; must include sharrows or standard bicycle lanes.
- ▶ **Paseo:** Paseos, or open spaces within the ROW that accommodate emergency vehicles, will be non-vehicular street extensions of the Shared Public Way, Bridgeview Street, and Terry Francois Boulevard adjacent to China Basin Park. See Section 2.4.
- ▶ **District Street:** Streets referencing OCII Mission Bay design standards on edge of plan area.

2.2.2 STREETLIFE ZONE: REQUIREMENTS + ELEMENTS

A) Streetlife Elements: Definition

Streetlife Elements, including street rooms, kiosks, stormwater treatment gardens, and social furniture, shall be distributed throughout the public realm and concentrated in streets with the highest pedestrian traffic. Also see Chapter 4 and refer to the Glossary.

B) Streetlife Elements: Consistency

Streetlife elements shall have related character, scale, and intention along the length of a single street or within an Open Space, but are not required to be identical unless noted within the controls for that particular place.

C) Stormwater Garden Activation

Stormwater Gardens on the Shared Public Way, Bridgeview Street, Exposition Street, and Long Bridge Street shall contain or be adjacent to seating.

D) Temporary Kiosks

Kiosks located within Streets or Open Spaces, except in the locations noted in Section 3.8, shall be temporary. Refer to Standard 1.1.6 for allowed Open Space Uses.

D) Bicycle Parking

Bicycle parking shall be located within or adjacent to all open spaces. On streets, bicycle parking shall be located within the Streetlife Zone per 4.1.6, with consideration given to maximizing permeability and facilitating pedestrian movement.

2.2.3 PEDESTRIAN-PRIVILEGED ENVIRONMENT

Creating a safe, accessible, and comfortable pedestrian experience will be a priority on all streets at Mission Rock.

A) Open Space Connections

Safe pedestrian street crossings and connections to Open Spaces shall be provided per Section 2.4.

B) Microclimate Comfort

Spaces that provide opportunities for gathering and lingering, especially those associated with Streetlife Elements, shall be protected from wind. See Section 2.7.

GUIDELINES

2.2.4 PRIORITY PEDESTRIAN ROUTES

The Shared Public Way, Terry A Francois Boulevard, Channel Street, and Channel Lane should be considered priority pedestrian routes connecting significant site anchors.

2.2.5 SPECIAL LIGHTING

Special lighting for streets, and at specific streetlife elements such as street rooms, should be considered as a vital part of Mission Rock's nighttime identity. See Section 2.9 and Chapter 4.

LEGEND: STREET TYPOLOGIES

-  Shared Public Way (one-way traffic)
-  Working Waterfront (two-way traffic)
-  Neighborhood Streets (two-way traffic)
-  Paseos (Pedestrian-only street extension)
-  District Street
-  Open Space



FIGURE 2.2.1 Street Typologies diagram illustrating how the five street typologies defined in 2.2.1 are distributed across the site. These typologies are described in Chapter 4 in the controls for each street.



2.3 PEDESTRIAN CIRCULATION + ACCESSIBILITY

As a pedestrian-priority development, Mission Rock's street network will provide safe and easy access to open spaces, building entrances, and retail, with unique street types designed to the scale and speed of the pedestrian experience. A combination of traffic calming strategies will discourage accessing the site by vehicle. The public realm will be tightly integrated with the design and scale of the ground floor of Mission Rock's buildings.

Mission Rock's three north-south streets will have either reduced-height or flush curbs separating the pedestrian realm from the vehicular travelway. In addition to privileging pedestrian access, this strategy will facilitate paratransit vehicle access that can serve all of Mission Rock's blocks and open spaces.

Passenger loading and building servicing strategies, described in Sections 2.5 and 5.3 and in the Transportation Plan, will be designed to minimize conflicts between pedestrians and vehicles, and to maximize the special streetlife elements that create a rich public experience.



Concept Rendering of Waterfront Promenade in China Basin Park

STANDARDS

2.3.1 PEDESTRIAN THROUGHWAY

On all sidewalks and major pedestrian routes to and within Open Spaces, a pedestrian throughway that is 6'-0"-minimum width shall be identified and maintained. This throughway shall be a universally accessible path of travel that does not exceed 5% maximum longitudinal slope. See Chapters 3 and 4 for mandated minimum widths of pedestrian throughway and circulation routes in specific open spaces and streets.

2.3.2 UNIVERSAL ACCESS TO OPEN SPACES

Universal access to open spaces shall be provided from the significant pedestrian connections that are identified on Figure 2.3.1.

2.3.3 ACCESSIBLE LOADING AND UNLOADING

Loading zones for vehicular and paratransit loading and unloading shall be provided.

A) Location of Loading Zones

These shall be located along frontages indicated in Figure 2.3.1, distributed to enable access to all blocks and open spaces.

B) Curb Conditions

Refer to Infrastructure Plan for loading stall configurations at standard and non-standard curb conditions.

2.3.4 RAISED INTERSECTIONS

Raised or flush intersections shall be provided along the Shared Public Way, Terry A Francois Boulevard, and Bridgeview Street. Refer to Chapter 4 and to the Infrastructure Plan for more information.

A) Intersection Markings at Pedestrian Throughway

At raised intersections, pedestrian throughway across the intersection shall be indicated with crosswalks.

2.3.5 DECORATIVE CROSSWALK TREATMENTS

Where proposed, decorative crosswalk treatments shall comply with City and MUTCD standards and required review. Proposed decorative treatments shall meet ADA standards for slip-resistance.



An example of a raised intersection with decorative treatment and delineated crosswalks.

SOURCE: GOOGLE STREET VIEW

LEGEND: PEDESTRIAN CIRCULATION + ACCESSIBILITY

-  Sidewalks + Major Pedestrian Routes
-  Accessible Loading Locations
-  Significant Pedestrian Connection: Shared Street with Flush Curbs
-  Significant Pedestrian Connection: Neighborhood Street with Reduced-Height Curb
-  Crosswalks (off-site)
-  Interior Accessible Drop-Off/Parking Stalls
-  MUNI Metro stop



FIGURE 2.3.1 Pedestrian Circulation + Accessibility diagram illustrating pedestrian routes and access, significant connections, and accessible loading zone locations in the public realm. See Chapters 3 and 4 for open space and street details.

2.4 VEHICULAR + BICYCLE CIRCULATION

Mission Rock's street network will be comprised of short, walkable blocks that connect directly to existing Mission Bay streets adjacent to the project.

Through careful consideration of the pedestrian and bicyclist experience, transit connections, traffic calming measures, and a centralized site parking facility instead of on-street parking, the project will discourage accessing the buildings, streets, and open spaces at Mission Rock by vehicle.

The bicycle network at Mission Rock will provide an important link for the district and the Bay Trail, connecting the Blue Greenway to the Embarcadero. Within the site, a variety of bike facilities will provide choices for cyclists of all ages and skill levels to access Mission Rock's open spaces and buildings. These facilities will be integral to the unique character of Mission Rock's streets.

STANDARDS

2.4.1 VEHICULAR CIRCULATION

All streets at Mission Rock shall have two-way, low-speed, low-volume traffic circulation, with the exception of the Shared Public Way, which shall have one-way traffic in the northbound direction only. Refer to Figure 2.4.1.

2.4.2 PASEOS

Paseos are proposed at the terminus of the Shared Public Way, Bridgeview Street, and Terry A Francois Boulevard at China Basin Park. Refer to Chapter 4 for additional specific street controls.

A) Emergency Vehicle Access

Paseos shall accommodate Emergency Vehicle Access for a maximum distance of 150' from the Exposition Street ROW. The terminus of this access shall be clearly marked by permanent site furnishings, including bollards or equivalent, or street trees.

B) Prohibiting Vehicular Access

At Exposition Street, paseos shall include signage and design cues that prohibit access for unauthorized vehicular traffic.

2.4.3 BICYCLE CIRCULATION

Bicycle facilities or sharrows shall be provided on all streets at Mission Rock. Figure 2.4.2 indicates the Conceptual Strategy for these facilities at a network scale. See Chapter 4 for controls defining specific facilities on each street.

2.4.4 INTERSECTIONS

All stop-controlled and signalized intersections shall adhere to City standards for signage and street markings. Refer to Figure 2.4.1 and to the Infrastructure Plan.

A) Uncontrolled Intersections

Where crosswalks at uncontrolled intersections are proposed at Open Space connections, an appropriate combination of traffic control strategies, including crosswalk markings, shall be employed to maximize visibility and safe pedestrian crossing. See Standard 2.3.3.

LEGEND: VEHICULAR CIRCULATION NETWORK (L)

-  Open Space
-  Shared Street (No Street Parking)
-  2-Way Street (No Street Parking)
-  Paseo
-  Direction of 1-Way Traffic
-  Direction of Through Traffic
-  Shared Site Parking Location
-  Access to Below-Grade Parking (if provided)
-  Stop Sign: All-Way Stop
-  Stop Sign at Through Streets
-  Existing Signalized Intersection
-  Proposed Signalized Intersection

LEGEND: BICYCLE CIRCULATION NETWORK (R)

-  Bay Trail/Blue Greenway: China Basin Park (Primary N-S Bicycle Connection; Multi-Use Trail)
-  Protected Cycle Track: Bridgeview + Mission Rock Streets (Primary N-S Bicycle Connection)
-  Bay Trail/Blue Greenway: Terry A Francois Blvd and China Basin Park (Multi-Use Trail)
-  Class II Bike Lane
-  Sharrows / Shared Travelway
-  Open Space



FIGURE 2.4.1 Vehicular Circulation Network Diagram illustrating vehicular movements, paseos, traffic signals, and stop control across the site. Refer to Chapter 4 for specific street controls, and to the Infrastructure Plan and Transportation Plan for details.



FIGURE 2.4.2 Bicycle Circulation Network Diagram illustrating hierarchy and connections among the different types of bicycle facilities across the site. These facilities are described in Chapters 3 and 4 for each open space and street.

2.5 LOADING, SERVICING, + PARKING

Loading, servicing, and parking at Mission Rock will be distributed to minimize impact on the public realm pedestrian experience. While no permanent street parking will be provided, passenger loading across the site will be accommodated in dedicated spaces - this strategy is described in the Transportation Plan.

Servicing needs for all of Mission Rock's blocks will be accommodated on Exposition Street and Long Bridge Street in dedicated zones. Additional commercial vehicle access will be provided on Terry A Francois Boulevard, to serve the Piers and Working Waterfront tenants. See also Section 5.3: Building Access.

STANDARDS

2.5.1 DEFINITIONS: LOADING AND SERVICING

A) Loading

Loading in this document refers specifically to passenger loading. Figure 2.5.1 defines where loading zones are distributed in dedicated areas for the public realm; refer to the Transportation Plan for more detailed information. Accessible loading zones are described in Section 2.3.

B) Servicing and Commercial Loading

Servicing refers to dedicated zones for commercial deliveries, freight loading, and building servicing. Figure 2.5.1 defines where servicing may occur within the public realm; refer to the Transportation Plan and Infrastructure Plan for more information on how these zones are dedicated to specific block and land use needs.

2.5.2 STREET PARKING

No street parking will be provided at Mission Rock.

2.5.3 PASSENGER LOADING + SERVICING ZONES

Dedicated zones to accommodate spaces for passenger loading and building servicing for all Blocks shall be provided on Exposition and Long Bridge Streets. Refer to Section 2.3 for accessible loading stall controls, Chapter 4 for street controls, and see Infrastructure Plan for more details.

2.5.4 LARGE VEHICLE ACCESS TO PIER 48 AND PIER 50

Access for large trucks that are a maximum size of WB-67 shall be maintained to the valley of Pier 48. Access for large trucks that are a maximum size of WB-50 shall be maintained at Pier 50. Refer to Infrastructure Plan for access studies.

2.5.5 COMMERCIAL VEHICLE ACCESS: STREETS

A) Internal Circulation

Exposition and Long Bridge Streets and Terry A Francois Boulevard shall accommodate commercial vehicle circulation in dedicated loading zones. Refer to Infrastructure Plan and Transportation Plan.

B) Loading Zones: Working Waterfront

Commercial vehicle loading zones for trucks that are a maximum size of SU-30 shall be accommodated on Terry A Francois Boulevard at Blocks H, I, and J for Working Waterfront uses. Refer to Infrastructure Plan for design vehicle access studies and to Chapter 5 for Working Waterfront uses.

2.5.6 DRIVEWAYS

If provided, driveways to access off street parking on all blocks except D are only permitted on Exposition Street and Long Bridge Street in accordance with Section 7.7. Driveways for the shared parking facility at Block D shall be provided on Bridgeview Street and Mission Rock Street. Potential locations are noted in Figure 2.5.1. Refer to Sections 5.3 and 7.7 for block driveway controls, and see Infrastructure Plan for information regarding placement of driveways relative to streetscape elements.

LEGEND: LOADING, SERVICING, + PARKING

-  Service Street
-  Shared Street (Flush Curb)
-  Commercial Loading + Servicing Zones
-  Accessible Loading (See Section 2.3)
-  Time-Limited Commercial Delivery Zone (Accessible Loading All Other Times)
-  Open Space
-  Large Truck/Vehicle Access Points
-  Potential Driveway Location (if provided)
-  Shared Parking Facility
-  Access to Below-Grade Parking (if provided)

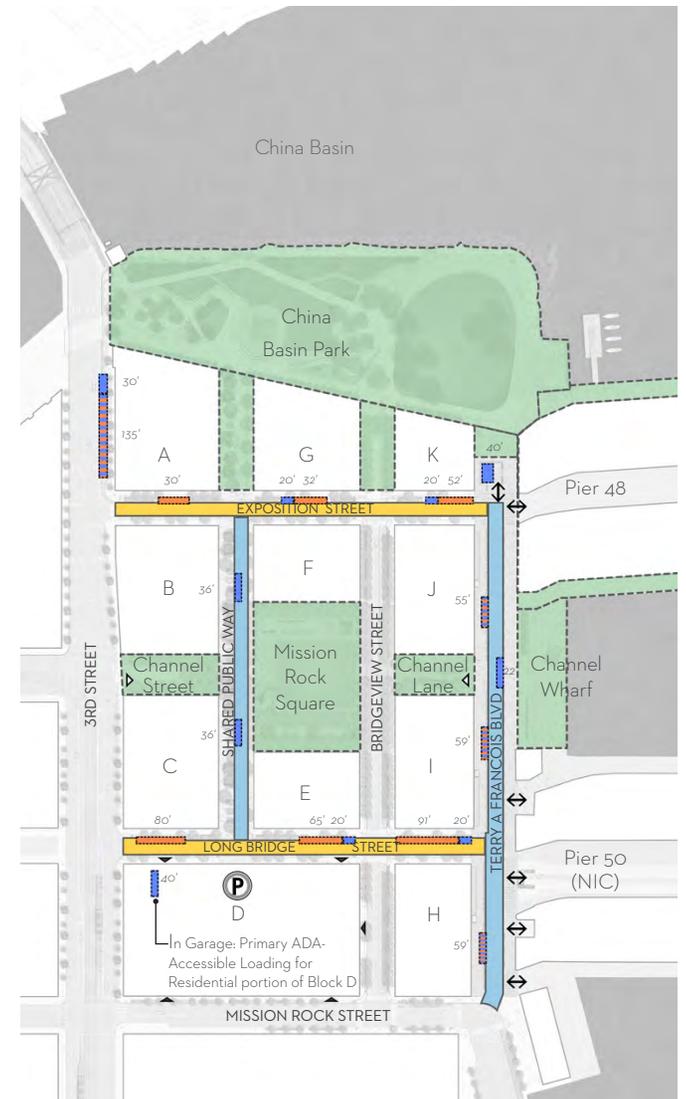


FIGURE 2.5.1 Loading, Servicing, + Parking Diagram illustrating passenger and commercial loading locations and dimensions, shared streets, and large vehicle access points in the public realm. Loading dimensions are noted in italics next to each zone. Refer to Infrastructure Plan and Transportation Plan for more information.

2.6 MATERIALS: PAVING + SITE ELEMENTS

Paving will be a key component that defines the character, connectivity, and identity of Mission Rock's varied streets and open spaces. Paving strategies should be considered as an interconnected site-wide system that activates the public realm and contributes to the overall pedestrian, bicycle, and vehicular circulation on the site. All paving in areas with high pedestrian traffic will facilitate universal accessibility. Paving connections to surrounding streets should be carefully considered for their impact on the larger Mission Bay neighborhood.

STANDARDS

2.6.1 PEDESTRIAN THROUGHWAY MATERIALS

The Pedestrian Throughway, defined in Standard 2.3.1, shall be an accessible path of travel that is unobstructed by non-ADA-compliant paving or material treatments.

2.6.1 MATERIAL QUALITY AND CONSISTENCY

Paving and built-in site elements shall be comprised of high-quality materials and finishes. All materials shall be durable to withstand high-intensity use in the Bay environment. All material textures in designated clear path of travel and accessible use areas shall be ADA-compliant.

2.6.2 SURFACING AT TREE PLANTING

A) Trees in Paving

Where trees are planted in paving, surfacing material shall allow air and water to reach tree roots. Tree grates or stabilized crushed stone are permitted in the Streetlife Zone and in Open Spaces outside of dedicated Pedestrian Throughways per 2.3.1.

B) Trees in Planting

Where trees are planted in planting areas on streets, finish grade shall be within 2" of adjacent pedestrian paving.



Varied paving textures and integral lighting create nighttime identity and an intimate character

(L) © LAMENTABLE.ORG / (R) LOS-80S-Y-ALGO-MAS.BLOGSPOT.COM



Light-hued paving reduces heat island effect. SOURCE: CMG

GUIDELINES

2.6.4 PAVING ZONES

Paving should be a key component that defines the character, connectivity, and extent of Mission Rock's varied public realm. The following Paving Zones suggest relationships and common paving identities among different streets and open spaces; also see Figure 2.6.1.

- ▶ **Street Room + Special Paving:**
Contrasting, high-quality paving that distinguishes street rooms and kiosk areas as places to linger; refer to Sections 3.2, 3.3, and 4.2 and to Glossary.
- ▶ **Mission Rock Square + Channel St Paving:**
Paving material with rich texture and urban character; may have integral lighting
- ▶ **Open Spaces - Waterfront Paving:**
Paving material that is commonly recognizable on waterfronts; should be comfortable to walk and run on; must be durable to withstand coastal conditions
- ▶ **Pedestrian-Scale Paving:**
Detailed paving, consistent across the entire right-of-way, that is a maximum of 12 inches in at least one horizontal dimension and visually interesting at the speed of walking.
- ▶ **Working Waterfront Paving:**
Utilitarian paving, consistent across the entire right-of-way, with a large module or pattern that is visually interesting at the speed of walking; must be durable for truck traffic.
- ▶ **Sidewalks:**
Cast-in-place concrete with pedestrian unit pavers at Streetlife Zones.

2.6.5 PAVING: URBAN HEAT ISLAND EFFECT

Where possible, reduce urban heat island effect by using pavement with a Solar Reflectance Index (SRI) of 29 or higher in areas that are predominantly un-shaded by tree canopy or buildings.

2.6.6 PAVING: CHARACTER AND VARIATION

Paving contrast may be introduced through color or geometric variation, textural variation within a single paving module, integral lights, or juxtaposition of scale or material.



Paving variation within a single paving module provides color and texture contrast. SOURCE: CMG

LEGEND: CONCEPTUAL PAVING ZONES

- Street Room + Special Paving
- Open Space: Mission Rock Square
- Open Space: Waterfront Paving
- Pedestrian-Scale Paving
- Working Waterfront Paving
- Sidewalks
- Right-of-Way/Boundary



FIGURE 2.6.1 Conceptual Paving Zones diagram illustrating the relationships among paving zones defined in Guideline 2.6.4. Paving details and conformance with City standards are defined in the Infrastructure Plan.

2.7 URBAN FOREST

Planting at Mission Rock will function ecologically to help achieve the project's goals for sustainability and contribute to a healthy environment. Composition and distribution of a diverse, adapted urban forest, stormwater gardens, and planted areas will create a resilient ecological framework to shape varied sensory experiences across the site and provide waterfront and urban habitat.

Trees will be used to block and mitigate wind, provide shade and reduce urban heat island effect, and to provide shelter for birds. Native or climate appropriate grasses, shrubs, and ground cover will provide as much species diversity as feasible in Mission Rock's planting areas, as well as function in stormwater treatment gardens.

Upon construction, maintenance and management of tree and understory planting, soils, and irrigation will be essential to the successful function of the site's urban ecological systems.

STANDARDS

2.7.1 URBAN FOREST COMPOSITION

Suggested species diversity in Figure 2.7.1 is a baseline; species selected for specific areas shall conform to this general distribution and diversity for the Mission Rock urban forest.

2.7.2 TREE SPECIES AND ALTERNATIVE SPECIES SELECTION

Tree species shall be considered for their aesthetic and ecological benefits. Tree species suggested for each component of the Public Realm network have been selected in consultation with a certified arborist. If alternative species are chosen, they shall conform to the aesthetic and performance requirements outlined in Figure 2.7.2 and to the irrigation requirements described in Section 2.8.

2.7.3 WIND MITIGATION

Tree selection and maintenance will be vital to maintaining a comfortable public realm experience in both streets and open spaces. Trees shall be sited with consideration given to wind conditions at the neighborhood and local scale. Mandatory wind tolerances have been noted under the design criteria for tree species selection; see Figure 2.7.2.

A) Wind Mitigation in Open Spaces

Trees in all open spaces shall be wind-tolerant and shall function as a windbreak for significant program areas in each open space. See Chapter 3 for Open Space design controls.

2.7.4 TREE SPECIES INSTALLATION AND ESTABLISHMENT

A) Soil Volume

Trees shall receive adequate soil volume to sustain long-term health; see Guideline 2.7.7 for volume ranges.

B) Minimum Installation Size

Large and medium-size trees shall be installed at a minimum size of 48"-box; small trees shall be installed at a minimum size of 36" box. Refer to Figure 2.7.2 for tree size and corresponding minimum size at installation.

C) Clear Trunk Requirements

To meet functional requirements in both streets and open spaces, clear trunk requirements shall be achieved within five years of installation. Branches shall not interfere with pedestrian thoroughway (minimum 84" clearance measured from ground surface) or mandated fire truck vertical clearance of 13'-6" minimum (measured from roadway surface) at any time.

D) Establishment Period

Trees shall receive adequate irrigation and monitoring during a three-year establishment period. See Section 2.8 for irrigation controls.

2.7.5 OCII MISSION BAY STANDARD TREE SPECIES

Tree species on 3rd Street and Mission Rock Street shall adhere to OCII Mission Bay streetscape standards.

GUIDELINES

2.7.6 TREE MAINTENANCE AND MANAGEMENT

A) Pruning

Trees in the Public Realm should be pruned yearly to sustain long-term health and to maintain desired growth habit.

B) Water Application

Determine appropriate water application after establishment (three years) in consultation with a certified arborist's comprehensive review of tree health on the site. Monitor water application per Standard 2.8.3.

2.7.7 RECOMMENDED SOIL VOLUME FOR TREES

Trees in the public realm should have adequate soil volume and infiltration, particularly trees planted in paving. Large tree species require 1500-2000 cubic feet of soil volume per tree; Medium tree species require 1000-1500 cubic feet of soil per tree; Small tree species require 800-1000 cubic feet of soil per tree. Tree species sizes are noted in Figure 2.7.2.

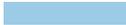
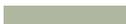
A) Minimum clearance at On-Structure Conditions

Where trees are planted in on-structure conditions, at least four feet of soil depth, and a continuous 6-12" depth gravel drainage layer, should be maintained.

2.7.8 CHANNEL LANE AND CHANNEL STREET TREE SELECTION

Tree species selected for Channel Lane and Channel Street should be selected from any of the following spaces' species criteria and suggested palettes: Mission Rock Square, Neighborhood Street: Upright, or Neighborhood Street: Arching, or alternative species per 2.7.2. Selected species may differ for Channel Lane and Channel Street. See Figure 2.7.2.

LEGEND: URBAN FOREST DIVERSITY

	China Basin Park
	China Basin Park Promenade Tree
	Mission Rock Square
	Shared Public Way
	Neighborhood Street: Arching
	Neighborhood Street: Upright
	Channel Street + Channel Lane
	3rd Street & Mission Rock Street
	Right-of-Way/Boundary

(See OCII Mission Bay standards)

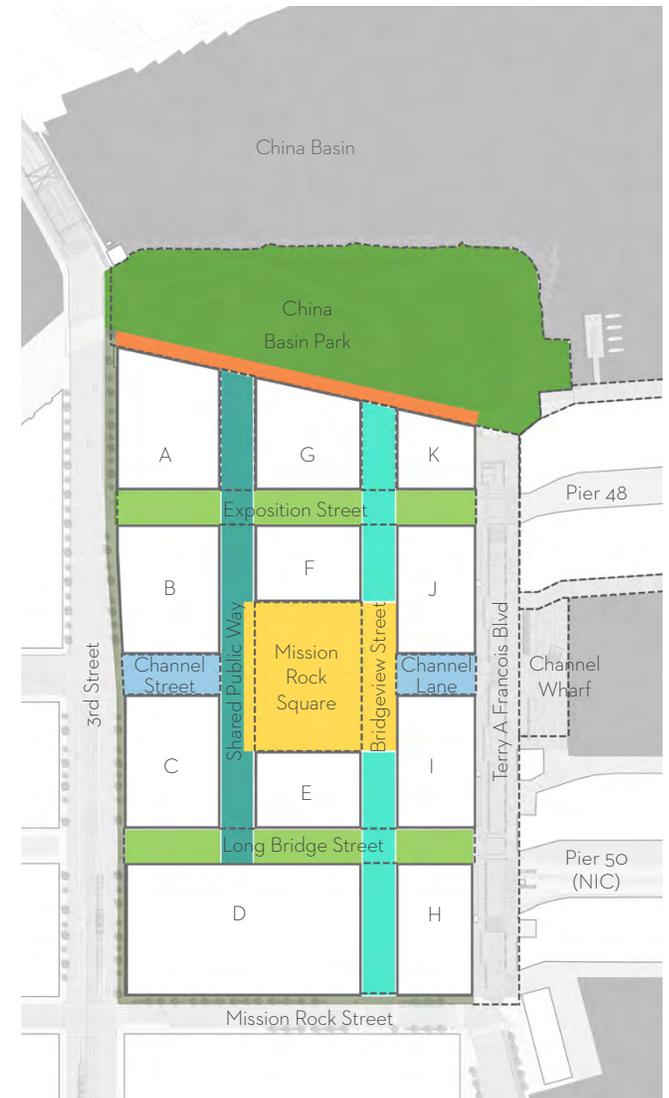


FIGURE 2.7.1 Urban Forest Diversity Diagram illustrating the general distribution of tree species across the public realm. See Figure 2.7.2 for performance & aesthetic requirements and suggested palettes.

GUIDELINES

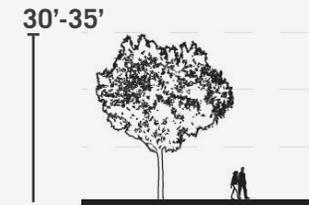
CHINA BASIN PARK



- › Large-canopy evergreen tree (to 60'+ at maturity)
- › Minimum 48"-box at installation
- › Iconic character; picturesque, sculptural form
- › Windbreak and specimen tree
- › Tolerances: High wind tolerance; tolerant of coastal environment; healthy in paving and/or lawn (select as appropriate for design concept); tolerant of high pedestrian traffic
- › Low water use
- › Minimal root disruption when planted in paving
- › **Recommended species:**
 Monterey Cypress [*Cupressus macrocarpa*];
 New Zealand Christmas Tree [*Metrosiderous excelsa*];
 Red-Flowering Gum [*Corymbia ficifolia*]

*Expected size at maturity.

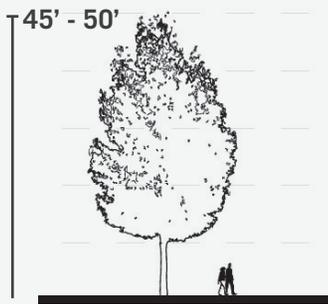
CHINA BASIN PARK: PARK PROMENADE



- › Small to Medium Evergreen or Deciduous tree (30-35' tall at maturity)
- › Minimum 36"-box at installation
- › Scaled to intimate walking/seating experience, with notable ornamental leaf or flower; showy bark
- › Native or naturalized species
- › Tolerances: high wind tolerance; tolerant of deep shade; tolerant of coastal environment; healthy in paving
- › Low water use
- › **Recommended species:**
 Red Oak cultivar [*Quercus rubra* 'Crimson Spire'];
 Melaleuca [*Melaleuca quinquenervia*]

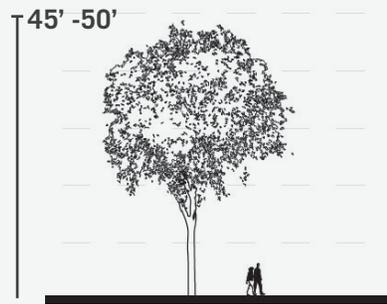
FIGURE 2.7.2 Urban Forest Guidelines

MISSION ROCK SQUARE



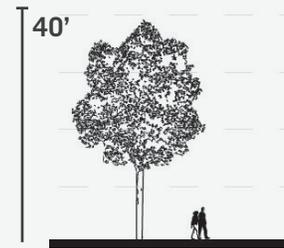
- ▶ Large Deciduous or Evergreen tree (45-50' tall at maturity)
- ▶ Minimum 48"-box at installation
- ▶ Upright form with winter and summer interest; iconic seasonal ornamental character in leaf or flower
- ▶ Delicate leaf; medium-fine textured canopy
- ▶ As uniform as possible; close spacing
- ▶ Tolerances: medium wind tolerance; tolerant of part-shade conditions; healthy in paving, with minimal root disruption at plaza paving
- ▶ Low water use
- ▶ **Recommended species:** Freeman Maple [*Acer x. freemanii*]; Ginkgo [*Ginkgo biloba sterile cultivar*]

SHARED PUBLIC WAY



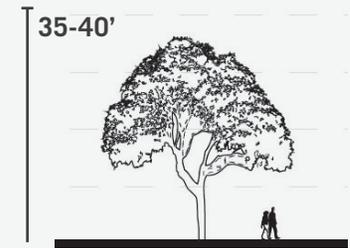
- ▶ Large, Semi-Deciduous or Evergreen tree; Deciduous acceptable if other requirements are satisfied (40-50' tall at maturity)
- ▶ Minimum 48"-box at installation
- ▶ Arching form, but more vertical than spreading; fine-textured canopy; textured, showy bark
- ▶ Close spacing
- ▶ Tolerances: medium wind tolerance; tolerant of part-shade conditions; healthy in paving, with minimal root disruption of paving
- ▶ Low water use
- ▶ **Recommended species:** Chinese Elm [*Ulmus parvifolia*]; Strawberry Tree [*Arbutus 'Marina'*]; Southern Live Oak [*Quercus virginiana*]

NEIGHBORHOOD STREET: UPRIGHT



- ▶ Medium to large Evergreen or Deciduous tree (to 40' tall at maturity)
- ▶ Minimum 48"-box at installation
- ▶ Upright/Narrow Form
- ▶ Tolerances: high wind tolerance; tolerant of part- to full-shade; healthy in paving, with minimal root disruption at sidewalk
- ▶ Low water use
- ▶ **Recommended species:** Brisbane Box [*Lophostemon confertus*], Red Oak cultivar [*Quercus rubra 'Crimson Spire'*]

NEIGHBORHOOD STREET: ARCHING



- ▶ Medium to large Evergreen tree (35-40' tall at maturity)
- ▶ Minimum 48"-box at installation
- ▶ Arching, graceful form, with special ornamental character if possible
- ▶ Tolerances: medium wind tolerance; tolerant of part- to full-shade; healthy in paving, with minimal root disruption at sidewalk
- ▶ Low water use
- ▶ **Recommended species:** Victorian Box [*Pittosporum undulatum*], California Pepper [*Schinus molle*], Cork Oak [*Quercus suber*]

2.8 SUSTAINABLE WATER SYSTEMS

Mission Rock's landscapes and building systems will work together and be designed to conserve, re-use, and filter water.

Site hydrology will be intertwined with daily life at Mission Rock in a unique and systematic way, with stormwater treatment gardens that are a part of the public realm experience in every streetscape and open space, building-integrated recycled water systems, and advanced greywater reuse strategies.

Irrigation is an essential element of plant health and should be considered as part of the site hydrology strategy.



An example of a Stormwater Treatment Garden with integral seating. SOURCE: CMG

STANDARDS

2.8.1 STORMWATER MANAGEMENT

A) Requirements

The Public Realm at Mission Rock shall include Stormwater Quality Treatment for impervious areas within the Public ROW and Open Space Networks. Refer to Infrastructure Plan for technical requirements and applicable regulatory standards.

B) Conceptual Treatment Strategy

Stormwater treatment shall be handled through a combination of treatment within specific streets, and in large feature stormwater gardens in China Basin Park, along the Shared Public Way, and in Mission Rock Square to which runoff is conveyed by gravity or force main for treatment. See specific spaces in Chapters 3-4 for design controls for stormwater treatment gardens.

2.8.2 SITE IRRIGATION

A) Irrigation During Plant Establishment Period

All plant species shall receive establishment irrigation for a minimum of two years. Tree species shall receive establishment irrigation for three years or as deemed necessary for long-term health by a certified arborist. Refer to Mission Rock Sustainability Strategy for guidance about water usage.

B) Plant Species Hydrozones

Planting design shall optimize irrigation efficacy by grouping plants with similar water needs into efficient irrigation hydrozones. Permanent irrigation infrastructure shall be provided for all trees, understory planting, stormwater treatment gardens, and lawn areas.

C) Irrigation Efficiency

Use efficient irrigation systems; utilize drip irrigation except in lawn areas, where spray irrigation is acceptable. Refer to Local Model Water Efficient Landscape Ordinance for regulatory guidance.

D) Alternative Irrigation Water Sources

Recycled water shall be used for irrigation to minimize potable water use. This use shall conform to applicable public health standards; edible plants and play areas shall not be irrigated with non-potable water. Minimum water quality thresholds are to be coordinated with the on-site provider for the centralized water treatment system at each phase of development. See Sustainability Strategy for information on the district's recycled water resources

E) Monitoring

Install irrigation flow meters for all irrigation hydrozones to record and monitor water use across the site.

2.8.3 SITE TREE WATER RECORDS AND AUDITS

Watering records for all site trees shall be kept, and a yearly water audit performed to track the amount of water applied.

2.8.4 STORMWATER TREATMENT AREA REQUIREMENTS

Mission Rock's stormwater treatment strategy combines localized treatment within street right-of-ways and large feature stormwater gardens.

A) Localized Treatment

If treatment of stormwater is not possible as indicated in Figure 2.8.1, required treatment volume for each street and open space shall still be accommodated and shall be located as close to the source as possible.

B) Minimum Treatment Footprint Area and Performance Requirements

Minimum stormwater treatment footprint areas noted in the Infrastructure Plan shall be provided for treatment of impervious surfaces in each street and open space, as well as watershed-scale treatment in large feature gardens in China Basin Park and Mission Rock Square. Stormwater facilities shall conform to applicable performance and area requirements per the Infrastructure Plan.

LEGEND: SITE STORMWATER TREATMENT CONCEPT

-  Localized Treatment within ROW
-  Centralized Treatment: China Basin Park
-  Centralized Treatment: Mission Rock Square
-  Large Feature Stormwater Gardens

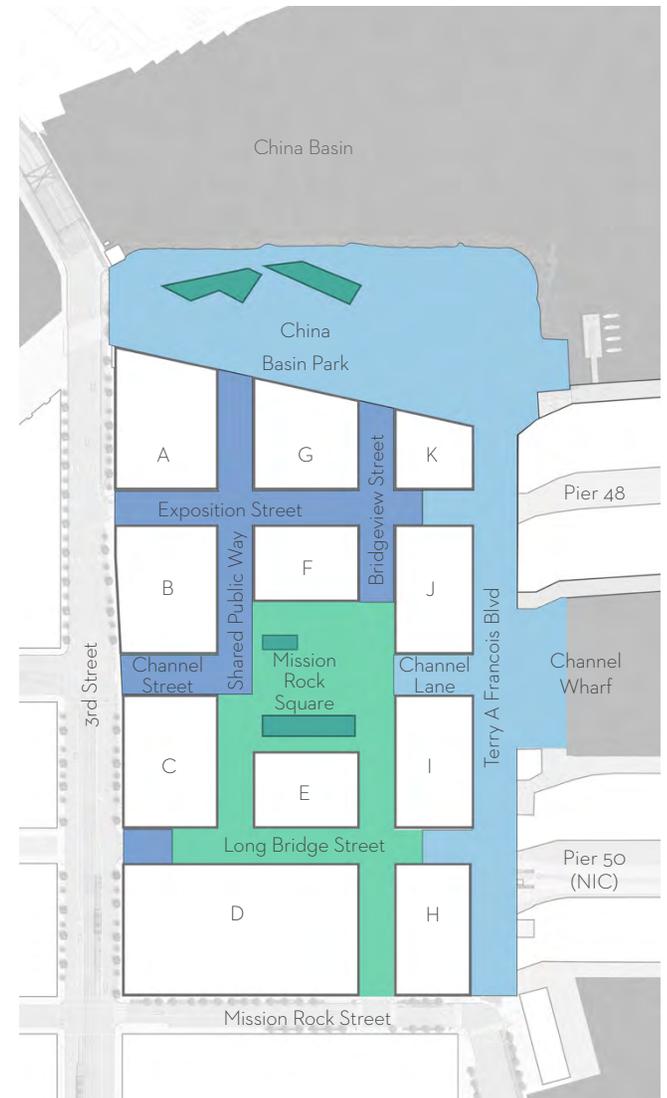


FIGURE 2.8.1 Site Stormwater Treatment Concept Diagram illustrating watersheds, localized treatment areas, and feature stormwater treatment gardens in the public realm. Refer to Infrastructure Plan for technical requirements.

2.9 LIGHTING + NIGHTTIME IDENTITY

Read in conjunction with Section 7.6: Building Lighting.

Lighting will be an important component of nighttime identity, experience, and safety at Mission Rock.

Lighting of special, unique character should reinforce key pedestrian routes in open spaces and along the Shared Public Way and Channel Lane and Channel Street. Where possible, a variety of lighting types should work together to create a warm, inviting, and safe nighttime environment.

Lighting across the site will be scaled to the pedestrian and bicycle experience. Lighting strategies will also take care to protect site residents by minimizing light pollution. Lighting along the waterfront will operate on a gradient of intensity, from a well-lit Promenade at the buildings and piers to a more uniformly diffused, minimal character along the water that will not disrupt the ecology of the Bay edge.



Feature overhead lighting activates a small plaza. SOURCE: CMG

STANDARDS

2.9.1 LIGHT POLLUTION, TRESPASS, AND GLARE

Lighting strategies shall minimize glare, light trespass outside the development, and light pollution in areas adjacent to residential buildings and along the waterfront. Also see Standard 7.6.5: Minimizing Light Trespass. Reference applicable regulatory standards.

2.9.2 ENERGY-EFFICIENT LIGHTING FIXTURES

Lighting fixtures and bulbs shall meet or exceed applicable energy-efficiency standards; reference applicable regulatory standards and refer to the Sustainability Strategy.

2.9.3 VISUAL ACUITY AND SAFETY

Lighting shall be designed to allow facial recognition along paths of travel. Lighting shall not create glare or “hot spots” that would inhibit visual acuity, and shall facilitate sight lines and perception of safety across the public realm.

2.9.4 LIGHTING INTENTION

Lighting uniformity ranges in open spaces shall allow for variation in light levels to create hierarchy and a range of experiences. Lighting shall reinforce key pedestrian circulation routes and connections. See Figures 2.9.1-2.9.2.

2.9.5 PEDESTRIAN-SCALE LIGHTING

Lighting shall be scaled to the pedestrian and bicycle experience across the public realm; glare shall not be created at eye level. Prevent unnecessary vertical transmittance of light.

GUIDELINES

2.9.6 VARIETY OF LIGHT TYPES

Lighting strategies should incorporate varied fixture types and ambient light from buildings, particularly in high-active retail zones where retail spaces will provide ample ambient light for pedestrian paths. Consider a variety of lighting types, scaled to reinforce active streetlife and open space experiences.

2.9.7 PROJECTED LIGHT

Projected light through a tree canopy (“moonlighting”) and through special filters on light fixtures may be used to highlight special places or experiences.

2.9.8 SUGGESTED LIGHT ZONES, LEVELS, AND UNIFORMITY RATIOS

The following light levels and uniformity levels for the public realm, described in Figure 2.9.1, are grouped in six zones that suggest relationships of different light levels and lighting identities among places and uses; also see Figure 2.9.2:



Two examples of utilizing projected and feature lighting to activate spaces at night. (R) SOURCE: CMG

PROJECT LIGHTING ZONE	PEDESTRIAN LIGHT LEVEL (FOOTCANDLES)*	ROADWAY MINIMUM MAINTAINED AVERAGE LIGHT LEVEL (FC)*	UNIFORMITY RATIO, AVERAGE/ MINIMUM*
<i>Zone 1: Waterfront Open Space. Light levels should be brightest at the buildings, and less bright at the water's edge to minimize impact on that sensitive ecosystem.</i>			
China Basin Park: Non-Waterfront Paths	1 fc average	n/a	10:1
China Basin Park: Planting/Lawn Areas	0.5-0.8 fc average	n/a	40:1
China Basin Park & Channel Wharf: Plaza/Wharf Areas	0.8-1 fc average	n/a	20:1
China Basin Park & Pier 48 Apron: Waterfront Paths	0.5-0.8 fc average	n/a	5:1
<i>Zone 2: High Retail Zone. Opportunity for feature lighting; variety of light types encouraged; contributing ambient light from ground-floor uses.</i>			
Mission Rock Square	0.5-0.8 fc average	n/a	40:1
Shared Public Way	1 fc average	0.4 to 1 fc	4 to 6
<i>Zone 3: Working Waterfront. Iconic lighting with highly visible intersections.</i>			
Terry A Francois Boulevard	1 fc average	0.4 to 1.7 fc 1.8 fc at intersections	3 to 6
<i>Zone 4: Neighborhood Streets. Some contributing light from ground-floor uses, especially on Bridgeview Street; intersections should be highly visible.</i>			
Bridgeview and Exposition Streets	0.5-0.8 fc average	0.4 to 1.2 fc intersections: 1.4-1.8 fc	4 to 6
Long Bridge Street	1 fc average	0.4 to 1.7 fc intersections: 1.4-1.8 fc	3 to 6
<i>Zone 5: Gateways. Opportunity for overhead lighting.</i>			
Channel Street	1-1.2 fc average	n/a	10:1
Channel Lane	1-1.2 fc average	n/a	10:1
<i>Zone 6: Mission Bay District Streets: 3rd & Mission Rock Streets. Refer to OCII Mission Bay controls.</i>			

FIGURE 2.9.1 Lighting Zones Chart

*Source: Better Streets Plan
www.sfbetterstreets.org/find-project-types/streetscape-elements/street-lighting/

LEGEND: LIGHTING ZONES DIAGRAM

- Zone 1: Waterfront
- Zone 2: High Retail Zone
- Zone 3: Working Waterfront
- Zone 4: Neighborhood Streets
- Zone 5: Gateways
- Zone 6: District Streets
- Right-of-Way/Boundary

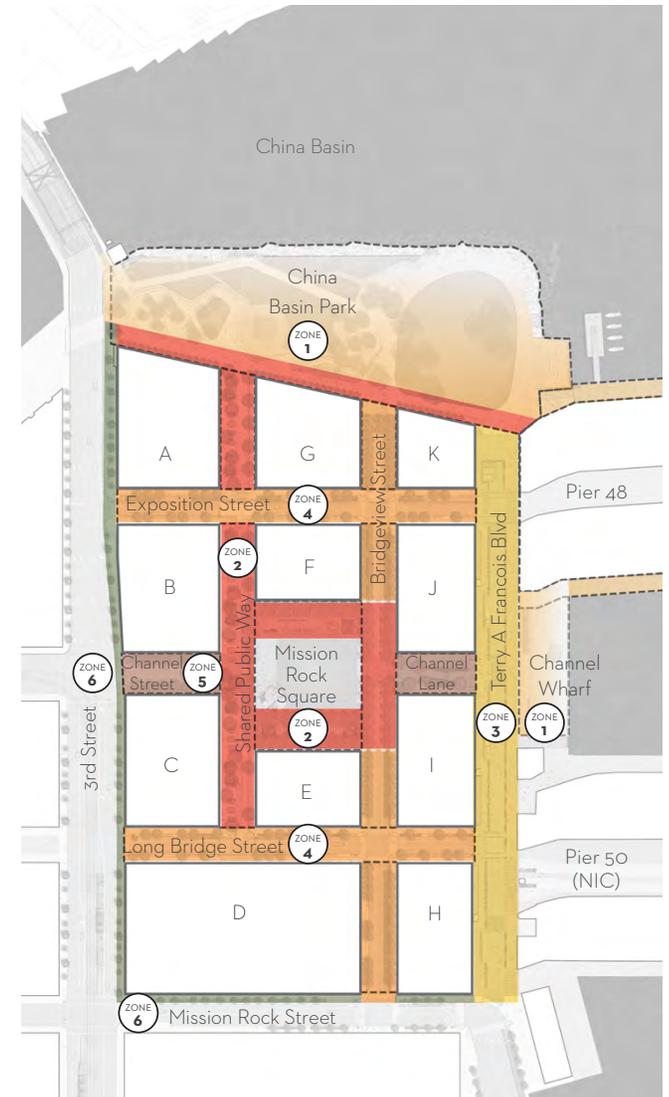


FIGURE 2.9.2 Lighting Zones Diagram illustrating the distribution of lighting zones described in Figure 2.9.1. These zones suggest relationships of different light levels and lighting identities among places and uses in the public realm.

2.10 WAYFINDING AND SIGNAGE

Wayfinding and signage at Mission Rock will reinforce the varied and special character of Mission Rock's public realm, while connecting to broader initiatives such as the Blue Greenway. All wayfinding will facilitate intuitive navigation to key site anchors and safe circulation in shared zones. Signage will be secondary to the design cues within unified open spaces or streetscapes.

Wayfinding and signage will have multiple components related to the variety of uses in the public realm. Pedestrian, bicycle-oriented, and vehicular wayfinding and signage will be integrated, especially along multi-modal routes such as the Shared Public Way, and Multi-Use Trail areas in China Basin Park and Terry A Francois Boulevard. Along the Bay Trail/Blue Greenway, China Basin Park and Terry A Francois Boulevard will integrate Port signage standards, while signage and wayfinding for the interior of the site could have a unique character.

Wayfinding elements may be considered an opportunity for Public Art (see Section 2.11). A future signage master plan will further develop these controls and concepts.

STANDARDS

2.10.1 WAYFINDING COMPONENTS

Wayfinding strategies shall include a combination of design cues, signage, maps, and public art. Design cues are also incorporated into the Open Spaces and Streetscape controls described in this document.

2.10.2 PORT SIGNAGE STANDARDS: BLUE GREENWAY

Proposed wayfinding along Bay Trail / Blue Greenway multi-use trail connections shall integrate Port standards.

2.10.3 ICONIC CHARACTER

Signage shall be simple, clear, and evocative of Mission Rock's character.

2.10.4 MAJOR SITE ENTRANCES

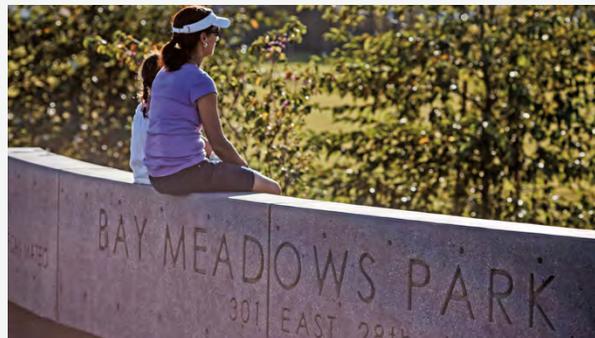
Major site entrances at Lefty O'Doul Bridge, Channel Street, and Mission Rock Street/Terry A Francois Boulevard shall have unique signs that provide basic wayfinding to key site anchors.

2.10.5 SHARED USE ZONE SIGNAGE: MULTI-USE TRAILS

In addition to fulfilling Standard 2.10.2, Multi-Use Trails in China Basin Park and Terry A Francois Boulevard shall include signage indicating this is a shared-use area and shall be readable at pedestrian and bicycle eye level and speed.

2.10.6 SHARED USE ZONE SIGNAGE: SHARED STREETS

The Shared Public Way and Terry A Francois Boulevard shall have signage indicating that shared zones are multi-modal pedestrian, vehicular, and bicycle circulation areas where the pedestrian has the right-of-way.



This destination wayfinding/signage feature marks a major site entrance. SOURCE: CMG



Two examples of signage for Multi-Use Trails. SOURCE: (L-R); DANNYSULLIVAN / FLICKR; CMG

GUIDELINES

2.10.7 PLACE-BASED WAYFINDING AND GRAPHICS

Maps and signs should graphically represent the unique character of Mission Rock's open spaces and identify key landscape and public art elements in the public realm.

2.10.8 GRAPHIC CONSISTENCY

Signage and wayfinding at Mission Rock that is not required to adhere to City or Port standards should be comprehensively designed for the site and should include a range of signage types that correlate graphically.

2.10.9 MATERIAL PALETTE

Signage and wayfinding at Mission Rock should utilize a durable, consistent material and color palette.



SOURCE: M_KE / FLICKR



An example of an iconic family of signage and place-based wayfinding types ,at the High Line. SOURCE: MARCIN WICHARY / FLICKR

2.11 PUBLIC ART

The Public Art program at Mission Rock will identify key locations for interactive art and recreational amenities that act as interpretive elements for Mission Rock's unique history and pioneering sustainability goals.

Public art of scale can contribute significantly to the urban design of Mission Rock when placed at key locations, such as the terminus of a view corridor, to draw visitors through the public realm to a point of destination. Public art can also contribute to wayfinding by acting as a landmark and memorable feature within the public realm network.

STANDARDS

2.11.1 PUBLIC ART SITES

Permanent Public Art pieces shall be located in China Basin Park, Mission Rock Square, and Channel Wharf. Locations within these open spaces are suggested in Figure 2.11.1. Temporary public art may be located in any open space or in Streetlife Zones defined in Chapter 4, and shall comply with all controls for those spaces.



Permanent Art: Rock Outcropping at Sugar Beach in Toronto is an example of public art with a programmatic function, as an amphitheater and vantage point. SOURCE: CHRISTYLERTO / FLICKR

GUIDELINES

2.11.3 PUBLIC ART INTERPRETIVE ELEMENTS

Public art installations may relate to, describe, or otherwise engage the layered history of the site. Public art installations may also engage or make visible the unique climatic conditions and water flows of the site.

2.11.4 PUBLIC ART: SUGGESTED SITES

Key site locations for permanent public art installations are suggested in Figure 2.11.1. Temporary installations may be located in Streetlife Zones, especially along the Shared Public Way.



Permanent Art: Cloud Gate ["The Bean"] is an iconic sculpture and significant attractor for Millennium Park in Chicago. SOURCE: BTAROLI / FLICKR



"Floating Umbrellas" is a temporary overhead installation that activates an alley in Agueda, Portugal. SOURCE: IFINDKARMA / FLICKR



Temporary Art: Ecstasy in Hayes Valley, SF and The Gates in Central Park, NYC are examples of temporary public art of scale. SOURCE: PHOENIXLILY / FLICKR



SOURCE: ROB BOUDON / FLICKR

LEGEND: SUGGESTED PUBLIC ART SITES

- Permanent Public Art:**
 - Mission Rock Square
 - Channel Wharf
 - Channel Street
 - Channel Lane
 - China Basin Park at 3rd Street
 - China Basin Park Waterfront

- Temporary Public Art:**
 - Streetlife Zones



FIGURE 2.11.1 Suggested Public Art Sites Diagram illustrating potential locations of permanent and temporary public art within open spaces and streetlife zones in the public realm. See Chapters 3-4 for related circulation and program controls.



03

OPEN SPACE

Mission Rock's open spaces will be integrated with larger open space networks that operate at the scale of the neighborhood, district, city, and regional San Francisco Bay Area. At the largest scale, Mission Rock will contribute to the Bay Trail System, a waterfront network of trails and access ways with the goal of reconnecting communities with the Bay.

At the district scale, open spaces will provide public space and recreational amenities for the Mission Bay neighborhood. At the local neighborhood scale, Mission Rock's public open spaces will provide a comprehensive variety of recreational opportunities in parks, plazas, and promenades for the community.

Mission Rock will include waterfront open spaces - China Basin Park, the Pier 48 Apron, and Channel Wharf - and urban open spaces - Mission Rock Square, Channel Street, and Channel Lane. These parks and plazas will be designed to take advantage of views, sunshine, and adjacent active ground-floor uses.

The arrangement of these open spaces will also establish destinations within the neighborhood that anchor the public realm. These destinations will maximize the variety of landscape-based experiences and create landmarks within Mission Rock's pedestrian network.

Chapter 3 controls prescribe key features, values, and relationships that will define the qualities and functions of each open space that are essential to creating a unique, vibrant, urban open space network.

3.1	Open Space Network	44
3.2	China Basin Park	46
3.3	Mission Rock Square	58
3.4	Channel Lane	66
3.5	Channel Wharf	68
3.6	Pier 48 Apron	70
3.7	Channel Street	72
3.8	Kiosks + Small Park Structures	74

RELATED CHAPTERS: Each open space in this chapter must satisfy its specific requirements as well as the Public Realm requirements described in Chapter 2: Public Realm Network. This chapter should be read with Chapter 5: Ground Floor, to understand the intended integration of the public realm and vertical development.

3.1 OPEN SPACE NETWORK

The open space network will be a fundamental part of the urban design and definition of Mission Rock. Six open spaces, located along the waterfront and at the core of Mission Rock, will provide a comprehensive variety of recreational opportunities.

These open spaces will include a waterfront park, a working wharf, a publicly accessible pier and apron; a neighborhood square, a waterfront gateway, and a neighborhood gateway. These diverse places will be carefully integrated with the ground-floor and massing strategies of the blocks and buildings to create delightful, welcoming, active, and unique places.

Open Space at Mission Rock will be consistent with Public Trust Uses, and will conform to State Lands Commission and BCDC requirements where applicable. All open spaces will provide active, unique program to attract visitors and create a lively network of well-loved public spaces for San Francisco's waterfront.

STANDARDS

3.1.1 DEDICATED OPEN SPACE

Only certain uses are permitted as-of-right in the dedicated Open Spaces noted in Figure 3.1.1. Public restrooms, small park structures, retail and food kiosks, and open-air structures in support of public recreation shall be permitted in accordance with Section 3.8: Kiosks and Small Park Structures. Public Art shall be permitted in accordance with Section 2.11: Public Art. No other permanent structures shall be permitted in areas designated as Open Space.

3.1.2 COMFORT AND WIND MITIGATION

Open space designs shall employ trees to block wind and shall consider wind conditions relative to pedestrian and recreational program. Appropriate tree species shall be used at densities that maximize comfort while maintaining important visual connections among uses as noted for specific spaces. See Section 2.7 for urban forest performance criteria.

3.1.3 CLIMATE-RESPONSIVE DESIGN

Open space designs shall be responsive to site and Mission Bay microclimates, particularly wind conditions. This is especially important for the selection of plant species, paving, and furnishing materials.

3.1.4 CLASS II BICYCLE PARKING

Class II bicycle parking shall be provided for open spaces. Bicycle parking shall be concentrated at or proximate to park entries, with priority given to key bicycle circulation routes noted in Section 2.4. Refer to Standard 4.1.6 for locations.

GUIDELINES

3.1.5 ECOLOGY AND HABITAT: LEARNING OPPORTUNITIES

Open Space Designs should maximize opportunities for visible ecological systems that are both beautiful and integral to Mission Rock's ecology.

A) Species Diversity

Selected tree and understory species should have demonstrated habitat value and should be appropriate for their specific open space environment, with consideration given to creating successful plant communities within each open space and around the site.

B) Management Plan

Create a long-term management and maintenance plan, with plant palettes and associated maintenance strategies, that addresses plant health, habitat creation, and climate change resiliency.

C) Learning Opportunities

Find opportunities for incorporating ecological systems with programmatic uses. For example, integrate stormwater treatment gardens with active programmatic uses; incorporate ecological interpretation into open space designs.

OPEN SPACES: KEY PLAN AND CHAPTER LOCATIONS

Section 3.2 China Basin Park

Section 3.3 Mission Rock Square

Section 3.4 Channel Lane

Section 3.5 Channel Wharf

Section 3.6 Pier 48 Apron

Section 3.7 Channel Street

Additional Related Sections :

Section 3.8 Kiosks + Small Park Structures

Section 4.2 Paseo: Shared Public Way

Section 4.3 Paseo: Terry Francois Boulevard

Section 4.4 Paseo: Bridgeview Street



FIGURE 3.1.1 Location Map of Open Spaces at Mission Rock and their chapter locations in this DC document.

3.2 CHINA BASIN PARK

Read in conjunction with Section 3.6: Pier 48 Apron, Section 4.3: Terry A Francois Boulevard, Section 5.1: Active Edges, and Section 5.7: Parkfront Zone. China Basin Park must also satisfy the requirements described in Chapter 2: Public Realm.

China Basin Park will be a vibrant, active waterfront park, and a year-round amenity for the greater San Francisco and regional San Francisco Bay Area community. A waterfront promenade will link a diverse range of activities, creating a dynamic, unique place that will establish a paradigm for resilient 21st-century waterfront parks.

This park will be coupled with the rehabilitated Pier 48 to create a synergistic public open space that integrates industrial, maritime, and recreational uses.

Controls are organized topically in several sub-sections:

- Circulation
- Program and Use Areas
- Resiliency and Sea Level Rise
- Ecology, Habitat, and Management



Conceptual Rendering of the Waterfront Promenade

STANDARDS

3.2.1 PUBLIC TRUST CONSISTENT USES

China Basin Park shall be a regional waterfront destination consistent with the Public Trust that provides increased access to the waterfront, active and unique program to attract visitors, and waterfront ecological amenities.

3.2.2 REQUIRED STRUCTURES

Public Restrooms, Retail, and Food Kiosks are required in China Basin Park. Permanent structures may be located as described in Section 3.8; permanent structures outside this zone will not be permitted as-of-right. See Section 3.8 for location and functional controls.

3.2.3 STORMWATER TREATMENT AREAS

China Basin Park shall include large, feature stormwater treatment gardens. These areas must be functionally and aesthetically integral to the experience of the park. See Guideline 3.2.18 for suggested palette and Section 2.8 for more information about stormwater treatment strategies. Refer to Infrastructure Plan for specific technical requirements.

3.2.4 PROGRAM AREAS: 3 ROOMS + WATERFRONT PROMENADE

China Basin Park shall have three programmatic “rooms” – Plaza, Play Area, and Great Lawn – connected by a Waterfront Promenade as described in Standard 3.2.7 and illustrated in Figure 3.2.1. See Guideline 3.2.10 for functional and spatial relationships within these program areas, and Figure 3.2.6 for the elevation relationships of these program areas.

3.2.5 VISUAL ACCESS

Visual access to the Bay is paramount and views to the water shall be afforded from the Park Promenade across the park. First branching height and spacing of trees shall facilitate these views while complying with Standard 3.1.2.

3.2.6 PARK UTILITIES

Electrical service, potable water, and sewer supply shall be provided at the waterfront side of the Great Lawn, to accommodate varied large-scale events such as movie nights, festivals, concerts, etc.; to serve small park structures; and along the Park Promenade and the Waterfront Promenade, including the Picnic Area. Refer to the Infrastructure Plan for additional information regarding utilities.

SUGGESTED LOCATIONS FOR PARK STRUCTURES:

-  Small Park Structures
-  Kiosks
-  Recreational Structures



FIGURE 3.2.1 Primary Program Elements: This diagram illustrates required program uses in China Basin Park: the 3 “Rooms” required by standard 3.2.4, kiosks and structures required by standard 3.2.2, stormwater gardens required by standard 3.2.3, and visual access to the Bay required by standard 3.2.5.

CIRCULATION

STANDARDS

3.2.7 WATERFRONT CIRCULATION: BAY TRAIL / BLUE GREENWAY

The Waterfront Promenade shall engage the park's Three Rooms, provide varied experiences along its length, and offer Bay access and views.

A) Clear Width of Bay Trail / Blue Greenway

The Waterfront Promenade shall integrate the Bay Trail/Blue Greenway as a multi-use trail that is a minimum of 16 feet clear width. The Waterfront Promenade is an important segment of the Bay Trail/Blue Greenway.

B) Universal Access: Waterfront Promenade

The Waterfront Promenade shall not exceed a maximum of 5% longitudinal slope or a maximum cross-slope of 2%.

C) Bicycle Connections

The Waterfront Promenade shall clearly connect to bicycle facilities on Bridgeview Street and to the multi-use trail extension of the Bay Trail/Blue Greenway on the east side of the Terry A Francois Boulevard right-of-way. Effective warning cues and controls shall be included in the park to minimize pedestrian and bicycle conflict. See Section 3.6, Section 4.3, and Section 4.4. Figure 3.2.2 illustrates a potential connection to future City bicycle facilities at Lefty O'Doul Bridge.

3.2.8 PARK PROMENADE

There shall be a pedestrian-only promenade located along the south edge of the park in front of buildings on Blocks A, G, and K that is a minimum of 24 feet wide. This area shall include a 12'-wide active edge and a minimum 12'-clear pedestrian throughway. This promenade shall not exceed a maximum of 5% slope in the direction of travel at grade change locations. Width of the promenade shall be coordinated with underground utilities; refer to Infrastructure Plan. Also see 5.7: Parkfront Zone.

3.2.9 CONNECTIONS AMONG KEY PLACES

Circulation shall reinforce important pedestrian and bicycle connections to the Shared Public Way, Mission Rock Square, and Pier 48 per Figure 3.2.3.



An active waterfront promenade that provides seating, bicycle, and pedestrian access. SOURCE: KMF164 / FLICKR

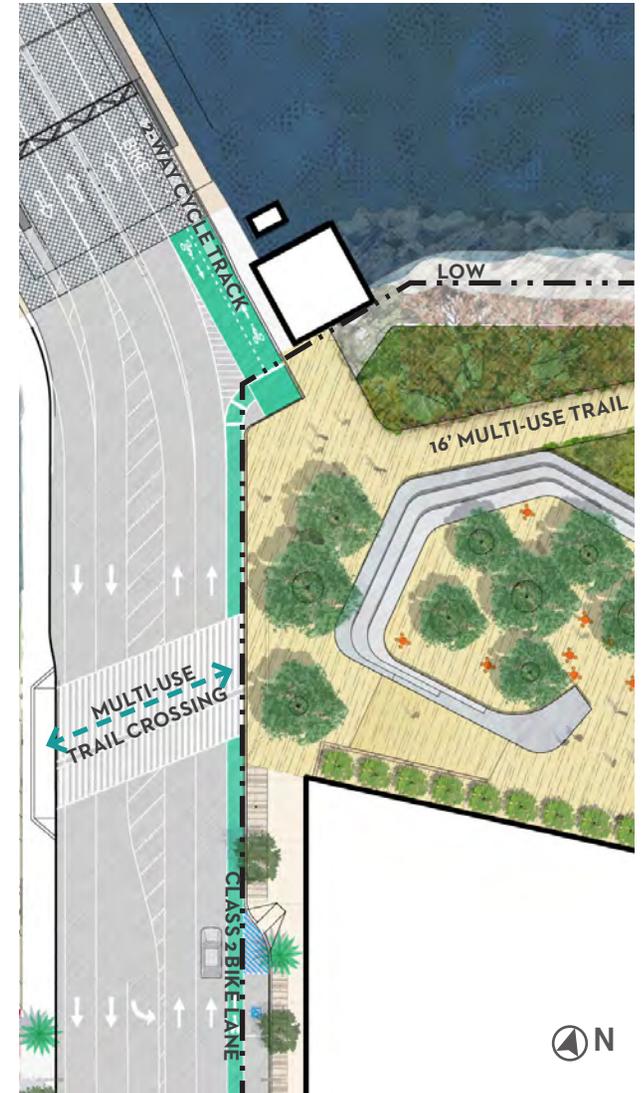


FIGURE 3.2.2 Conceptual diagram of future bicycle connections at Lefty O'Doul Bridge that satisfies the controls herein. This is provided for illustrative purposes only and does not represent a design proposal.

LEGEND: CIRCULATION + CONNECTIONS

- Major Pedestrian Connections (Shared Public Way + Park Promenade)
- Primary Bicycle Route: Multi-Use Trail
- Waterfront Multi-Use Trail Connection
- Bike Lane
- Secondary Path
- Warning Cues: Key Locations

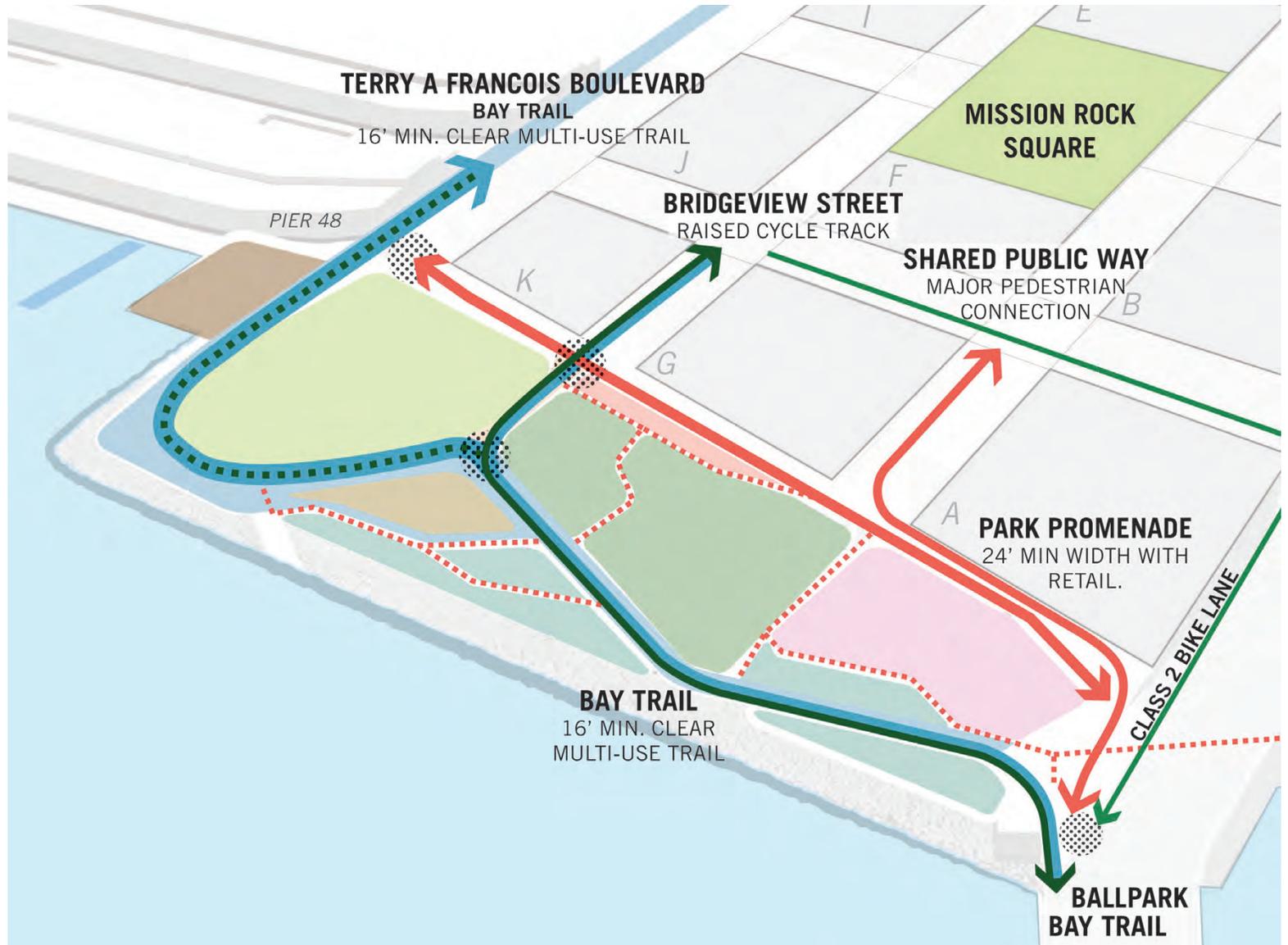


FIGURE 3.2.3 Circulation + Connections: This diagram illustrates the circulation connections described in Standards 3.2.7-3.2.9, including the Bay Trail/Blue Greenway, a major pedestrian and bicycle route; the Park Promenade, a pedestrian-only connection; and secondary, smaller-scale paths. These will connect important site anchors such as Pier 48, the Shared Public Way and Mission Rock Square, and the Ballpark.



PROGRAM

GUIDELINES

3.2.10 PROGRAM AND SPATIAL RELATIONSHIPS

The following relationships are suggested within the Program Areas described in Standard 3.2.4; also see Figure 3.2.4:

A) Entry Plaza

Associated with 3rd Street and Lefty O'Doul Bridge. This gateway to the site is a potential public art location.

B) Upper Plaza

Adjacent to the Entry Plaza, but elevated to create a perch on grade with the Shared Public Way and the Park Promenade. It should be visually connected to a Stormwater Garden, the Play "Room," the Multi-Use Trail, and China Basin.

C) Stormwater Treatment Gardens and Planting Areas

Associated with the Upper Plaza, the Multi-Use Trail, and the Waterfront Promenade. Planting within the rip-rap surrounding treatment areas is encouraged, but should not displace and/or require disposal of existing rip-rap. See Standard 3.2.4 and refer to Infrastructure Plan.

D) Active Recreation

Adjacent to the Upper Plaza and the Multi-Use Trail; should contain recreational lawn areas and a junior-sized baseball field or other organized play field. This area should have visual connectivity to the Park Promenade, the Park Café, the Waterfront Promenade and the Bay, the Great Lawn, and Stormwater Treatment Garden.

E) Family Play

A regional-serving family play zone that is unique in design and regional in nature; should include paved and/or accessible areas that seamlessly incorporate fall zone requirements for play areas. This area should connect visually to the Park Café, the Park Promenade, and the Great Lawn.

F) Food Kiosks

Located along the Park Promenade adjacent to the Family Play Zone. This area should have special paving, unique trees, and distinctive movable furnishings and should be visually connected to the Play "Room", the Park Promenade, the Great Lawn, and the water.

G) Great Lawn

Adjacent to the Waterfront Promenade, the Park Café, the Picnic Area, and the Park Promenade. This area should be visually connected to the water, to Pier 48, and to the Family Play Zone, and should accommodate large events.

H) Park Café

Adjacent to the Play "Room", the Great Lawn, and Stormwater Treatment Gardens. This structure should be visually connected to the Great Lawn, the Family Play Zone, and the Food Kiosks. See Section 3.8: Kiosks and Small Park Structures.

I) Picnic Area

Adjacent to Pier 48, the Waterfront Promenade, and the Great Lawn. This program should not impede access to the Pier 48 Apron; unobstructed Public Access at least 8' wide must be maintained at the perimeter of this area. See Section 3.6.

J) Watercraft Launch + Rental Kiosk

Non-motorized watercraft launch with rental kiosk located at the Pier 48 Apron. See Section 3.6.

PROGRAM PRECEDENT IMAGES



Terraces direct views and provide an informal gathering space. SOURCE: AERIC / FLICKR



A youth ballfield is an example of Active Recreation. SOURCE: SFGIANTS



A unique play environment provides space for family play. SOURCE: WILLIAM LANGDON/BLOGSPOT



An example intimate retail kiosks for the Park Promenade. SOURCE: THERESE SWAN



An example of active waterfront space for sunning. SOURCE: HENNING-STUBEN_KALVBOD WAVES



A precedent for outdoor dining at the picnic area. SOURCE: GROUNDSWELL LLC



FIGURE 3.2.4 Program and Spatial Relationships: This diagram illustrates the key relationships, adjacencies, and approximate scale among the program areas described in Guideline 3.2.18.



GUIDELINES

3.2.11 SIGNATURE AMENITY

One park cafe, or a group of up to three associated kiosks located in the 'park cafe' zone, should be located adjacent to the waterfront promenade, Great Lawn, and Family Play Zone. This area should accommodate a signature amenity that will be a significant attractor to China Basin Park. See (H) in Figure 3.2.4, and refer to Section 3.8: Kiosks and Small Park Structures.

3.2.12 OVERLOOKS

Two overlooks may be provided in China Basin Park. These shall be associated with the Waterfront Promenade and key views across the Bay. See Section 3.6: Pier 48 Apron and (10) on Figure 3.2.5. Overlooks must be constructed in a way that does not disturb existing riprap.

A) Industrial Remnants

One of the two overlooks may align with the industrial rail spur remnants at the northeast corner of the site; this is also an opportunity for interpretive signage describing the history of the site and the Bay edge. See (14) on Figure 3.2.5.



A small park cafe with generous outdoor seating is an example of a signature amenity. SOURCE: CMG



The Great Lawn should accommodate large events such as a movie night on the Lawn. SOURCE: CMG



A waterfront outlook incorporates shoreline riprap as a design element. SOURCE: AERIC / FLICKR



An example of an overlook at the water's edge. SOURCE: (C) VEGAR MOEN



CONCEPTUAL PLAN

- | | | | | | |
|---------------|-------------------------------|---------------------|----------------------|------------------|------------------------|
| 1 Entry Plaza | 3 Stormwater Treatment Garden | 5 Park Promenade | 7 Family Play Zone | 10 Overlook | 13 Rental Kiosk |
| 2 Upper Plaza | 4 Waterfront Promenade | 6 Active Recreation | 8 Great Lawn | 11 Picnic Area | 14 Industrial Remnants |
| | | 9 Park Cafe | 12 Watercraft Launch | 15 Retail Kiosks | |

FIGURE 3.2.5 Conceptual Plan of China Basin Park that satisfies the controls herein. This is provided for illustrative purposes only and does not represent a design proposal.

DESIGNING A RESILIENT + ADAPTIVE PARK

Sea level rise and climate change are increasingly important issues for San Francisco's waterfront. The Mission Bay neighborhood, sited on filled saltwater marsh, may be vulnerable in future flood events.

China Basin Park will balance maximizing public access to the waterfront with 'living with the Bay' in the face of future sea level rise. Key public access areas will be elevated for protection from future flood events based on current sea level rise projections, while other program areas will accommodate these flood events.

This balance, achieved through grade changes within the park, will create opportunities for unique spatial relationships among program uses and will be an integral aspect of designing a functional, resilient park with ecological and social vitality.

Finish grade elevations in the park will be based on 2100 sea level rise projections, to maintain public access and to help ensure that accessible paths of travel remain free of flood water except in extreme storm events.

GRADE CHANGE TACTICS AND OPPORTUNITIES



Natural or sculptural elements soften grade changes and provide informal steps.

SOURCE: SAMANTHA CHAPNICK/FLICHR



Incorporating stepped play elements or slides into grade change locations takes advantage of different elevations in the park to provide signature play opportunities.

SOURCE: CMG SOURCE: NO ORIGINAL FOUND



Terraces or bleachers provide an active social space that frames program areas and directs views.

SOURCE: ALLISON MEIER/FLICHR



A sloped lawn enhances views to the water and provides space for large and small gatherings.

SOURCE: THE GOLDEN ETERNITY/FLICHR

STANDARDS

3.2.13 GRADING: DESIGN CRITERIA

The park shall be graded to maximize public access to the waterfront with sea level rise. Park grades shall transition between the design elevation of the development blocks, the Bay Trail/Waterfront Promenade, and existing grade at 3rd Street, Pier 48, and the shoreline. Refer to Infrastructure Plan Chapter 5.

3.2.14 GRADE CHANGE

A) Universal Access

Provide universal access to all spaces as practicable. The Park Promenade and Waterfront Promenade shall not exceed 5% maximum slope in the direction of travel. Comply with applicable accessibility guidance.

B) Design Tactics

Utilize varied tactics for grade changes. These tactics shall provide seating, direct views, and connect spaces and uses in a meaningful way that is integral to the overall programmatic relationships of the park. Tactics may include terraces, bleachers, and sloped lawn areas.

3.2.15 FINISH FLOOR ELEVATION OF OPEN SPACE STRUCTURES

Structures and kiosks permanently located in China Basin Park shall be sited in areas of higher elevation and shall open directly out onto adjacent public space at grade. See 3.2.2: Required Structures and Section 3.8: Kiosks and Small Park Structures.

3.2.16 RELATIONSHIP TO ACTIVE EDGES ON PARK PROMENADE

The Park Promenade described in standard 3.2.8 includes Active Edges along Blocks A, G, and K. To maximize connections between the park, active edges, and ground floor program, ramps are not permitted in this area. Grade change, where required along the Park Promenade, shall be 5% maximum slope in the direction of travel. Also see Section 5.7: Parkfront Zone.

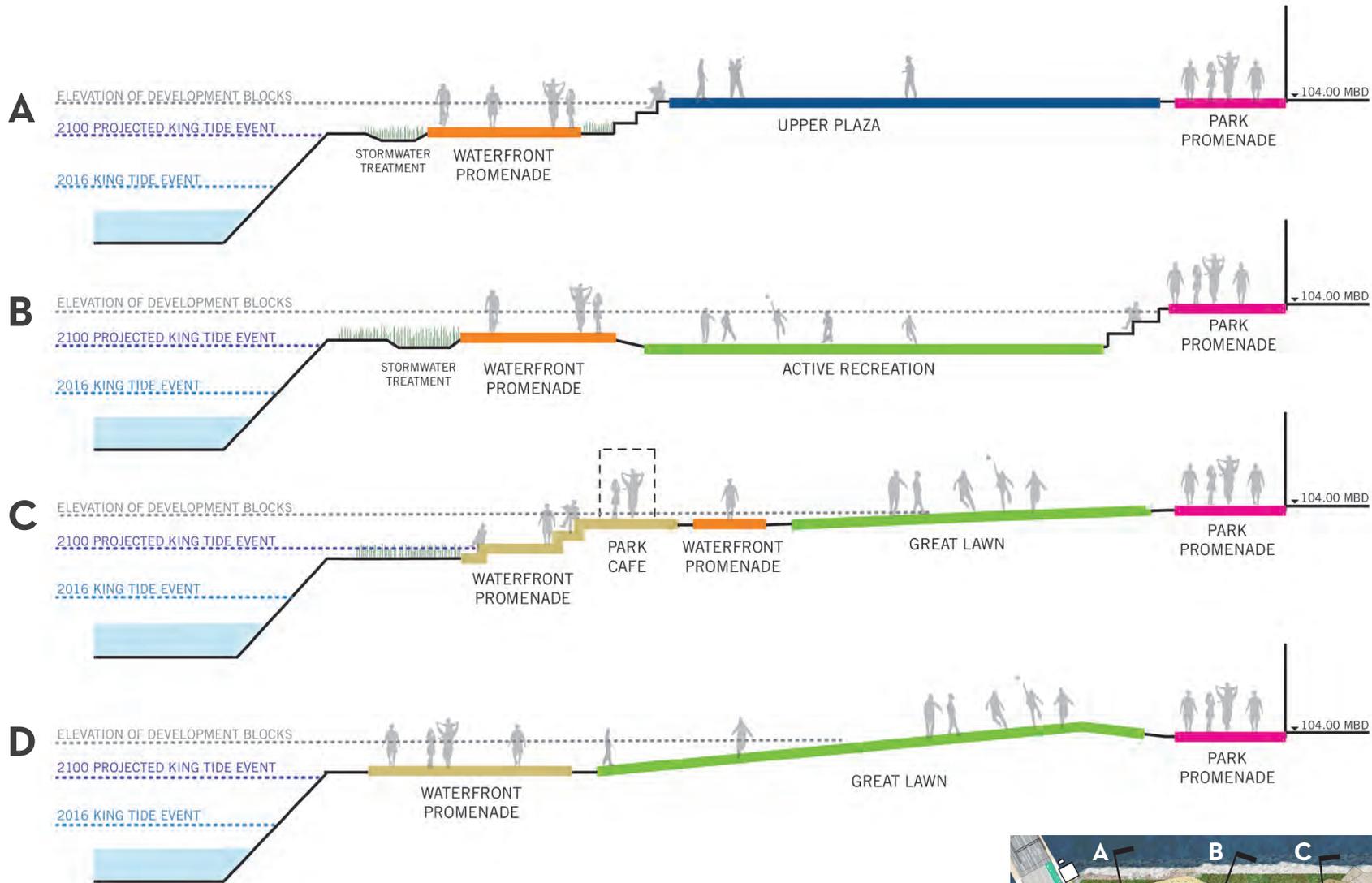
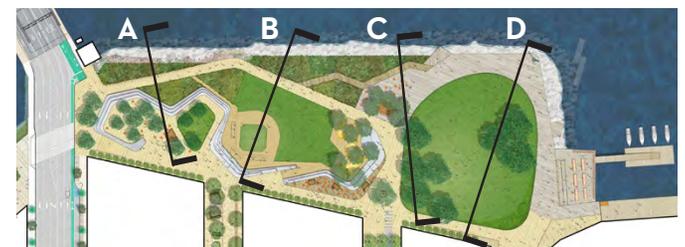


FIGURE 3.2.6 Programmatic Relationships: This diagram illustrates the sectional relationship of program areas described in Guideline 3.2.18, to each other and to key sea level rise elevation benchmarks. While the entire footprint of the park is not elevated, future design concepts will maximize public access by elevating key circulation elements of the park such as the Bay Trail and Park Promenade. (Note: elevations shown in Mission Bay Datum/MBD.)



ECOLOGY, HABITAT, + MANAGEMENT

As a regional waterfront park, China Basin Park will be a paradigm for sustainable ecological systems and management over time. Its active programming and location on the Bay will make it a learning environment where visitors will engage not only with each other, but with the plants and animals that thrive in this unique habitat.

China Basin Park's stormwater treatment areas will be integrated with active use of the park, and will be planted with resilient native and naturalized species that perform ecologically and aesthetically; trees will act as windbreaks and provide sheltered gathering spaces. Management over time will ensure that China Basin Park adapts to a changing climate and an evolving city.

STANDARDS

3.2.17 STORMWATER TREATMENT AREA MANAGEMENT

A) Inundation

Stormwater treatment gardens shall be designed with backflow prevention and shall be taken offline in the event of a storm that would inundate them with saline bay water. Plant species should be considered carefully to provide salt-tolerant planting to maintain function in the case of an extreme Bay flood event. See Guideline 3.2.18 and refer to Infrastructure Plan.

B) Plant Species Adaptation

Saline-tolerant plant species shall be included in the maintenance and management strategy of the stormwater gardens to increase resilience of treatment gardens in the case of inundation in a Bay flood event. These species shall meet the functional and aesthetic requirements described in Guidelines 3.2.18 and 3.2.19.



Boardwalk access through a native marsh creates an immersive experience. SOURCE: CMG



Native planting in public spaces, such as the marsh at Crissy Field, can both connect people to their environment and create a landscape that is resilient in flood events. SOURCE: CMG

GUIDELINES

3.2.18 RESILIENT PLANTS

Tree, understory, and stormwater garden plants should contribute functionally and aesthetically to the park's overall design concept and experience. Also see Section 3.1.

A) Site + Program Specificity

Species should be adapted to particular site conditions, microclimate, and programmatic needs of each space, including foot traffic and active and passive recreational uses.

B) Water Use

Specify low-water use plants wherever feasible. Use native or naturalized species.

C) Tree Palette

See Section 2.7 for performance and design criteria.

D) Understory Palette

The stormwater garden palette should be selected to meet the following criteria:

- ▶ Select for maximum seasonal and ornamental impact.
- ▶ All species should be native, naturalized, or climate-appropriate if non-native.
- ▶ All species should thrive in full sun.
- ▶ Select species with habitat value.
- ▶ Select saline-tolerant species where appropriate.

▶ Suggested understory palette*:

- Artemisia californica* (Coastal Sagebrush)
- Erigonum fasciculatum* (California Buckwheat)
- Lupinus albifrons* (Silver Bush Lupine)
- Mimulus aurantiacus* (Sticky Monkeyflower)
- Mimulus guttatus* (Creek Monkeyflower)
- Salvia clevelandii* (Cleveland Sage)
- Salvia mellifera* (Black Sage)
- Salvia spathacea* (Hummingbird Sage)
- Sisyrinchium bellum* (Blue-Eyed Grass)
- Tradescantia virginiana* (Virginia Spiderwort)
- Vaccinium ovatum* (California Huckleberry)

*Source: SFPUC Stormwater Design Guidelines, Appendix D.

3.2.19 ADAPTATION FOR RESILIENCE

Stormwater Treatment Areas should be gradually inter-planted with saline-tolerant species to maintain performance and species richness, based on a Management Plan responsive to sea level rise. See Section 3.1.

A) Evaluation of Species Health

Evaluate the health of trees and understory plants at least once each year.

3.2.20 NON-ALLERGY CAUSING SPECIES

Plant species known to cause common allergies should be avoided.



SOURCE: ED323_WIKIPEDIA



SOURCE: WIKIPEDIA



SOURCE: CMG

Large-canopy, evergreen trees with spreading character are appropriate for the Great Lawn and Upper Plaza.



Small trees with arching character and distinctive bark are appropriate for the Park Promenade. SOURCE: NONE FOUND

3.3 MISSION ROCK SQUARE

Read in conjunction with Section 3.4: Channel Lane, Section 3.7: Channel Street, Section 4.3: Shared Public Way, Section 4.4: Bridgeview Street, and Chapter 5: Ground Floor. Mission Rock Square must also satisfy the requirements described in Chapter 2: Public Realm.

The centrally located Mission Rock Square will be the heart of the Mission Rock project. The civic character of this sunny square, wind-protected and surrounded on all sides by activity, will provide an intimate, welcoming urban moment within the fabric of the developing Mission Bay neighborhood.

This neighborhood square will balance spatial enclosure with connections to the Shared Public Way and the Working Waterfront. Mission Rock Square will be a public “living room” where cafés and outdoor seating will frame an open area large and flexible enough to accommodate temporary uses and events. Public art and a pavilion will be destinations that create identity and attract people and activity to the Square.



An example of a public ‘living room’ - a movie event at Bryant Park, a large flexible lawn enclosed by trees. SOURCE: ACNATTA/FICKR

STANDARDS

3.3.1 WIND PROTECTION

Mission Rock Square shall be protected from wind and down-drafts through tree planting. See Sections 2.7 and 3.1.

3.3.2 REQUIRED STRUCTURES

One permanent retail and food structure that includes Public Restrooms is required in Mission Rock Square. The permanent structure may be located as described in Section 3.8; permanent structures outside this zone will not be permitted. Additional temporary kiosks may be permitted.

3.3.3 STORMWATER TREATMENT AREA

Mission Rock Square shall include at least one feature stormwater treatment garden that is functionally and aesthetically integral to the experience of the Square. See Guideline 3.3.13 for parameters and refer to Infrastructure Plan for specific technical requirements.

3.3.4 CIRCULATION: SITE-WIDE ROUTES

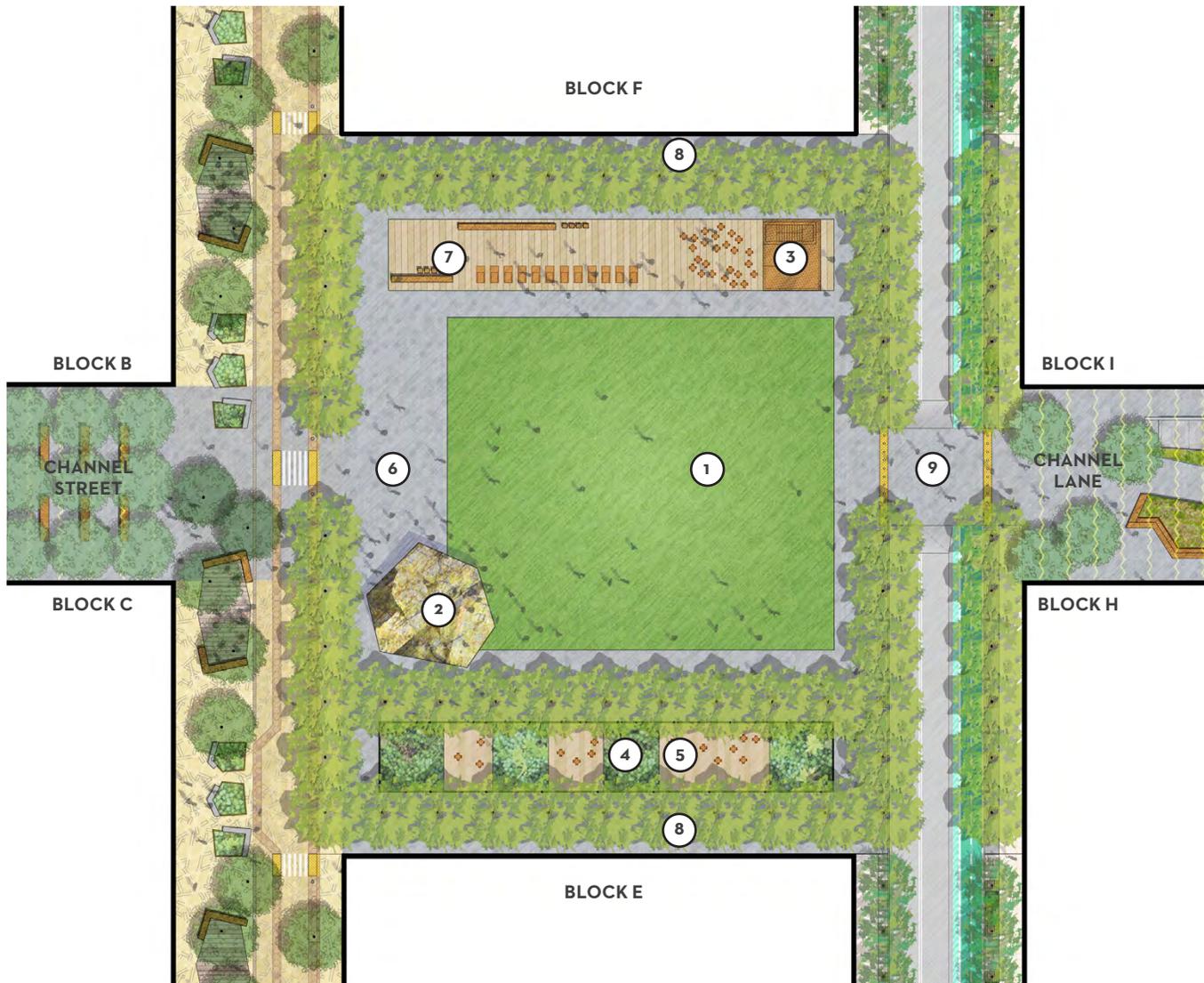
Design concepts for Mission Rock Square shall engage priority site circulation routes, including the Shared Public Way; Channel Street and Channel Lane, which connect 3rd Street and Mission Bay to the waterfront; and the dedicated bicycle facilities on Bridgeview Street.

3.3.5 CIRCULATION AND VIEWS WITHIN MISSION ROCK SQUARE

Views and circulation access shall be maintained between the Active Edges at Blocks E and F and the multi-use area at the center of the Square. Universally accessible circulation to the required small park structure shall be provided. See Standard 3.3.2 and Section 3.8.

3.3.6 VISUAL ACCESS

Visual access to the Bay is a significant design consideration in Mission Rock Square. Views to the water shall be maintained through Mission Rock Square from Channel Street; see Figure 3.3.3.



CONCEPTUAL PLAN

- 1 Central Event Space
- 2 Iconic Feature
- 3 Food/Retail Structure with Public Restrooms
- 4 Stormwater Treatment Garden
- 5 Boardwalk Crossings/Decks
- 6 Forecourt at Shared Public Way
- 7 Large-Scale Feature Furniture
- 8 Active Edge (see Chapter 5)
- 9 Raised Pedestrian Crossing

FIGURE 3.3.1 A Conceptual Plan of Mission Rock Square that satisfies the controls herein. This is provided for illustrative purposes only and does not represent a design proposal.

STANDARDS

3.3.7 PROGRAM AREAS

To create a diverse range of active and passive gathering spaces that take advantage of sunny zones and connect to building uses, the following program areas shall be accommodated in Mission Rock Square as described in Figure 3.3.2:

A) Multi-Use Area

A multi-use area at the center of the square shall accommodate large events. See 3.3.14.

B) Tree Grove

The Square shall be enclosed by a grove of trees that is in accordance with Standard 3.3.6. See Standards 3.3.9-12 and Figure 3.3.3.

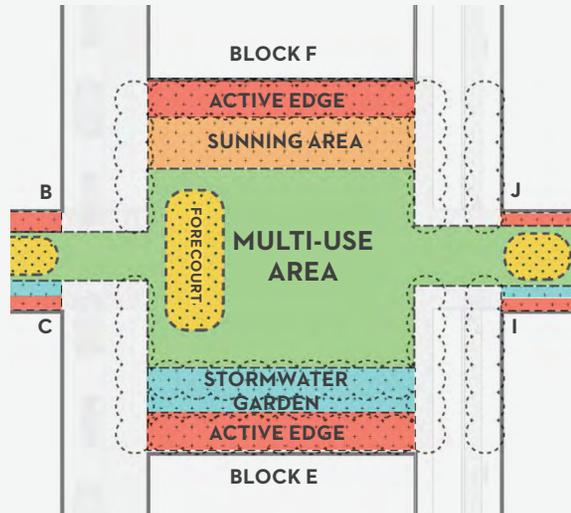


FIGURE 3.3.2 Program Areas. This diagram illustrates the key relationships and adjacencies among the program areas described in Standard 3.3.7.

C) Active Edges

To support the connection between ground-floor Active Edges and the Square, building frontages on Mission Rock Square adjacent to blocks E and F may utilize up to 15 feet horizontal from the block boundaries for outdoor spill-out space, inclusive of a 6'-minimum clear path of travel. See Section 5.6: High-Retail Zone.

D) Thresholds: Stormwater Gardens and Sunning Area

Threshold spaces between program areas A) and B) shall provide intimate, memorable social spaces that connect Active Edges to the center of the Square. Concepts for these program areas shall take advantage of specific microclimate conditions of sun and shade and provide feature seating opportunities. See Figure 3.3.4 and Guidelines 3.3.13 and 3.3.17.

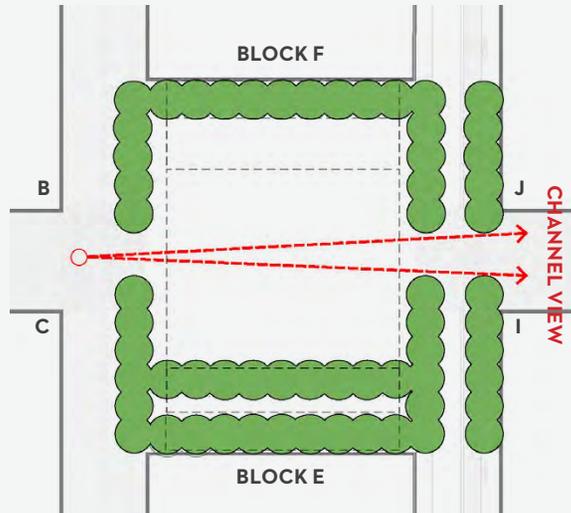


FIGURE 3.3.3 Tree Grove. This diagram illustrates the required degree of enclosure for the Square and the visual access that must be maintained per Standard 3.3.6.

3.3.8 ICONIC FEATURE

An iconic feature, such as a sculpture or small structure, shall create a nexus and meeting spot in Mission Rock Square and reflect a fundamental aspect of Mission Rock's identity. See Guideline 3.3.16 for suggestions.

This iconic feature may be distinct from the permanent structure described in Standard 3.3.2, or may be considered integral to this structure. Weight and placement shall be coordinated with geotechnical considerations; refer to Infrastructure Plan.

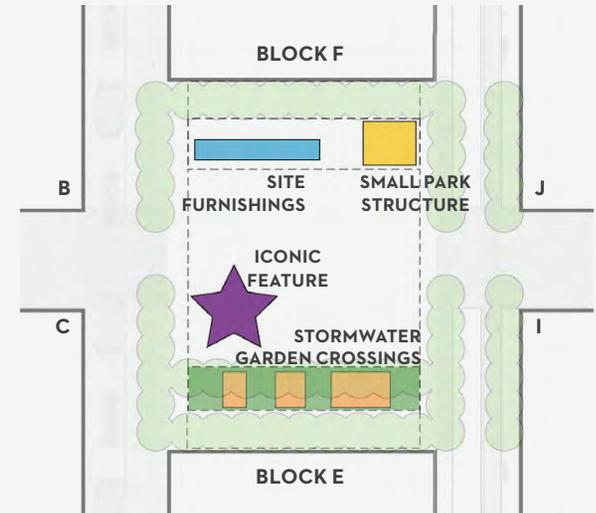


FIGURE 3.3.4 Elements. This diagram illustrates potential locations of program elements: iconic feature, park structure, stormwater gardens with occupiable crossings, and site furnishings.

STANDARDS

3.3.9 TREES: ENCLOSURE AND VIEWS

Design concepts for Mission Rock Square shall create a strong sense of enclosure with trees, but maintain views into and out of the square, most significantly to the Bay through Channel Lane. See Figure 3.3.3, and see Section 2.7 for aesthetic and performance requirements and recommended species.

3.3.10 TREES: SEASONAL DISPLAY

Tree species selected for Mission Rock Square shall have a singular seasonal display that creates a special, highly unique seasonal identity and programmatic opportunity; for example, festivals that coincide with a fall foliage or spring flower display. See Section 2.7.

3.3.11 MINIMUM SOIL DEPTH AT TREE AND UNDERSTORY PLANTING

If lightweight fill is utilized to accommodate geotechnical considerations, the following controls shall apply. Refer to Infrastructure Plan for geotechnical information.

A) Tree Planting

Four feet minimum soil depth and a continuous and contiguous 6-12"-depth drainage layer under tree planting areas shall be provided. See Section 2.7 for recommended soil volume ranges for trees,

B) Understory Planting

A minimum of 18 inches of soil depth and adequate drainage at understory planting areas that do not include trees shall be provided. See Section 2.8 and refer to Infrastructure Plan for technical requirements for stormwater treatment gardens.

GUIDELINES

3.3.12 TREE PLANTING: OUTER AND INNER GROVE

To create a strong sense of enclosure, use a single uniform species for the outer grove illustrated in Figure 3.3.6. This grove should extend across Bridgeview Street. See Section 2.7 and Figure 3.3.6.

A) Spacing

Spacing of trees in the outer grove should be a minimum of 12 feet on center to a maximum of 22 feet on center, as approved in consultation with a certified arborist.

B) Clear Trunk at Maturity

At maturity, first branching height of the outer grove in Mission Rock Square should be 8 feet minimum and should create a consistent ceiling.

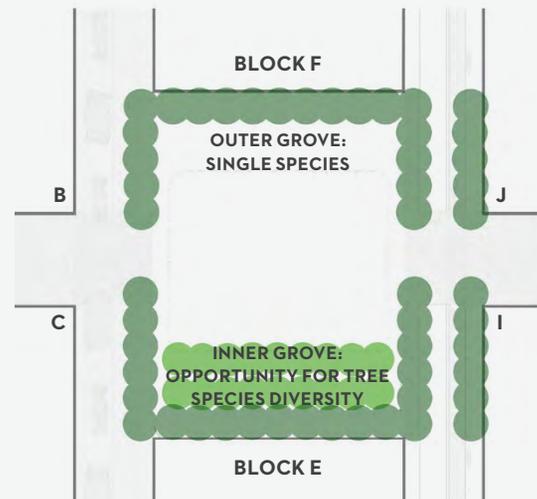


FIGURE 3.3.6 Tree Planting in Mission Rock Square should include an outer grove comprised of a single species in accordance with Guideline 3.3.12; additional tree species may be varied.

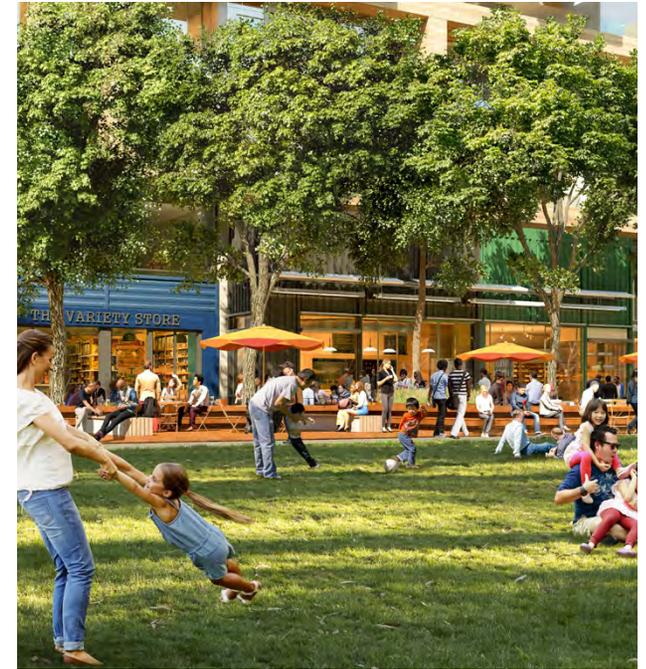


FIGURE 3.3.5 Artist's rendering of Mission Rock Square from the Shared Public Way.

GUIDELINES

3.3.13 FEATURE STORMWATER TREATMENT GARDENS

Stormwater treatment gardens will provide an opportunity to integrate lush understory planting and habitat with program, use, and engagement.

A) Crossings for Active Edges

Crossings should be included in stormwater treatment gardens to allow Ground Floor Uses in Block E to spill out into this area. These should not compromise the functionality of this treatment facility. See Figure 3.3.4.

B) Food Service at Crossings

Facilities for outdoor seating, such as a wait service station and/or ABC rails, are permitted and should be accommodated.

C) Program and Use

Maximize opportunities to interact with, cross, and occupy the garden, and maximize connection and views to the central multi-use area and the adjacent Active Edge. Include temporary or permanent seating in this area.



A precedent 3.3.13-B), for food service within an intimate grove of trees. SOURCE: CMG

D) Suggested Understory Palette

Plant palette selection criteria should include:

- ▶ Maximum seasonal and ornamental impact
- ▶ Species should be native, naturalized, or climate-appropriate if non-native
- ▶ Species should tolerate shade
- ▶ Select species with habitat value
- ▶ Suggested species that meet this criteria*:
 - Adiantum jordanii* (CA Maidenhair Fern)
 - Dicentra formosa* (Pacific Bleeding Heart)
 - Dryopteris expansa* (Spreading Wood Fern)
 - Ribes sanguineum* (Red-Flowering Currant)
 - Rosa californica* (California Wild Rose)
 - Rubus ursinus* (California Blackberry)
 - Solanum umbelliferum* (Nightshade)
 - Vaccinium ovatum* (California Huckleberry)
 - Woodwardia fimbriata* (Giant Chain Fern)

*From SFPUC Stormwater Design Guidelines, Appendix D



An example of seating integral to a stormwater treatment garden that promotes engagement with this key infrastructural element. SOURCE: CMG

GUIDELINES

3.3.14 CENTRAL MULTI-USE AREA

The central multi-use area should be designed with circulation, crowds, and maintenance in mind. If the best programmatic and experiential choice for this multi-use area is determined to be lawn, consider a paved forecourt at the Shared Public Way to accommodate heavy foot traffic. See Figure 3.3.2.

3.3.15 FLEXIBLE USE AND PROGRAMMING

Events in Mission Rock Square will be a mix of active, retail, and passive recreational and social uses.

A) Large-Scale Events

The Square should be designed to accommodate large-scale events, including a large event tent (100'x100', up to 100'x200'); outdoor movie nights; and active program such as tai chi, dancing, and yoga in a central multi-use space. (Image A)

B) Medium-Scale Events

The Square should comfortably accommodate small concerts and festivals, game-day parties and gatherings, and active program such as roller skating and pick-up games. (Image B)

C) Small-Scale Events

The Square should be designed to accommodate intimate, small activities ranging from game tables (fixed or temporary), picnicking, and frisbee; outdoor dining and happy hours; and sunning/lounging areas in sunny zones. (Image C)



(A) This event tent, at Mint Plaza, is an example of a large-scale event that should be accommodated in the Square. SOURCE: CMG



(B) This small concert at Mint Plaza, facilitated by flexible seating on a multi-use plaza, is an example how a medium-scale event could be accommodated in the Square. SOURCE: CMG



(C) The Square should comfortably facilitate small-scale events or activities, such as this permanent game table. SOURCE: BOBBY WILLIAMS / EVGRIEVE.COM

GUIDELINES

3.3.16 SOCIAL OBJECTS

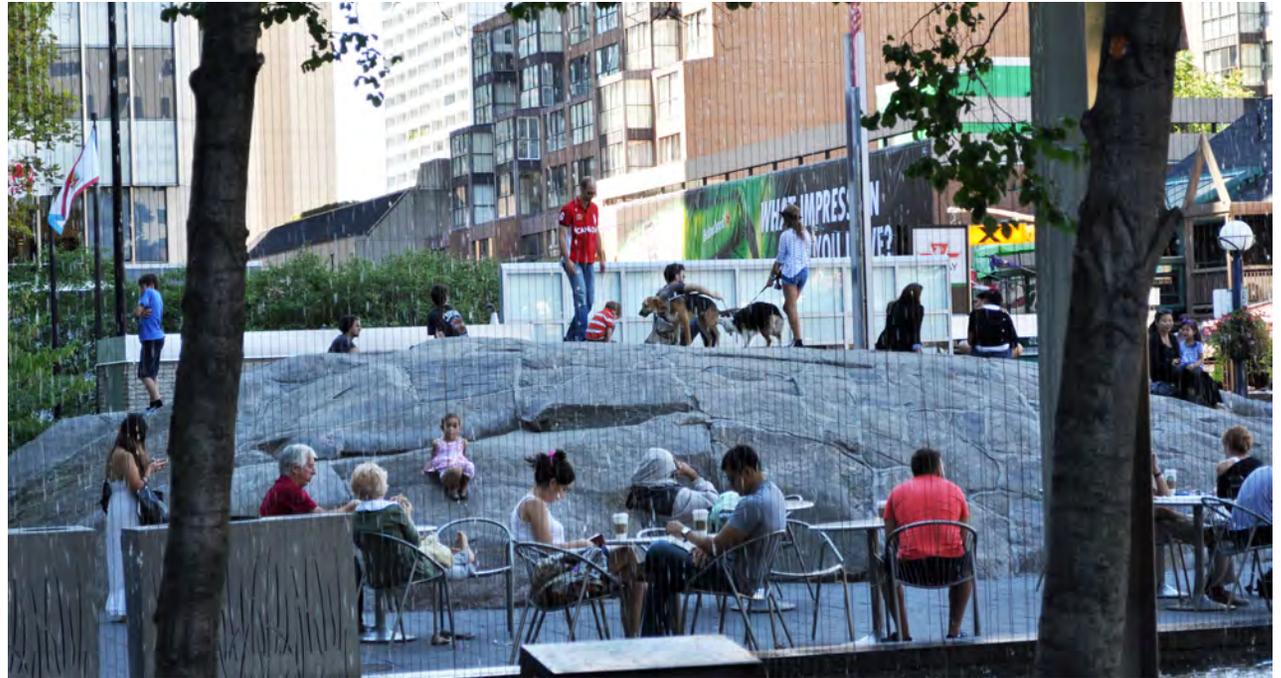
Mission Rock Square will have a highly unique character as Mission Rock's public living room. One aspect of this character is the inclusion of "social objects", distinctive and fun elements that are particular to Mission Rock Square. These social objects should be iconic and recognizable, facilitating different scales of gathering and use. See Figure 3.3.4.

A) Iconic Feature: Meet Me at Mission Rock

The iconic feature in Mission Rock Square could be, but is not limited to, a sculpture or small structure. It should be considered as a central activator for Mission Rock Square. See Standard 3.3.8 and Section 2.11.

B) Feature/Destination Lighting

Fun, unique feature destination lighting should create a special nighttime identity for Mission Rock Square. See Section 2.9 for suggested footcandle ranges and uniformity ratios.



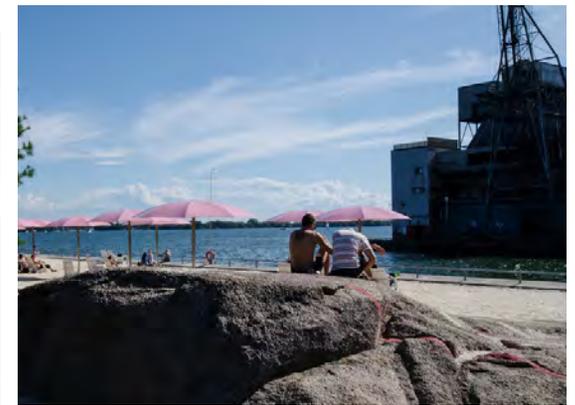
An rock outcropping is an example of an iconic feature that is integral to the design and social function of an open space in Toronto. SOURCE: KATHLEEN COREY / FLICKR



Iconic lights create a special nighttime identity. SOURCE: INDIANADINOS / FLICKR



These sculptural rock outcroppings are precedents for the iconic feature in the Square: for example, Meet Me at Mission Rock! (L) © PWP LANDSCAPE ARCHITECTURE / (R) SOURCE: CHRIS TYLERTO / FLICKR



GUIDELINES

3.3.17 SITE FURNISHINGS

Site furnishings should be a mix of small-scale permanent seating, movable seating, and large-scale permanent seating. Also see Figure 3.3.4, Standard 3.3.7, Section 5.1: Active Edges, and Section 5.6: High Retail Zone.

A) Small Scale Permanent and Movable Seating

Small-scale permanent and movable seating should have a highly unique, identifiable character and should comfortably accommodate individuals and small groups.

B) Large-Scale Feature Furniture

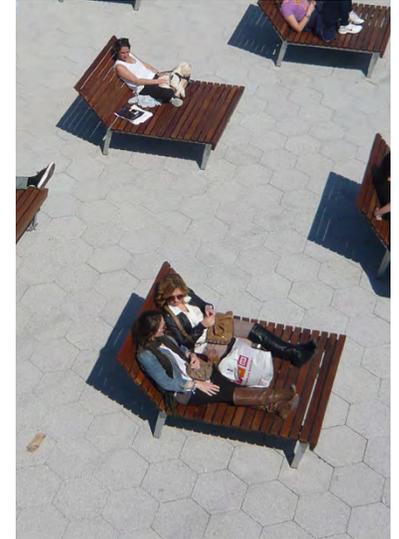
Use large-scale feature furniture to create opportunities for larger social gatherings; for example, a large communal table is a singular experience that could engage the active retail/dining edges of the Square.



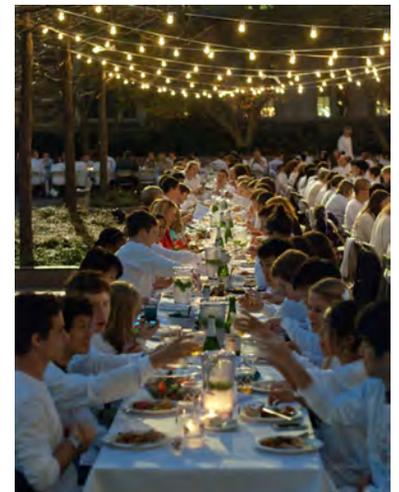
This example of special small-scale permanent seating accommodates a range of small gatherings. SOURCE: CMG



These examples of unique flexible seating can be re-configured and occupied in a variety of ways, by individuals or small groups. (L) SOURCE: YOUNG SOK KUN / FLICKR / (R) SOURCE: C MG



These examples of large-scale permanent feature furniture provide a vantage point and respite in busy public spaces, and facilitate larger social gatherings. (L) SOURCE: LAURENSAALJ / (R) SOURCE: JOEVARA/FLICKR



A large-scale communal table could be a signature program element; see Figure 3.3.4. © JOHN O'NEILL/PRINCETON PAW

3.4 CHANNEL LANE

Read in conjunction with Section 3.3: Mission Rock Square, Section 4.3: Terry A Francois Boulevard, Section 4.4: Bridgeview Street, and Section 5.1: Active Edges.

Channel Lane will be an important view corridor and connection between Mission Rock Square and the waterfront; a place to linger and a place to move through, connected to Mission Rock Square and across Terry A Francois Boulevard to Channel Wharf. Because it will be protected, shaded, and not accessible by vehicle, Channel Lane will be a potential site for unique features such as overhead lighting, special paving, and shade-tolerant plant species. The site-wide strategy to elevate the center of the Mission Rock site for sea level rise resiliency offers a programmatic opportunity for Channel Lane, which accommodates this grade transition.



An example of a small plaza activated by ground floor program, grade change, and overhead feature lighting. SOURCE: CMG

STANDARDS

3.4.1 PROGRAM AREAS

A) Active Edges

10' Active Edges along Blocks I and J shall be provided. If Elevated Walkways are provided on block frontages along Terry A Francois Boulevard, this area is an opportunity to directly connect to those public walkways.

B) Plaza with Pedestrian Throughway

A 50'-maximum width plaza at grade with Bridgeview Street shall be provided, measured east-west, with 12'-minimum pedestrian throughway shall be provided. Tree Planting that meets the design criteria noted in 3.4.4 and 3.4.5 shall be included in this area.

C) Waterfront Passage

A generous connection to Terry A Francois Boulevard with 12'-minimum pedestrian throughway shall be provided, with grade changes in compliance with 3.4.2.

D) Planting Areas

Understory planting shall be provided adjacent to the Waterfront Passage at grade changes.

E) Below-Grade Parking Garage Access (if provided)

If provided, ramp access to a below-grade parking garage shall be a maximum of 23' wide, located adjacent to the Active Edge at Block I, and screened by shade-tolerant planting.

3.4.2 WATERFRONT PASSAGE: GRADE CHANGE RESTRICTIONS

The Waterfront Passage described in 3.4.1 shall include a 6'-minimum width sloped walk with 5%-maximum longitudinal slope, and a 6'-minimum width stair. Exceeding this minimum requirement is encouraged to create a generous pedestrian connection.

3.4.3 PROTECTED PEDESTRIAN AREA

Vehicular traffic shall not be permitted on Channel Lane. Bollards or equivalent vehicular barrier shall be located along Terry A Francois Boulevard to indicate that Channel Lane is a pedestrian-only open space.

GUIDELINES

3.4.4 ENCLOSURE AND VIEWS

A view corridor from the Pedestrian Throughway should be maintained through Channel Lane from Mission Rock Square to the water; this should not be obstructed by permanent furnishings, trees, or landscape structures.

3.4.5 TREE PLANTING

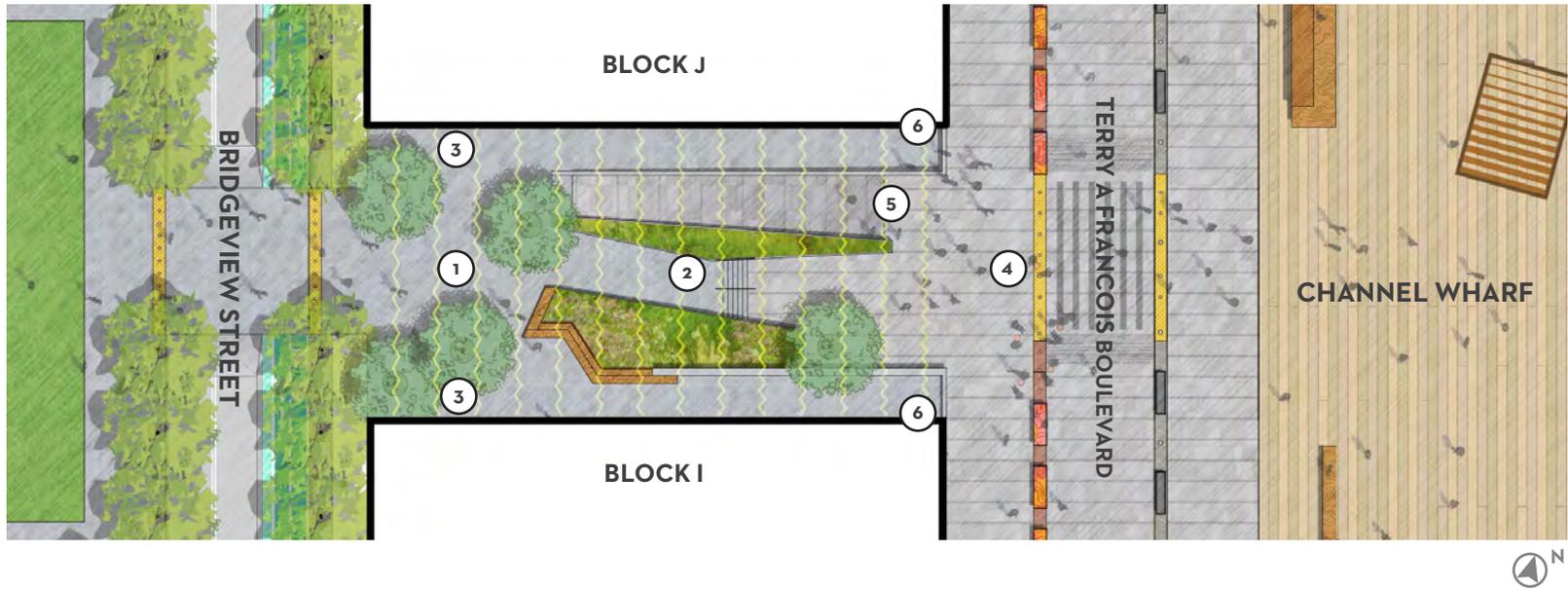
If trees are included in the design concept for Channel Lane, first branching height should maintain views between Mission Rock Square and Channel Wharf, out to the Bay. See Guideline 3.4.4.

3.4.6 SITE FURNISHINGS

Flexible seating should be substantial enough to withstand wind load. Fixed seating may be included at the waterfront passage grade change.

3.4.7 GATEWAY FEATURE: OVERHEAD LIGHTING

Channel Lane is a unique opportunity to integrate an overhead feature, ideally one that incorporates special lighting. This feature should be an attractor for passage to the waterfront from Mission Rock Square, but should not obstruct nor detract from the Bay view per Guideline 3.4.4.



CHANNEL LANE CONCEPTUAL PLAN

- | | | |
|------------------------------------|---------------------|--------------------------------------|
| 1 Plaza with Pedestrian Throughway | 3 Active Edges | 5 Gateway Feature: Overhead Lighting |
| 2 Waterfront Passage | 4 Vehicular Barrier | 6 Connection to Elevated Walkway |

FIGURE 3.4.1 Conceptual Plan of Channel Lane that satisfies the controls herein. This is provided for illustrative purposes only and does not represent a design proposal.

3.5 CHANNEL WHARF

Read in conjunction with Section 3.6: Pier 48 Apron, Section 4.3: Terry A Francois Boulevard, and Section 5.8: Working Waterfront Zone. Channel Wharf must also satisfy the requirements described in Chapter 2: Public Realm.

Situated between Piers 48 and 50, Channel Wharf will celebrate San Francisco's working industrial waterfront. It will continue to serve as a functioning wharf while providing public access and views of active maritime vessels, marine uses at the Pier 50, the Bay, and shipping cranes in the distance as well as public art and seating. This plaza will be a unique destination for local residents and office workers, and a waypoint for explorers of the Bay Trail/Blue Greenway.

This waterfront plaza should be designed with special consideration for Terry A Francois Boulevard, which will border its entire west extent, and should also be considered as a grand waterfront terminus of Channel Street—a key connection to the Mission Bay neighborhood.



This public space at the Marseilles Waterfront, with utilitarian character and materials that are compatible with maritime uses, is a precedent for Channel Wharf. . © NICKCREW66 / FLICKR

STANDARDS

3.5.1 FUNCTIONALITY AND WORKING NATURE

Channel Wharf shall accommodate maritime use as a laydown area for temporary storage of off-loaded materials. This use shall not compromise public access to Channel Wharf or to the Pier 48 Apron. Channel Wharf shall be predominantly coplanar with the Pier 48 Apron and Terry A Francois Boulevard. See Standard 3.6.5.

3.5.2 MARITIME + INDUSTRIAL CHARACTER

Site furnishings, lighting, and paving shall reinforce and support the maritime and industrial character of Piers 48 and 50 and Terry A Francois Boulevard. Materials shall be durable and appropriate for maritime and industrial use.

3.5.3 PUBLIC ART

One piece of Public Art, defined as a “Large-Scale Feature” per Guideline 3.5.5, shall be permitted on Channel Wharf.

3.5.4 TREES

Tree planting is not technically or functionally feasible on Channel Wharf and shall not be permitted.

GUIDELINES

3.5.5 LARGE-SCALE FEATURE

Per Standard 3.5.3, Channel Wharf should include a large-scale industrial object or other feature that serves as a destination point. This object could be a viewing tower located to provide a public privileged view of the water and to further evoke the industrial and maritime character of the site. This is a public art opportunity. See Section 2.11.

3.5.6 PLANTING

Channel Wharf is envisioned as a paved Open Space and should be considered a wharf landscape. If planting is proposed, it should conform to the character and functional standards of this space and its maritime and industrial environs. Any proposed excavation for planting should be coordinated with the existing seawall. If necessary, a stormwater treatment garden can be utilized to address localized stormwater runoff. Refer to Infrastructure Plan.

3.5.7 PAVING

To support maritime operations per Standard 3.5.1, paving should have a utilitarian character that is suitable for the maritime context and Bay environment, at a scale that engages pedestrians.

3.5.8 SITE FURNISHINGS

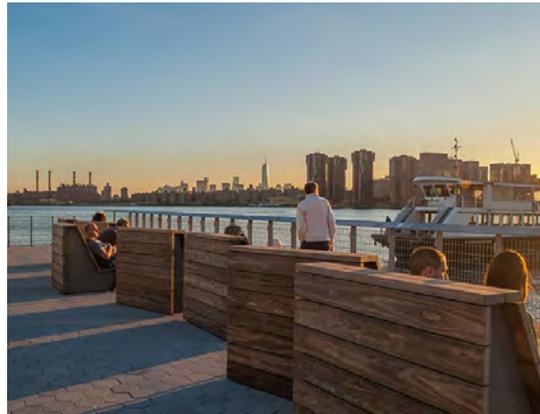
Permanent seating should be provided in Channel Wharf and should support the maritime and industrial character of the open space. Low seating or a bull rail at the water's edge is encouraged. Furniture locations should not impede the functionality described in Standard 3.5.1.



The crane in this public waterfront space is an example of a large-scale feature that marks a destination point.
SOURCE: FLICKR / ISLAND HOME



Utilitarian paving at a waterfront open space in Barcelona that is suitable for a marine environment. © LANDEZINE



These seating examples at the water's edge have unique maritime character and are sturdy enough to withstand the industrial and environmental context of Channel Wharf. (L) © SIMON DEVITT / (R) © OCULUS LANDSCAPE ARCHITECTURE

CONCEPT PLAN

- 1 Pedestrian Crossing
- 2 Utilitarian Paving
- 3 Large-Scale Feature
- 4 Bull Rail at Water's Edge
- 5 Seating

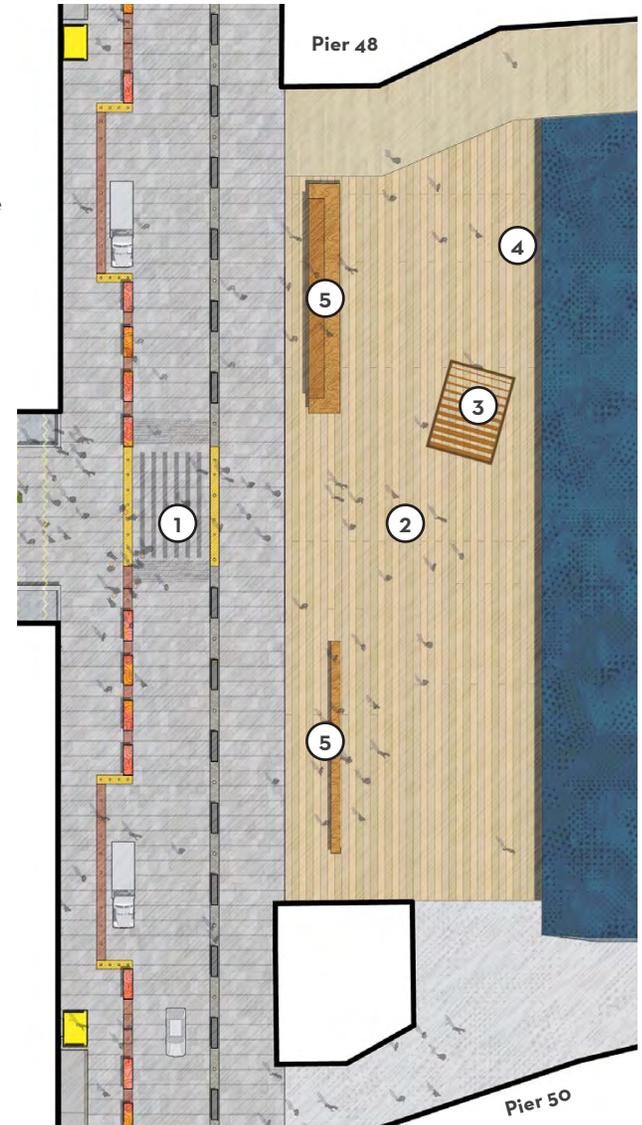


FIGURE 3.5.1 Conceptual Plan of Channel Wharf that satisfies the controls herein. This is provided for illustrative purposes only and does not represent a design proposal.

3.6 PIER 48 APRON

Read in conjunction with Section 3.2: China Basin Park, Section 3.5: Channel Wharf, Section 4.3: Terry A Francois Boulevard, Section 5.7: Parkfront Zone, and Section 5.8: Working Waterfront Zone. The Pier 48 Apron must also satisfy the relevant requirements described in Chapter 2: Public Realm.

The Pier 48 Apron will be rehabilitated to provide public access and berthing capabilities. This maritime and industrial activity will bring new life to Mission Rock and Mission Bay and provide a waterside approach to the site, anchoring this historic pier as a key element in the transformation of the central waterfront.

An adjacent paseo at the terminus of Terry A Francois Boulevard will facilitate park and water-oriented pier access, and a publicly accessible picnic area will connect Pier 48 to China Basin Park. A non-motorized watercraft launch located close to this picnicking area will take advantage of calm waters for the launch of small watercraft.

STANDARDS

3.6.1 PIER 48 APRON: USES

The Pier 48 Apron shall accommodate maritime berthing and public access on the pier aprons, and other viable uses consistent with the public trust.

3.6.2 APRON FUNCTIONALITY

When redeveloped, the Pier 48 Apron shall be a functional component of operations on Pier 48. It may be closed to the public at times to support these operations, but will be open as much as practicable.

3.6.3 DESIGN STANDARDS

Pier 48 is identified as a contributory resource to the Embarcadero Waterfront National Register Historic District. Modifications to the Pier 48 Apron shall meet Port of San Francisco criteria for Design and Access and for the National Register of Historic Places (NHRP) per the following documents:

- ▶ Waterfront Design and Access Element:
Chapter 3 Historic Resources
Chapter 4 Pier 48 - 54 Design Criteria
[http://www.sfport.com/ftp/uploadedfiles/about_us/divisions/planning_development/WDesAcc.pdf]
- ▶ Embarcadero Historic District National Register Nomination, May 2006. [<http://sfport.com/embarcadero-historic-district>]
- ▶ Port of San Francisco Historic Preservation Review Guidelines for Pier and Bulkhead Wharf Substructures [<http://sfport.com/embarcadero-historic-district>]

- ▶ The Secretary of the Interior's Standards for Rehabilitation: [<http://www.nps.gov/tps/standards/rehabilitation/rehab/index.htm>]

3.6.4 PUBLIC ACCESS TO NORTH APRON AT CHINA BASIN PARK

Public Access with a minimum 8'-0"-width pedestrian thoroughway shall be maintained from China Basin Park to the north apron at the Pier 48 pier shed. See Figures 3.6.1-3.6.2 and refer to Section 3.2.

3.6.5 PUBLIC ACCESS TO SOUTH APRON AT CHANNEL WHARF

Public Access with a minimum 6'-0"-width pedestrian thoroughway shall be maintained on the south apron at the Pier 48 pier shed. This access shall not be impeded adjacent to Channel Wharf. See Figure 3.6.2.

3.6.6 WATER ACCESS

A non-motorized watercraft launch and kiosk shall be provided between China Basin Park and Pier 48.

3.6.7 INTERFACE WITH ADJACENT OPEN SPACES

Refer to Section 4.3 for applicable controls at the intersection of the Pier 48 Apron with Terry A Francois Boulevard, Section 3.2 for China Basin Park, and Section 3.5 for Channel Wharf.



FIGURE 3.6.1 Diagram of the interface of Pier 48, China Basin Park, and Terry A Francois Boulevard. Also see Section 4.3 and 3.2.



CONCEPT PLAN

- 1 Pier 48 Apron: North Apron
- 2 Publicly accessible picnic area (See 3.2)
- 3 Kiosk and non-motorized watercraft launch
- 4 Paseo (See 4.3)
- 5 Pier 48 Apron: South Apron

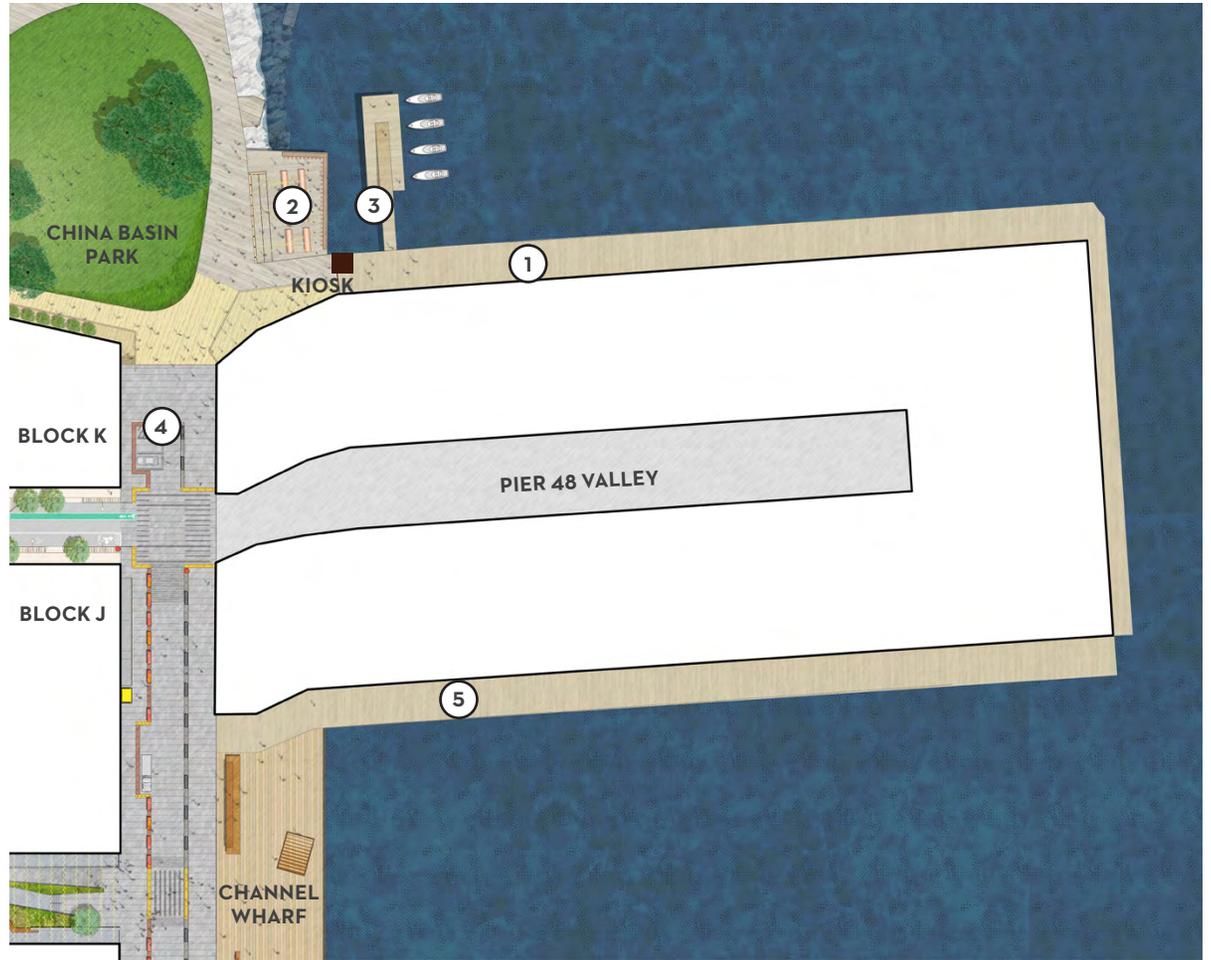


FIGURE 3.6.2 Conceptual Plan of the Pier 48 Apron that satisfies the controls herein. This is provided for illustrative purposes only and does not represent a design proposal.



3.7 CHANNEL STREET

Read in conjunction with Section 3.3: Mission Rock Square, Section 4.2: Shared Public Way, Section 5.3: Active Edges, and Section 5.10: Neighborhood Street Zone: Non-Residential.

Channel Street will be an important pedestrian gateway to Mission Rock, a key connection from the Mission Bay district through to the waterfront at Channel Wharf.

In addition to its role as a gateway to Mission Rock, Channel Street is an important location for mitigating the impact of strong east-west winds on the Shared Public Way and Mission Rock Square.

STANDARDS

3.7.1 PROGRAM AREAS

A) Active Edges

10' Active Edges along Blocks B and C shall be provided.

B) Plaza with Pedestrian Throughway

12'-minimum pedestrian throughway shall be provided within a 50'-maximum width plaza. Tree Planting and stormwater treatment facilities shall be included in this area.

C) Tree Grove with Pedestrian Throughway

Between the plaza and the Shared Public Way, a grove of trees shall be provided and shall accommodate a 12'-minimum pedestrian throughway.

D) Below-Grade Parking Garage Access (if provided)

If provided, ramp access to a below-grade parking garage shall be accommodated within the Plaza program area described in B) and screened with shade-tolerant planting. Ramp access and ingress/egress lanes shall have a maximum overall width of 38'.

3.7.2 GRADE CHANGE RESTRICTIONS

Slopes shall not exceed 5% longitudinal slope or maximum 2% cross-slope. Grading at Active Edges shall be coordinated with adjacent ground-floor uses.

3.7.3 TREE PLANTING: REQUIREMENTS

First branching height shall be 10' clear, to facilitate views from 3rd Street toward Mission Rock Square while providing enclosure and wind protection. At least 50% of the total area of Channel Street shall have canopy cover at tree maturity.

3.7.4 PROTECTED PEDESTRIAN AREA

Vehicular traffic shall not be permitted on Channel Street. Bollards or equivalent vehicular barrier shall be located along 3rd Street to indicate that Channel Street is a pedestrian-only open space.

GUIDELINES

3.7.5 WIND LOAD ON MOVABLE FURNITURE

Movable furniture, if deployed, should be sturdy enough to withstand wind loads on Channel Street.

3.7.6 SITE FURNISHINGS

Built-in seating should be included in the Tree Grove.

3.7.7 GATEWAY FEATURE: LIGHTING OR ART

Channel Street is an opportunity for facade-mounted or overhead feature lighting or art, to enliven the space and provide identity at night for this key entrance to Mission Rock. See Section 2.9.



An dense tree grove creates an intimate, wind-protected social space and provides wind mitigation for the larger public realm. SOURCE: FLICKR / NOVARTIS AG



This grove of trees with high first branching height facilitates views while providing enclosure for a small public space. SOURCE: ARD HESSELINK / FLICKR



Overhead lights at Larimer Square in Denver create a unique nighttime identity and destination. SOURCE: FLICKR/ AMY ALETHEIA CAHILL

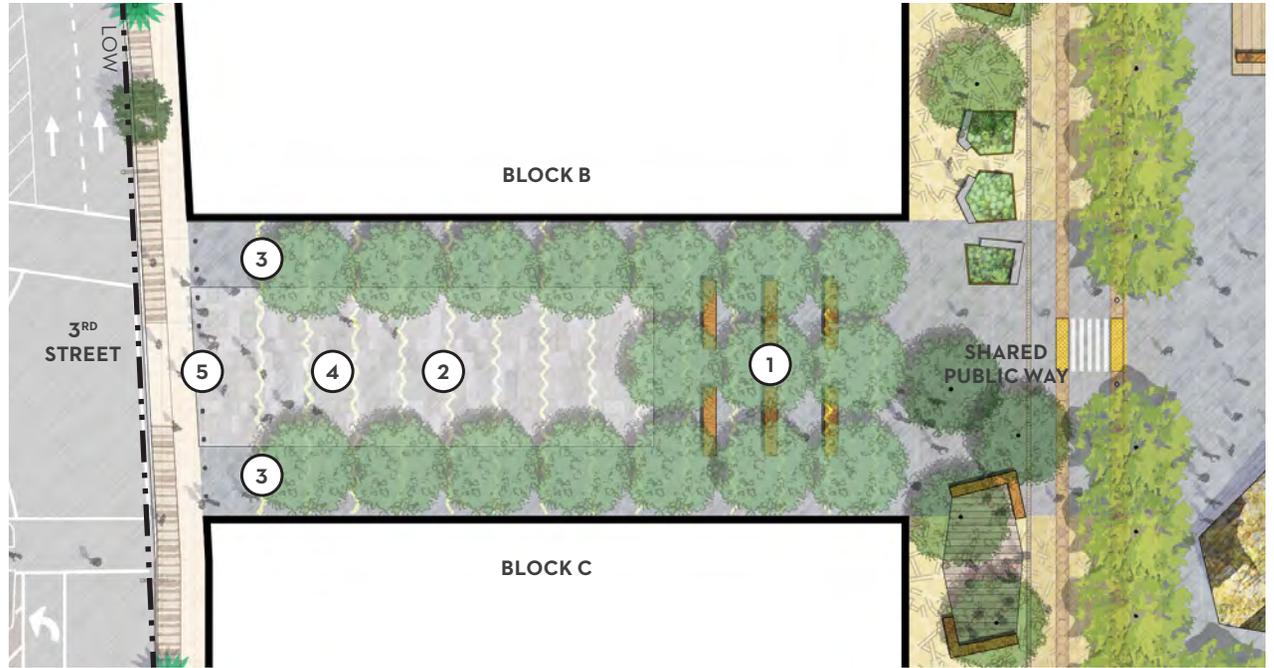


FIGURE 3.7.1 Conceptual Plan of Channel Street that satisfies the controls herein. This is provided for illustrative purposes only and does not represent a design proposal.

CHANNEL STREET CONCEPTUAL PLAN

- 1 Tree Grove with Seating
- 2 Plaza with Pedestrian Throughway
- 3 Active Edge
- 4 Gateway Feature: Lighting or Art
- 5 Vehicular Barrier

3.8 KIOSKS + SMALL PARK STRUCTURES

Read in conjunction with Section 3.2: China Basin Park, Section 3.3: Mission Rock Square, and Section 3.6: Pier 48 Apron.

Kiosks and small park structures will be important programming elements of Open Spaces at Mission Rock. These structures should be designed to maximize indoor-outdoor connections and enhance the experience of the public realm through food or retail uses, performance capabilities, and special programming.



This small pavilion, open to a plaza and transparent on several sides, is a precedent for small park structures. © CLEMENT GUILLAUME

STANDARDS

3.8.1 DEFINITIONS

A) Small Park Structures

The Park Cafe and Upper Plaza Structure in China Basin Park and the Neighborhood Square Structure in Mission Rock Square shall be lightweight structures. These may include food service facilities. Total footprint area shall not exceed 1,500 square feet. Where public restrooms per 3.8.1 D) are provided, total footprint area shall not exceed 3,000 square feet. See Figure 3.8.1 for locations.

B) Kiosks

Kiosks shall be small structures with footprint area not to exceed 200 square feet. Public restrooms are not required in kiosks.

C) Recreational Structures

Open-air structures in support of public recreation shall be permitted in Open Spaces.

D) Public Restrooms

Public Restrooms shall be provided within small park structures. In China Basin Park, where there are multiple permitted structures, only one location for public restroom facilities is required.

3.8.2 UTILITIES

All Kiosks and Small Park Structures shall have necessary utilities. Locations indicated in Figure 3.8.1 have been coordinated with site-wide utilities and fire access requirements. Also see Section 3.2.

3.8.3 GROUND-FLOOR RELATIONSHIP TO OPEN SPACES

All Kiosks + Small Park Structures shall have public entrances or large openings at grade on at least two sides, to provide visual connections and access between interior spaces and Open Spaces.

3.8.4 SERVICING

Truck access shall be accommodated to service Kiosks and Small Park Structures.

3.8.5 OUTDOOR SEATING

Each Kiosk and Small Park Structure shall have associated seating areas that are open to the public.



This example of outdoor seating for adjacent retail is publicly accessible and welcoming. SOURCE: FLICKR / R DE JEU

GUIDELINES

3.8.7 FOOD SERVICE

Small Park Structures should be sized to accommodate food service if programmatically desired.

3.8.8 SIGNATURE USES

The Park Cafe and Neighborhood Square Structures should accommodate unique and high-quality uses that will be significant attractions in those open spaces. See China Basin Park and Mission Rock Square controls regarding visual access and Active Edges.

3.8.9 RECREATIONAL STRUCTURES: USES

Recreational structures are encouraged in Mission Rock Square and China Basin Park. These may include, but are not limited to, performance-oriented structures for small or large shows, or structures that support active recreation.



This small performance structure is an example of a recreational structure encouraged in Mission Rock Square and China Basin Park. SOURCE: CMG

LEGEND: LOCATIONS

Kiosks or Small Park Structures should be located in these areas:

SMALL PARK STRUCTURES:

-  Park Cafe Structure
 - Signature Tenant
 - Food Service
-  Neighborhood Square Structure
 - Signature Tenant
 - Food Service or Performance Venue
-  Upper Plaza Structure
 - Food Service or Performance Venue

KIOSKS:

-  Kayak Equipment Rental Kiosk
-  Small Food/Retail Kiosks

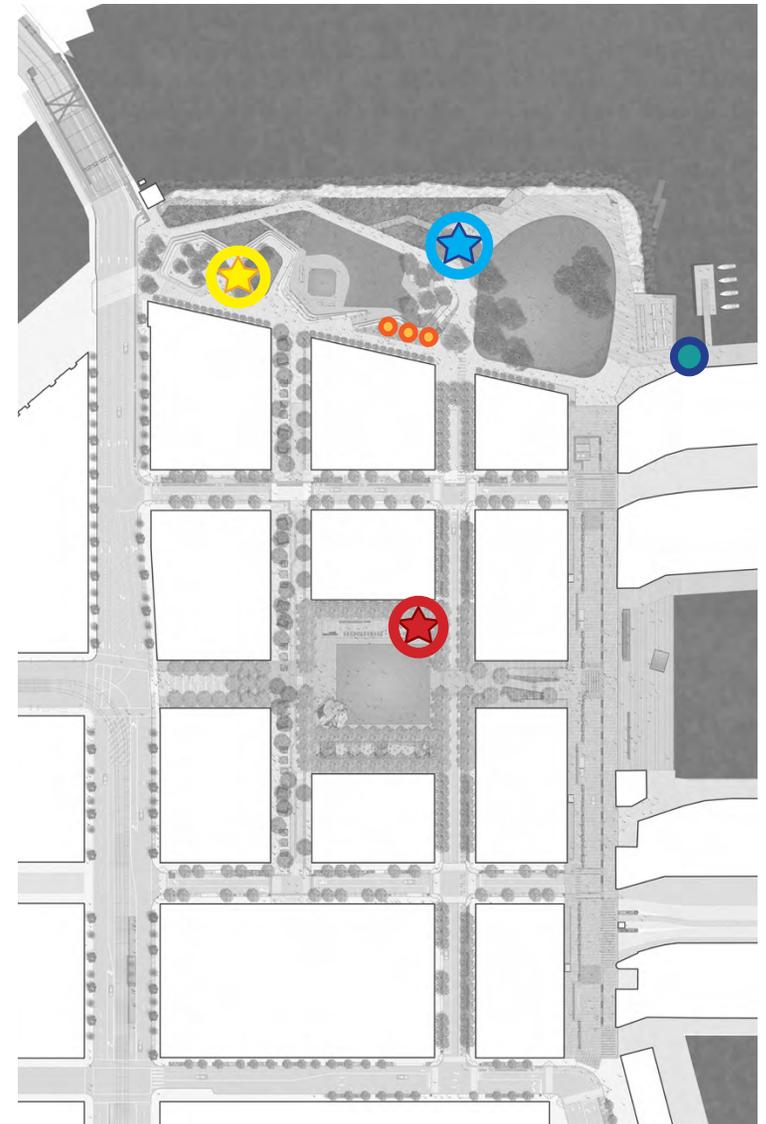


FIGURE 3.8.1 This figure indicates permitted location zones of Kiosks and Small Park Structures in the public realm and corresponds to standard 3.8.1. Also refer to Sections 3.2 and 3.3.



Vibrant, pedestrian-oriented and visually interesting streets will be the setting for a lively, urban, social public life at Mission Rock. With generous and active pedestrian areas, traffic calming, and bicycle connections, the street network will be a walkable grid of small blocks that provide a framework for safe and enjoyable movement through the site for Mission Rock residents, tenants, and visitors.

04

STREETS

Because an active and inclusive pedestrian and bicycle experience will be prioritized, the incentive to access the site by vehicle will be diminished.

Shared streets—the Shared Public Way and Terry A Francois Boulevard—will comprise the major north-south pedestrian connections on the site. These streets will be flush across the entire right-of-way, with a shared zone where vehicles will be permitted at very low speeds. Designed to create a vibrant pedestrian experience, retail edges along the two shared streets will activate the public realm, blurring the line between outdoor and indoor life at Mission Rock. Streetlife zones, characterized by Street Rooms—social areas that include planting, fixed and movable furnishings, and kiosks—will complement and support retail spaces of varying sizes.

Neighborhood streets at Mission Rock will be socially and ecologically sustainable; conceived as Complete Streets, they will prioritize safety, multi-modal mobility, and community vitality. These streets will be pedestrian- and bicycle oriented and also accommodate loading and servicing. They will provide a vehicular loop internal to the Mission Rock, as well as primary vehicular connections to and from neighboring streets in Mission Bay. 3rd Street and Mission Rock Street, designed to OCII Mission Bay standards, will be important site gateways for pedestrian, bicycle, and vehicular circulation.

Designed with generous sidewalks, stormwater gardens, and a consistent tree canopy, each street will be integrated with active ground-floor uses across the site. The streets will be urban ecological corridors that filter and convey stormwater and contribute to the city’s urban forest.

4.1	Street Controls	78
4.2	Shared Public Way	80
4.3	Terry A Francois Boulevard	90
4.4	Bridgeview Street	98
4.5	Exposition Street	104
4.6	Long Bridge Street	108
4.7	3rd Street	112
4.8	Mission Rock Street	116

RELATED CHAPTERS: This chapter is integral to Chapter 5: Ground Floor; together, these chapters describe the character and quality of urban experience at Mission Rock. Each streetscape in this chapter must satisfy its specific requirements as well as the Public Realm requirements described in Chapter 2: Public Realm Network.

4.1 STREET CONTROLS

The streets will contribute to a varied public realm while satisfying above- and under-ground infrastructure needs at Mission Rock. The controls in this chapter establish street zones based on the designations in the Better Streets Plan and the 2015 Subdivision Regulations. Mission Rock's streets will synthesize several aspects of streetlife and street safety:

Pedestrian Experience:

Ground-floor activation will be a key aspect of the pedestrian experience. To ensure interconnection between buildings and the public realm, frontage zone and pedestrian throughway dimensions are coordinated with the Active Edge controls defined in Chapter 5. All streets will include generous pedestrian throughways and high-visibility crosswalks. Street furnishings, planting, and lighting will shape opportunities for public space in the Streetlife Zone, and passenger loading and building servicing will be aggregated to minimize curb cuts and driveways.

Bicycle Safety:

Facilities for cyclists of all ages and skill levels will be provided: protected bicycle facilities, painted bicycle lanes, sharrows, and multi-use trails. Bicycle parking will be located on all streets at building and park entries. Typical conflict points at driveways will be restricted, and street parking is not permitted.

Traffic Calming:

Narrow vehicular lanes will slow traffic, and raised intersections at the Shared Public Way and Bridgeview Street are proposed to prioritize pedestrian and bicycle visibility. Bulb-outs on Exposition Street will create designated loading and servicing areas.

STANDARDS

4.1.1 PUBLIC RIGHT-OF-WAY (ROW)

The public right-of-way must be open to the sky, with the exception of permitted landscape and street-wall encroachments per Sections 3.8 and 6.3.5, and publicly accessible at all times unless subject to maintenance, operations, security and safety rights, or closure by Master Developer for events.

4.1.2 DEFINITIONS: SIDEWALK ZONES

These definitions apply to all streets.

- ▶ **Frontage Zone:**
A zone along building frontages for Active Edge uses such as seating, signage, and merchandizing, as defined in Chapter 5. Refer to Chapter 5 and Glossary of Terms.
- ▶ **Pedestrian Throughway:**
An unobstructed accessible path of travel for pedestrians as defined in Standard 2.3.1.
- ▶ **Streetlife Zone:**
A zone within the sidewalk, equivalent to a Furnishing Zone, that houses elements such as trees, lighting, furnishings, and stormwater treatment gardens.

4.1.3 SHARED STREETS: UNIFIED RIGHT-OF-WAY

The entire length and width of a Shared Street right-of-way (ROW) shall read as a single, unified space, with a comprehensive paving strategy that encourages safe pedestrian movement across the entire right-of-way. Shared Streets shall be designed in accordance with applicable accessibility codes and guidance, incorporating design and spatial cues as well as material and visual/tactile detection strategies to ensure pedestrian safety.

4.1.4 STREET MARKINGS AND SIGNAGE

Street markings and signage shall be in accordance with City and Port standards for street and intersection markings. See Sections 2.3, 2.4, and 2.10 and refer to Infrastructure and Transportation Plans.

4.1.5 ABOVE-GRADE UTILITY COORDINATION

Whenever possible, utilities shall not be visible above-ground in the public realm, and their location shall be coordinated with tree and streetscape element spacing. Refer to Infrastructure Plan.

4.1.6 BICYCLE PARKING: LOCATIONS

Class II bicycle parking shall be distributed across the site, provided in publicly accessible interior locations and throughout the public realm. In the public realm, bicycle parking shall be provided at building and park entries within the Streetlife Zone, in Paseos, and in Open Spaces as delineated in Figure 4.1.1, with priority given to key bicycle circulation routes noted in Section 2.4. Bicycle parking locations in the public realm shall be highly visible and well-lit.

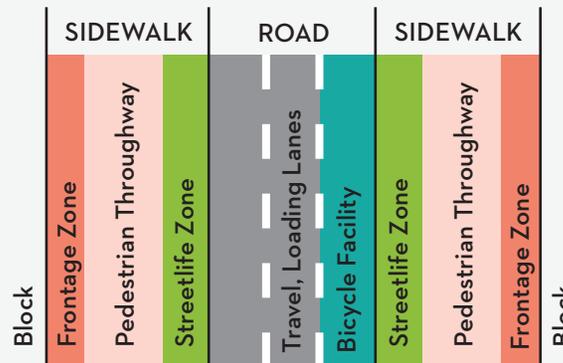


FIGURE 4.1.1 Neighborhood Streets: Standard Zones

GUIDELINES

4.1.7 TREE PLANTING: WIND MITIGATION

Trees should be adapted to the particular microclimate and shade conditions of each street, and sited with consideration of localized wind effects. See Section 2.7 for urban forest controls and species criteria.

4.1.8 VISUAL PERMEABILITY ON SHARED STREETS

Streetscape design on curbsless shared streets should allow visual permeability and regular east-west pedestrian connections across the entire right-of-way.

4.1.9 STREET FURNISHINGS: PERFORMANCE CRITERIA

Street furnishings, located in the Streetlife Zone, should be a mix of fixed and movable elements in accordance with specific standards and guidelines for each street. These elements should contribute to wayfinding and identity. The performance criteria below are provided in lieu of a specific palette; also see Section 2.6.

A) Seating

Seating should be an inviting element allowing visual permeability and social use. Special street furnishings are encouraged to emphasize each street's unique character.

B) Accessibility

Street furnishings should be universally accessible, or modifiable to meet or exceed minimum accessibility requirements.

C) Trash Receptacles

Trash receptacles should be standardized across the site. Location of selected receptacles should not impede visual access or mobility.

D) Bicycle Racks

Bicycle racks should be standardized on all internal site streets, with the exception of Bridgeview Street per Section 4.4.



This oversize bench is an example of inviting seating that allows for social use and visual permeability.

SOURCE: CMG

LEGEND: STREETS LOCATION MAP

-  Shared Streets
-  Neighborhood Streets
-  Paseos
-  Open Spaces
-  Chapter 4 Section

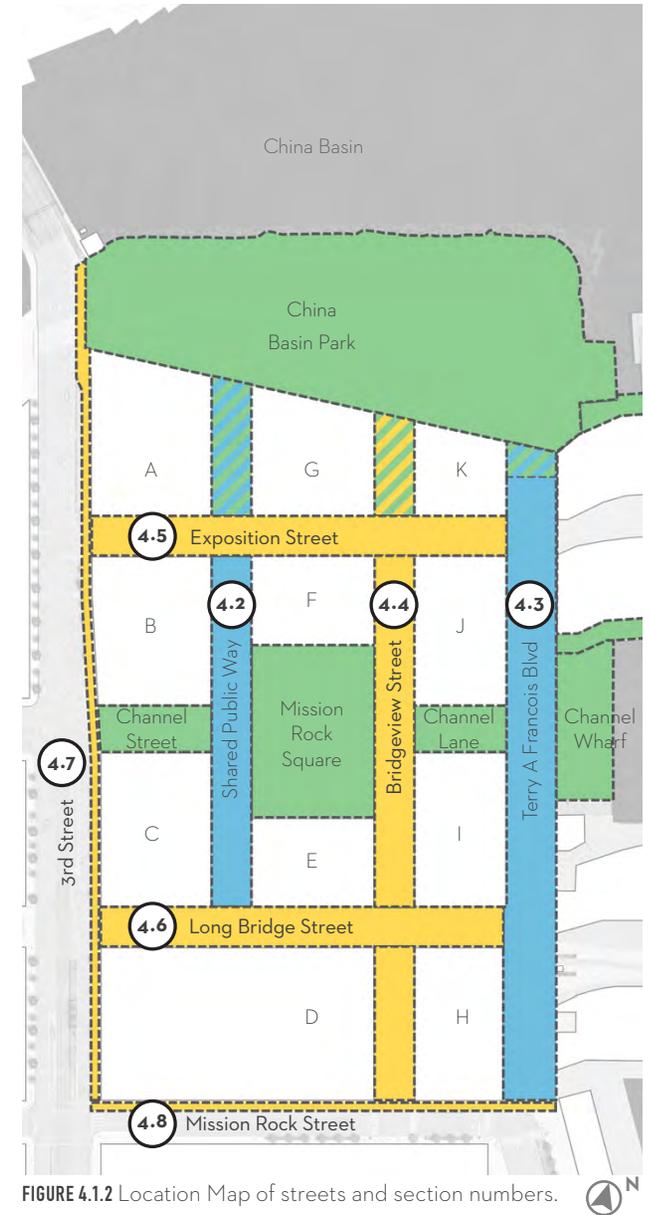


FIGURE 4.1.2 Location Map of streets and section numbers.

4.2 SHARED PUBLIC WAY

Read in conjunction with Section 5.1: Active Edges and Section 5.6: High Retail Zone. The Shared Public Way must also satisfy the requirements described in Chapter 2: Public Realm.

The Shared Public Way will be a promenade linking important site anchors such as Mission Rock Square and China Basin Park to site arrival points for MUNI, vehicles, and bicycles, as well as the main site parking garage on Block D.

Shared public ways are curbsless streets that privilege pedestrian movement, following traditional street planning approaches in Europe and other pedestrian-friendly urban centers. The Shared Public Way at Mission Rock will be a dynamic space with active ground-floor retail, street rooms, stormwater gardens, and tree groves that will create a lively and unique environment. These design elements will also serve as cues to differentiate pedestrian-dedicated areas from the shared pedestrian/vehicular zone.

Ground-floor retail along the Shared Public Way will be diverse in design and program, enlivening the street with storefronts, restaurants, and cafes that will spill out onto the street in generous dedicated Active Edges. Vehicles on the Shared Public Way will be limited to northbound travel for drop-off, pickup, and deliveries.

STANDARDS

4.2.1 ACTIVE EDGES

Active Edges shall be located along the retail frontages on both sides of the Shared Public Way. Uses are defined in Sections 5.1 and 5.6. Active Edges shall include the following zones:

A) Pedestrian Throughway

An unobstructed, 6'-minimum clear width path of travel for pedestrians shall be maintained within the Active Edges on both sides of the right-of-way as noted.

B) Furnishing Zone

A 6'-0" maximum zone for furniture, signage, and merchandizing with tree planting shall be included in the 12' active edge on the east side of the ROW.

C) Frontage Zone

On the west side of the street, a 2'-0" zone shall be maintained along building frontages for Active Edges uses described in Chapter 5. .

4.2.2 STREETLIFE ZONE

The Streetlife Zone will be a 20'-maximum width zone located along the Shared Zone for its entire length. This zone will provide for safe east-west connections across the ROW. This zone shall include:

A) Street Rooms

Special landscape areas with unique paving, built-in furniture, and ample space for flexible seating, small newsstands, and kiosks.

B) Tree Groves

Finely textured tree groves that provide dappled shade and enclosure along the entire Shared Public Way. See 4.2.12 and 4.2.14, as well as Section 2.7 for tree performance and design criteria.

C) Stormwater Treatment Gardens

Stormwater treatment infrastructure that functions ecologically, aesthetically, and programmatically, designed to maximize permeability of movement and view and to encourage lingering. Integrated seating intimate enough for quiet contemplation shall be included.

4.2.3 SHARED ZONE

The Shared Zone shall be a 20'-minimum clear zone shared by pedestrians and vehicles. It shall include a non-meandering 12' travel lane and will be separated from dedicated pedestrian-only areas with visual and tactile detection cues per 4.2.5. Crosswalks shall be marked at regular intervals. This zone shall include:

A) One-way Traffic

Vehicular traffic for drop-off and loading only shall be permitted one-way northbound, from Long Bridge Street to Exposition Street. North of Exposition Street, the street becomes a paseo; emergency vehicle access shall be permitted on the paseo between Blocks A and G. No vehicular access is permitted to or from Channel Street. The Shared Public Way may be closed to vehicular traffic during special events.

B) Delineated Loading Areas

Paving and demarcation of 8'-wide loading zones shall be distinct from the 12'-wide vehicular travel lane.

4.2.4 VEHICULAR INTERSECTIONS

Raised intersections with visual/tactile detection marking the pedestrian route shall be provided at Exposition and Long Bridge Streets and will comply with applicable accessibility guidance.

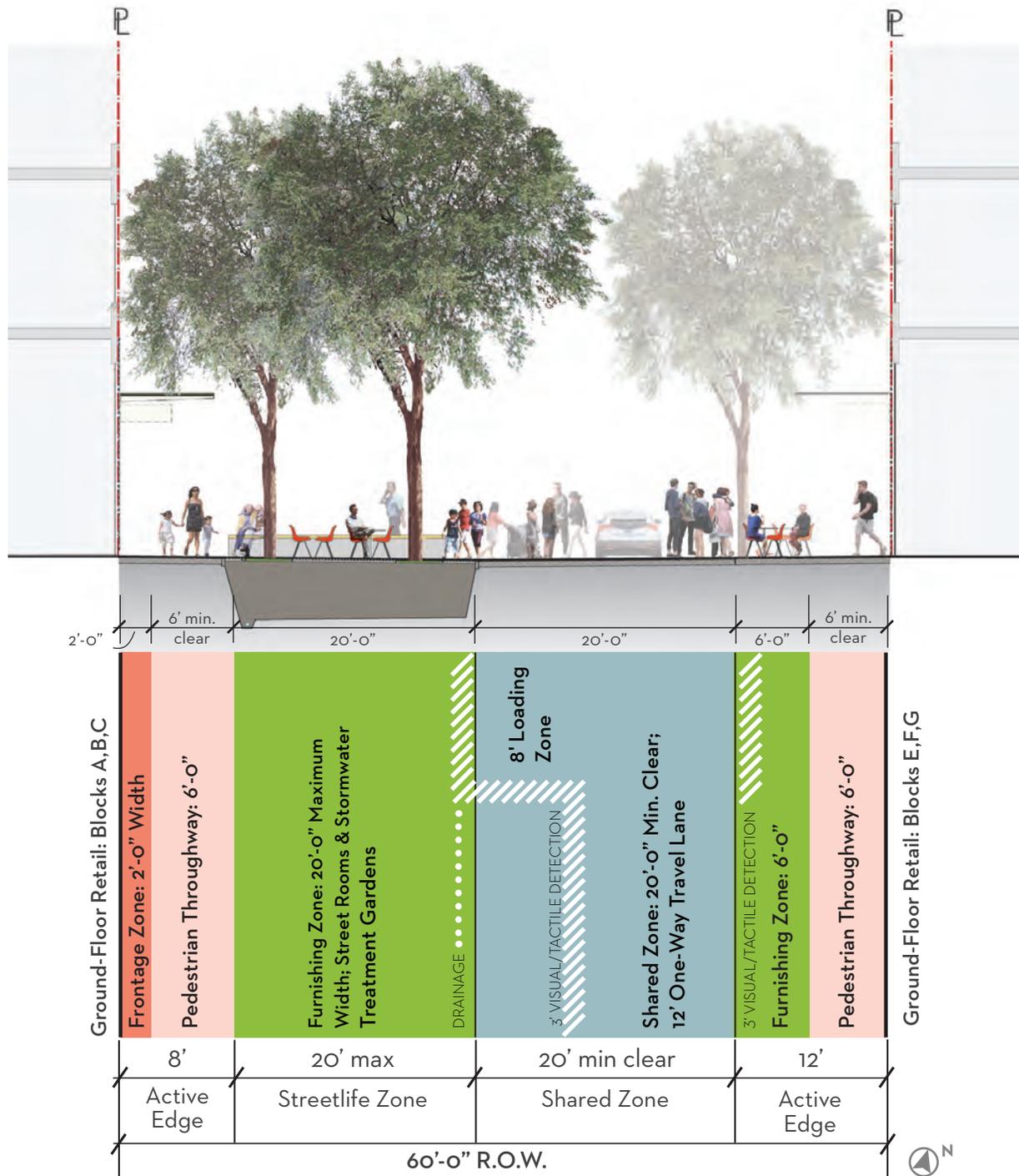


FIGURE 4.2.1 Shared Public Way Section and Zones Diagram

STANDARDS

4.2.5 VISUAL/TACTILE DETECTION CUES

Visual/tactile detection cues shall differentiate the Shared Zone travel lane and loading zones from dedicated pedestrian areas; these shall be coordinated in consultation with applicable codes and accessibility guidance and include the following:

A) Paving Strategies

Material tactics, including contrasting paving color, texture, or material type, shall ensure safe pedestrian connections across the Shared Zone. These cues shall delineate the shared zone for its entire length. See (C) in Figure 4.2.2. Also see Guidelines 4.2.10 and 4.2.11 and Section 2.6.

B) Spatial Cues

Incorporate design and spatial cues such as a 'gateway' to the Shared Zone from Long Bridge Street—a constricted vehicular entry point with physical elements that will provide a visual/physical cue for drivers to slow down.

4.2.6 STREETLIFE ZONE PERMEABILITY

Maintain a minimum distance of 16' between street rooms and stormwater gardens, and 20' minimum spacing between tree trunks, within the Streetlife Zone. See Figure 4.2.2.

4.2.7 QUALITY OF MATERIALS

The Shared Public Way shall be constructed with high-quality paving, lighting, and built-in street furnishings.

GUIDELINES

4.2.8 STREET ROOMS

A) Permanent/Built-In Furnishings

Street rooms should contain high-quality built-in furnishings that encourage lingering; these elements should not be a barrier to movement across the right-of-way.

B) Allowable Uses

Encouraged uses include but are not limited to flexible seating, small newsstands and kiosks, outdoor dining areas, and small events or performances.

4.2.9 VARIETY OF STREET FURNISHINGS

The Shared Public Way should have a variety of seating types and scales across zones. Active Edges at building frontages should provide opportunities for outdoor seating curated by individual businesses along the Shared Public Way. A minimum of 6' pedestrian clearance must be maintained at all times at Active Edges. Also see Sections 5.1 and 5.6.

4.2.10 PAVING : A SINGLE FIELD

The Shared Public Way design concept should include a single, coplanar field of paving between building facades. Tactics to differentiate shared zones from dedicated pedestrian zones could include, but are not limited to, shifts in color, texture, or paver size within the same language of the overall field. See Figure 4.2.2 for one example of differentiation within a single field.

4.2.11 PAVING : DELINEATION DETAILS

Highly detailed paving should scale the Shared Public Way and create an urbane character without interrupting the feeling of a unified space.

A) Separation of Shared Zone from Streetlife Zone

The Streetlife Zone should be delineated from the Shared Zone by a trench drain or similar linear drainage element. See (A) in Figure 4.2.2.

B) Street Room Paving

Street rooms should have special materials and paving, such as wood or decomposed granite, to delineate their unique use. See Figure 4.2.7 Diagrammatic View at Block E and (B) in Figure 4.2.2.

C) Separation of Shared Zone from Active Edge

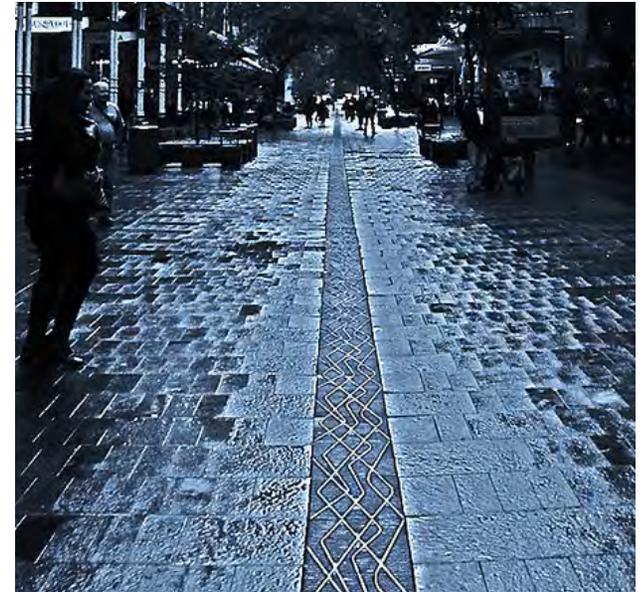
A 3'-minimum width buffer should be defined within the Active Edge on the east side of the street. This buffer should include contrasting paving, lights, and trees to delineate the Active Edge from the Shared Zone. See 4.2.5-A.



This publicly accessible flexible seating at retail is a precedent for the Shared Public Way's generous Active Edges and Street Rooms. SOURCE: CMG



A single field of paving across the right-of-way creates a unified space. SOURCE: ONITSUKAMAN / COMMONS.WIKIMEDIA.ORG



A special trench drain delineates uses or zones within a single field of paving. SOURCE: NEWTOWN GRAFFITTI / FLICKR

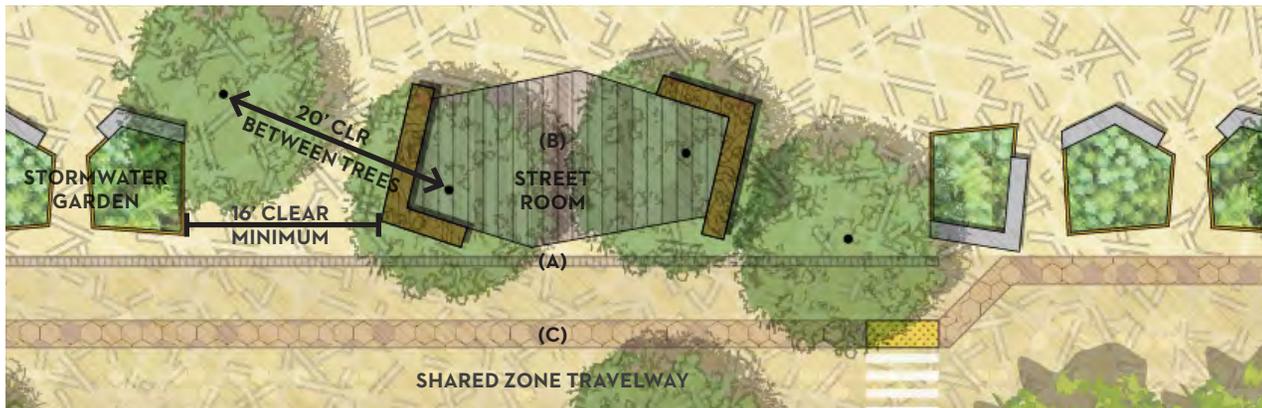


FIGURE 4.2.2 Enlargement plan showing minimum clearances for Streetlife Elements as defined in Standard 4.2.6, and paving relationships and delineation details as described in Guideline 4.2.11.



An example of a street room with high-quality permanent furnishings. © TONY CARO ARCHITECTURE

STANDARDS

4.2.12 SHARED PUBLIC WAY TREE PLANTING

A) Minimum Tree Size

Trees shall be minimum 48" box size at installation.

B) Minimum Tree Quantity

There shall be a minimum of 35 trees planted on the Shared Public Way.

C) Minimum Clear Trunk Height at Shared Zone

Trees adjacent to the Shared Zone shall have a minimum of 13'-6" clearance, measured from the finished grade of the travelway, where branches overhang the Shared Zone.

D) Minimum Spacing

Trees shall have 20'-minimum clear between trunks. See Figure 4.2.2.

GUIDELINES

4.2.13 LIGHTING

Lighting is a key component for safety and the character of a space at night. The Shared Public Way should have a range of lighting strategies that work together to create an intimate and dynamic nighttime identity. These strategies may include Facade-Mounted Feature Lighting, Integral Lighting in Furniture or Paving, Ground-Level Ambient Lighting, and 'Moonlighting' through the tree canopy. See Section 2.9 for suggested footcandle ranges and uniformity guidelines.

4.2.14 TREE PLANTING DESIGN CRITERIA

Trees on the Shared Public Way should be a single species of finely textured tree with minimum clear trunk of 10 feet, or 13'-6" where branches overhang the Shared Zone. Trees should be arrayed in a staggered layout that creates a grove within the Street Room Use Zone and within the buffer separating the east side Active Edge and the Shared Zone. See 4.2.12 and Section 2.7 for further performance, design, and species selection criteria.

A range of lighting types should be used on the Shared Public Way.



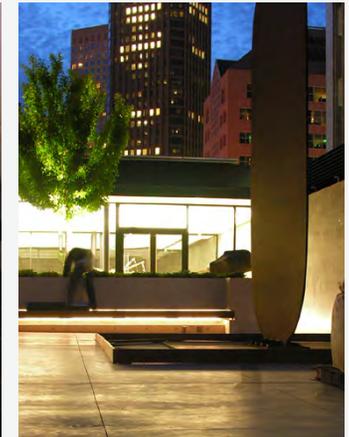
Facade-Mounted Lighting
SOURCE: CMG



Integral Lighting: Furniture
SOURCE: WIKIPEDIA / EMILE DUBUISSON



Moonlighting
SOURCE: CMG



Ground-Level Ambient Lighting
SOURCE: CMG

GUIDELINES

4.2.15 STORMWATER GARDEN CRITERIA AND SUGGESTED PALETTE

Each garden should be considered for its aesthetic and ecological function. Stormwater gardens should not include trees.

A) Species Performance Criteria

Plant species should meet the following performance criteria:

- Tolerant of drought and periodic inundation
- Seasonal and ornamental impact
- Native, or climate-appropriate if non-native
- Partial shade-tolerant
- High habitat value

B) Visual and Spatial Permeability

Species should be less than 30" in height to maximize visual and spatial permeability.

C) Suggested Palette

The suggested palette in Figure 4.2.9 satisfies these criteria. Species with (*) indicate plants with high habitat value.

Source: SFPUC Stormwater Design Guidelines, Appendix D

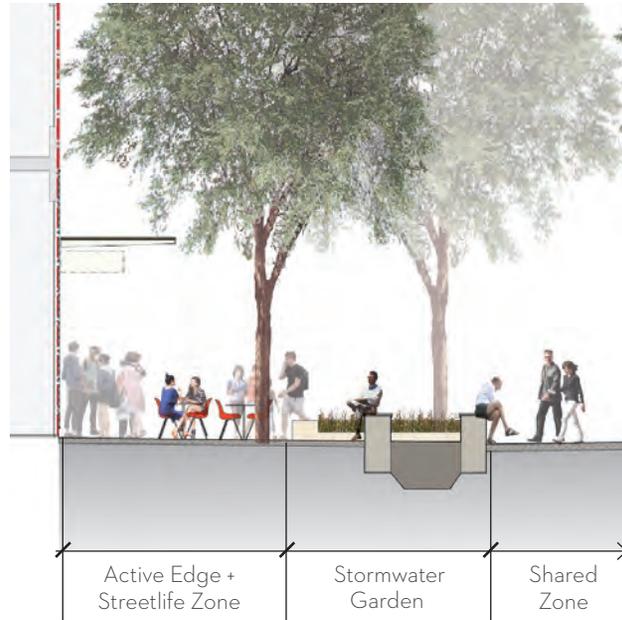


FIGURE 4.2.3 Section at Stormwater Garden

Suggested Stormwater Garden Palette



*Carex praegracilis**
Clustered Field Sedge



*Carex tumulicola**
Berkeley Sedge



*Festuca rubra**
Creeping Red Fescue



Fragaria chiloensis
Coastal Strawberry



*Mimulus aurantiacus**
Sticky Monkeyflower



*Mimulus guttatus**
Creek Monkeyflower



Rhamnus californica
(prostrate cultivar)*
Dwarf Coffeeberry



*Salvia spathacea**
Hummingbird Sage



Sisyrinchium bellum
Blue-Eyed Grass



Tradescantia virginiana
Virginia Spiderwort

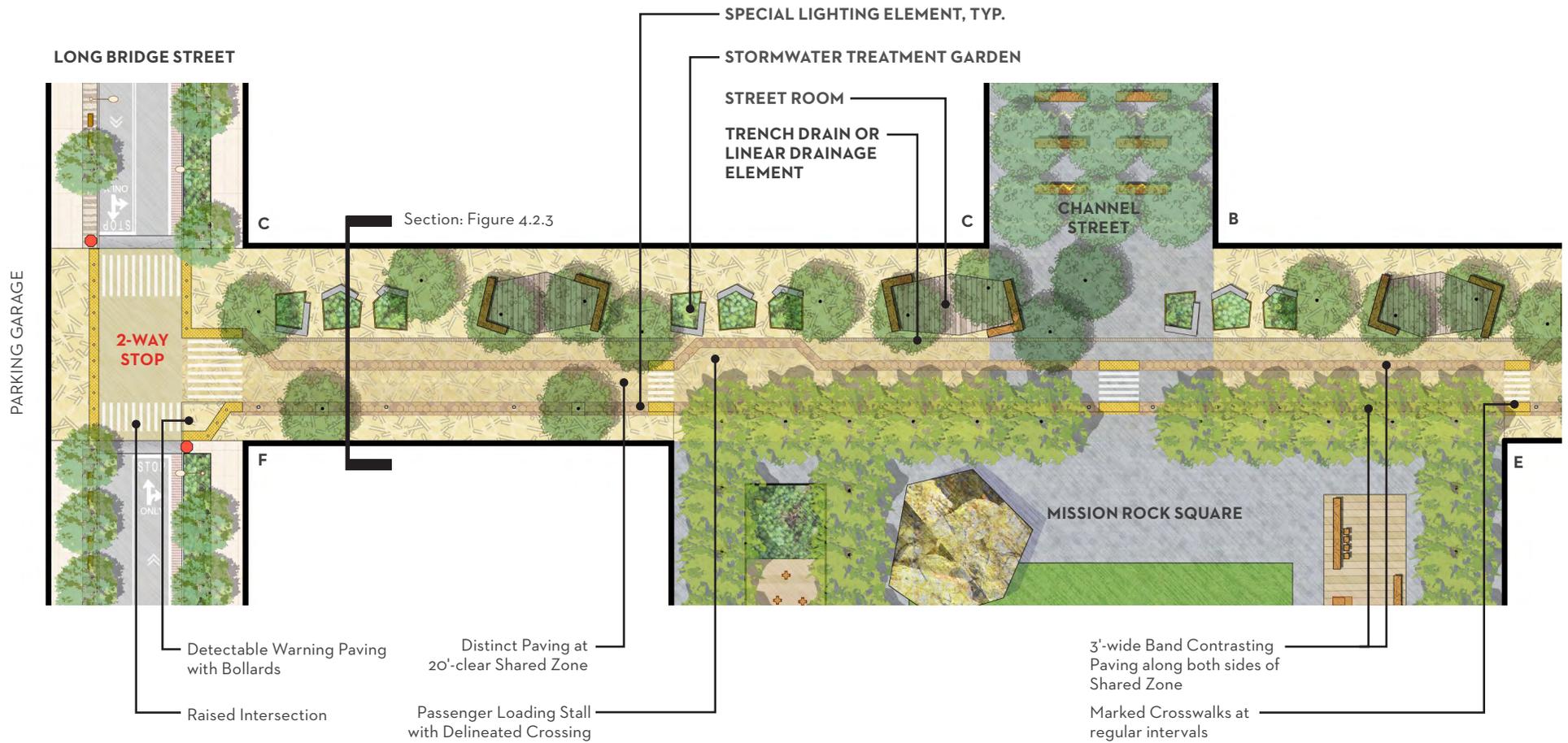
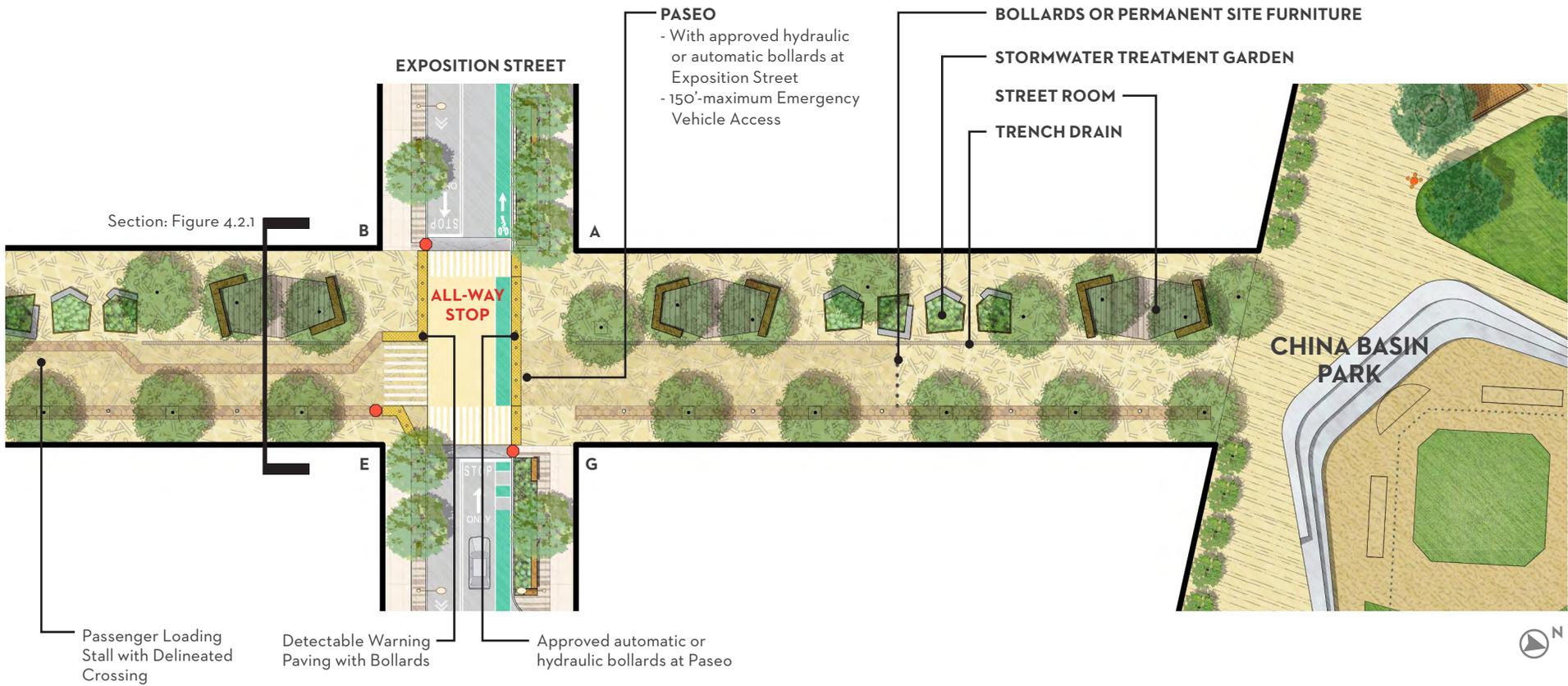


FIGURE 4.2.4 Shared Public Way Conceptual Plan that satisfies the controls herein. This is provided for illustrative purposes only and does not represent a design proposal. Refer to Chapter 8 of the Infrastructure Plan for key dimensions, intersection analysis, and fire access information.



A 'gateway', or vehicular entry point to the Shared Zone, provides a visual and physical cue for drivers to slow down. Bollards reinforce this cue.

A raised intersection prioritizes pedestrian circulation and provides another cue to slow vehicular traffic.

Trees with fine-textured canopies shade the street and, together with pole lights, provide vertical definition.

Streetlife Elements, including stormwater treatment gardens and street rooms with special seating and paving, encourage lingering and activate the street.

A trench drain or linear drainage element conveys stormwater and differentiates the Streetlife Zone from the Shared Zone, without interrupting the feeling of a unified space.

Active Edges along building frontages will provide spill-out space and generous pedestrian circulation.

Marked crosswalks at regular intervals provide a safe crossing for visually impaired pedestrians.

The Shared Zone will include a one-way travel lane and delineated passenger loading areas. The overall clear width of 20' accommodates emergency vehicle access.

Detectable Surface and Contrasting Paving indicate to pedestrians that they are crossing into a vehicular area.

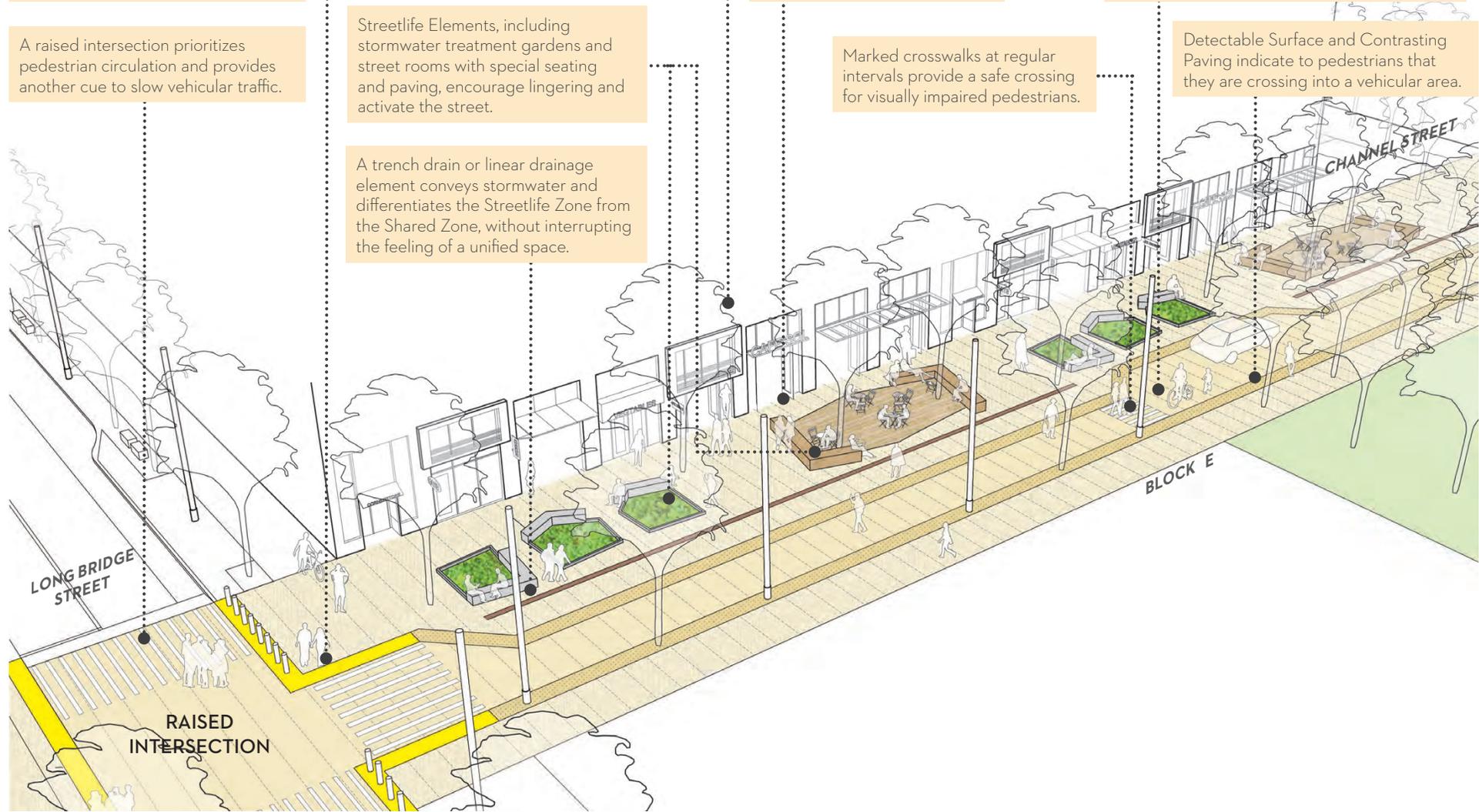


FIGURE 4.2.5 Conceptual diagram of Shared Public Way at Block C.



STREETLIFE ZONE

- Street rooms contain both built-in and movable seating
- Temporary newsstands + kiosks permitted within street rooms
- Special, high-quality paving and details create an urbane character and pedestrian scale

SHARED ZONE

- Single field of paving between building facades privileges pedestrian experience and unifies the right-of-way
- Vehicular area defined by slot drain and slight tonal shift in paving color
- Trees and special streetlights provide vertical definition and identity

ACTIVE EDGES

- Movable seating, signage, and other temporary uses curated by individual businesses
- Refer to Chapter 5 for specific Active Edge controls

FIGURE 4.2.6 Diagrammatic rendering of conceptual plan at Blocks C/E looking north to China Basin Park. This is provided for illustrative purposes only and does not represent a design proposal.

4.3 TERRY A FRANCOIS BOULEVARD

Read in conjunction with Section 3.5: Channel Wharf, Section 3.6: Pier 48 Apron, & Section 5.8: Working Waterfront Zone. Terry A Francois Boulevard must also satisfy the requirements described in Chapter 2: Public Realm.

Terry A Francois Boulevard will be a unique Working Waterfront that celebrates and supports active maritime, industrial, and production uses on the waterfront. Terry A Francois Boulevard will also connect the Bay Trail and Blue Greenway to China Basin Park and the Embarcadero to contribute to uninterrupted public access along San Francisco's eastern waterfront.

Connecting the Mission Rock development to its active and historical maritime context, the expression of craft and industrial character along Terry A Francois Boulevard will be central to the personality and experience of this working waterfront.

The public realm and ground floor controls along Terry A Francois Boulevard are tightly coordinated to maximize access and to strengthen the relationship among waterfront public use and working waterfront activities.



This promenade, with zones delineated by contrasting paving color and texture and generous benches, is a precedent for the Buffer/Furnishing Zones. © SIMON DEVITT

STANDARDS

4.3.1 WATERFRONT ZONE

Located adjacent to Pier 48, Pier 50, and Channel Wharf, the Waterfront Zone shall include the following zones within a minimum cumulative width of 22 feet, measured from Pier 50:

A) Bay Trail / Blue Greenway

A shared trail located along the east side of the entire Terry A Francois Boulevard ROW, with a 16'-minimum clear path of travel for bikes and pedestrians.

B) Buffer/Furnishing Zone

A 3'-minimum width buffer comprised of furnishings and iconic lighting, located along the entire length of the Shared Zone. This zone will have contrasting paving and other cues to be coordinated with applicable accessibility codes and guidance.

4.3.2 SHARED ZONE

The Shared Zone will be a 26'-minimum width zone shared by pedestrians and vehicles from Mission Rock Street to Exposition Street. The Shared Zone will be separated from the Waterfront Zone and the Building-Front Zone with flush curbs, and with buffers per 4.3.1-B and 4.3.3-B.

4.3.3 BUILDING-FRONT ZONE

The Building-Front Zone shall be contained within a maximum width of 24' adjacent to Blocks H, I, and J. See 4.3.4 for controls adjacent to Block K. The Building-Front Zone will include:

A) Pedestrian Throughway

12'-minimum width pedestrian circulation with 6' minimum pedestrian throughway at street grade along Blocks H, I, and J. Where Elevated Walkways are provided as

described in Chapter 5, accessible circulation and a dock lift or similar apparatus at the building face shall be provided within this zone as encroachments in the ROW.

B) Buffer/Furnishing Zone

A 3'-minimum width buffer comprised of furnishings, located along the entire length of the Shared Zone. This zone will have contrasting paving and other visual/tactile detection cues for pedestrians, to be coordinated with applicable accessibility codes and guidance.

C) Loading Area

A 9'-wide loading area that accommodates a maximum truck size of SU-30, located adjacent to the Shared Zone at Blocks H, I, and J.

D) Streetlife Zone

A 9'-wide spill-out space, located adjacent to the Pedestrian Throughway.

4.3.4 PASEO NORTH OF EXPOSITION STREET

Between Block K and Pier 48, Terry A Francois Boulevard will become a paseo that will accommodate emergency vehicle access for up to 150' of its length and include the following zones:

A) Waterfront Zone at Pier 48

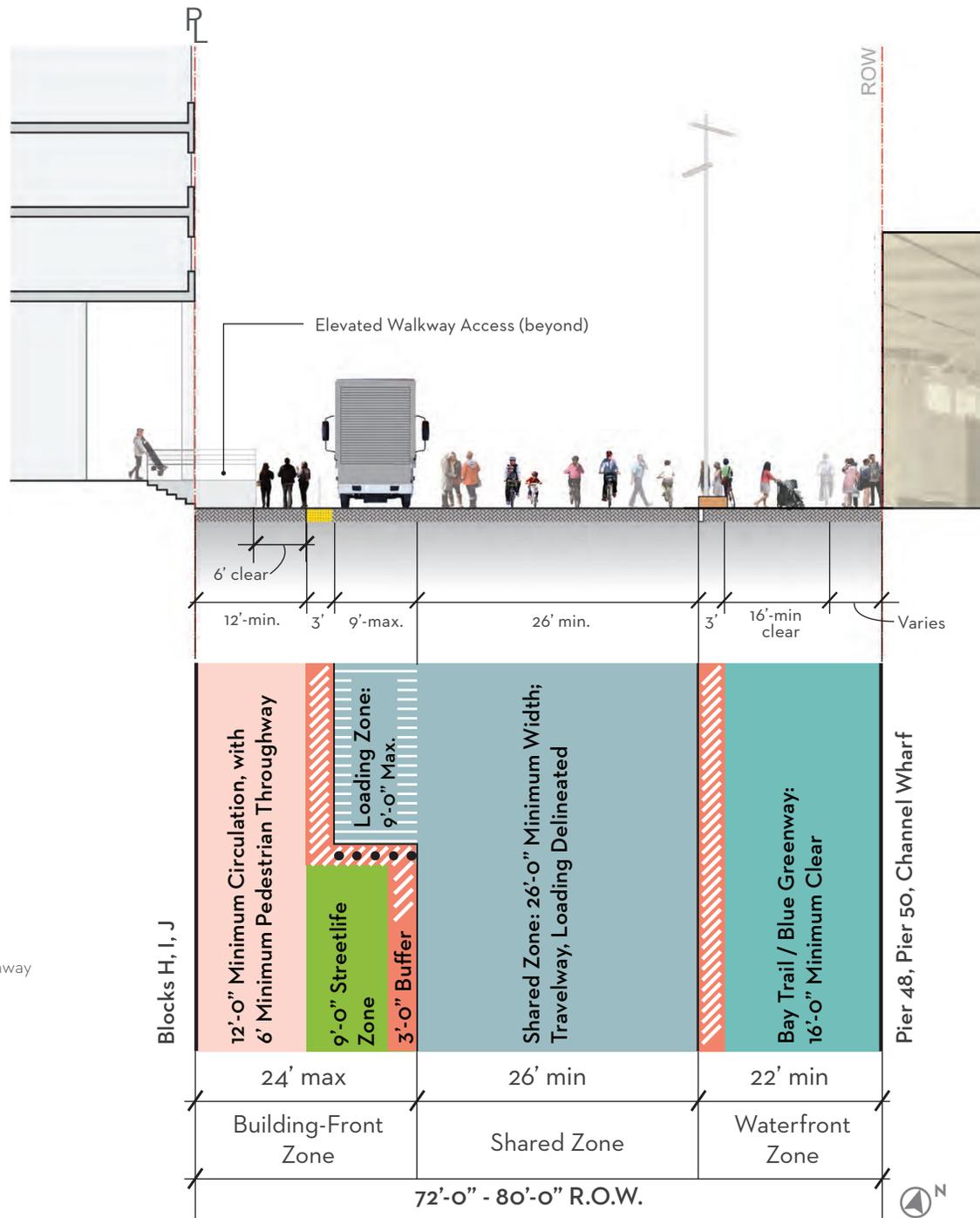
A 28'-wide zone, located adjacent to the Pier 48 bulkhead, shall accommodate the Bay Trail / Blue Greenway per 4.3.1-A and additional public space for Pier 48.

B) Vehicular Turnaround + Loading Spaces

A vehicular turnaround with one loading space, accessed from the Shared Zone.

C) Pedestrian Throughway

A 6'-minimum clear path of travel for pedestrians, located at Block K.



TERRY A FRANCOIS BOULEVARD

- Buffer
- Streetlife Zone
- Circulation + Pedestrian Throughway
- Blue Greenway
- Shared Zone

FIGURE 4.3.1 Terry A Francois Boulevard Section and Zones Diagram

STANDARDS

4.3.5 STREETScape ELEMENTS: REFERENCE STANDARDS

Streetscape elements are an important aspect of experience and character of Terry A Francois Boulevard. In addition to these standards, refer to Port standards per Standard 2.10.2, and 4.3.8.

A) Placement

Streetscape elements shall be placed within the Buffer Zones described in Standards 4.3.1 and 4.3.3 at regular intervals as determined by applicable accessibility guidance. Additional permanent streetscape elements in the Waterfront or Building-Front Zones, if desired, shall not block throughway areas or impede circulation along Terry A Francois Boulevard.

B) Expression of Production Character

Street furnishings, especially benches, along Terry A Francois Boulevard shall express the industrial character of the Working Waterfront Typology. Industrial and salvaged materials are strongly encouraged for these elements. Also see 4.3.6.

C) Consistency of Elements

Trash receptacles and bicycle racks shall be consistent for the length of this streetscape. Benches may be varied.

4.3.6 FACILITATING A PRODUCTION ENVIRONMENT

Design concepts shall facilitate and celebrate the production aspects of the Working Waterfront Typology. This includes functional requirements, including durable paving materials per 4.3.7 and Section 2.2, truck turning operations, and aspects of character expressed through the design of streetscape elements per 4.3.5 and 4.3.8.

4.3.7 PAVING

Terry A Francois Boulevard paving shall be predominantly a consistent field that emphasizes the coplanar condition of the right-of-way and unites the three zones identified in Figure 4.3.1.

A) Shared Zone Differentiation

Tactics to differentiate the shared zone could include shifts in color, texture, or paving module within the same language of the overall field. Paving shall be durable for truck traffic and enhance the industrial character of the street.

B) Intersection and Crosswalk Detectable Surface Paving

Intersection and crosswalk treatments, including aural warning pavement and special treatments, shall be incorporated to increase pedestrian visibility and provide warning cues for approaching traffic. These shall comply with Sections 2.3 and 2.4 and shall be ADA-compliant if proposed within the pedestrian throughway.



This example of a consistent field of paving is a precedent for the wharf character of the Working Waterfront. SOURCE:BURO LUBBERS



Special intersection treatments increase visibility and provide an opportunity for additional wayfinding. SOURCE: SOUTHOFSOUTH.ORG/BEN ELLIOTT



Aural/'noise' paving: integrated 'rumble strips' provide an aural warning cue for approaching traffic at intersections and turns. NO SOURCE FOUND

GUIDELINES

4.3.8 STREET FURNISHINGS

A) Permanent Street Furnishings

Permanent street furnishings should be unique to Terry A Francois Boulevard, designed specifically for this space as an artists' competition or by the designer. Legibility and continuity of street furnishings along the entire length of Terry A Francois Boulevard is strongly encouraged, but these elements may be sited to create variety and rhythm among blocks. Industrial and/or salvaged materials are strongly encouraged for street furnishing elements. See 4.3.5.

B) Temporary Street Furnishings

Temporary Furnishings may be located anywhere within the Waterfront or Building-Front Zones as long as minimum clearances are maintained and truck turning operations are not impeded. Refer to Infrastructure Plan.

4.3.9 PUBLIC SPACE AT BUILDING FRONTAGES

An elevated walkway, where it occurs, should create a unique interface with the public realm. Design concepts should consider integrating seating at this grade change.

4.3.10 LIGHTING

Lighting should be a mast light or distinctive pole that is unique to Terry A Francois Boulevard. This fixture should not contribute to light pollution. See Section 2.9 for suggested footcandle ranges and uniformity.

4.3.11 OVERHEAD ENCLOSURE

Canopies shading the public realm are allowed along Terry A Francois Boulevard within the Building-Front Zone. Trellises, if provided, should not interfere with functional requirements and clearances in the Building-Front Zone. Trees are not permitted on Terry A Francois Boulevard.



This loading dock provides public seating along a building frontage. SOURCE: CMG



An example of Permanent street furniture with industrial character and scale. © SIMON DEVITT



This outdoor workshop is an example of a permitted use in the Streetlife Zone or Elevated Walkway. © MICHAEL VAN VALKENBURG ASSOCIATES, INC.



An example of distinctive feature pole lights along a waterfront promenade. © WWW.SELUX.COM



A cast-iron bench expresses industrial character. SOURCE: CMG



A theatrical overhead enclosure provides shade and spectacle. © NIGEL YOUNG

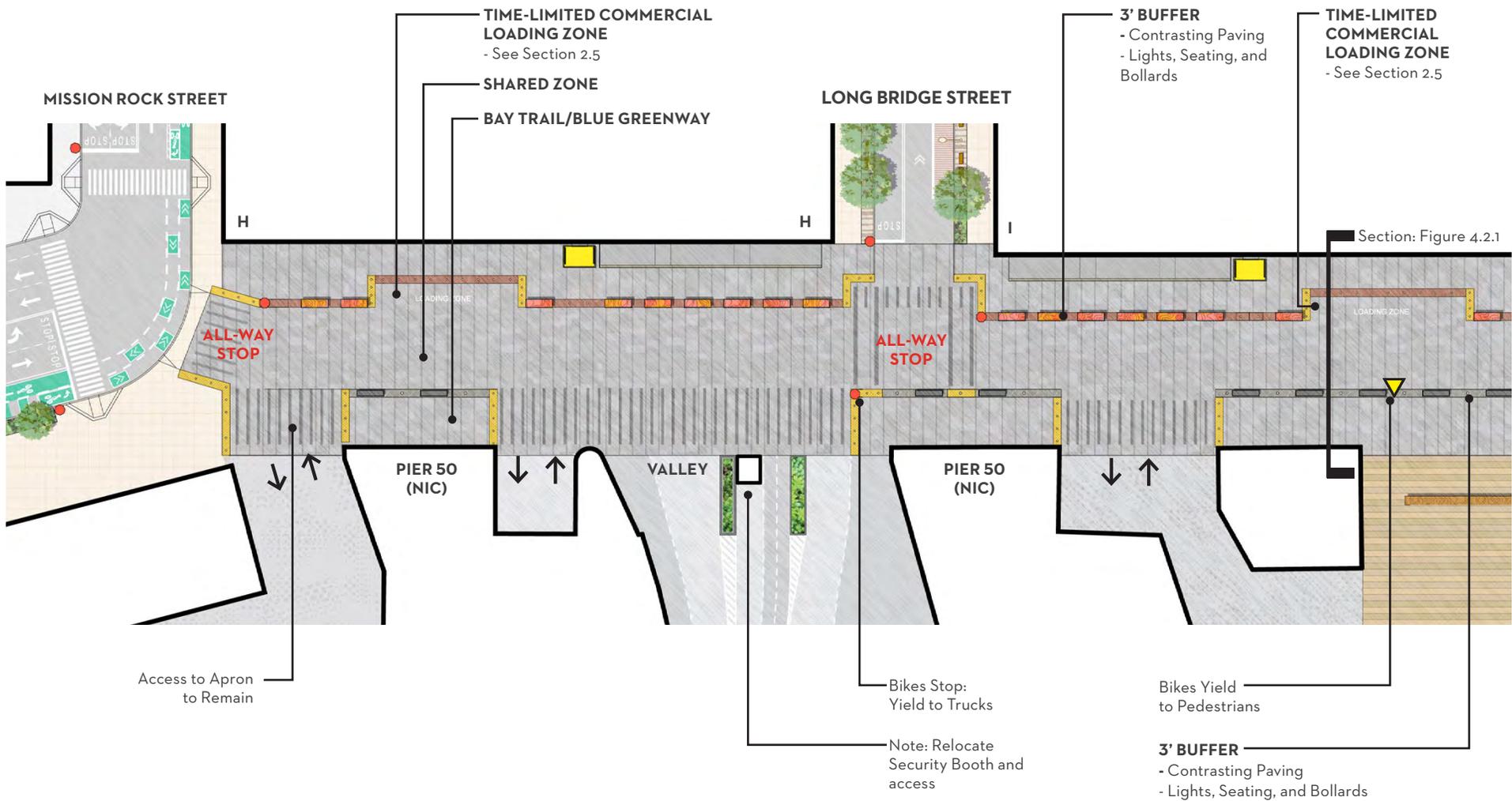
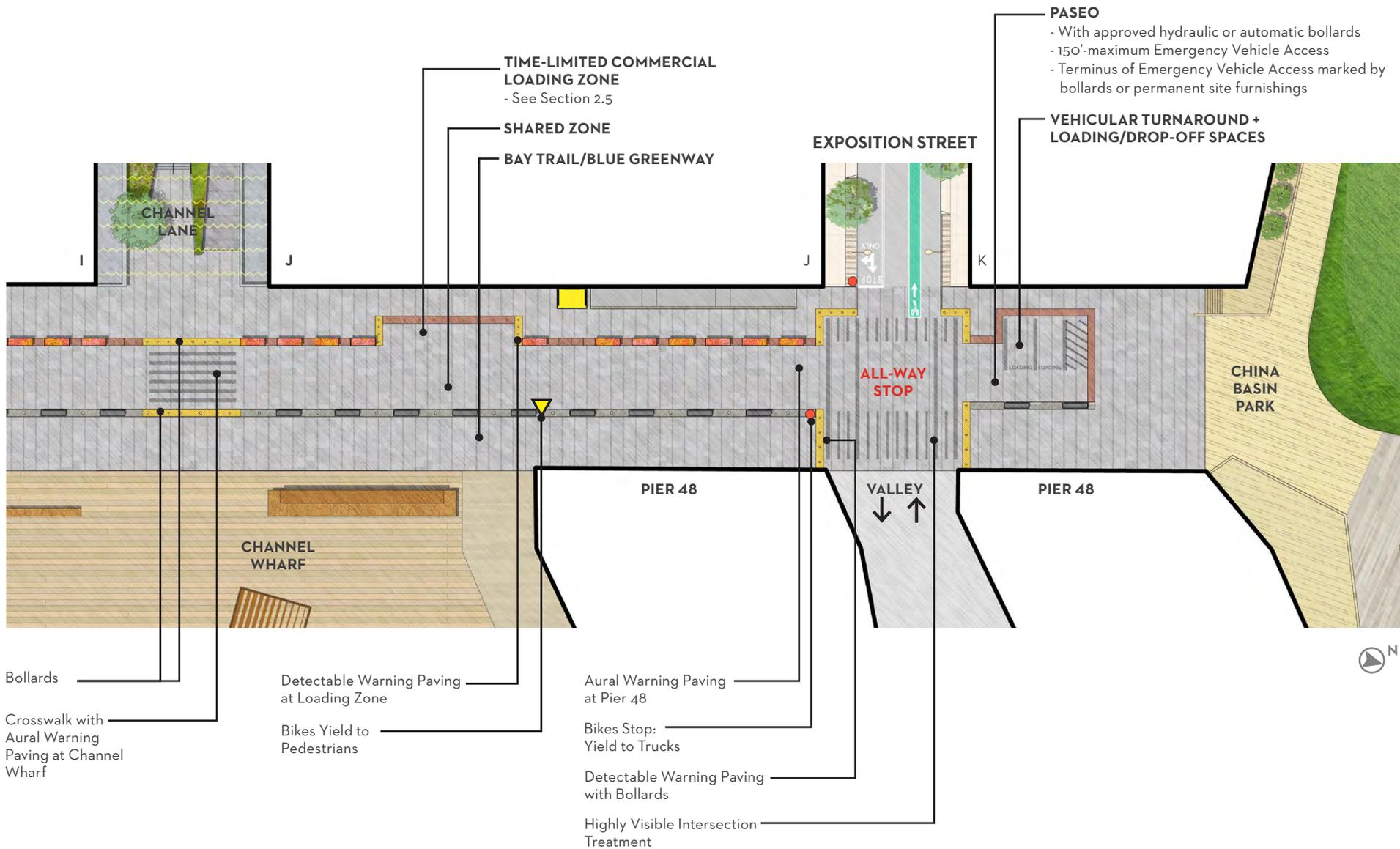


FIGURE 4.3.2 Conceptual Plan of Terry A Francois Boulevard. This is provided for illustrative purposes only & does not represent a design proposal. Refer to Chapter 8 of the Infrastructure Plan for key dimensions, intersection analysis, and fire access information.



The Shared Zone will include a two-way travelway lane, delineated passenger loading areas, and shared markings for bike access. The overall clear width of 26' accommodates emergency and large commercial vehicles.

The Building-Front Zone will include pedestrian circulation at grade and to elevated walkways, as well as space for ground-floor working waterfront tenants, whose spaces are elevated, to create a presence on the street.

Channel Wharf will be a unique public space adjacent to the working waterfront that accommodates public access and maritime uses.

Large commercial vehicle access to the Pier 48 valley + Pier 50 will be accommodated.

A key aspect of the working waterfront's industrial character will be a consistent field of paving that unites the entire right-of-way. Contrasting and detectable surface paving in buffer zones on both sides of the street will indicate to pedestrians that they are crossing into a vehicular/shared area.

The Waterfront Zone will include the Bay Trail/Blue Greenway, which will be a multi-use trail shared by bicyclists and pedestrians.

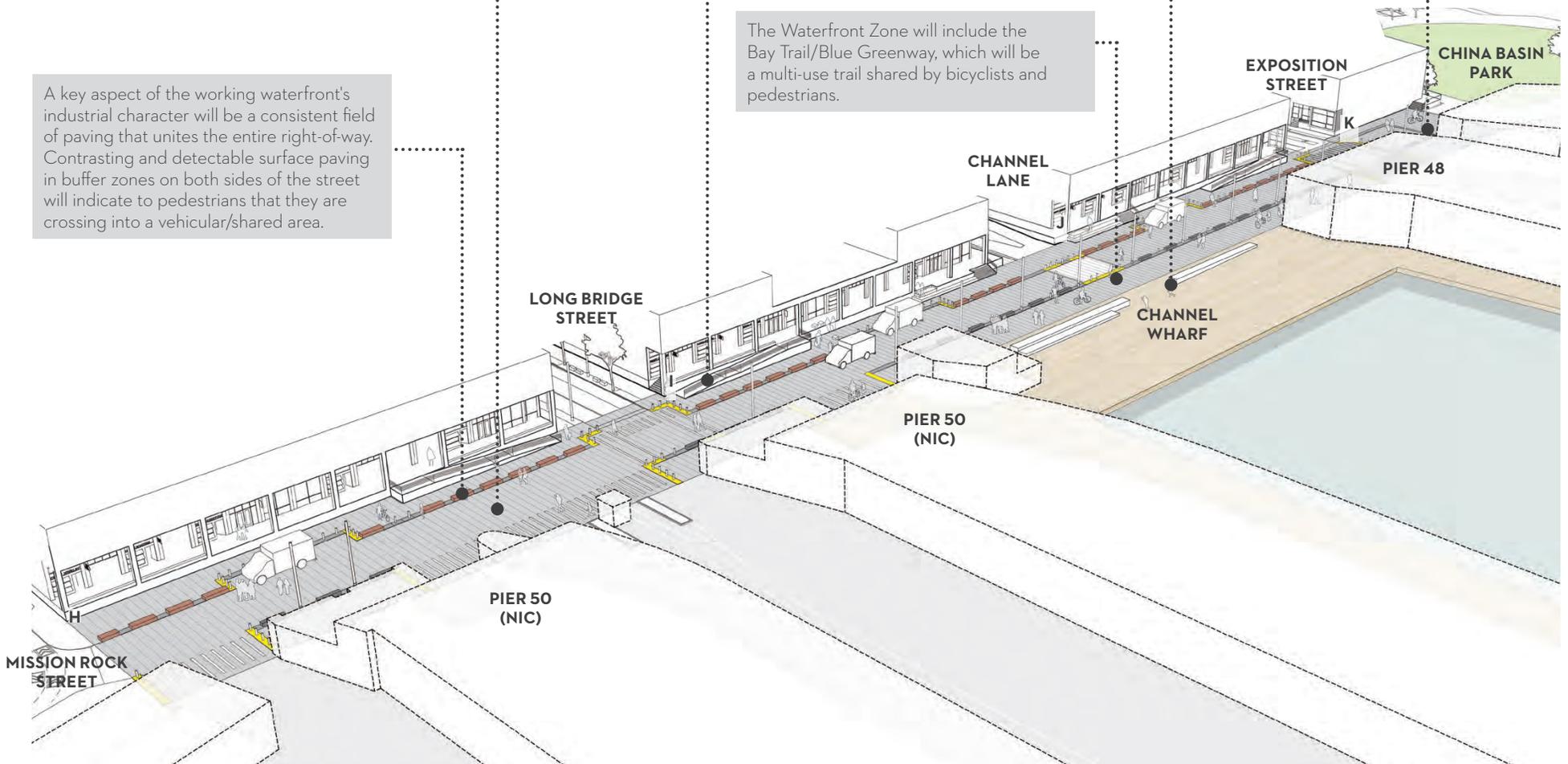


FIGURE 4.3.3 Conceptual axonometric diagram of the Terry A Francois Boulevard, the Working Waterfront.

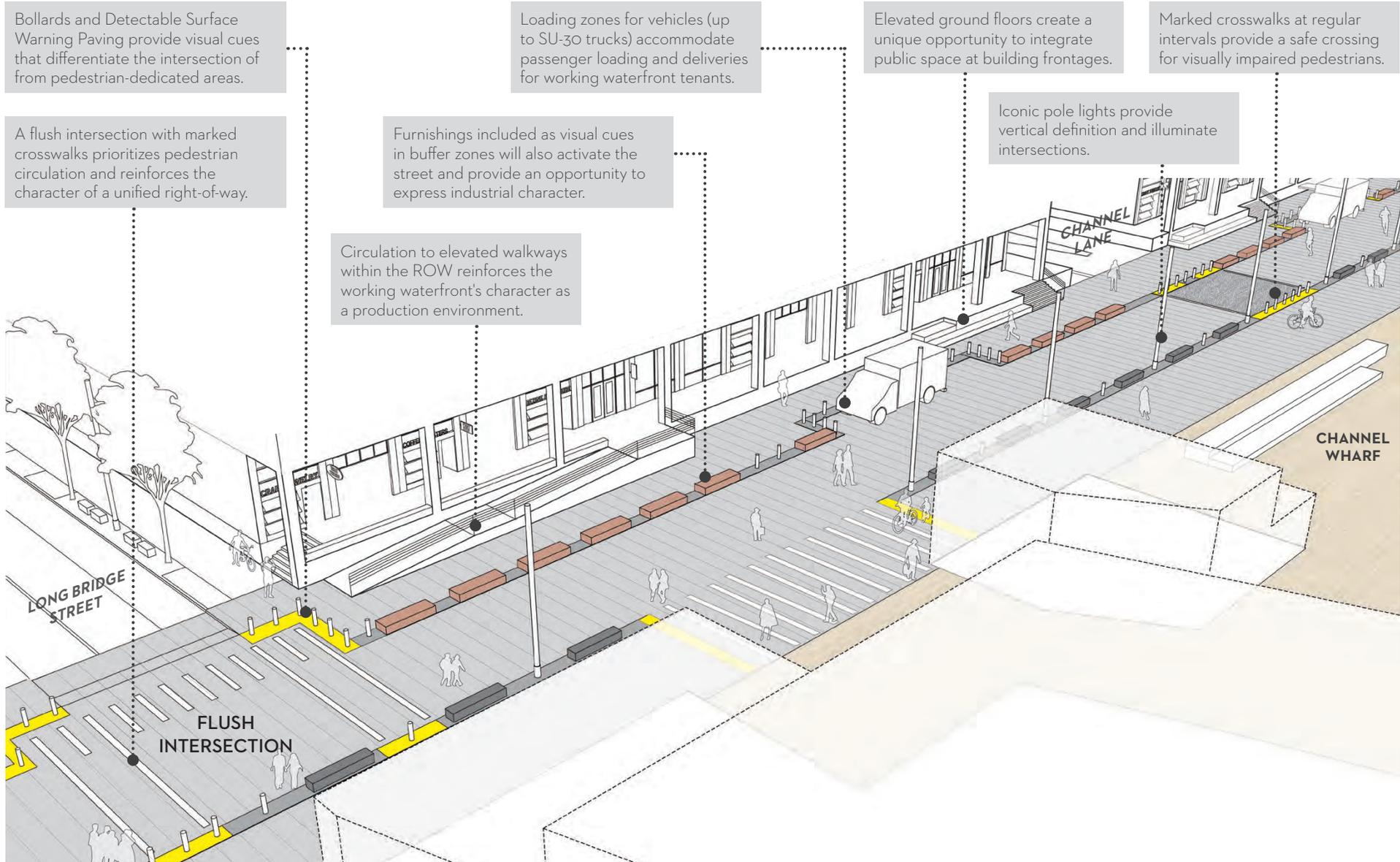


FIGURE 4.3.4 Conceptual diagram of Terry A Francois Boulevard at Block I.

4.4 BRIDGEVIEW STREET

Read in conjunction with Section 3.3: Mission Rock Square, Section 5.2: Ground Floor, and Sections 5.9-10: Neighborhood Street Zone. Bridgeview Street must also satisfy the requirements described in Chapter 2: Public Realm.

Bridgeview Street will be a Complete Street with world-class bicycle infrastructure, active sidewalks, stormwater treatment gardens, and slow vehicular traffic. A north-south bicycle connection from China Basin Park to Mission Bay, Bridgeview Street will provide an important link for bicycle facilities within and connecting to Mission Rock and the Bay Trail.

STANDARDS

4.4.1 SIDEWALK ZONES

Sidewalks on Bridgeview Street shall be 14'-wide along the east side of the street, and 12' along the west side. The sidewalk shall include:

A) Frontage Zone

A 2'-maximum width zone shall be maintained along building frontages for Active Edges as described in Chapter 5.

B) Pedestrian Throughway

An unobstructed, 6'-minimum clear width path of travel for pedestrians with width as noted in Figure 4.4.1 shall be maintained between the Frontage Zone and the Streetlife Zone.

C) Streetlife Zone

A zone between the curb and pedestrian throughway with width as noted on Figure 4.4.1. This zone shall include trees, lighting, and furnishings that shall be consistent for the entire length of the street. Stormwater treatment gardens shall be included in the Streetlife Zone. Refer to Infrastructure Plan for technical requirements.

D) Driveway Restrictions

Driveways shall not be permitted, except at the Block D parking garage.

4.4.2 ROADWAY ZONES

The 34'-wide roadway will accommodate two-way vehicular traffic from Exposition Street to Mission Rock Street and shall include:

A) Bicycle Facility

A two-way Class 1 cycle track on the east side of the right-of-way with total width of 13'-0" inclusive of a 3'-wide horizontal buffer, flush with the cycle track surface, that will separate and protect the facility from vehicular traffic.

B) Raised Cycle Track

A raised facility shall be provided that is grade-separated from adjacent travel lanes with a mountable curb located within the 3' buffer described in 4.4.2 A). All material transitions shall be completely flush with the cycle track.

C) Travel Lanes

Two 10'-6"-wide travel lanes shall be provided to accommodate two-way traffic.

4.4.3 TRAFFIC CONTROL AND CALMING MEASURES

A) Intersections

The intersections of Bridgeview Street with Mission Rock and Exposition Streets shall have full stop control. The intersection at Long Bridge Street shall be a raised intersection at cycle track grade with no stop control for Bridgeview Street bicycle or vehicular traffic. See Section 2.4 and refer to Infrastructure Plan.

B) Pedestrian Crossing at Channel Lane

A mid-block crossing at the intersection of Bridgeview Street, Mission Rock Square, and Channel Lane shall be included at this major pedestrian crossing. Bicycle facility treatment shall continue across the intersection, with signage to yield to pedestrians.

C) Cycle Track Warning Cues

Before all intersections and at the northern paseo portion of Bridgeview Street, the cycle track shall include paved and signed warning cues for pedestrian crossings.

D) Cycle Track Intersections

Cycle track demarcation shall continue across intersections at Exposition and Long Bridge Streets to indicate that cyclists have the right-of-way. Signs should indicate that vehicles must yield to cyclists. See Section 2.4 and refer to Infrastructure and Transportation Plans.

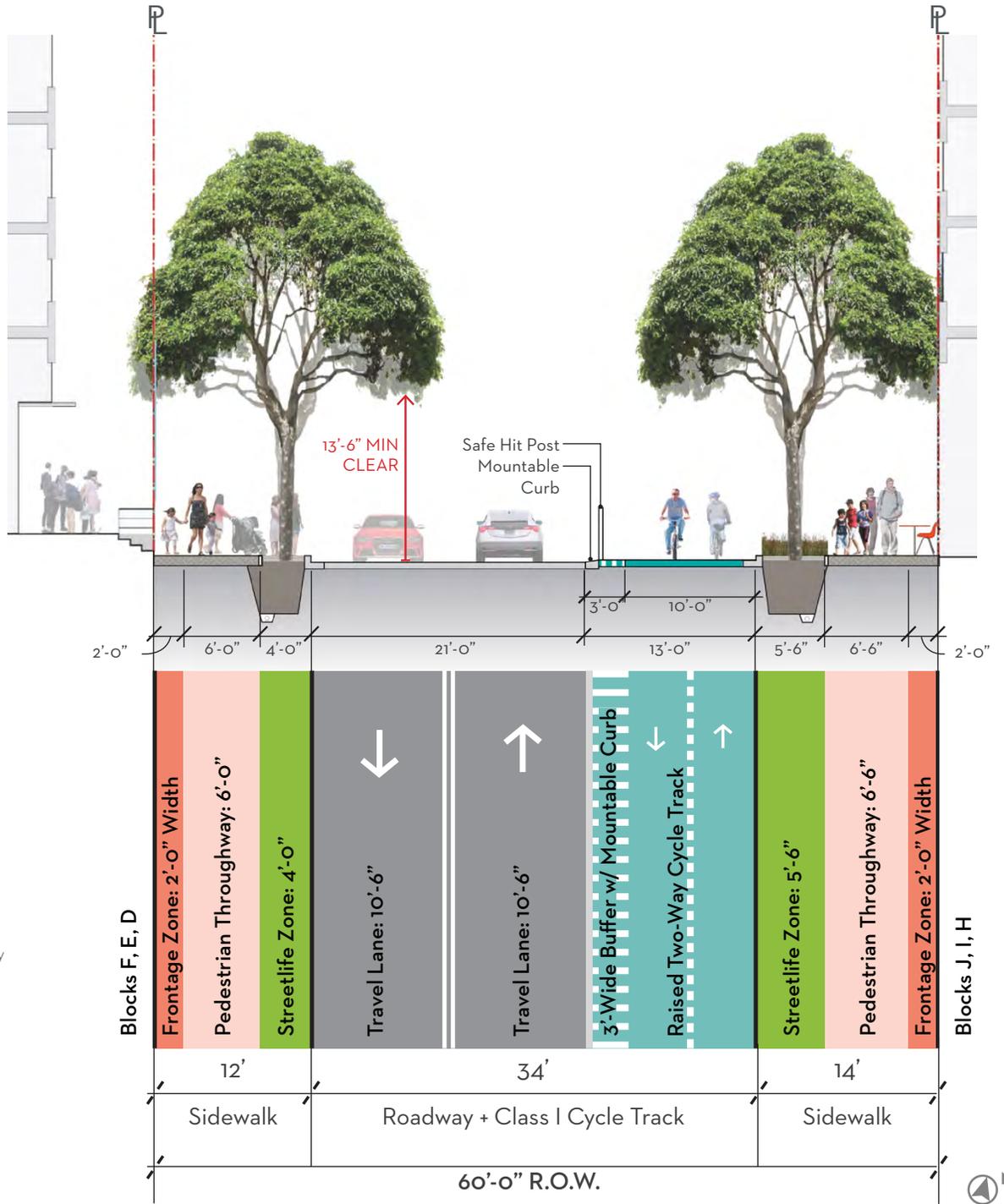


FIGURE 4.4.1 Bridgeview Street Section and Zones.

STANDARDS

4.4.4 PASEO NORTH OF EXPOSITION STREET

Between Block G and Block K, Bridgeview Street will become a paseo that will accommodate emergency vehicle access and include the following zones:

A) Multi-Use Trail Connection

A 16'-minimum clear multi-use trail shall connect China Basin Park to the bicycle facility described in 4.4.2. This connection shall include paving and signage delineating this shared use path on the east side of the right-of-way, and warning cues for pedestrians and cyclists at crossings. Refer to Section 2.10.

B) Emergency Vehicle Clear Access Width

A 20'-minimum clear zone shall accommodate emergency vehicle access for up to 150', measured from the Exposition Street ROW. See Standard 2.4.2.

C) Pedestrian Throughway

A 6'-minimum clear path of travel for pedestrians on each side of the right-of-way.

GUIDELINES

4.4.5 BICYCLE FACILITY SIGNAGE AND WAYFINDING

Bicycle Signage and Wayfinding should refer to City, Port, and NACTO (National Association of City Transportation Officials) Urban Bikeway Standards. Signage should be mounted at the curb edge of the Streetlife Zone, or inset in bicycle facility paving.

4.4.6 BICYCLE PARKING CHARACTER

Bicycle parking should be a playful streetscape element that contributes to the unique identity of Bridgeview Street.

4.4.7 SEATING

Seating elements, including fixed benches, tables and chairs, should be social and two-sided, designed to activate the Streetlife Zone and engage the street's bicycle facilities.

4.4.8 STREET TREE ALIGNMENT

Street trees should align across the street and be planted at a consistent on-center spacing on both sides of Bridgeview Street. Trees should not be planted within stormwater treatment gardens.

4.4.9 STORMWATER TREATMENT GARDENS

Placement of stormwater treatment gardens should allow for seating under trees and between gardens. Each garden should not exceed 18' continuous linear feet in length and should be spaced to leave a minimum of 4' clear between gardens.

4.4.10 LIGHTING

Lighting fixtures should be pole lights scaled to the pedestrian experience. See Section 2.9.



A fun bicycle parking rack doubles as a play element.
SOURCE: [HTTP://LOVEASPOTOFTEA.BLOGSPOT.COM/](http://loveaspotoftea.blogspot.com/)



Utilizing pedestrian-scaled lighting to illuminate sidewalks creates a special, intimate character. © [HTTP://WWW.SELUX.FR/](http://www.selux.fr/)



FIGURE 4.4.2 Diagrammatic View of Bridgeview St at Blocks J and F, looking north. This is provided for illustrative purposes only.

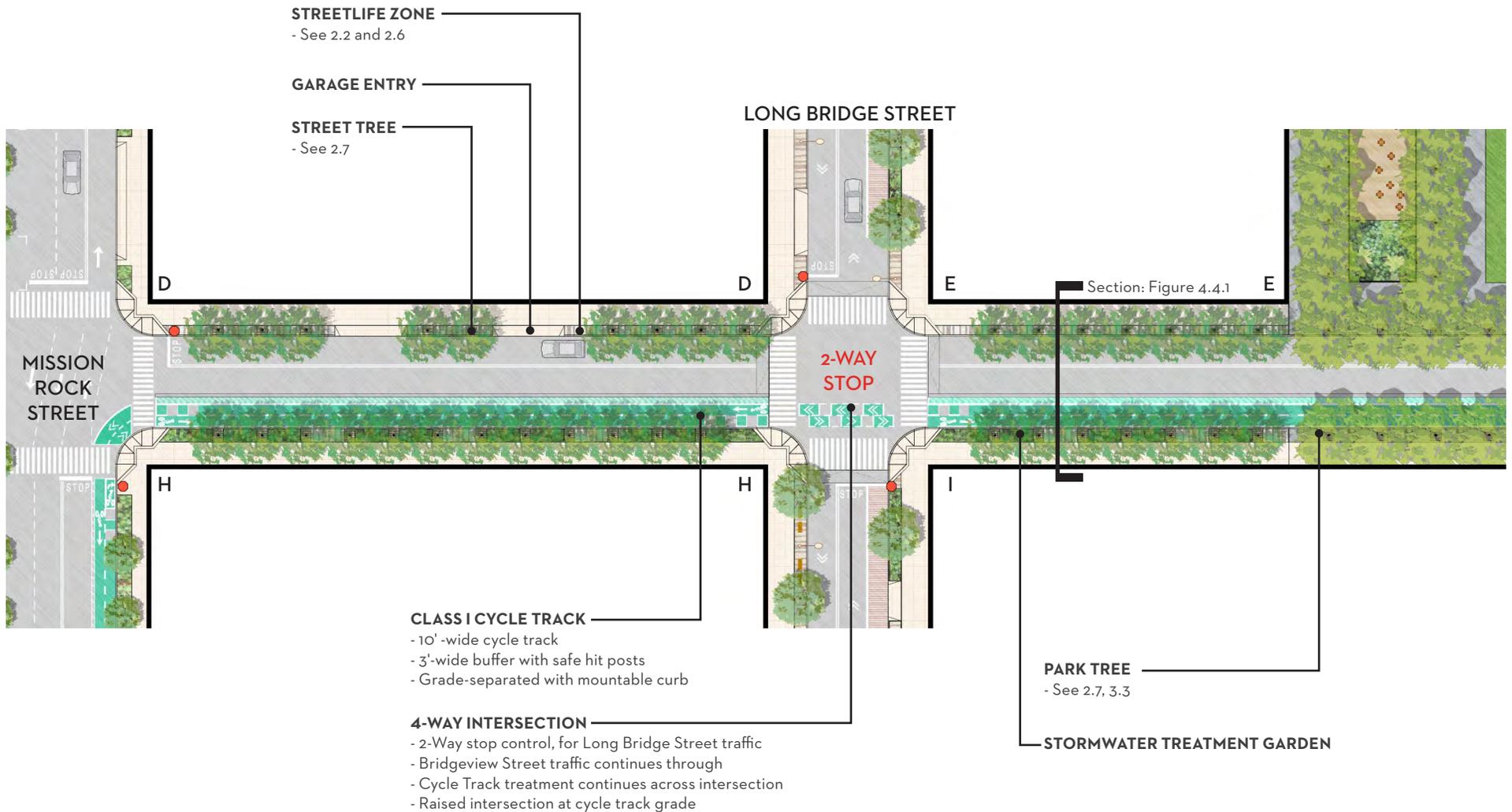
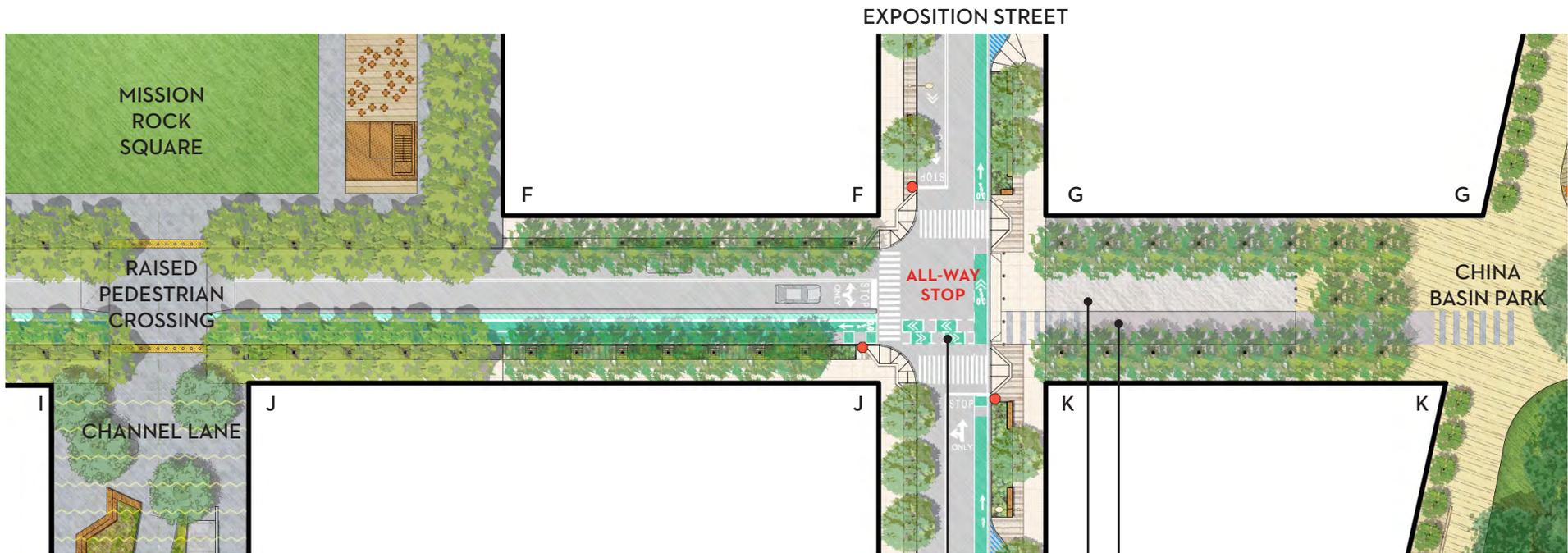


FIGURE 4.4.3 Bridgeview Street Conceptual Plan. This is provided for illustrative purposes only & does not represent a design proposal. Refer to Chapter 8 of the Infrastructure Plan for key dimensions, intersection analysis, and fire access information.



3-WAY INTERSECTION

- Full stop control for vehicles and bicycles in all directions
- Cycle Track paving continues across intersection

MULTI-USE TRAIL CONNECTION

PASEO

- With approved hydraulic or automatic bollards at Exposition Street
- 150'-maximum Emergency Vehicle Access per Standard 4.4.4 and Section 2.4.
- Terminus of Emergency Vehicle Access marked by street trees, bollards, or permanent site furnishings.

4.5 EXPOSITION STREET

Read in conjunction with Section 4.2: Shared Public Way, Section 4.3: Terry A Francois Boulevard, Section 5.2: Ground Floor, and Sections 5.9-10: Neighborhood Street Zone. Exposition Street must also satisfy the requirements described in Chapter 2: Public Realm.

Exposition Street is designed to calm traffic and create a lush pedestrian connection with bulb-out gardens that will treat stormwater and provide seating. It will also accommodate service and loading demands for Blocks A, B, F, G, J, and K.



A large stormwater treatment garden on Folsom Street provides generous public seating and activates the sidewalk. SOURCE: CMG

STANDARDS

4.5.1 SIDEWALK ZONES

Sidewalks on Exposition Street shall be 14'-wide along the south side of the street, and 20' along the north side, with inset loading zones for passenger loading and servicing access. The sidewalk shall include:

A) Frontage Zone

A 2'-maximum width zone shall be maintained along building frontages for Active Edges as described in Chapter 5.

B) Pedestrian Throughway

An unobstructed, 6'-minimum clear width path of travel for pedestrians shall be maintained between the Frontage Zone and the Streetlife Zone.

C) Streetlife Zone

A zone between the curb and pedestrian throughway with width as noted on Figure 4.5.1. This zone shall include trees, lighting, stormwater treatment gardens, and furnishings that shall be consistent for the entire length of the street.

D) Stormwater Zone

An 8'-wide zone between the Streetlife Zone and Roadway on the north side of the right-of-way, at grade with the sidewalk, shall include large stormwater treatment gardens with unique integral seating located at the southeast and southwest corners of Blocks A, G, and K.

4.5.2 ROADWAY ZONES

The 26'-wide roadway will accommodate two-way vehicular traffic from 3rd Street to Terry A Francois Boulevard, and shall include:

A) Bicycle Facilities

A 5'-wide painted Class II bike lane in the west-bound

direction, separated from vehicular traffic with a 6"-wide solid white line. Minimize utility covers and material transitions in this area. East-bound sharrows shall be provided.

B) Loading Zone

An 8'-wide zone shall be provided at grade with the roadway, located between stormwater treatment gardens described in 4.5.1, to provide passenger loading and servicing access per Section 2.5.

C) Travel Lanes

Two 10'-0"-wide travel lanes shall be provided to accommodate two-way traffic.

4.5.3 TRAFFIC CONTROL AND CALMING MEASURES

A) Intersection Control

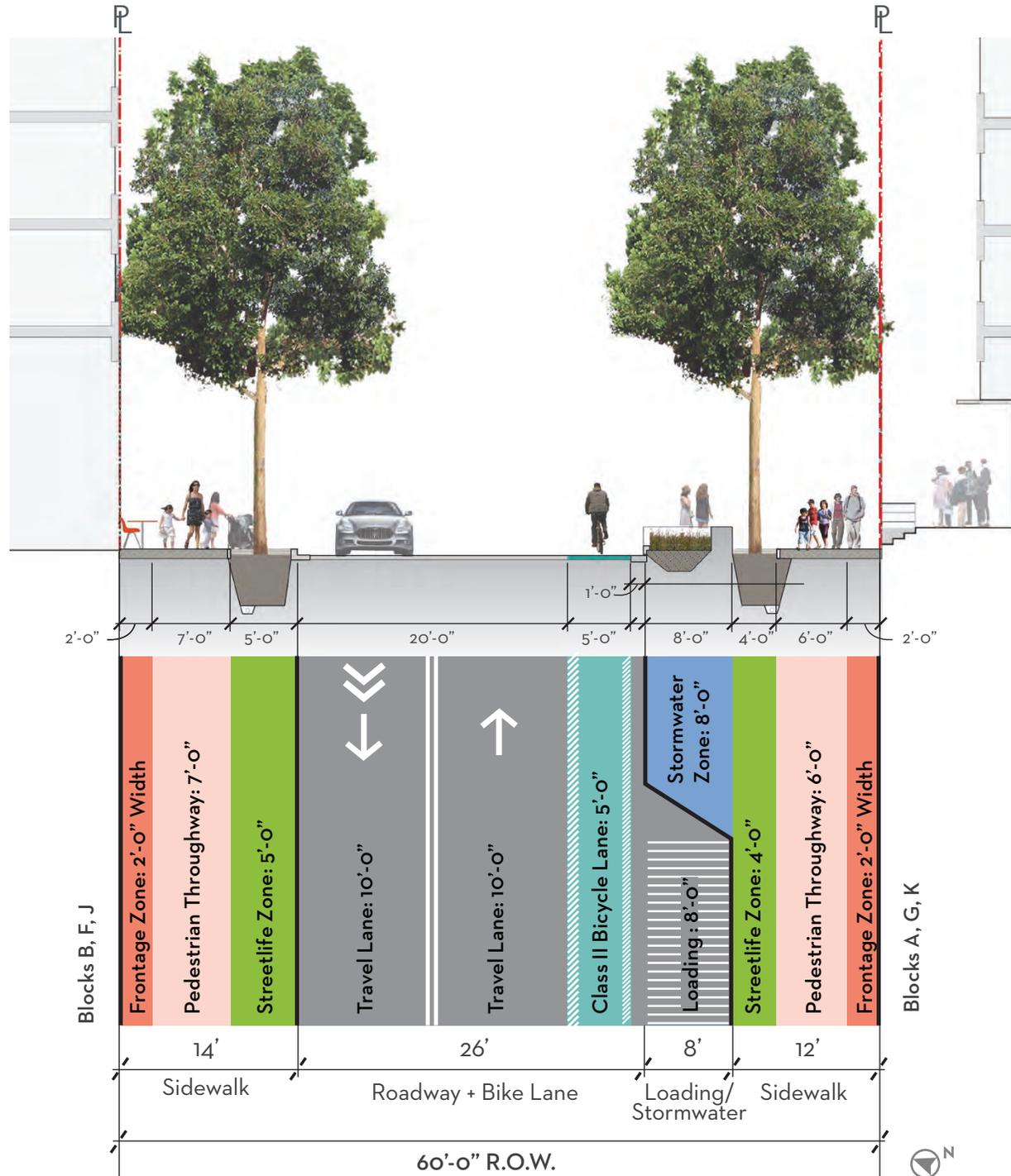
The intersection of Exposition Street with Bridgeview Street shall have full stop control for bicyclists and vehicles. At the Shared Public Way and Terry A Francois Boulevard, there shall be stop-controlled raised intersections with pedestrian throughway clearly delineated. See Sections 2.3, 2.4, 4.2, 4.3, and 4.4 and refer to Infrastructure Plan.

B) Bicycle Treatment at Intersections

Bike lane demarcation shall continue across intersections at Bridgeview Street and the Shared Public Way. See Section 2.4 and Infrastructure Plan.

4.5.4 LARGE VEHICLE CIRCULATION

Large vehicle circulation to and from Terry A Francois Boulevard and Pier 48 shall be accommodated on the roadway between Blocks K and J. See Section 2.4 and refer to Infrastructure and Transportation Plans.



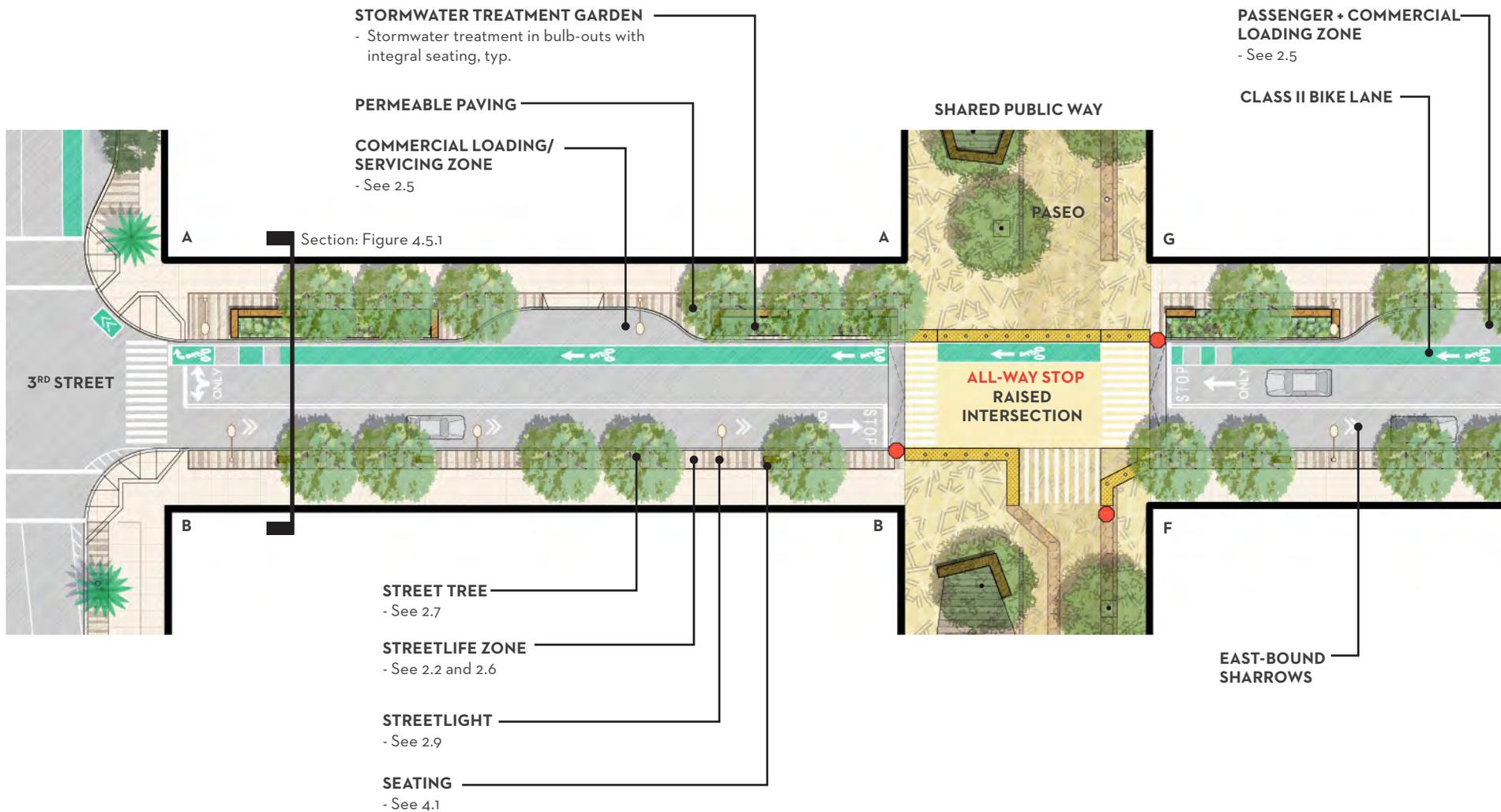
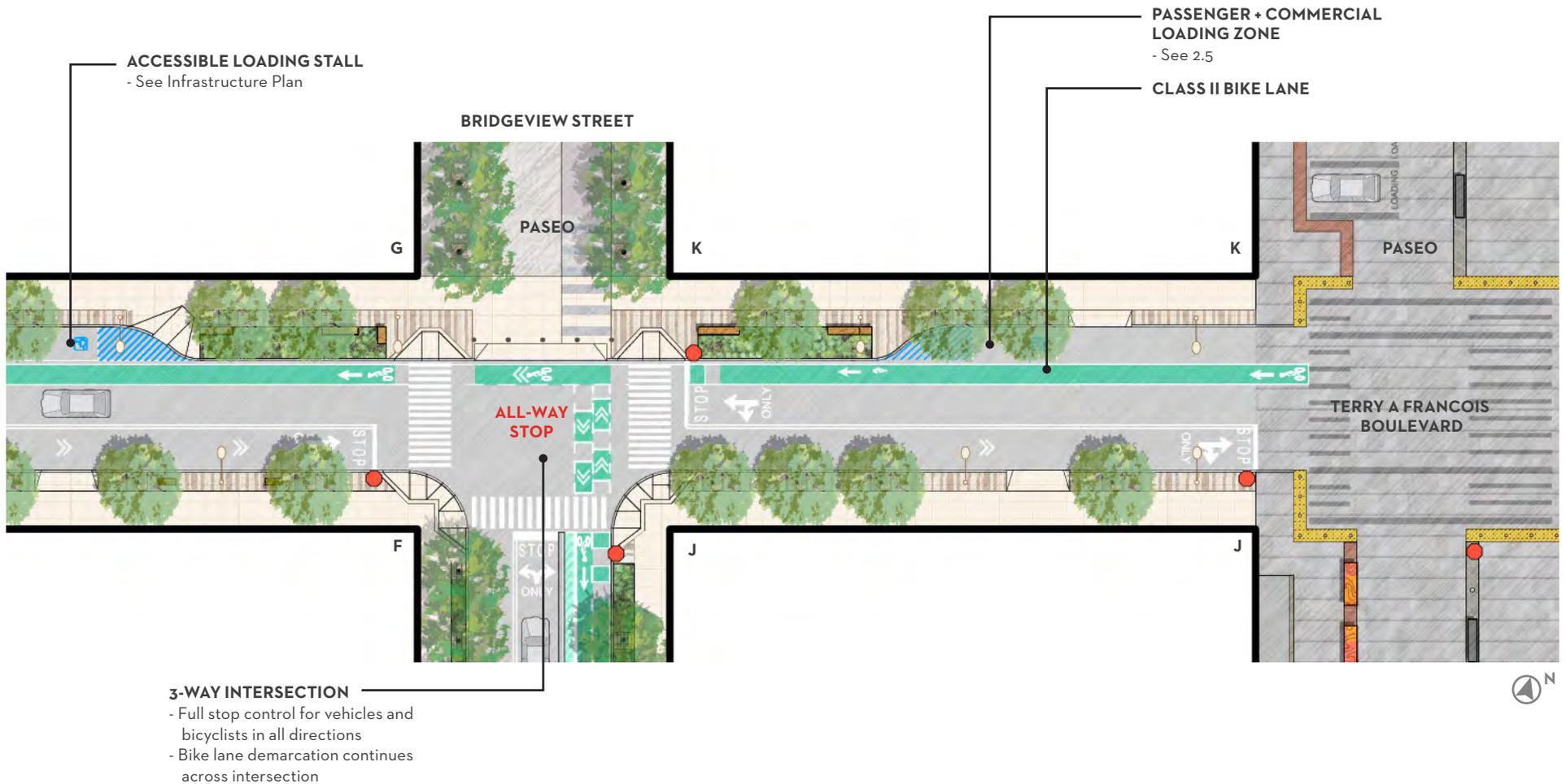


FIGURE 4.5.2 Exposition Street Conceptual Plan. This is provided for illustrative purposes only & does not represent a design proposal. Refer to Chapter 8 of the Infrastructure Plan for key dimensions, intersection analysis, and fire access information.



4.6 LONG BRIDGE STREET

Read in conjunction with Section 4.2: Shared Public Way, Section 4.3: Terry A Francois Boulevard, Section 4.7: 3rd Street, Section 5.2: Ground Floor, Sections 5.9-10: Neighborhood Street Zone, and Section 7.8: Parking Structure (Block D2). Long Bridge Street must also satisfy the requirements described in Chapter 2: Public Realm.

Long Bridge Street will be an important pedestrian entry point to the site from MUNI. It is designed with wide throughways, shade trees, ample street furniture opportunities, and compact linear stormwater gardens.

Long Bridge Street will accommodate service and loading demands for Blocks D, C, E, H, and I and will be the vehicular entry point for the Shared Public Way.

STANDARDS

4.6.1 SIDEWALK ZONES

Sidewalks on Long Bridge Street shall be 15'-wide on both sides of the right-of-way. The sidewalk shall include:

A) Frontage Zone

A 2'-maximum width zone shall be maintained along building frontages for Active Edges as described in Chapter 5.

B) Pedestrian Throughway

An unobstructed, 6'-minimum clear width path of travel for pedestrians with width as noted on Figure 4.6.1 shall be maintained between the Frontage Zone and the Streetlife Zone.

C) Streetlife Zone

A zone between the curb and pedestrian throughway with width as noted on Figure 4.6.1. This zone shall include trees, lighting, stormwater treatment gardens, and furnishings that shall be consistent for the entire length of the street.

D) Bulb-Out with Stormwater Treatment

A 4'-maximum width bulb-out that includes stormwater treatment gardens shall be provided on the north side of Long Bridge Street, on either side of the Shared Public Way intersection. Refer to Infrastructure Plan.

4.6.2 ROADWAY ZONES

The 30'-wide roadway will accommodate two-way vehicular traffic from 3rd Street to Terry A Francois Boulevard, and shall include:

A) Loading Zone

An 8'-wide loading zone shall be provided at grade with the roadway on the north side of the right-of-way, to provide passenger loading and servicing access per Section 2.5. This zone shall be painted with a unique surface treatment that differentiates it from the travel lanes. This zone shall not interfere with fire truck access or turning movements at intersections. Refer to Transportation Plan.

B) Travel Lanes

Two 11'-wide travel lanes shall be provided to accommodate two-way traffic.

C) Bicycle Markings

East- and west-bound sharrows shall be provided.

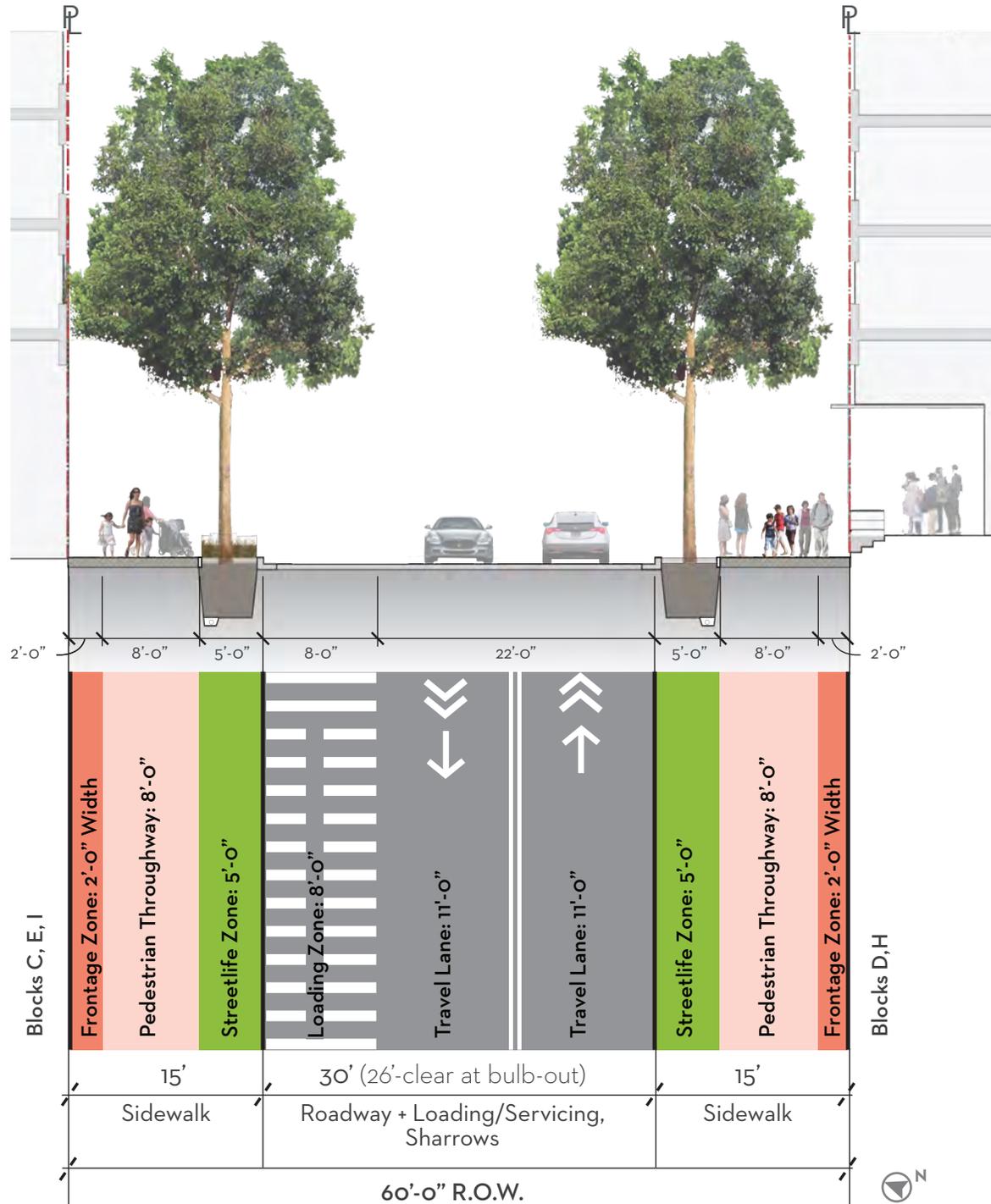
4.6.3 TRAFFIC CONTROL AND CALMING MEASURES

A) Intersection Control

The intersection of Long Bridge Street with Bridgeview Street shall have stop control for all Long Bridge Street traffic only. At the Shared Public Way and Terry A Francois Boulevard, there shall be stop-controlled raised intersections with pedestrian throughway clearly delineated. See Sections 2.3, 2.4, 4.2, 4.3, and 4.4 and refer to Infrastructure Plan.

4.6.4 DRIVEWAYS AT BLOCK D PARKING FACILITY

Driveways shall be provided at Block D to accommodate parking facility ingress and egress. Refer to Section 2.4, Transportation Plan, and Infrastructure Plan.



LONG BRIDGE STREET

- Frontage Zone
- Pedestrian Throughway
- Streetlife Zone
- Roadway

FIGURE 4.6.1 Long Bridge Street Section and Street Zones Diagram

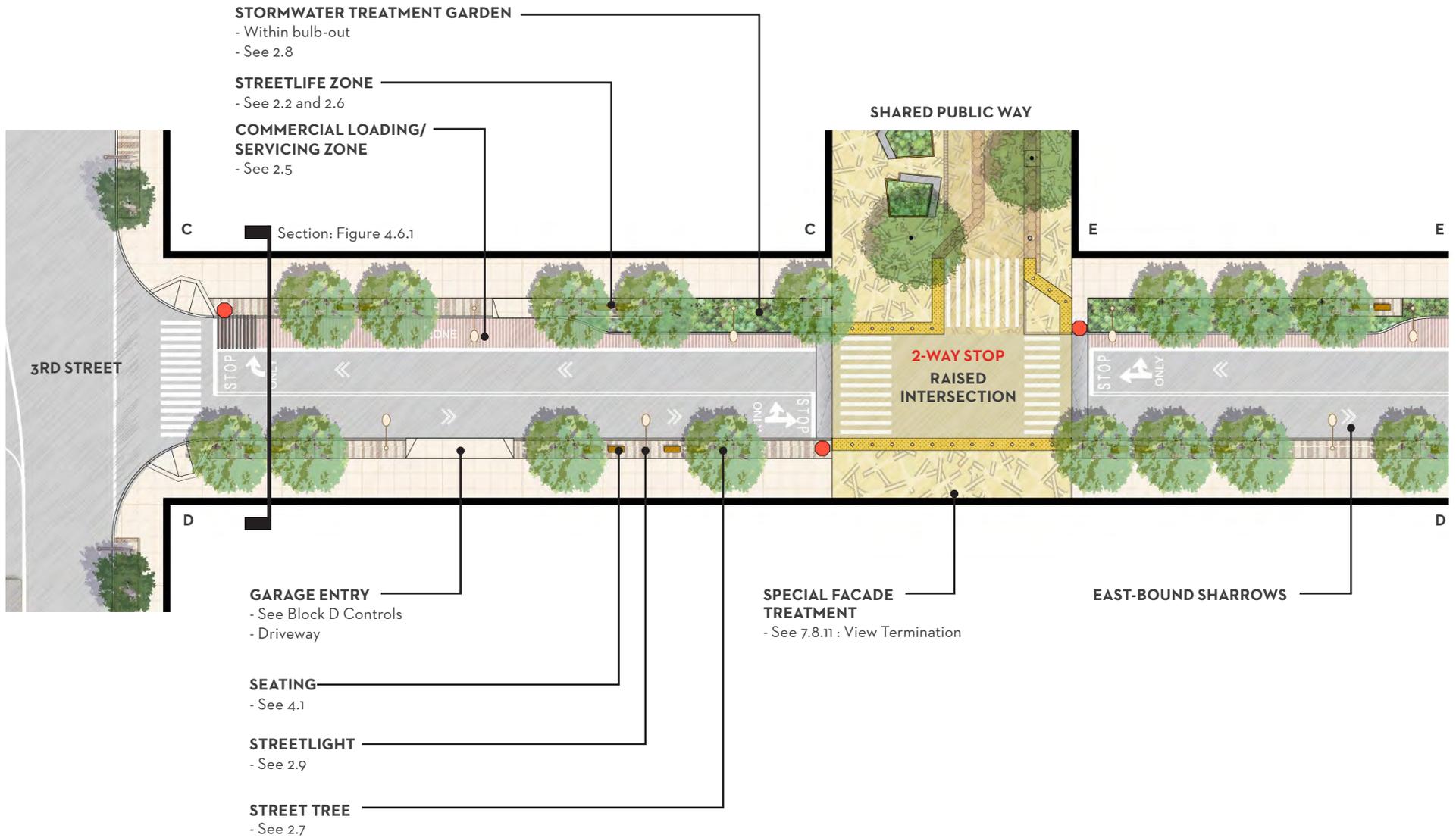
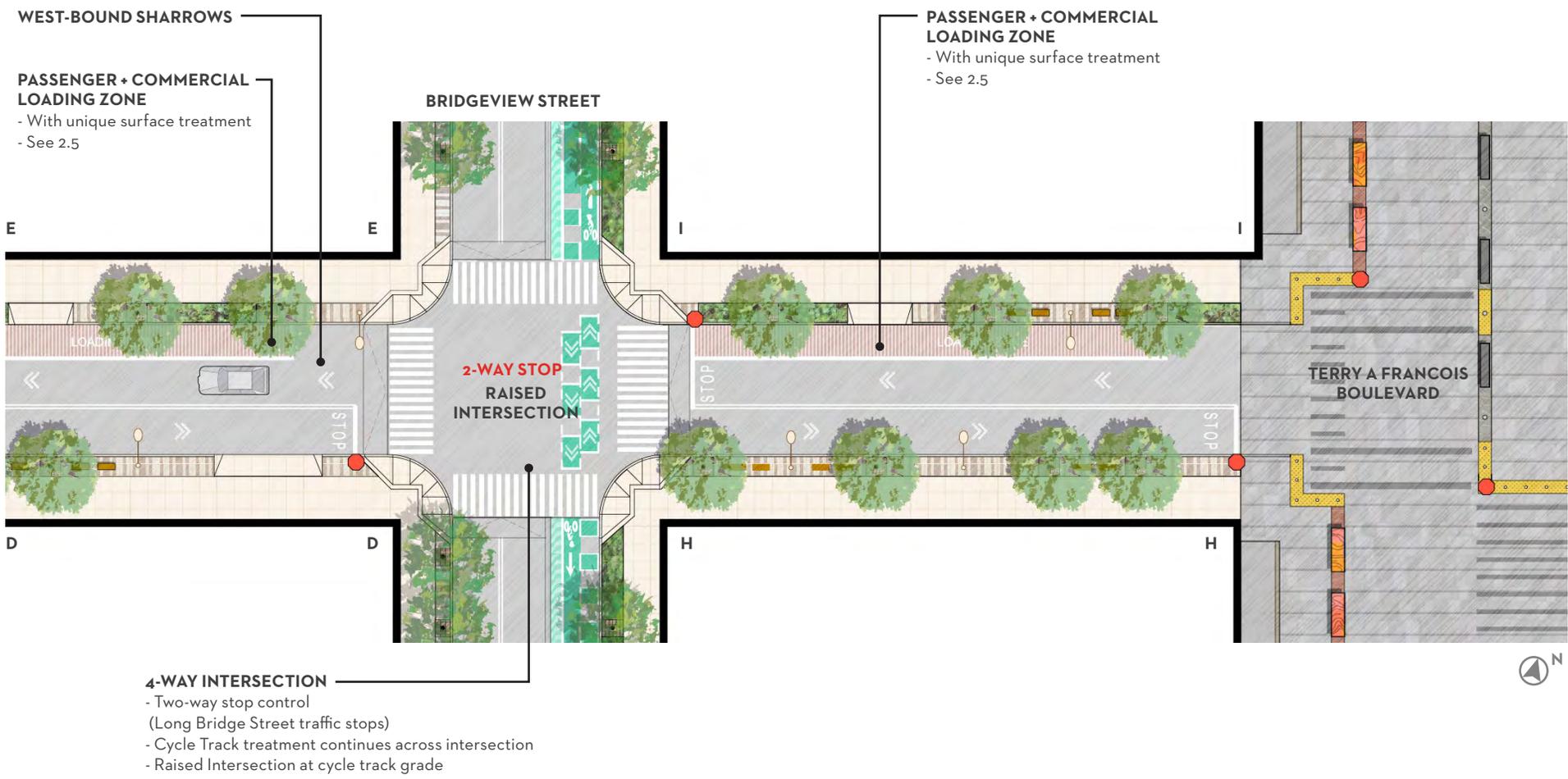


FIGURE 4.6.2 Long Bridge Street Conceptual Plan. This is provided for illustrative purposes only & does not represent a design proposal. Refer to Chapter 8 of the Infrastructure Plan for key dimensions, intersection analysis, and fire access information.



4.7 3RD STREET

Read in conjunction with Section 4.5: Exposition Street, Section 4.6: Long Bridge Street, Section 5.2: Ground Floor, and Sections 5.9-10: Neighborhood Street Zone. 3rd Street must also satisfy the requirements described in Chapter 2: Public Realm.

3rd Street is Mission Rock's primary face to Mission Bay. A wide multi-modal street, its character is fundamentally different from the interior streets of Mission Rock. South of Long Bridge Street, the sidewalk is a key threshold into Mission Rock from the MUNI station at Mission Rock Street. 3rd Street will primarily adhere to approved San Francisco Office of Community Investment and Infrastructure (OCII) Mission Bay standards for materials, trees, and lighting.



Conceptual rendering of 3rd Street MUNI stop

STANDARDS

4.7.1 SIDEWALK ZONES

Sidewalk improvements on 3rd Street shall be 12'-wide, on the east side of the right-of-way. The sidewalk shall include:

A) Pedestrian Throughway

An unobstructed, 6'-minimum clear width path of travel for pedestrians shall be maintained between the building frontage and the Streetlife Zone.

B) Streetlife Zone

A zone between the curb and pedestrian throughway with width as noted on Figure 4.7.1. This zone shall include trees, lighting, and furnishings that are consistent for the entire length of the street. Refer to OCII Mission Bay Standards.

4.7.2 ROADWAY ZONES

At Block A only, the following shall be provided per Figure 4.7.3:

A) Loading Zone

An 8'-wide zone shall be provided at grade with the roadway to provide passenger and commercial loading per Section 2.5.

B) Bicycle Facility

A 5'-wide painted Class II bike lane in the north-bound direction, separated from vehicular traffic with a 6"-wide solid white line. See Section 2.4 and 3.2.

4.7.3 EMERGENCY VEHICLE ACCESS RADII

Vehicular turning radii from Long Bridge Street and Exposition Street onto 3rd St have minimum requirements for emergency vehicle access. Refer to Infrastructure Plan.

GUIDELINES

4.7.4 PAVING IN STREETLIFE ZONE

Refer to OCII Mission Bay and 3rd Street Standards.

4.7.5 LIGHTING

Refer to OCII Mission Bay and 3rd Street Standards. Lighting should be coordinated with improvements across 3rd Street.

4.7.6 TREE PLANTING

Refer to Mission Bay and 3rd Street Standards for Tree Palette. Species selection should be coordinated with improvements across 3rd Street.



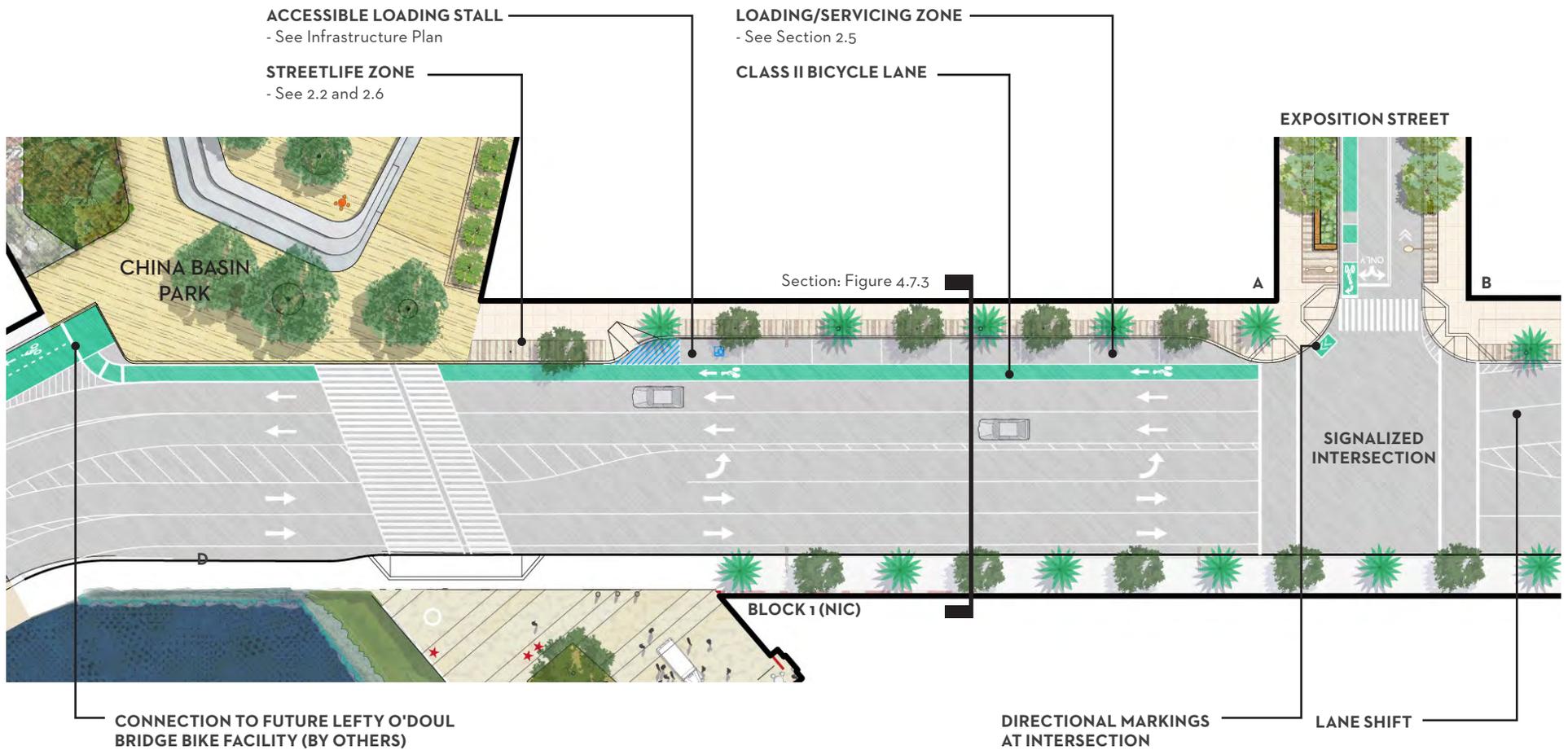


FIGURE 4.7.2 3rd Street Conceptual Plan at Block A. This is provided for illustrative purposes only & does not represent a design proposal. Refer to Chapter 8 of the Infrastructure Plan for key dimensions, intersection analysis, and fire access information.

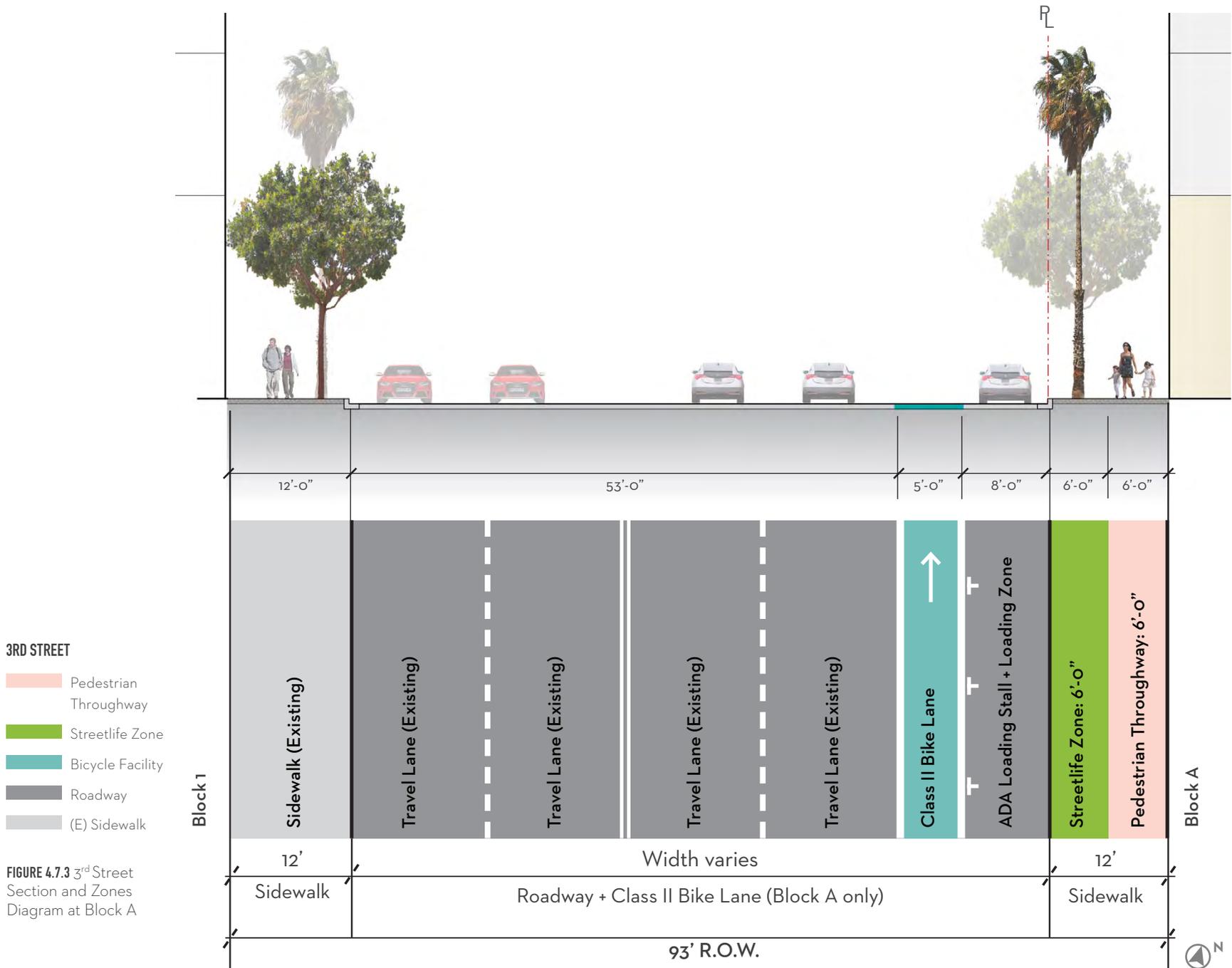


FIGURE 4.7.3 3rd Street Section and Zones Diagram at Block A

4.8 MISSION ROCK STREET

Read in conjunction with Section 4.3: Terry A Francois Boulevard, Section 4.4: Bridgeview Street, Section 5.2: Ground Floor, and Sections 5.9-10: Neighborhood Street Zone. Mission Rock Street must also satisfy the requirements described in Chapter 2: Public Realm.

Mission Rock Street will provide an important link to the Bay Trail/Blue Greenway at the terminus of Bridgeview Street. South of Block H, a contraflow Class 1 cycle track will connect cyclists from Bridgeview Street to Terry A Francois Boulevard's Blue Greenway infrastructure.

Mission Rock Street will primarily adhere to approved San Francisco Office of Community Investment and Infrastructure (OCII) Mission Bay standards for materials, trees, and lighting.

STANDARDS

4.7.1 SIDEWALK ZONES

Sidewalk improvements on Mission Rock Street shall be 12'-wide, on the north side of the right-of-way. The sidewalk shall include:

A) Frontage Zone

A 2'-maximum width zone shall be maintained along building frontages for Active Edges as described in Chapter 5.

B) Pedestrian Throughway

An unobstructed, 6'-minimum clear width path of travel for pedestrians shall be maintained between the building frontage and the Streetlife Zone.

C) Streetlife Zone

A zone between the curb and pedestrian throughway with width as noted on Figure 4.8.1. This zone shall include trees, lighting, and furnishings that are consistent for the entire length of the street. Refer to OCII Mission Bay Standards.

D) Driveways

Driveways shall be permitted at the Block D parking garage.

4.8.2 CONFORMANCE TO EXISTING STANDARDS

Mission Rock Street shall conform to OCII Mission Bay Design Standards for paving and streetscape elements. Tree species should match trees installed across Mission Rock Street.

4.8.3 BICYCLE CONNECTION

A) Bicycle Facility

A two-way Class 1 cycle track that is 10'-0" wide, measured from the face of curb, shall be provided on the north side of the right-of-way from Bridgeview Street to Terry A Francois Boulevard. This facility shall be protected from vehicular traffic with a 15"-minimum width buffer with 6" vertical curb, segmented to facilitate drainage, and a 46"-high permanent vertical barrier.

B) Raised Cycle Track

If a raised facility is provided, it shall be grade-separated from adjacent travel lanes with a vertical curb. All material transitions shall be completely flush with the cycle track.

C) Cycle Track Warning Cues

At intersections, the cycle track shall include paved and signed warning cues indicating pedestrian crossings and vehicular intersections.

D) Cycle Track Intersections

Cycle track demarcation shall continue across intersections at Bridgeview Street and Terry A Francois Boulevard to indicate the primary bicycle route. See Section 2.4 and Infrastructure Plan.

4.8.4 INTERSECTION CONTROL

At the intersections of Mission Rock Street with Bridgeview Street and Terry A Francois Boulevard, there shall be full stop control for bicycles and vehicles. Refer to Infrastructure Plan.

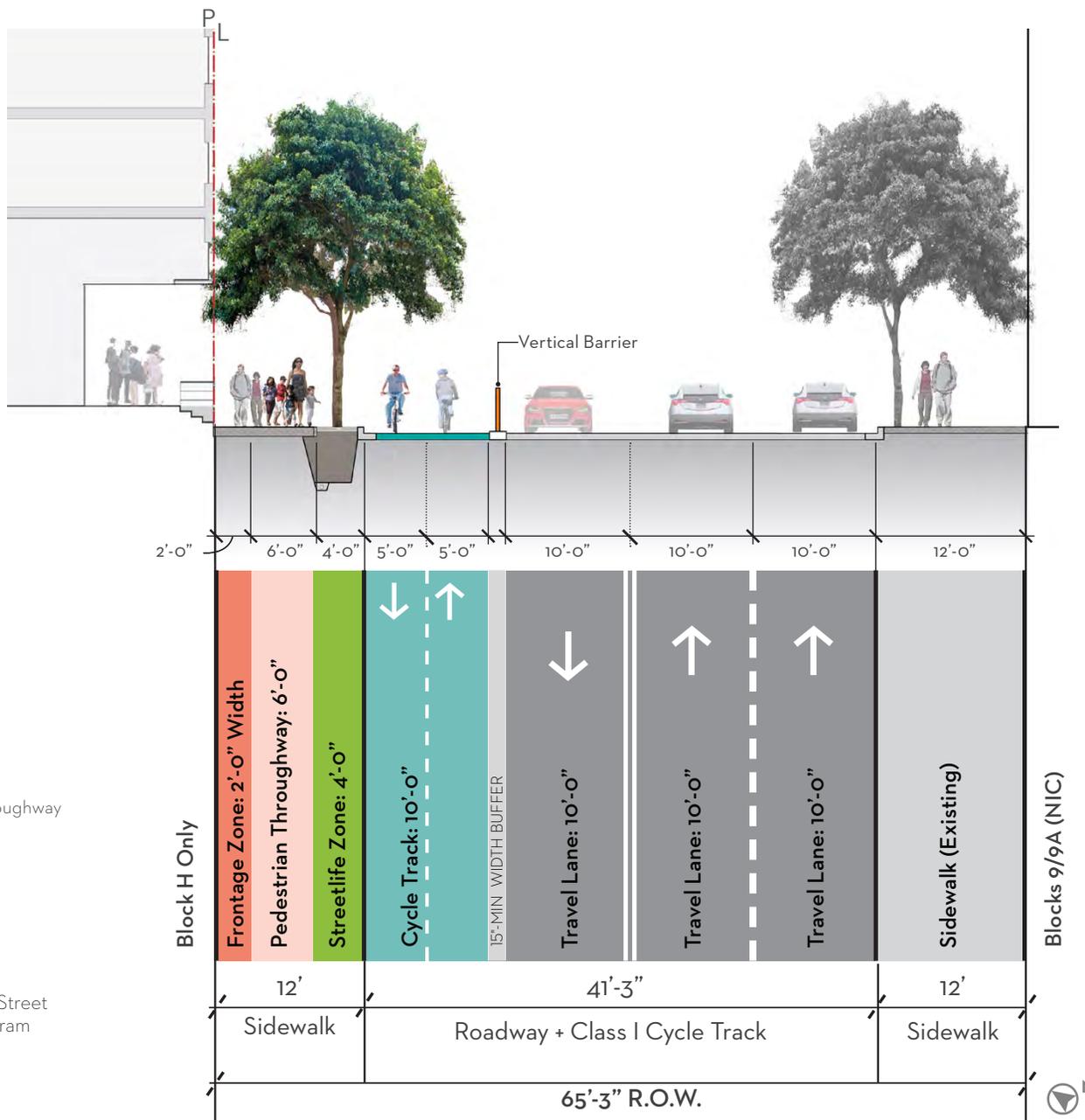


FIGURE 4.8.1 Mission Rock Street Section and Zones Diagram

GUIDELINES

4.8.5 CYCLE TRACK VERTICAL BARRIER AT BUFFER

The 46"-high vertical barrier for the cycle track is a wayfinding and signage opportunity for the south entry to Mission Rock. The design of the barrier should be considered with other site furnishing elements and should enhance the streetscape.



An example of a permanent vertical barrier that enhances the streetscape. SOURCE: DAVID Q MAY



An example of signage that could be incorporated into the cycle track buffer. SOURCE: WIKIMEDIA



A San Francisco example of directional markings that aid navigation and wayfinding at intersections. SOURCE: SFMTA LIVABLE STREETS



A San Francisco example of an intersection approach treatment that alerts cyclists and drivers to upcoming stop signs and conflict points. SOURCE: SFMTA LIVABLE STREETS

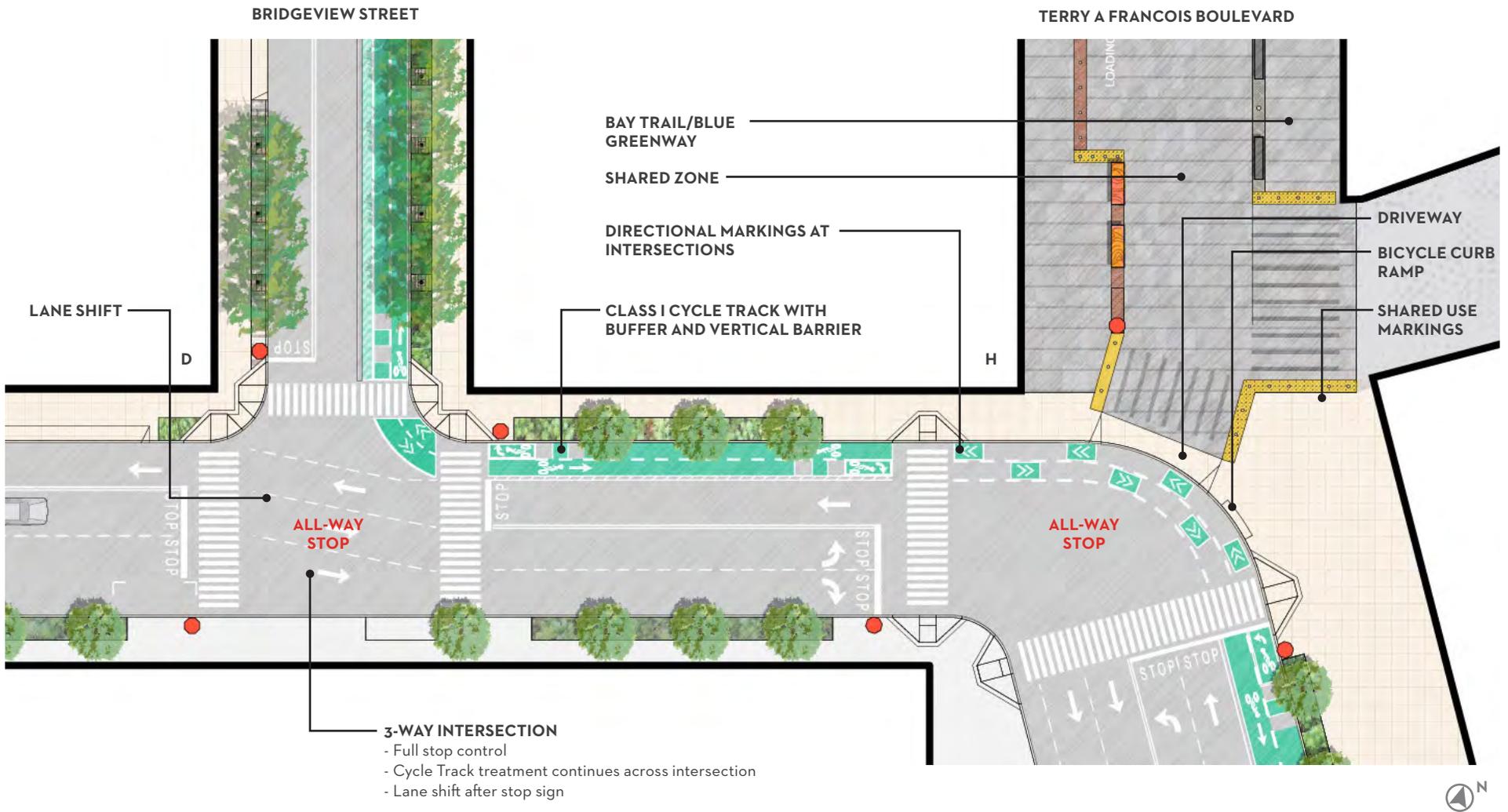


FIGURE 4.8.2 Mission Rock Street Conceptual Plan. This is provided for illustrative purposes only.



BUILDINGS

CHAPTER 5: GROUND FLOOR	CHAPTER 6: BUILDING FORM	CHAPTER 7: BUILDING DESIGN
5.1 Designing for Environmental Change 124	6.1 Building Envelope 150	7.1 Sustainable Buildings 166
5.2 Building Servicing 126	6.2 Building Height 151	7.2 Building Design 178
5.3 Active Edges 128	6.3 Base Building 153	7.3 Color and Materials 172
5.4 Ground Floor Controls 130	6.4 Upper Building 157	7.4 Signage 174
5.5 Ground Floor Frontage Zones 134	6.5 Design of Taller Buildings 161	7.5 Lighting 175
5.6 High Retail Zone 136	6.6 Environmental Comfort 164	7.6 Off-Street Parking 177
5.7 Parkfront Zone 148		7.7 Parking Structure (Block D2) 179
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05

GROUND FLOOR

The ground floor is the place where the activity of a building meets the parks and streets, and therefore plays the greatest role in shaping the pedestrian experience. A vibrant ground floor experience is dependent upon many different types of uses, mixed together at a fine grain, and designed at a pedestrian scale.

The controls for the ground floor of Mission Rock are closely coordinated with the Public Realm controls outlined in Chapters 2 through 4 to ensure that the programmatic use, building design, open spaces and streets will work together to support the vision of a neighborhood rich in public life.

Along the Shared Public Way, Mission Rock Square and China Basin Park, the landscape and building design will work together to create opportunities for many small shops and restaurants to spill out onto the sidewalks and occupy street rooms and park edges.

Terry A Francois Boulevard will become a Working Waterfront street where the landscape and building design combine to create a public realm that enables production uses, facilitates the movement of trucks, as well as providing a wonderful pedestrian experience next to the attraction of waterfront industry.

3rd Street is recognized as a citywide transportation corridor, as well as a front door for Mission Rock. For this and all of the neighborhood streets, the combination of landscape and building design will ensure that these streets will be inviting, safe places where people will enjoy walking and cycling.

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RELATED CHAPTERS: The Ground Floor guidelines shall also be read in conjunction with *Chapter 6: Building Form* and *Chapter 7: Building Design*. Ground Floor controls shall also be viewed in conjunction with Appendix: Block Standards. Finally, this chapter refers to *Chapter 2: Public Realm*, describing integration of the ground floor and the public realm.

5.1 DESIGNING FOR ENVIRONMENTAL CHANGE

Mission Rock is a unique site due to its history as reclaimed land constructed on fill, and also for its future as a waterfront site which must plan for sea level rise.

Because of Mission Bay's unique geological context as a neighborhood constructed on fill, both new buildings and streets at Mission Rock will be pile-supported so as to minimize differential settlement between the streets and the buildings.

Furthermore, proposed new development at Mission Rock has been planned in anticipation of 66" of sea level rise by the year 2100. A comprehensive site-wide approach to sea level rise is reflected in the Public Realm chapters of the DC, and thoroughly addressed in the Mission Rock Infrastructure Plan.

Designers are encouraged to take advantage of this unique set of constraints in interesting ways that enhance each building's site-specific design.

Note that finished floor heights shown in this section are for illustrative purposes only. For exact required finished floor heights and grading, refer to the Mission Rock Infrastructure Plan.

SITE GRADE CHANGE (DIAGRAMMATIC)

- Existing Grade
- Transitional Grade
- Elevated Grade (roughly 4 feet higher)



FIGURE 5.1 - Site Grade Change (diagrammatic)

GUIDELINES

5.1.1 ELEVATION CHANGES

As described in the Public Realm controls and the Mission Rock Infrastructure Plan, and conceptually diagrammed in *Figure 5.1 - Site Grade Change*, the site grading will be designed to create areas of higher elevation within the site in anticipation of sea level rise. In addition to responding to sea level rise, this provides opportunities for buildings to take advantage of the elevation changes across the site to create interesting relationships between uses within the buildings, and between the buildings to the streets.

Some examples of ways to address this elevation change are:

1. A step slab (see *Figure 5.1.1a - Step Slab*), where a step in the ground floor slab transitions between finished floor heights across the block.
2. An elevated walkway (see *Figure 5.1.1b - Elevated Walkways*). Particularly appropriate to Production uses; the slab is carried out to the edge of the street as a Elevated Walkway creating a loading dock type condition. (See also *Section 5.8.2 - Elevated Walkways*.)
3. Residential stoops which create an intermediate semi-private space for residents at a comfortable social distance from the public sidewalk.
4. Creativity in addressing how the building responds to site grading is encouraged; especially in ways that support the specific Ground Floor Zone prescribed for each frontage (see *Figure 5.5 - Ground Floor Frontage Zones*).

5.1.2 DIFFERENTIAL SETTLEMENT: 3RD ST. & MISSION ROCK ST.

Mission Rock, similar to the rest of Mission Bay, is a landfill site underlaid by bay mud. Buildings need to be constructed on piles in order to minimize settlement of the buildings due to consolidation of the bay mud. Adjacent internal streets at Mission Rock will also be pile-supported, to ensure that there is no differential settlement between buildings and adjacent sidewalks.

Building edges and entries at 3rd Street and Mission Rock Street should be designed to take into account this special configuration of adjacencies to structured streets. Some examples of ways to address this condition is:

1. Inset entries which allow for an approach slab between the entry door and the sidewalk.
2. In the Working Waterfront Zone elevated walkways provide a structured, elevated frontage that can be used by all tenant entries, limiting points for management of differential settlement to the stairs and ramps that connect the street level to the elevated walkway level (see *Section 5.8 - Working Waterfront Zone* for guidance on elevated walkways).
3. In the Neighborhood Street Zone: Residential, landscaping in the active edge can be raised or lowered and replanted as levels between the building and sidewalk may change (see *Section 5.9 - Neighborhood Street Zone: Residential* for guidance on landscaping in the active edge).

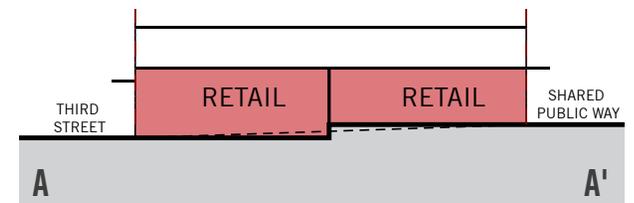


FIGURE 5.1.1A - Section A-A' - Step Slab

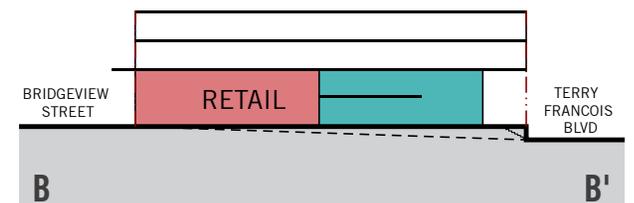


FIGURE 5.1.1B - Section B-B' - Elevated Sidewalk

5.2 BUILDING SERVICING

The experience at the various entry points of a building contributes greatly to how people experience a building and how it relates to its context.

For the everyday “back of house” operations of buildings, easy and convenient servicing for deliveries and maintenance is an important part of the functioning of a building. However, it can also negatively impact the pedestrian experience if frontages are dominated by servicing activities.

Exact locations of building servicing areas should be coordinated with the public realm—especially regarding street trees and stormwater treatment gardens. Read in conjunction with Chapters 2 and 4, and the Mission Rock Infrastructure Plan. Also see specific street guidelines for more detail.

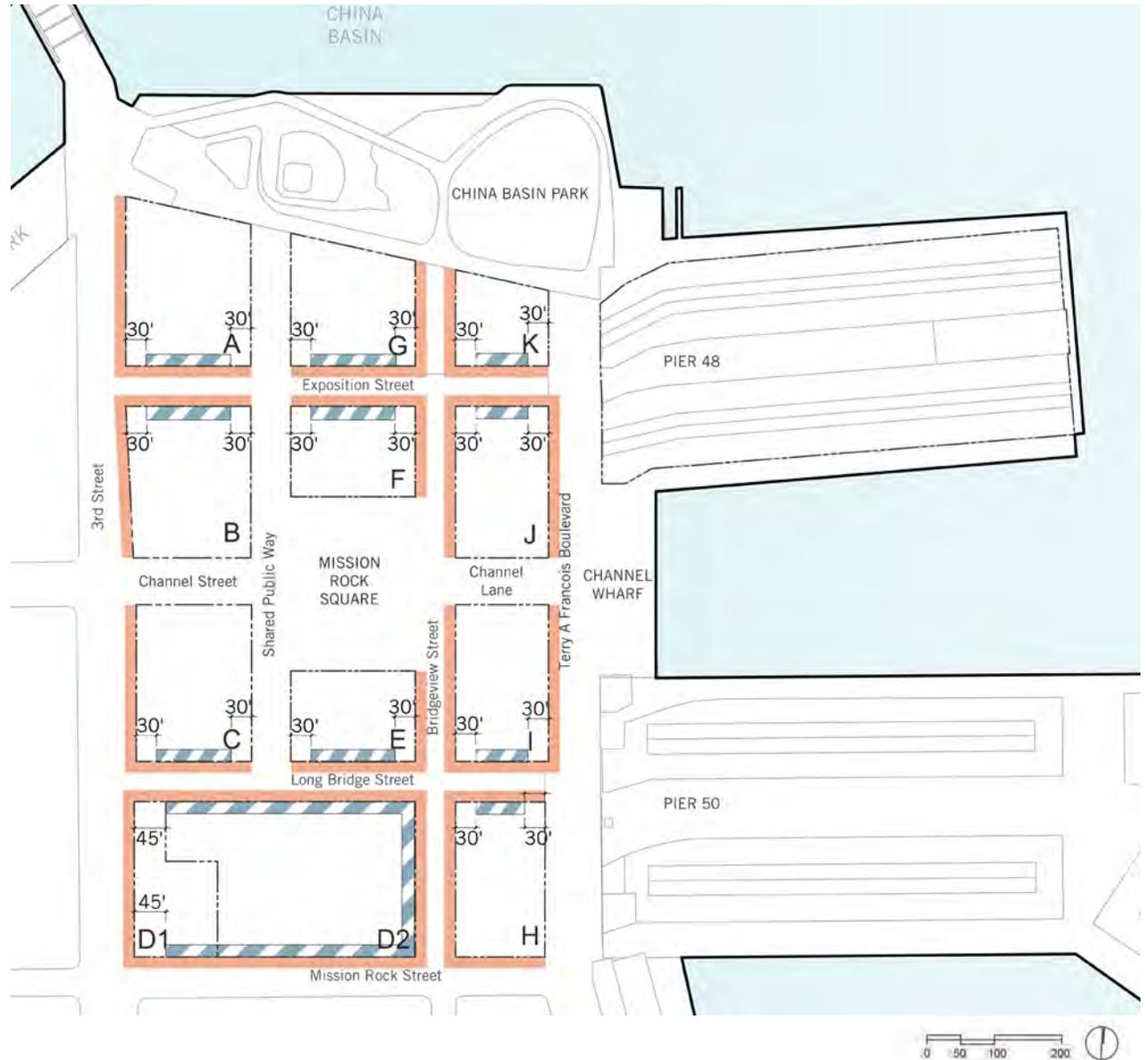


FIGURE 5.2 - Building Servicing

BUILDING SERVICING

 Building Servicing Zone

 Fire Department Connection (FDC) Frontages

STANDARDS

5.2.1 BUILDING SERVICING ZONE

To minimize the visual impact of servicing along building frontages, any building servicing entry must be located within the building servicing zones indicated in *Figure 5.2 - Building Servicing*.

This zone refers to the locations where servicing activities may be provided. Each servicing activity is given a maximum dimension within this zone, as defined in 5.2.2 - *Building Servicing Entries*.

All building servicing, where it is built, must be held back 30 feet from all corners of blocks as described in *Section 5.2.6 - Corner Zone*.

Off-street loading is not required in any building.

5.2.2 BUILDING SERVICING ENTRIES

The building frontage allowed for servicing activities may not exceed the following dimensions along any given frontage for each type of servicing, as listed below:

- ▶ Loading bays, trash rooms, or other internal building servicing entries are limited to a total of 20 horizontal feet of frontage.
- ▶ Access entries to transformers are limited to a total of 12 horizontal feet of building frontage.
- ▶ Parking entries are limited to a total of 16 horizontal feet of building frontage, with the exception of Parcel D2. For podium parking controls see *Section 7.6 - Off-Street Parking*.

Loading bays, where they occur, should be designed to have direct access to the building's freight elevator.

5.2.3 COMBINE BUILDING SERVICING ENTRIES

Wherever possible, servicing entries shall be combined, such as combining a parking entry with a loading dock, or transformers accessed through doors internal to a loading dock.

5.2.4 COORDINATE SERVICING FRONTAGES WITH PUBLIC REALM

Location, design, and length of servicing frontages shall be coordinated with sidewalk design, particularly regarding placement and dimensions of stormwater gardens, street trees, and pedestrian paths.

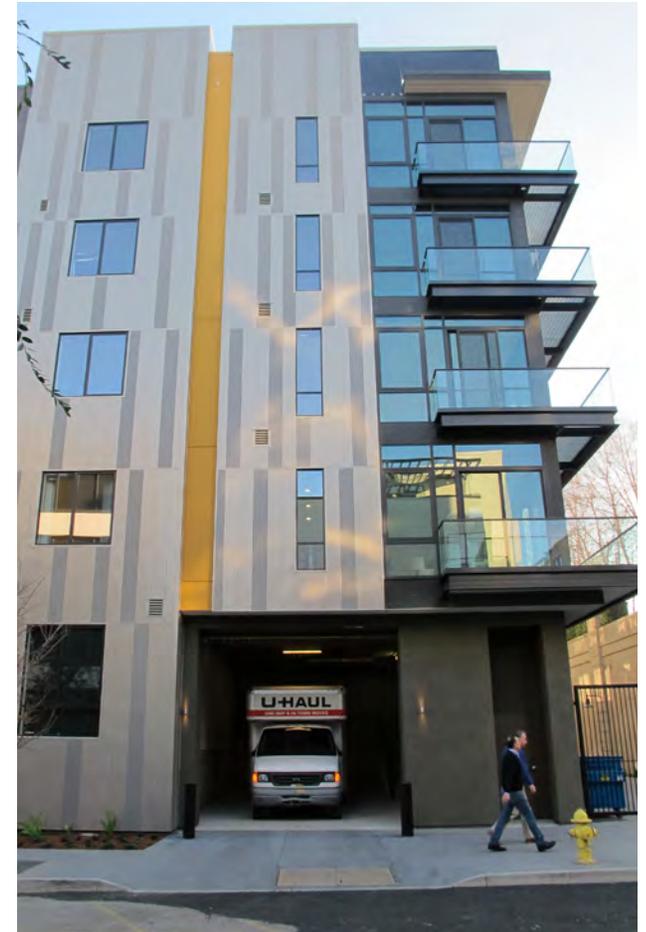
5.2.5 CORNER ZONE

To minimize pedestrian, bike, and vehicular conflicts with servicing activities, servicing entries may not be located within 30 horizontal feet of a block corner. Block D2 is exempt from this requirement.

5.2.6 FIRE DEPARTMENT CONNECTION (FDC) FRONTAGES

The configuration of streets, loading zones, stormwater BMPs and various other pedestrian and streetscape elements make some streets more ideal for fire department connections. Those frontages are indicated on *Figure 5.2 - Building Servicing*.

FDC frontages are shown here as information to be used by architects and engineers when designing the buildings. It is not necessary to demonstrate compliance with these frontages in a planning application.



Loading docks and parking entries and exits should be designed so as to minimize the frontage they occupy.

PHOTO: PERKINS+WILL

5.3 ACTIVE EDGES

Mission Rock will have vibrant streets where restaurants, cafes, and shops spill out to animate the sidewalks and create a rich public realm experience.

Each building is permitted and encouraged to utilize a portion of the public realm within the right of way or open space for spill-out space, called the Active Edge, to enliven the street through outdoor seating, signage, and merchandising.

The following controls guide the character of the Active Edge in coordination with the Public Realm controls.

ACTIVE EDGES (WITHIN ROW OR OPEN SPACE)

- 15 feet
- 12 feet
- 12 feet (Inclusive of pedestrian throughway)*
- 8 feet (Inclusive of pedestrian throughway)*
- 10 feet
- 2 feet
- Encroachment Zone for vertical circulation to access Elevated Walkway (depth of 6 feet) See also Section 5.8.2 - Elevated Walkways

*Along the Shared Public Way, the Active Edges must include a 6 foot pedestrian throughway for public access. Along Terry A Francois Boulevard, the Active Edges must include a 4 foot pedestrian throughway for public access. The throughway is included in this dimension to allow for the active edge to meander within the total active edge dimension so that the furnishing zone can shift to be against the building face or away from the building face.

Note: While there is no Active Edge along 3rd Street, the ground floor will still be required to have active uses which visually and physically engage the sidewalk, and any insets along the frontage can be used for movable furnishings and other features that may occur within the active edge.



FIGURE 5.3 - Active Edges

STANDARDS

5.3.1 ACTIVE EDGE DIMENSION

The active edge is the portion of the public realm beyond the property line which can be occupied as spill-out space in front of a building for activities like seating, display of goods, and so on. This area allows for the activities within the building to spill over into the sidewalk, and contribute to the life and activity of the public realm.

The active edge area is given a maximum perpendicular dimension from the property line, into the adjacent right of way. Dimensions for each zone are given in the description for each zone and summarized in *Table 5.5 - Ground Floor Frontage Zone Controls*.

Note that along the Shared Public Way, the pedestrian thoroughway is included in the Active Edge dimension (as noted in *Figure 5.3 - Active Edge*). This is intended to allow for the activity that spills out of buildings to have the flexibility to occur against the building face, or to shift away from the building frontage into the street, thereby allowing the pedestrian thoroughway to meander between active edge activities.

5.3.2 CLEAR PATH OF TRAVEL

For shared ways, the area between the property line and the vehicular zone must maintain a minimum of 6 feet of continuous pedestrian thoroughway that is free of all obstacles.

Placement of objects on the sidewalk must not in any way interfere with curb ramps, access to the building, driveways, or access to any fire escape or fire hydrant. (See *Section 2.3.1 - Pedestrian Thoroughway*)

5.3.3 PLANTING IN THE ACTIVE EDGE

The active edge area may not be used for permanent planting, except in the Neighborhood Street Zone: Residential, where this area can be used for planting that will help create a comfortable social distance between stoops and the street.

Potted plants and other movable plantings are allowed in the active edge zone.

5.3.4 DIVERTERS

Placement of tables and chairs on sidewalks must include the use of movable diverters at each end to guide pedestrians away from any occupied area of the sidewalk. Diverters must conform to the following design guidelines:

- ▶ Diverters must be sturdy, stable and have sufficient weight so that they cannot be tipped or blow away by the wind.
- ▶ Diverters must be at least 30 inches high and must be solid within 24 inches of the ground.

5.3.5 FURNITURE

Temporary and permanent furniture such as tables, chairs, benches, planters, heaters, signage, and merchandizing stands is allowed in any active edge, except in two-foot-wide active edges where only temporary furniture is allowed.



Active edges allow for indoor uses to spill out and activate the public realm. PHOTO: SAN FRANCISCO GIANTS

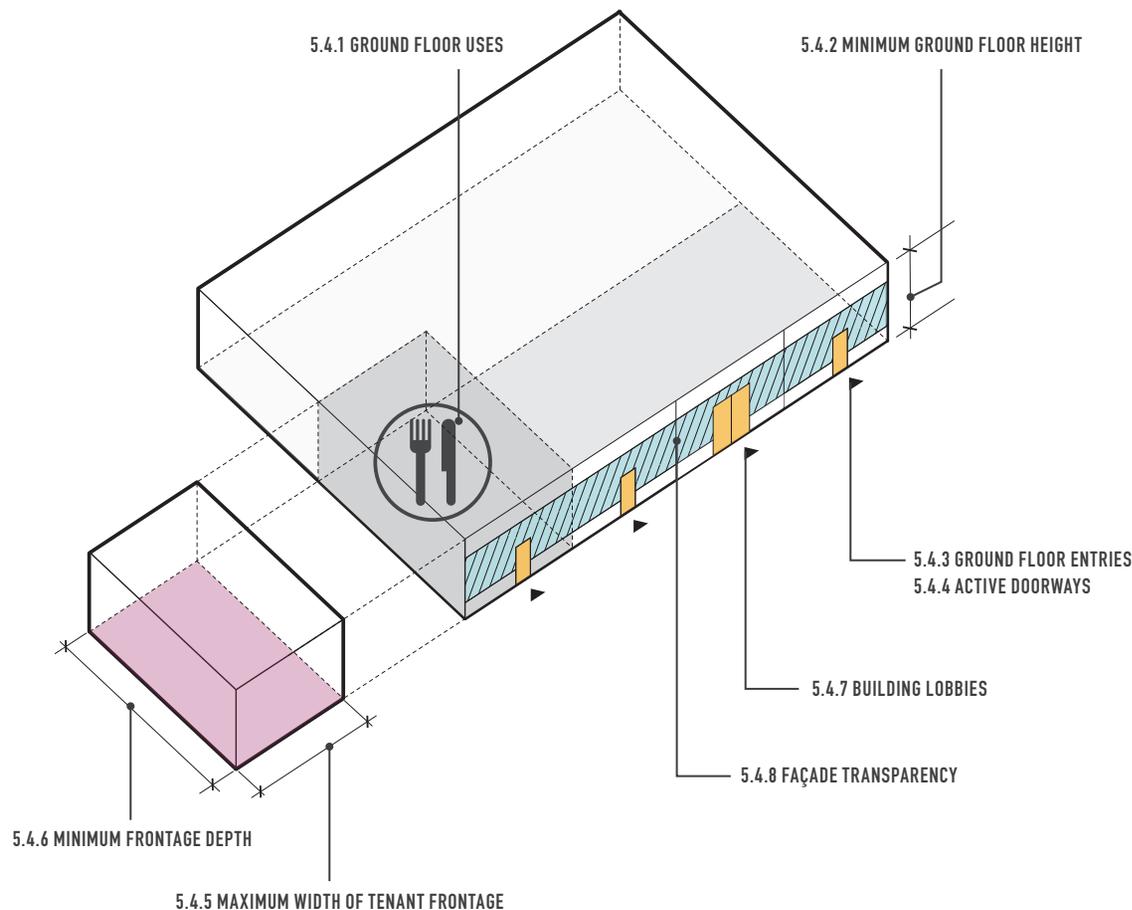


Active edges provide space for tables and chairs that extend the interior life of the building into the street. PHOTO: PERKINS+WILL

5.4 GROUND FLOOR CONTROLS

Each of the different types of ground floor frontage will have a unique character that is specific to the streets and open spaces they frame. The following standards, definitions, and guidelines apply to all of the frontages in varying ways, as described in *Table 5.5 - Ground Floor Frontage Zone Controls*.

For guidelines on color and material, lighting and signage, refer to *Chapter 6: Building Design*.



DEFINITIONS (ALSO SEE TABLE 5.5)

5.4.1 ALLOWED GROUND FLOOR USES

Read in conjunction with *1.2 - Land Use Categories*.

Permitted land uses for each ground floor frontage zone are given in *Table 5.5 - Ground Floor Frontage Zone Controls*. Any and all land uses listed as "allowed" in this table are permitted in a given ground floor frontage zone. Note that child care centers may also be located within retail use zones see section 1.2.4.

Building entries and lobbies to residential or commercial uses of upper floors are permitted in the ground floor, even if residential or commercial use is not permitted in a given zone. Lobbies are limited to dimensions as listed in *Table 5.5 - Ground Floor Frontage Zone Controls*.

For the Neighborhood Street Zone, any frontage is allowed to be residential or non-residential; the ground floor use is not tied to the land use of the block. For example, a residential building is allowed to have non-residential uses at the ground floor; in which case the frontage would be controlled by the standards in the Neighborhood Street Zone: Non-Residential Zone. A block can also have a mix of these uses at the ground floor.

5.4.2 MINIMUM GROUND FLOOR HEIGHT

The minimum clear height for the ground floor is the distance between the finished floor and finished ceiling, before the addition of a mezzanine. This height applies to the minimum frontage depth. See *Table 5.5 - Ground Floor Frontage Zone Controls* for required minimum heights and minimum frontage depths.

DEFINITIONS (ALSO SEE TABLE 5.5 - GROUND FLOOR FRONTAGE ZONE CONTROLS)

5.4.3 GROUND FLOOR ENTRIES

Entries may be required to be flush at-grade or elevated as with a stoop or an elevated sidewalk. See *Table 5.5 - Ground Floor Frontage Zone Controls* for controls guiding the relationship of entries into different types of uses to the adjacent sidewalk.

5.4.4 ACTIVE DOORWAYS

An active doorway is the main public entry into a tenant space, such as a building lobby, the main entry to a storefront, or front door of a residential unit. The requirement for a minimum number of active doorways is intended to establish a minimum level of variety and pedestrian activity along each frontage. See *Table 5.5 - Ground Floor Frontage Zone Controls* for active doorway requirements for each frontage zone.

Additional entries into buildings or tenant spaces are allowed, but do not count toward the Active Doorways requirement. The purpose of the Active Doorways requirement is to create a greater number and variety of tenants, not to simply add more doorways.

Active doorways shall be calculated based on the linear frontage of the building that qualifies as streetwall under *Section 6.3.2 - Streetwall Area Calculation*. All active doorway numbers shall be rounded up to the nearest whole number. For example a calculation yielding 2.1 active doorways shall be rounded up to 3 active doorways.

Building lobbies, residential stoops, and public passages through buildings are counted as active doorways. A corner entry counts as an active doorway on only one frontage. Loading bays, servicing areas, parking garage entries, transformer doors, and emergency exit doors do

not count as Active Doorways and where they exist, the length of their frontage is subtracted from the required calculation of active doorways. See *Figure 5.4.4* for an example of how this is calculated.

Where there is more than one frontage zone along a frontage (as in Blocks I and J) calculate the number of active doorways required relative to the length of each frontage type.

In the Neighborhood Street Zone, where there may be a mix of residential and non-residential uses along a frontage, calculate the number of doorways relative to the corresponding frontage requirements for each use type. See *Figure 5.4.4 - Active Doorways Calculation* for an example of how this is calculated.

5.4.5 MAXIMUM WIDTH OF SINGLE USE FRONTAGE

In order to ensure an appropriate scale and variety of storefronts along a frontage, each type of frontage prescribes a limit on the linear frontage that a single use or establishment can occupy. *Table 5.5 - Ground Floor Frontage Zone Controls* provides a summary of maximum frontage dimensions.

5.4.6 MINIMUM FRONTAGE DEPTH

Each frontage zone is given a minimum depth into the building for which prescribed uses shall be accommodated. These depths are determined to ensure a minimum feasible depth for appropriate uses. *Table 5.5 - Summary of Ground Floor Controls* describes the minimum frontage depth for each type of frontage. Individual establishments may have a depth that is less than the minimum as long as the total depth minimum

is maintained among multiple establishments. For example a minimum frontage depth of 40 feet could be subdivided between a tenant with a 15 foot depth and another tenant that wraps around in an L-shape configuration providing the additional 25 foot depth.

5.4.7 MAXIMUM LOBBY DIMENSION

All building lobbies, regardless of use, are limited a maximum frontage dimension. See *Table 5.5 - Ground Floor Frontage Zone Controls* for maximum frontage dimensions.

5.4.8 FAÇADE TRANSPARENCY

To contribute to the safety and activation of the street, ground floor facades are required to be designed to a minimum percentage of transparency at pedestrian eye-level, as defined in *Table 5.5 - Ground Floor Frontage Zone Controls*.

5.4.9 LINES OF SIGHT

The interiors of non-residential ground floor spaces must create lines of sight between the public realm and ground floor spaces, allowing people inside and outside the building to see one another.

Where lines of sight are required, the area within 4 feet from the surface of the window glass must be at least 75% open to perpendicular view at a height between 4 feet and 8 feet above sidewalk grade. See *Figure 5.4.9 - Lines of Sight* for a diagram explaining dimensions.

Rolling or sliding security gates shall consist of open grillwork rather than solid material, so as to provide visual interest to pedestrians when the gates are closed, and to permit light to pass through mostly unobstructed. Gates, when both open and folded or rolled as well as the gate

DEFINITIONS (ALSO SEE TABLE 5.5)

mechanism, shall be recessed within, or laid flush with, the building facade.

5.4.10 AWNINGS AND CANOPIES

Awnings and canopies may project up to 8 feet into the public right-of-way at a minimum height of 12 feet above sidewalk grade. Awnings and canopies must be coordinated with tree planting so as not to interfere with tree cover.

GUIDELINES

5.4.11 PUBLIC PASSAGES

Public passages connecting between sidewalks, open spaces, mid-block courtyards, laneways, or covered, interior public connections are allowed and encouraged.

5.4.12 INDIVIDUALIZED STOREFRONTS

Storefronts should be designed so as to be individually customizable for each tenant to create a fine grain of variety along each street frontage. Change of facade material, varied awning height and design, unique signage and different kinds of doorways and windows are examples of ways to differentiate storefronts.

5.4.13 PERMEABILITY

In order to maximize the interaction between the uses at the ground floor of buildings and the public realm, retail frontages are encouraged to be designed so that they can be opened up to the street. Examples include but are not limited to: concertina doors, large pivot doors, roll up doors, and large operable windows.

These spaces also provide an opportunity to activate the street, animate building frontages, and increase 'eyes on the street' for neighborhood safety.

5.4.14 FACADE ARTICULATION

Storefronts should not be designed to have continuous, uninterrupted glass facades. They should be designed with texture and structure provided by architectural detailing as with columns or piers, bays, bulkheads, and recessed entries.

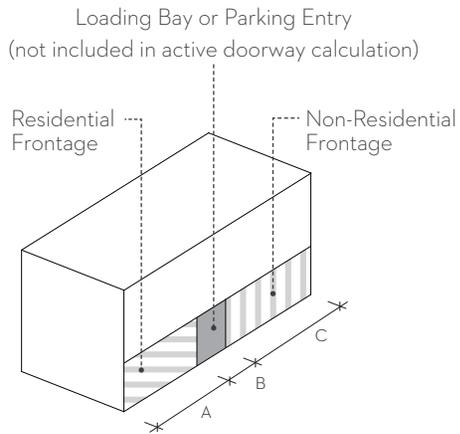
5.4.15 PEDESTRIAN FIELD OF VISION

A pedestrian's experience of the street is largely framed by the first and second floor of buildings, because this the part of the building most immediately within a pedestrian's range of vision.

To create a more varied and rich street level experience, there should be a higher degree of detailing and quality of design at the first and second floor of the building. These levels should be differentiated by a change in material, increase in transparency, a band course, or set back a few feet under an overhang.

5.4.16 COORDINATE ENTRIES

Coordinate the design of entries with the design of sidewalks so that slopes at entryways do not exceed 5% in any direction.



$$\text{Total Number of Active Doorways} = \frac{\text{Length of A}}{\text{Min. requirement for Residential Stoops}} + \frac{\text{Length of C}}{\text{Min. requirement for Non-Residential Active Doorways}}$$

FIGURE 5.4.4 - Active Doorways Calculation (also see Section 5.4.4 - Active Doorways)



The ability for each retail tenant to individualize their own storefront contributes to a more varied and interesting pedestrian experience. PHOTO: PERKINS+WILL



Opportunities to open up retail frontages with sliding or folding doors and windows creates more interaction between those inside and outside the building. PHOTO: PERKINS+WILL

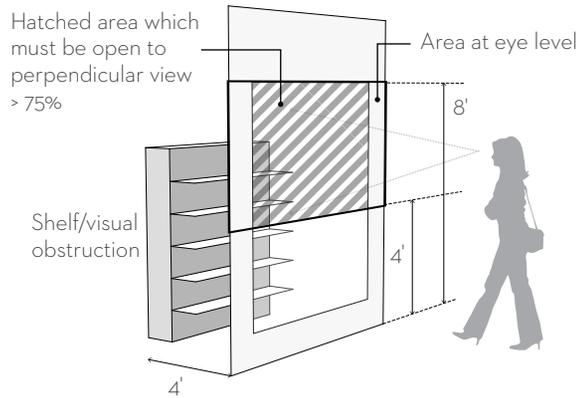


FIGURE 5.4.9 - Lines of Sight



Active uses at the second and third levels of the building also contribute to an enhanced pedestrian experience. PHOTO: PERKINS+WILL



The ground floor of buildings should be designed to create enjoyable and human-scaled experiences. PHOTO: PERKINS+WILL

5.5 GROUND FLOOR FRONTAGE ZONES

The intersection between the public realm and the ground floor of a building defines the street-level experience of the site. Each building frontage at Mission Rock has a role to play in the activation of the streets and open spaces. *Figure 5.5 - Ground Floor Frontages* shows the way that the frontage of each building will participate in the creation of a variety of ground floor experiences throughout Mission Rock, which are directly related to the character of the streets or open spaces they face.

The following pages describe each zone in detail, as well as the design elements that support this relationship between the building and the public realm. *Table 5.5 - Ground Floor Frontage Zone Controls* provides a compiled summary of the controls for each zone.

For controls regarding Color and Materials, Signage, and Lighting, see *Chapter 6: Building Design*.

GROUND FLOOR FRONTAGES

- High Retail Zone
- Parkfront Zone
- Working Waterfront Zone
- Neighborhood Street Zone

Zones are illustrative and not to scale; for minimum depth dimensions see Table 5.5 - Ground Floor Frontage Zone Controls.



FIGURE 5.5 - Ground Floor Frontages

STANDARDS (READ IN CONJUNCTION WITH SECTION 5.4 - GROUND FLOOR CONTROLS)

TABLE 5.5 - GROUND FLOOR FRONTAGE ZONE CONTROLS

This table summarizes the controls that together guide the character of the four different ground floor frontage zones. Each of the controls listed here is defined in *Section 5.4 - Ground Floor Controls*.

GROUND FLOOR FRONTAGE ZONE	5.6 HIGH RETAIL ZONE	5.7 PARKFRONT ZONE	5.8 WORKING WATERFRONT ZONE	5.9 NEIGHBORHOOD STREET ZONE: RESIDENTIAL*	5.10 NEIGHBORHOOD STREET ZONE: NON-RESIDENTIAL*
5.4.1 ALLOWED GROUND FLOOR USES (Read with <i>Section 1.2 - Land Use Categories</i>)	Retail	Retail	Production and/or Retail** **See <i>Section 5.8</i> for minimums and maximums	Residential	Retail, Active Uses, and/or Production Parking (only on Parcel D2)
5.4.2 MINIMUM GROUND FLOOR HEIGHT	17.4 feet clear from floor to ceiling	17.4 feet clear from floor to ceiling	17.4 feet clear from floor to ceiling	9 feet clear from floor to ceiling	17.4 feet clear from floor to ceiling
5.4.3 GROUND FLOOR ENTRIES	Entries must be flush at sidewalk grade	Entries must be flush at sidewalk grade	Entries must be flush at grade with the Elevated Sidewalk as described in <i>Section 5.8</i>	Entries must be raised above sidewalk grade, as with stoops; see <i>Section 5.9</i> for guidelines	Entries must be flush at sidewalk grade
5.4.4 ACTIVE DOORWAYS	Minimum of 6 active doorways per 200 linear feet	Minimum of 4 active doorways per 200 linear feet	Minimum of 4 active doorways per 200 linear feet	Minimum of 1 Residential Stoop or Entry per 30 linear feet	Minimum of 1 active doorway per 100 linear feet
5.4.5 MAXIMUM WIDTH OF TENANT FRONTAGE	60 linear feet per tenant per block	80 linear feet per tenant per block	80 linear feet per Production tenant per block; 60 linear feet per Retail tenant per block	30 linear feet per unit per block	100 linear feet per tenant per block
5.4.6 MINIMUM FRONTAGE DEPTH	40 feet minimum	40 feet minimum	40 feet minimum	20 feet minimum	
5.4.7 MAXIMUM LOBBY DIMENSION	15 linear feet per lobby per building	30 linear feet per lobby per building	30 linear feet per lobby per building	40 linear feet per lobby per building; or 60 feet if combined with a Retail use (such as a coffee shop)	
5.4.8 FAÇADE TRANSPARENCY	65% transparent between 2 feet and 12 feet vertical above street level	65% transparent between 2 feet and 12 feet vertical above street level	50% transparent between 0 feet and 12 feet vertical above finished floor height	Minimum as required by building code	65% transparent between 2 feet and 12 feet vertical above street level

*For the Neighborhood Street Zone, any frontage is allowed to be residential or non-residential; the ground floor use is not tied to the land use of the block. For example, a residential building is allowed to have non-residential uses at the ground floor; in which case the frontage would be controlled by the standards in the Neighborhood Street Zone: Non-Residential Zone. A block can also have a mix of these uses at the ground floor. (Also see *Section 5.4.1 - Allowed Ground Floor Uses*).

5.6 HIGH RETAIL ZONE

Read in conjunction with Section 5.4 - Ground Floor Controls, Section 4.2 - Shared Public Way, and Section 3.3 - Mission Rock Square.

The High Retail Zone represents the highest level of intensity of shops, cafes, and retail at Mission Rock. It is concentrated along the Shared Public Way and Mission Rock Square, creating the main focal point of retail activity for Mission Rock, and activating these important public places.

This zone is designed to accommodate many small shopfronts, with a few larger anchor stores and restaurants. As such, this zone has the greatest frequency of activity along the ground floor by pedestrian use and the smallest width of tenant frontages.

The frontages for inclusion in the High Retail Zone are indicated in *Figure 5.5 - Ground Floor Frontages*. The requirements of the High Retail Zone are summarized in *Table 5.5 - Ground Floor Frontage Zone Controls*.

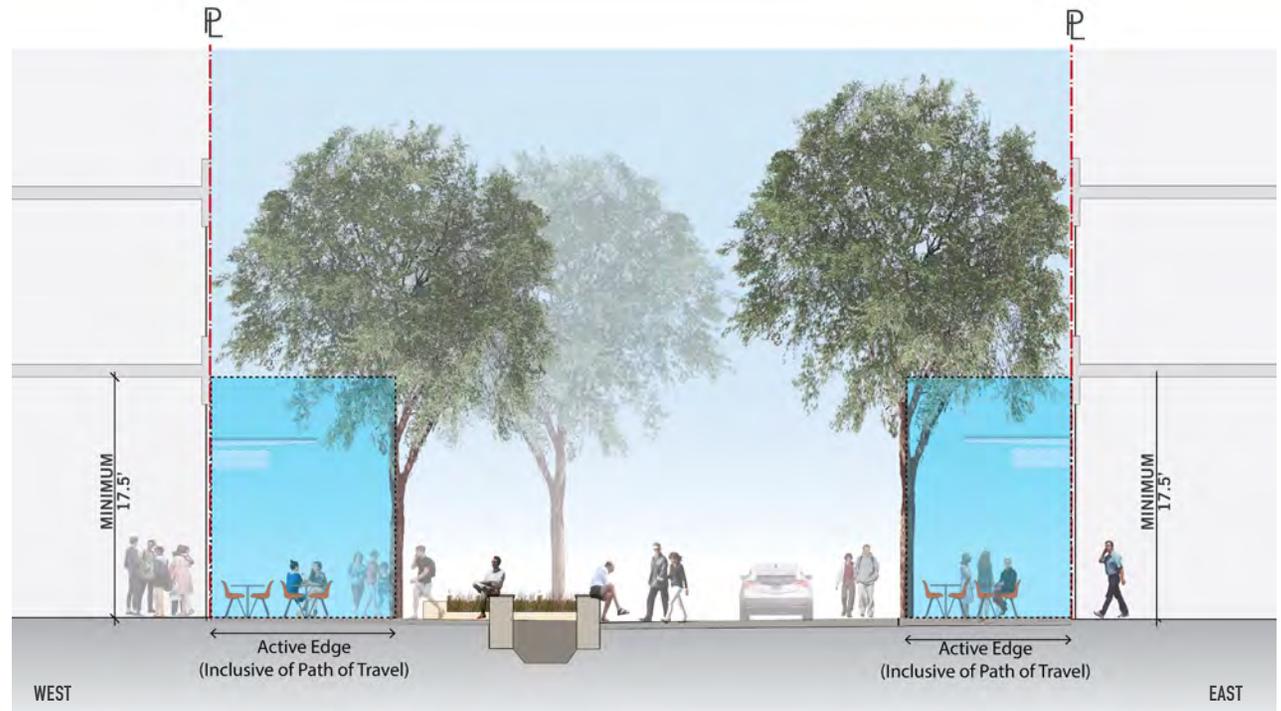


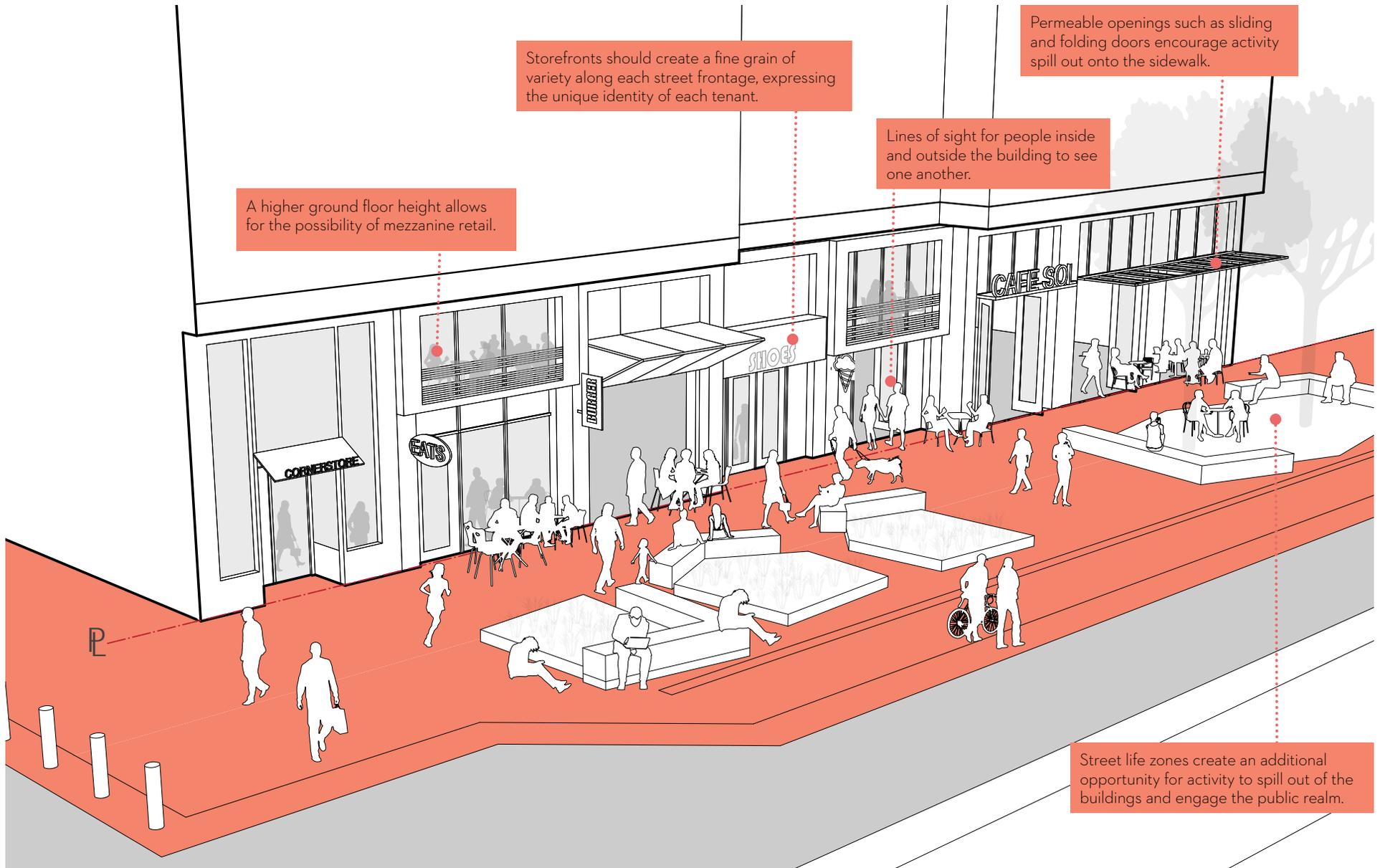
FIGURE 5.6 - High Retail Zone: Section across the Shared Public Way



Active Edge against the building frontage allows indoor life to spill out into the streets. PHOTO: SAN FRANCISCO GIANTS



Permeability creates opportunities for more interaction at the building's edges. PHOTO: PERKINS+WILL



Storefronts should create a fine grain of variety along each street frontage, expressing the unique identity of each tenant.

A higher ground floor height allows for the possibility of mezzanine retail.

Lines of sight for people inside and outside the building to see one another.

Permeable openings such as sliding and folding doors encourage activity spill out onto the sidewalk.

Street life zones create an additional opportunity for activity to spill out of the buildings and engage the public realm.

Above is a diagrammatic representation of one way a building frontage in the High Retail Zone could be designed to achieve the goals of vibrant ground floor uses which spill out and activate the public realm.

5.7 PARKFRONT ZONE

Read in conjunction with Section 3.2 - China Basin Park.

The Parkfront Zone represents a high level of activity designed for retail, cafes, restaurants, and entertainment venues, that enliven the Promenade along the built edge of China Basin Park. Uses along this frontage will be excellent locations for outdoor dining, pre-game events, and backdrop for activities at China Basin Park.

The ground floor along the park has the opportunity to spill out into the Park Promenade, activating this edge, and taking advantage of views of the Bay and Ballpark.

The proximity to regional scale events at the Ballpark and China Basin Park mean that food and entertainment uses along this frontage should be designed to anticipate larger crowds of pedestrians.

The frontages for inclusion in the Parkfront Zone are indicated in Figure 5.5 - Ground Floor Frontages. The requirements of the Parkfront Zone are summarized in Table 5.5 - Ground Floor Frontage Zone Controls.

GUIDELINES

5.7.1 UPPER LEVEL ACTIVATION

The inclusion of balconies and terraces are encouraged along the streetwall above the ground floor in the Parkfront Zone to take advantage of views to the Bay and Ballpark, and to allow greater programmatic and visual connection between uses in the buildings and the China Basin Park.



Building frontages along the Parkfront should engage the park in interesting and dynamic ways. PHOTO: SAN FRANCISCO GIANTS

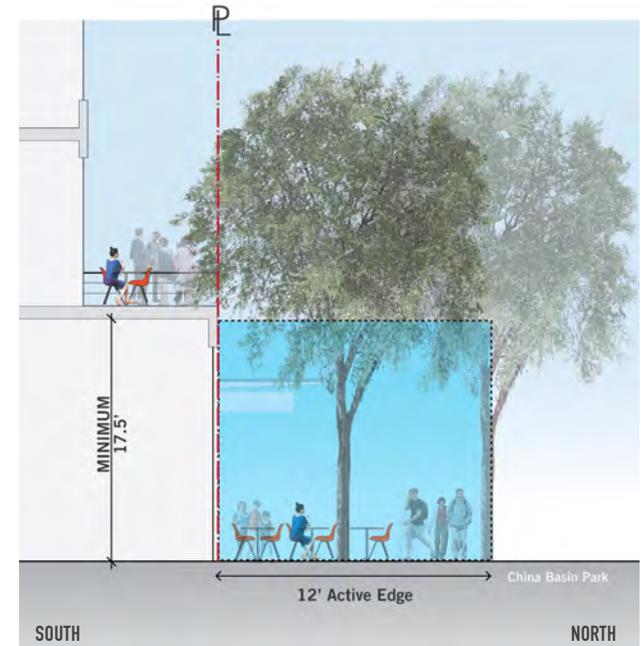
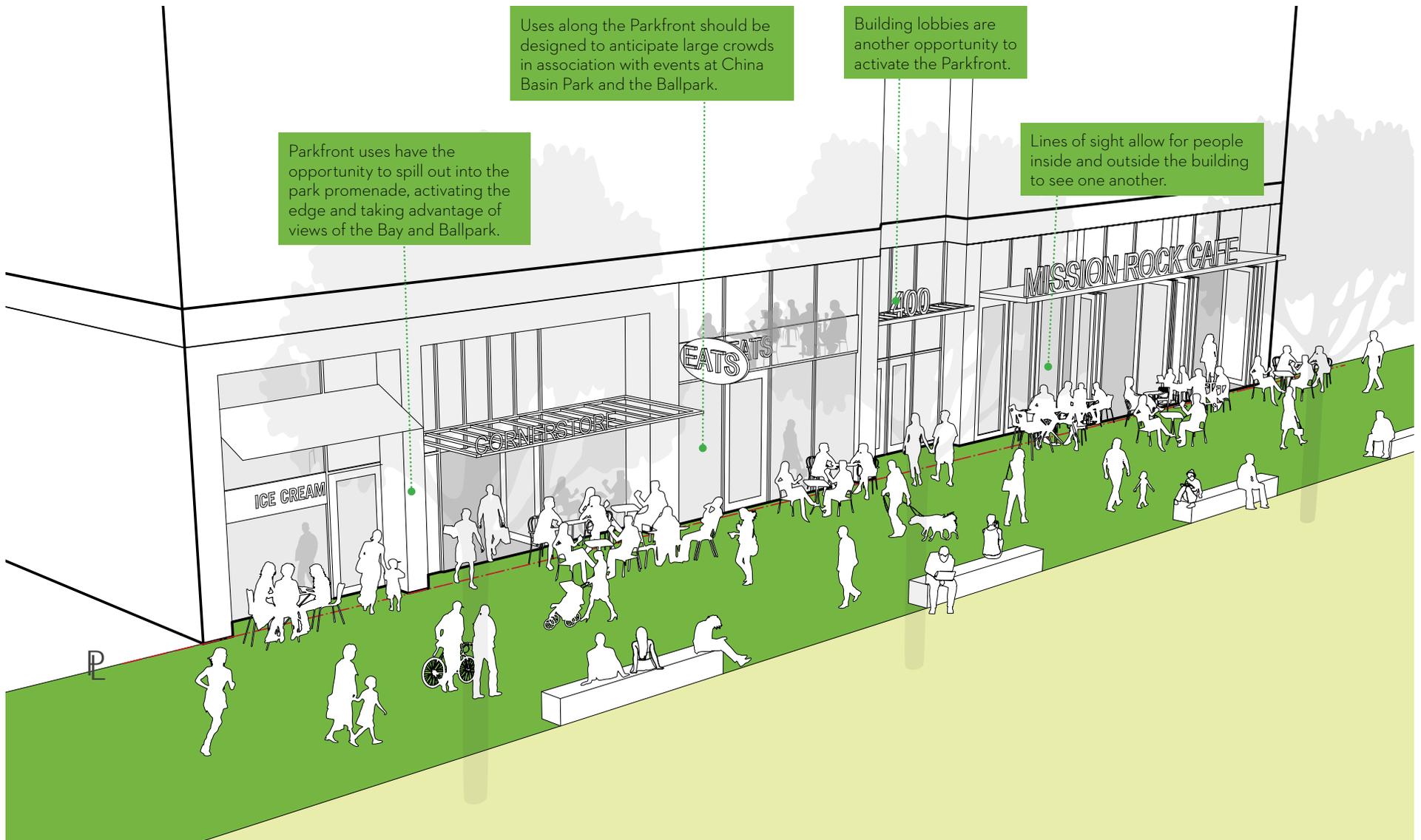


FIGURE 5.7 - Parkfront Zone



Building uses should spill out and activate the promenade. PHOTO: SAN FRANCISCO GIANTS



Above is a diagrammatic representation of one way a building frontage in the Parkfront Zone could be designed to achieve the goals of vibrant ground floor uses which spill out and activate the public realm.

5.8 WORKING WATERFRONT ZONE

Read in conjunction with Section 4.3 - Terry A Francois Boulevard.

The Working Waterfront Zone is intended to support maritime and production uses, which will benefit by being located near other production uses along Terry Francois Boulevard.

Uses in this zone include but are not limited to light industrial, production, fabrication, manufacturing, and studios for crafts people and artists. It is the goal that this zone creates a flexible framework for a broad variety of uses, and as such the requirements for this zone are intentionally broad.

The frontages for inclusion in the Working Waterfront Zone are indicated in Figure 5.5 - Ground Floor Frontages. The requirements of the Working Waterfront Zone are summarized in Table 5.5 - Ground Floor Frontage Zone Controls.

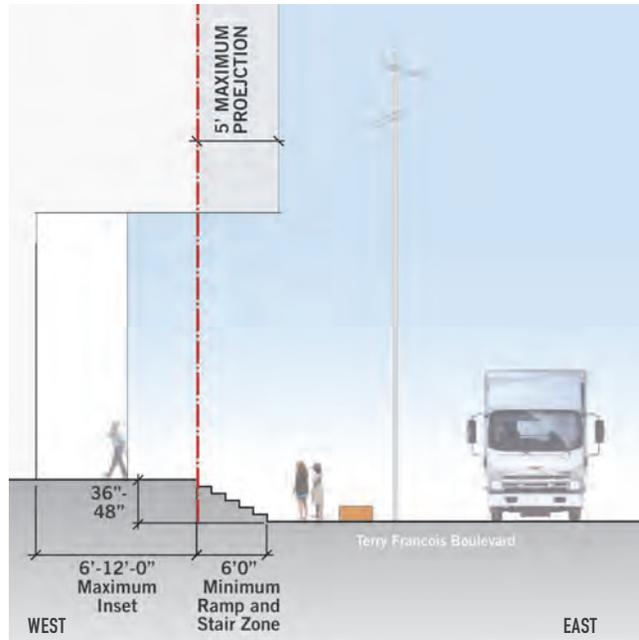


FIGURE 5.8 - Working Waterfront Zone - Elevated Walkway condition



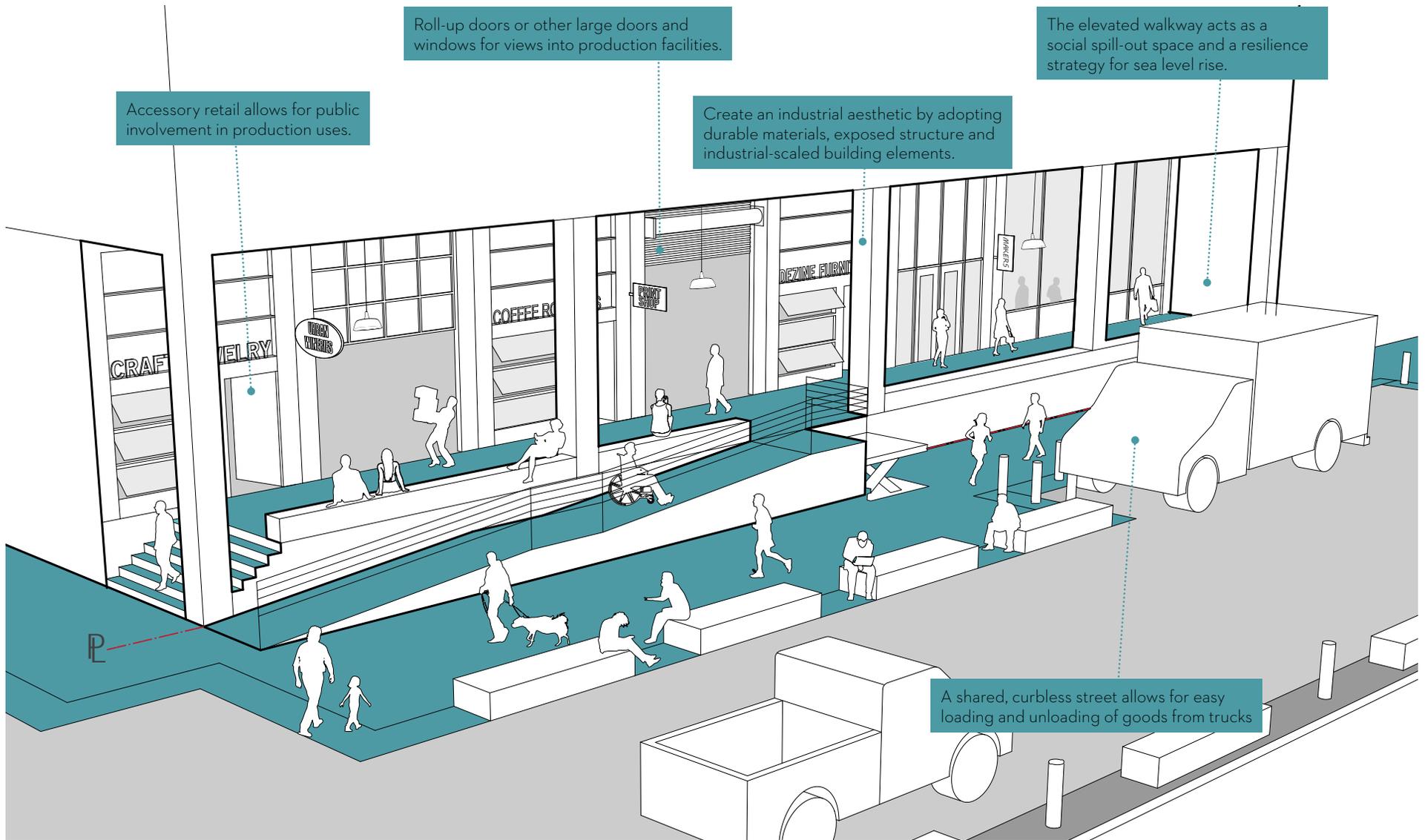
This coffee roastery also sells coffee directly to customers.
CREDIT: SF MADE



Elevated sidewalks support loading activities and also create opportunities for casual interaction. PHOTO: PERKINS+WILL



High ground floor heights and roll-up doors enable production uses. PHOTO: PERKINS+WILL



Above is a diagrammatic representation of one way a building frontage along Terry A Francois Boulevard could be designed to achieve the goals of the working waterfront with an elevated walkway allowing production uses to spill out and activate the public realm.

STANDARDS

5.8.1 GROUND FLOOR USES IN THE WORKING WATERFRONT ZONE

The intent of the working waterfront zone is to create an environment for production uses alongside the waterfront which will support an active industrial area, as well as enlivening the pedestrian experience by providing access to public-facing ground floor uses beyond retail.

To create a vibrant street experience which encourages activities later into the evenings, a mix of uses is allowed in the Working Waterfront at the following ratios:

- ▶ Production is intended to be the primary use of the ground floor in the Working Waterfront Zone (which includes accessory retail as described in *Section 1.2.6 - Production*)
- ▶ Up to 60 horizontal feet of each block frontage is allowed be occupied by Active Uses which are not accessory to Production Uses.

5.8.2 ELEVATED WALKWAYS

Read in conjunction with *4.3 - Terry A Francois Boulevard*.

The presence of production uses along Terry Francois Boulevard creates an opportunity for the Working Waterfront Zone along Blocks H,I, and J to become a functional area for shared servicing needs. An Elevated Walkway condition will be designed to serve several functions:

- ▶ A lift gate incorporated at one end of the Elevated Walkway will allow easy movement of goods off-loaded from trucks, lifted by the shared lift gate, onto the Elevated Walkway and moved easily into storefronts.
- ▶ This Elevated Walkway will also act as a social spill-out space for users and visitors to Production storefronts

and usable display or working area for the Production uses.

- ▶ In the event of sea level rise, this Elevated Walkway ensures that these frontages are at an elevation where they will be protected from flooding.

The height of the Elevated Walkway shall be between 36 inches and 48 inches in height vertical above grade (See *Figure 5.8 - Working Waterfront Zone - Elevated Walkway Condition*).

Elevated Walkways shall be designed to allow for a continuous 6 foot wide pedestrian throughway within the property line, along the building frontage, facilitating shared loading facilities for production uses, as well as providing the opportunity for entry and service of other uses in the building.

Freight lifts must be incorporated into the Elevated Walkway design to enable the vertical movement of large loads.

Ramps and stairs up to 6 feet in width for enhanced access to loading docks are allowed to be built as an encroachment within the public right of way, as described in *Section 4.3 - Terry A Francois Boulevard*.

Each block shall provide at least three points of access to the Elevated Walkway, one of which must be ADA compliant.

GUIDELINES

5.8.3 PRODUCTION TENANT NEEDS

Table 5.8.3 - Production Tenant Needs provides a basic understanding of design specifications for different user types. This is not an exhaustive list, but is meant to illustrate the difference in the needs of a production tenant as opposed to other, more common ground floor land uses.

This table is provided as information for designers and developers. It is not necessary to show compliance with this table in a planning application.

5.8.4 INDUSTRIAL AESTHETIC

To create an industrial aesthetic, the use of durable materials, exposed structure, and industrial-scaled building elements are encouraged.

5.8.5 LARGE DOORS

Roll-up doors or other large doors that provide a large opening are preferred. They help facilitate loading and allow for lines of sight into production facilities for passers-by. Where possible these doors should have translucent or vision panels incorporated to reinforce the visual connection between the production space and the public realm. (See also *Section 5.7.7 Lines of Sight*)

GUIDELINES

TABLE 5.8.3 PRODUCTION TENANT NEEDS

Based on a study by SF Made, this table outlines the general needs of different kinds of industrial tenants. A large majority of users fall into the first category of needs, with fairly minimal needs above and beyond the typical retail or commercial space. (This table is presented here as information for designer and developers. It is not necessary to show compliance with this table in a planning application.)

USER TYPE	CRAFT JEWELRY, PRINT SHOPS, CLOTHING & APPAREL MAKERS	ARTISAN FOOD PRODUCERS & COMMERCIAL KITCHENS	FURNITURE / PROTOTYPING & ADVANCED MANUFACTURERS	URBAN WINERIES	COFFEE ROASTERS
TYPICAL PROGRAM AREA (sq ft)	500 sf to 2,500 sf	500 sf to 3,000 sf	5,000 sf to 20,000 sf	5,000 sf to 20,000 sf	5,000 sf to 20,000 sf
MINIMUM CLEAR CEILING HEIGHT	17.4 feet and above	17.4 feet and above	17.4 feet and above	17.4 feet and above, 30 feet or higher preferred for stacking	17.4 feet and above
MINIMUM POWER NEEDS	100a - 200a at 120/240V 3PH	200a - 800a at 120/240V 3PH	300a - 1,000a at 120/240V 3PH (200a - 400a at 480V preferred)	200a - 400a at 120/240V 3PH	400a at 120/240V 3PH (400a at 480V preferred)
MINIMUM GAS NEEDS	1"	2"	1.5"	None	2"
MINIMUM VENTING NEEDS	Equipment based - side venting with charcoal filters / scrubbers as needed	Grease hood exhaust vent 250 CFM / lineal foot of hood General exhaust for storage	Equipment based - side venting OK with charcoal filters / scrubbers	None	12" vertical vent, afterburner (must be upblast)
MINIMUM WATER NEEDS	1.5" main line minimum (Example: slop sink)	1.5" main line (separate from fire water)	2" main line	2" main line with water filtration; both hot and cold water	2" main line
MINIMUM DRAIN / SEWER NEEDS	Typical sink drain	6" Main line	Floor drains (on occasion)	Area drains and trench drains (tenant fit-out preferred)	Floor drains throughout
MINIMUM HVAC NEEDS	HVAC preferred, not required	Make up air 90% hood exhaust CFM	Preferred, not required	Climate controlled	Climate controlled
MINIMUM SHIPPING / RECEIVING NEEDS	Ground delivery roll up doors preferred	Gate level	Grade level* roll up doors, pallette jack with freight lift	Grade level* roll up doors, pallette jack with freight lift	Grade level* roll up doors, pallette jack with freight lift
ACCESSORY RETAIL	Highly preferred, can be shared	Highly preferred, can be shared	Highly preferred, can be shared	Highly preferred on site	Highly preferred on site

*In the case of Mission Rock, "grade level" here refers to the elevated sidewalk condition which can be accessed via freight lift or ramp.

5.9 NEIGHBORHOOD STREET ZONE: RESIDENTIAL

Read in conjunction with Chapter 4: Streets.

The Neighborhood Street Zone applies to frontages which have a lower intensity of activity, generally front onto streets that are quieter in character, and serve to make up the neighborhood feeling at Mission Rock.

Individual residential entries and stoops are an effective way to activate the street and create greater opportunity for social interaction. At the same time, they should provide a sense of privacy and comfortable social distance from the sidewalk.

The frontages for inclusion in the Neighborhood Street Zone are indicated in *Figure 5.5 - Ground Floor Frontages*. The requirements of the Neighborhood Street Zone are summarized in *Table 5.5 - Ground Floor Frontage Zone Controls*.

STANDARDS

5.9.1 GROUND FLOOR ENTRIES

Ground floor residential units shall have entries with direct, individual access onto a public right of way, open space, or easement. Residential units are required to provide a stoop to create a social distance from the street; home office units are not required to have stoops and may be entered at grade.

5.9.2 GROUND FLOOR DESIGN

In the neighborhood street zone, ground floor residential shall be designed in compliance with the City of San Francisco's Guidelines for Ground Floor Residential Design (published on 09/2016, available at http://default.sfplanning.org/publications_reports/Guidelines_for_Groundfloor_Residential_Design.pdf)

5.9.3 PLANTING IN THE ACTIVE EDGE

Permanent planting that does not impede a clear path of travel is allowed in the Active Edge of the Neighborhood Street Zone.

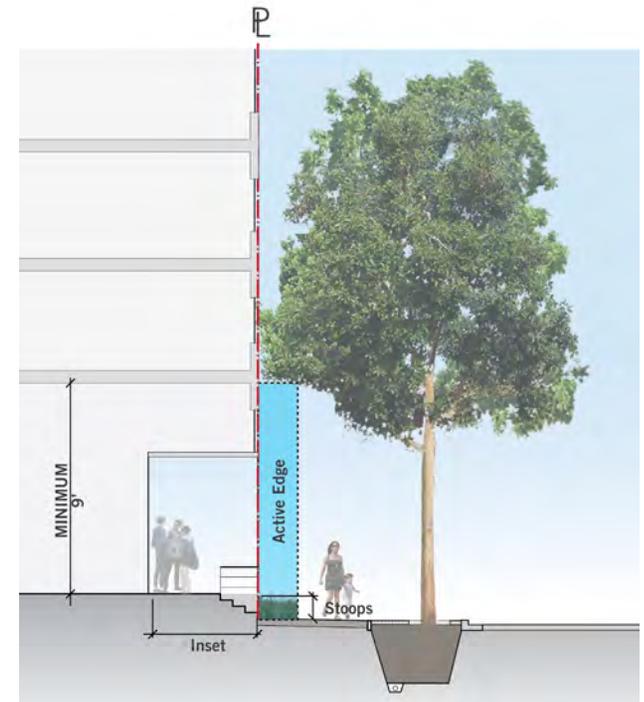
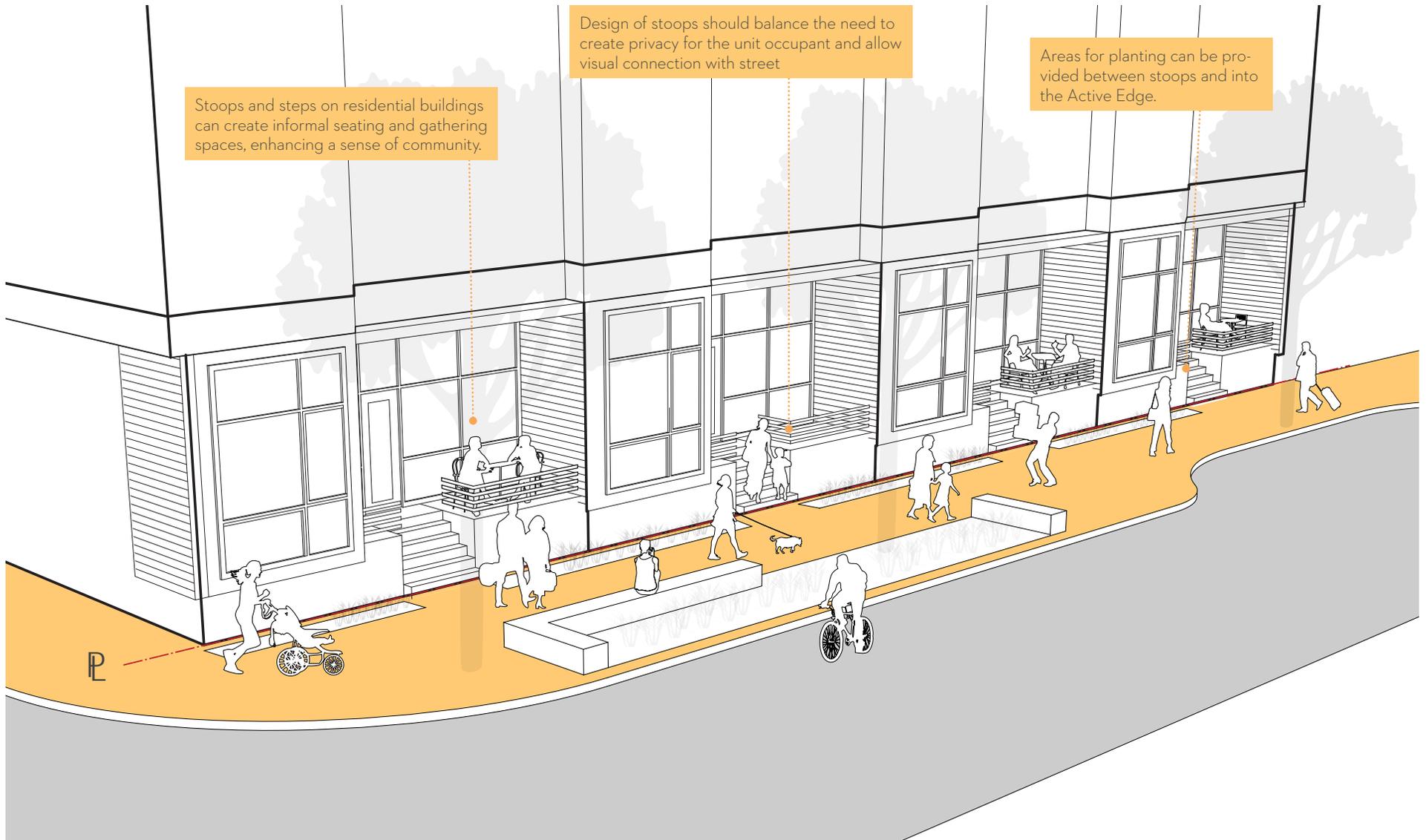


FIGURE 5.9 - Neighborhood Street Zone Section showing a residential stoop.



Stoops with a slightly raised and inset entry create a comfortable social distance between the unit and the street. PHOTO: PERKINS+WILL



Above is a diagrammatic representation of one way a building frontage in the Neighborhood Street Zone: Residential could be designed to achieve the goals of habitable stoops which are a comfortable social distance from the activity of a neighborhood street.

5.10 NEIGHBORHOOD STREET ZONE: NON-RESIDENTIAL

Read in conjunction with Chapter 4 - Streets.

The Neighborhood Street Zone applies to frontages which have a lower intensity of activity, generally front onto streets that are quieter in character, and serve to make up the neighborhood feeling at Mission Rock.

There are many different uses allowed in the neighborhood street zone. Ground floor frontages of commercial buildings should provide active uses which create variety and interest for the pedestrian realm, and contribute eyes on the street.

The frontages for inclusion in the Neighborhood Street Zone are indicated in *Figure 5.5 - Ground Floor Frontages*. The requirements of the Neighborhood Street Zone are summarized in *Table 5.5 - Ground Floor Frontage Zone Controls*.

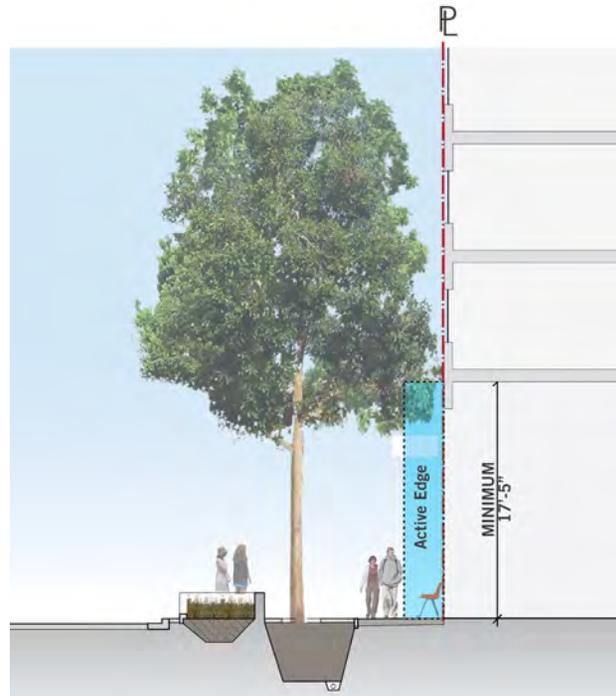


FIGURE 5.10 - Neighborhood Street Zone Section showing a non-residential frontage.



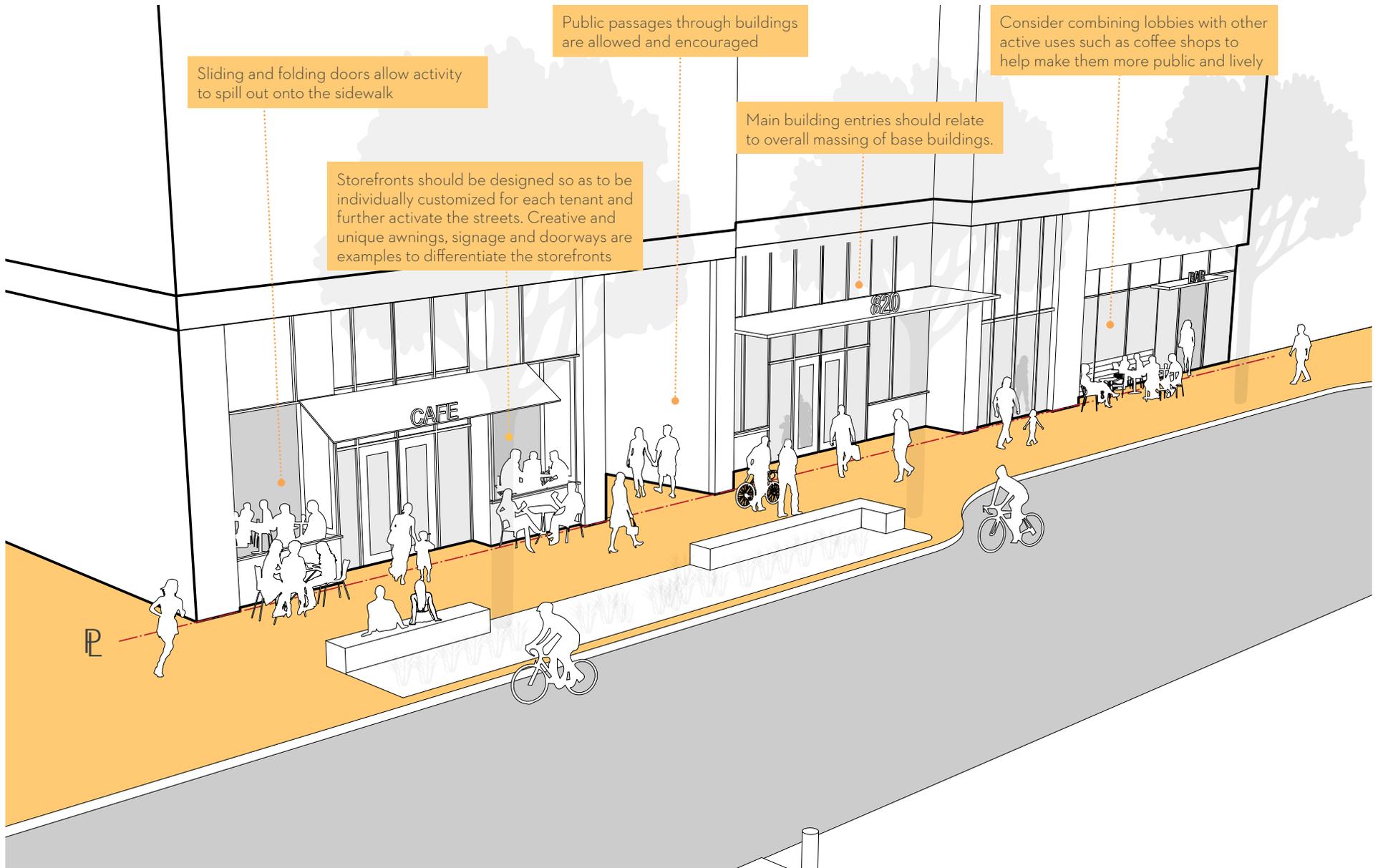
Small shops such as this coffee kiosk can also help to activate neighborhood streets. CREDIT: LIVABLE CITY



Neighborhood-serving amenities such as grocery stores and dry cleaning are used by workers and residents alike. CREDIT: WHOLE FOODS



Cafeterias, gyms and other amenities are good options to activate the lower floors of commercial buildings. CREDIT: FLY WHEEL



Above is a diagrammatic representation of one way a building frontage in the Neighborhood Street Zone: Non-Residential could be designed with a variety of ground floor uses – from commercial lobbies to retail – to activate and enliven neighborhood streets.



06

BUILDING FORM

Chapter 6, “Building Form” expands upon the Mission Rock strategy of shaping buildings to define and enhance a walkable pedestrian experience, by putting parameters around the height and scale of buildings, and setting aspirations for how these buildings will contribute to the character of San Francisco’s cityscape.

A building “envelope” is the result of a set of three-dimensional controls within which buildings will be designed. The envelopes have been set in relationship to sun, shadow, wind, views, and framing the public realm.

The urban form of Mission Rock works to create a varied urban composition of well-designed buildings that enrich and enliven the city, orient the user, provide a sense of direction and distinguish Mission Rock as a neighborhood which defines the north-east corner of Mission Bay.

This chapter addresses controls for the building envelope, building height, base buildings, upper buildings, design intent for taller buildings, and environmental comfort.

6.1 Building Envelope	150
6.2 Building Height	151
6.3 Base Building	153
6.4 Upper Building	157
6.5 Design of Taller Buildings	161
6.6 Environmental Comfort	164

RELATED CHAPTERS: The Ground Floor guidelines shall also be read in conjunction with *Chapter 6: Building Form* and *Chapter 7: Building Design*. Ground Floor controls shall also be viewed in conjunction with Appendix: Block Standards. This chapter refers to *Chapter 2: Public Realm*, describing integration of the ground floor and the public realm.

6.1 BUILDING ENVELOPE

Mission Rock will be a neighborhood with a mix of building types and a variety of building heights. The establishment of specific building envelopes set out maximum development dimensions for each block. These three-dimensional building envelopes, which constrain the shape of buildings, are quite specific. The envelopes balance the following goals:

- ▶ Create comfortable urban spaces;
- ▶ Bring an appropriate intensity of uses alongside parks and transit;
- ▶ Craft an appealing urban form on the city skyline;
- ▶ Allow views across the site to the San Francisco Bay;
- ▶ Ensure that open spaces have ample sunlight and reduce the impact of wind on the public realm;
- ▶ Set building sizes and dimensions that are economically viable; and
- ▶ Promote a diversity of building form that invites a diversity of building uses and users.

At Mission Rock, the building envelope is broken into two parts: the Base Building and the Upper Building, as illustrated in *Figure 6.1 - Components of the Building Envelope*. Due to the critical nature of how buildings meet the public realm, the ground floor has been given its own chapter in these guidelines (see *Chapter 5: Ground Floor*).

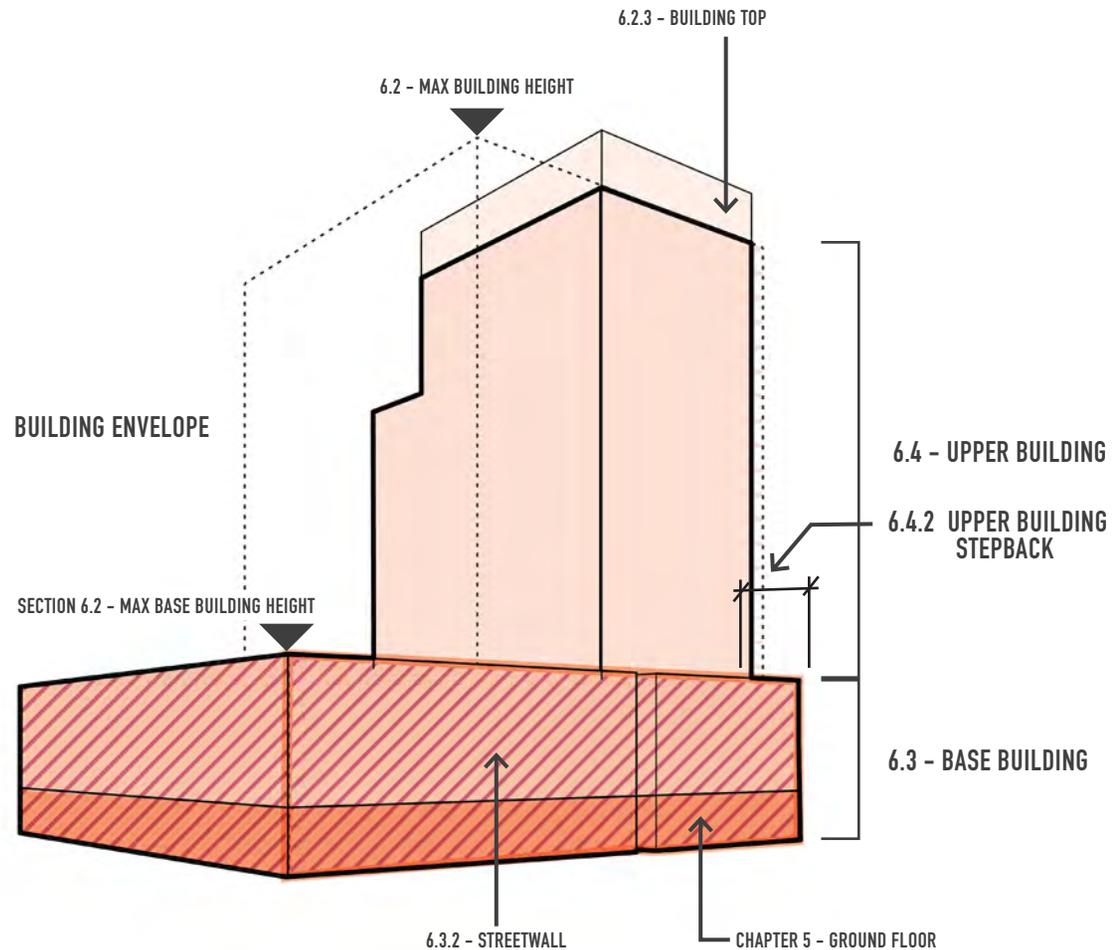


FIGURE 6.1 - Components of the Building Envelope

6.2 BUILDING HEIGHT

Building height controls indicate the maximum height that can be built on each block. The height controls for the base building set the range of allowable heights for the streetwall, while the maximum building heights set the maximum height for each upper building.

MAXIMUM HEIGHT

- 40' Maximum Base Building Height
- 60' Maximum Base Building Height
- 90' Maximum Base Building Height
- 100' Maximum Base Building Height
- Maximum Building Height Zone
- 120' Maximum Building Height
- *90'/120' For Flex Blocks: Maximum Building Height is 90 feet if Commercial or 120 feet if Residential.
- Minimum Stepback Required

Note that solid colors refer to the base buildings and diagonal hatches refer to upper buildings.

Refer to Section 6.2.2 for building height measurement.

Detailed block plans can be found in the Appendix.



FIGURE 6.2 - Maximum Height Plan

STANDARDS

6.2.1 MAXIMUM HEIGHT

The height of buildings shall not exceed the applicable maximum height as shown on *Figure 6.2 - Maximum Height Plan*.

Note that *Figure 6.2 - Maximum Height Plan* controls the maximum height of the building, as well as the specific heights for the base buildings. Read in conjunction with *Section 6.1 - Building Envelope*. Also see *Appendix A* for three dimensional drawings of envelopes.

6.2.2 MEASURING HEIGHT

Because the majority of the site will be elevated to adapt to sea level rise, the finished grade for portions of Mission Rock will be set at a higher elevation than pre-development grade, as determined by the Mission Rock Infrastructure Plan.

Maximum **building** heights are to be measured from the highest point of finished grade (referenced above) along the property line, up to the highest point of the uppermost structural slab in the case of a flat roof; up to the average height of the rise in the case of a pitched or stepped roof, or similarly sculptured roof form.

Maximum **base building** heights are to be measured from highest point of finished grade (referenced above) along the property line to the highest point on the uppermost structural slab of the base building in the case of a flat roof, and the average height of the rise in the case of a pitched or stepped roof, or similarly sculptured roof form of the base building.

6.2.3 BUILDING TOPS

For base buildings, wall plane extensions or parapets may extend up to 5 feet vertically above the maximum base building height.

The unoccupied tops of upper buildings may extend up to 20 feet vertically above the maximum building height, except on Block F, where the building top may extend up

to 40 feet vertically above the maximum building height. See *Table 6.4 Upper Building Bulk Controls*. Read in conjunction with *Section 6.5 - Design of Taller Buildings*.

6.2.4 ROOFTOP ELEMENTS

The below listed rooftop elements may project above the maximum building height limit, with the condition that:

- ▶ On base building: Must step back at a minimum ratio of 1.2 feet in a horizontal dimension from the streetwall for every 1 foot that they exceed the maximum height limit.
- ▶ On upper building: Must be screened or enclosed within the building top.

The following rooftop elements are allowed to project above given height limits:

- ▶ On upper building, mechanical enclosures and sustainable infrastructure such as photovoltaic panels, windmills, or fog catchers and greenhouses (up to 20 feet).
- ▶ On base building mechanical enclosures and sustainable infrastructure such as photovoltaic panels, windmills, or fog catchers (up to 20 feet) and common use structures (up to 20 feet) including, but not limited to: community rooms and kitchens, recreational facilities, and greenhouses. Common use structures may not exceed 25% of the roof area.
- ▶ Non-occupied architectural features on the upper building may extend up to 20 feet vertically above the maximum permitted building height, except on Block F, where the building may extend up to 40 feet vertically above the maximum permitted building height.
- ▶ Railings, planters and visually permeable building elements no greater than 48 inches above the roof are exempt from step-back requirements.

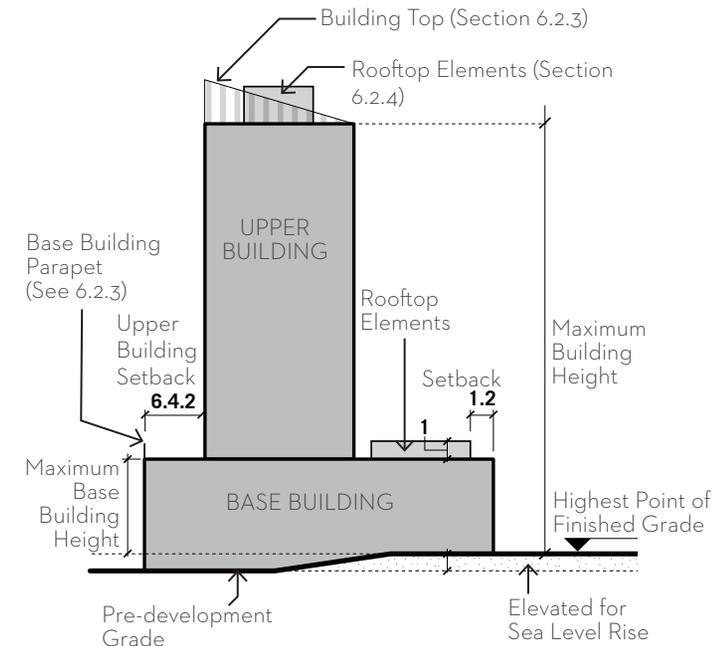
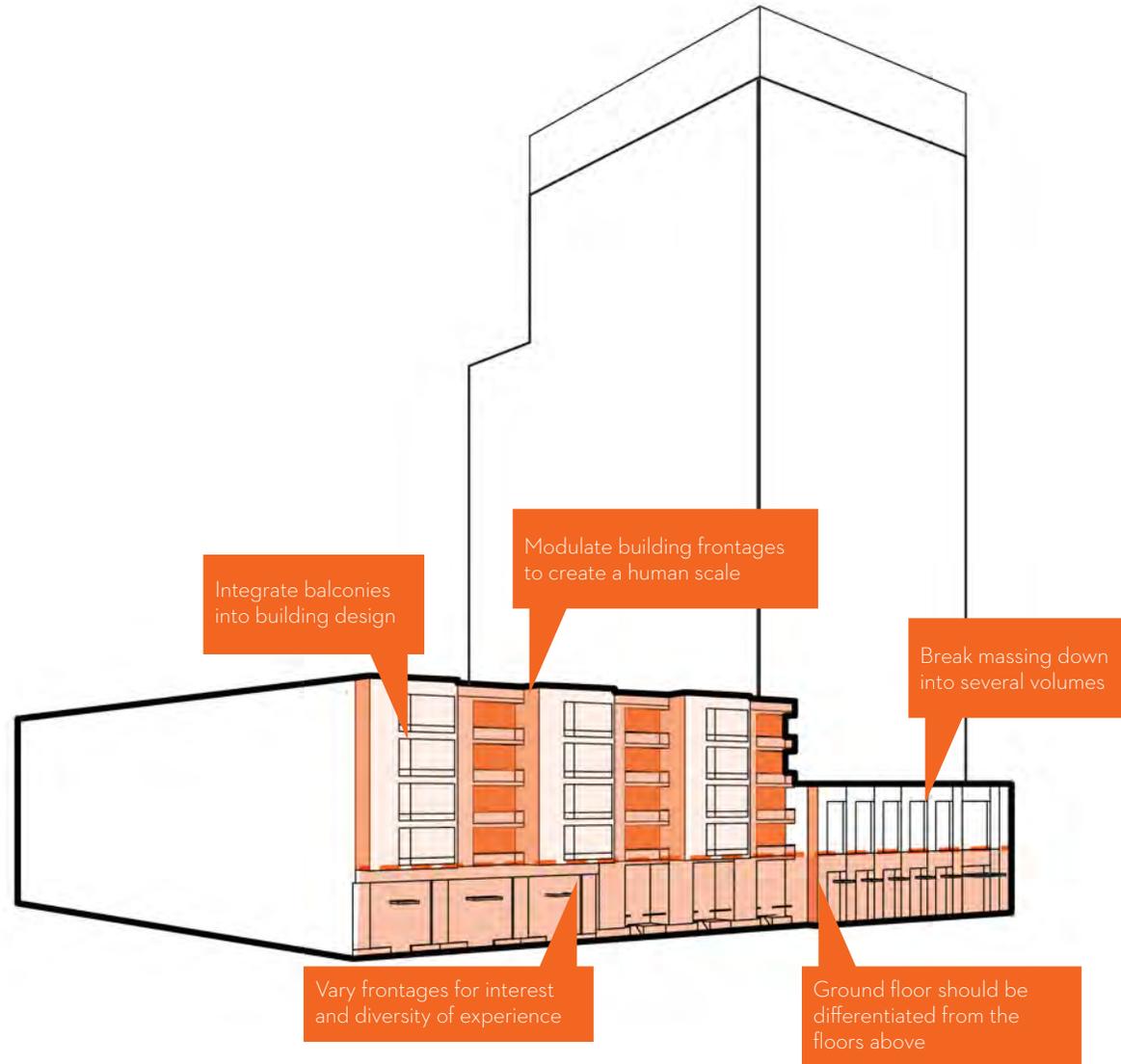
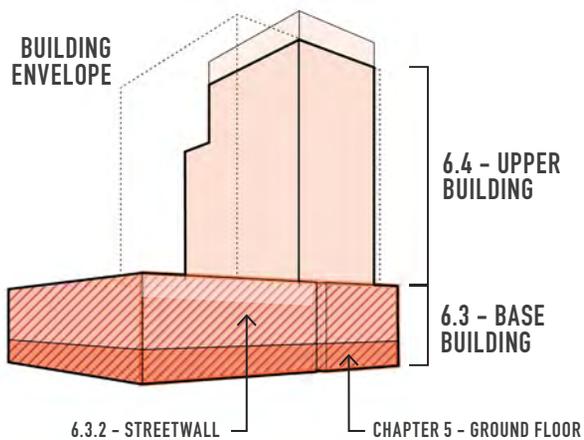


FIGURE 6.2.2 - Measuring Height

6.3 BASE BUILDING

Base buildings influence the individual character of the streets and open spaces which they frame. The streets and squares at Mission Rock are envisaged as a series of 'urban rooms' defined by streetwalls that create a sense of enclosure supporting the activity and life within these spaces. Each building should be designed with the pedestrian experience foremost, paying specific attention to the way the building meets the ground so as to support the design approach described above, and as detailed in *Chapter 5: Ground Floor*.

This section is to be read in conjunction with *Chapter 5: Ground Floor* which outlines the design approach to the ground floor of all buildings.



STANDARDS

6.3.1 BASE BUILDING MASSING

The base building is the lower portion of the envelope that creates the streetwall, which defines and enlivens the pedestrian experience of the street and frames comfortable urban streets.

This area is taken as the property line extended upwards to the maximum base building height limit as described in *Figure 6.2 - Maximum Height Plan*.

6.3.2 STREETWALL AREA CALCULATION

The streetwall is defined as that portion of the building envelope which directly fronts onto either a public right-of-way or abutting open space. Streetwall standards and calculations apply to all sides of a building that front onto a public right of way or open space.

A building's actual streetwall area is calculated as a percentage of the sum of the total area of those portions of the building, from grade up to the full height of the base building that are built to the property line, divided by the total area of property frontage from grade up to the full height of the base building. See also *Figure 6.3.2 - Streetwall Area Calculation*.

A) Minimum Streetwall Area

The minimum streetwall requirement for all building frontages at Mission Rock is 70%. The remainder of the frontage can be set back at any distance from the property line.

B) Minor Streetwall Variations

Minor variations along the streetwall are encouraged and count towards the streetwall area calculation. Minor variations include:

- ▶ Recessed building entries up to two habitable floors in height;
- ▶ Recessed balconies and seating areas;
- ▶ Vertical recesses, notches, or massing reveals up to 3 feet deep

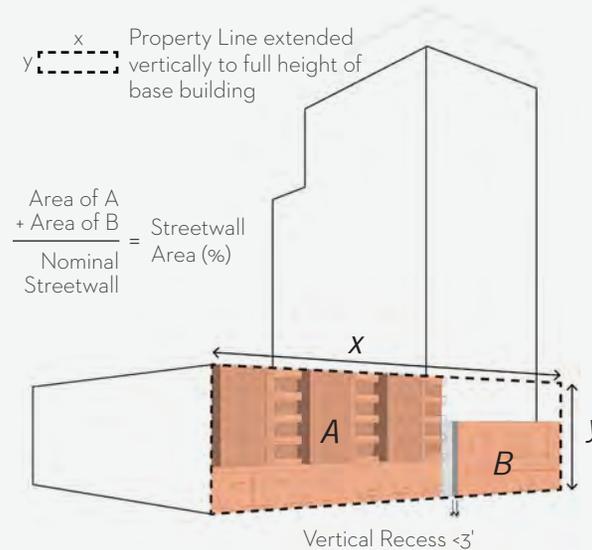


FIGURE 6.3.2 - Streetwall Area Calculation

6.3.3 STREETWALL ENCROACHMENT

At the second floor and above, enclosed or unenclosed building area may encroach into the public right-of-way up to a maximum of 5 feet from the property line on frontages facing Terry A Francois Blvd and China Basin Park, and up to 3 feet on all other frontages.

Encroachments may cover a maximum aggregate of 40% of the area of each streetwall frontage.

For unenclosed encroachments such as balconies, the encroachment area shall be calculated as that area which is less than 75% transparent or permeable. For example, the slab edge of a balcony counts toward the calculation of encroachment area, but a glass or metal picket balustrade does not. See also *Figure 6.3.3 - Streetwall Encroachments*.

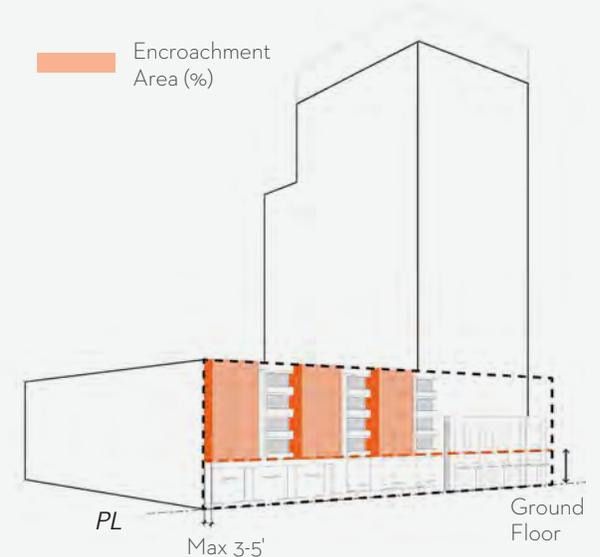
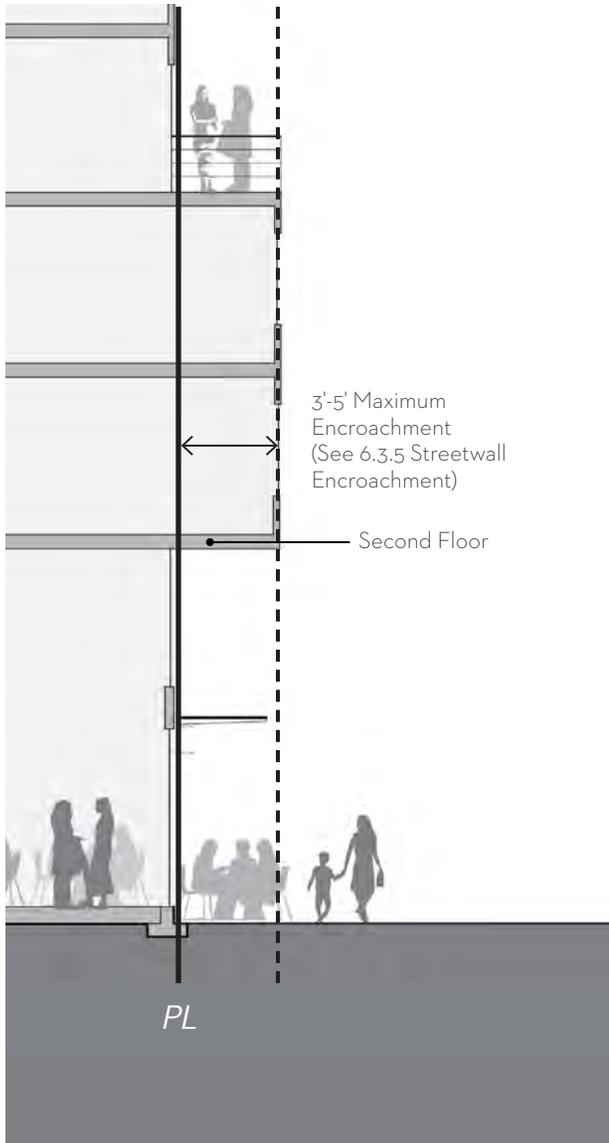


FIGURE 6.3.3 - Streetwall Encroachment



On typical streets, an encroachment of up to 3 feet is allowed, starting at the second floor and above.



Above is an example of how to calculate the encroachment area with a variety of bays and balconies, demonstrating both enclosed and unenclosed encroachments. Shaded faces would be included in encroachment area calculation. PHOTO: PERKINS+WILL

GUIDELINES

6.3.4 BASE BUILDING MODULATION

The mass of the base building should be broken down into several smaller masses. These massing moves should relate to the overall building design, design of the upper building, and to other prominent building elements such as fenestration patterns and building entries.

Requirements for base building modulation are further described in *Section 7.2.1 - Residential Building Modulation* and *7.3.1 - Commercial Building Modulation*.

6.3.5 STREETWALL CHARACTER

The length of each streetwall should be varied and articulated to create interest and diversity of experiences, forms and materials along public ways. Variety is purposely sought in order to avoid repetitive or over-sized buildings and provide visual interest.

6.3.6 VERTICAL CONTINUITY

There should be a relationship between the upper and base building which gives a sense of the upper building coming to the ground. A similar palette of materials, colors, and fenestration should continue from upper building to base building, so as to create a unified composition. Care should be taken to create a pedestrian scale at the base. Read in conjunction with *Section 6.4.2 - Stepback of Upper Building*.

6.3.7 KEY CORNERS

The Northwest corner of Block A and the Southeast corner of Block H are highly visible on approach to the site, and should have special architectural detailing which is appropriate to their prominent locations.



Building streetwalls should be broken down into discrete masses which create variety and interest. CREDIT: JEMS ARCHITEKCI



Key corners at Mission Rock should be marked with special massing and design features. PHOTO: PERKINS+WILL

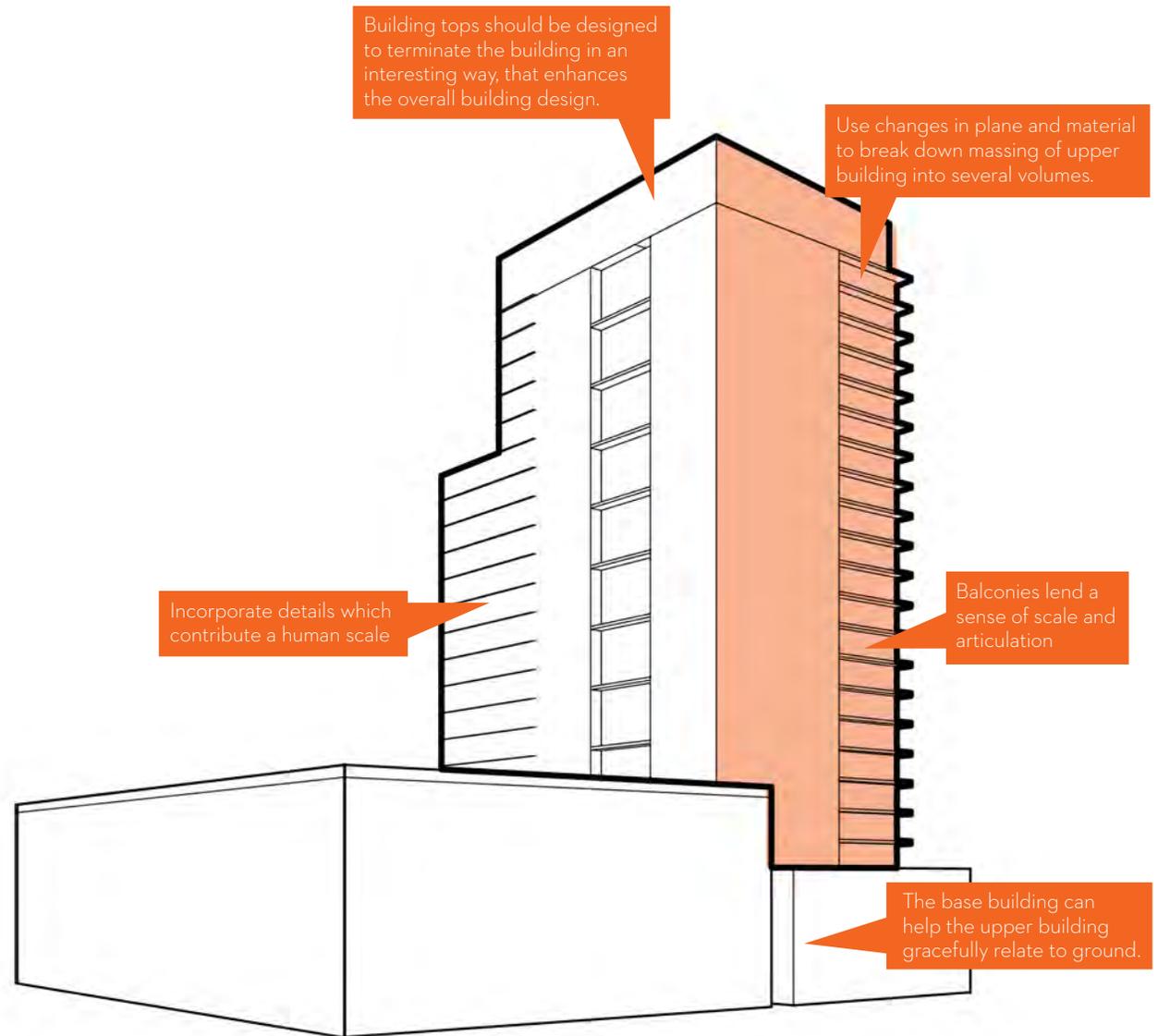
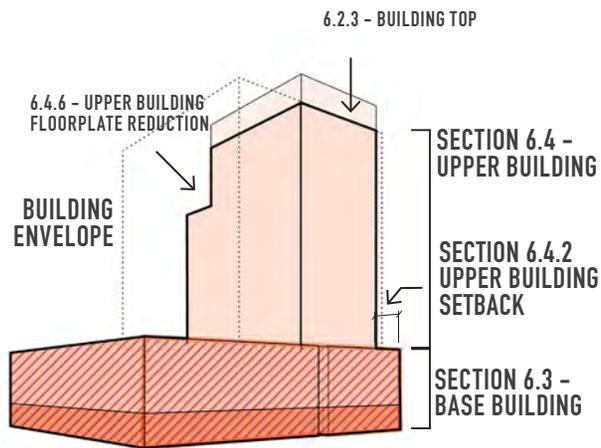


This image depicts a single building, the massing of which has been broken down with vertical recesses, projections, different kinds of balconies (inset and projecting), and changes in material so that it looks like several smaller buildings. PHOTO: PERKINS+WILL

6.4 UPPER BUILDING

The upper building is the portion of the building which rises above the base building. In many cases this part of the building envelope steps back from the property line to reduce the presence of a building's full height on the street, reinforce the streetwall at a discernible height, and in some cases to reduce or mitigate the impact of wind to ensure a more comfortable sidewalk experience.

Within the upper building envelope, the bulk of the building is constrained by controls for maximum floorplate sizes, and maximum diagonal and plan dimensions, while building tops sculpt the form of the building and contribute to a unique skyline. Controls for each of these elements are found in this section.



STANDARDS

6.4.1 UPPER BUILDING MASSING

The upper building is defined as the portion of the building which rises above the maximum base building height, up to the total building height.

The upper building massing must be located within the hatched zone indicated on *Figure 6.2 - Maximum Height Plan*, and constrained by the given setback dimensions as well as the bulk controls in *Table 6.4 - Upper Building Bulk Controls*.

6.4.2 STEPBACK OF UPPER BUILDING

In various places, the upper building is required to be stepped back from the streetwall for the purposes of mitigating wind, and visually reinforcing the streetwall along these frontages. The minimum setback is indicated in *Figure 6.2 - Maximum Height Plan*

On 3rd Street the setback requirement for the upper building can be reduced to 5' where the design meets the following criteria:

- Does not measurably increase the amount of wind on the adjacent public realm, including impacts on surrounding building frontages, AND;
- Visually reinforces the streetwall through a change in material, transparency, or change in plane at or below the maximum base building height.

6.4.3 UPPER BUILDING MAXIMUM AVERAGE FLOORPLATE

The maximum average floorplate size for the upper building is defined as the maximum size of the sum of all the upper building floorplates, divided by the number of floors in the upper building.

This calculation excludes those floors which are required to be reduced as described in *6.4.6 - Floorplate Reduction*.

The maximum average floorplates are given for each block in *Table 6.4 - Upper Building Bulk Controls*.

6.4.4 UPPER BUILDING MAXIMUM PLAN DIMENSION (RESIDENTIAL ONLY)

The maximum plan dimension of a residential upper building is the greatest plan dimension parallel to the longest side of the building at any given level of the upper building as illustrated in *Figure 6.4.4 - Maximum Plan Length and Diagonal Length*.

Maximum plan dimensions are given for each block in *Table 6.4 - Upper Building Bulk Controls*.

6.4.5 UPPER BUILDING MAXIMUM DIAGONAL DIMENSION (RESIDENTIAL ONLY)

The maximum diagonal dimension of a building or structure is the greatest horizontal distance between two opposing points at any level of the upper building as illustrated in *Figure 6.4.4 - Maximum Plan Length and Diagonal Length*.

Maximum diagonal dimensions are given for each block in *Table 6.4 - Upper Building Bulk Controls*.

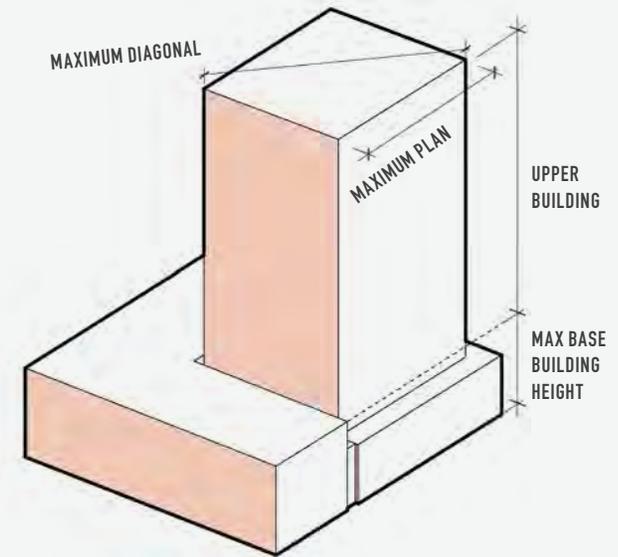


FIGURE 6.4.4 - Maximum Plan Length and Diagonal Length

STANDARDS

6.4.6 UPPER BUILDING FLOORPLATE REDUCTION

For buildings over 160 feet in height, sculpting of the upper building helps to create visually pleasing, elegant forms that reduce in bulk as they rise toward the sky.

Requirements for reducing the floorplate of the upper building are identified in *Table 6.4 - Upper Building Bulk Controls* and illustrated in *Figure 6.4.6 - Floorplate Reduction*.

The percentage reduction is calculated as the average of all of the reduced floorplates divided by the average of all the floorplates without a reduction.

For example, Block A is required to reduce the uppermost five floors by 25%. Taking the maximum average floorplate of 12,000 square feet, the five uppermost floors will be 9,000 square feet each, or the equivalent of 45,000 square feet spread across the uppermost five floors.

While the floorplate reduction is diagrammed here as a step in the building massing, the reduction can take any form, including but not limited to: a single step, several steps, tapering, and so on.

Floorplate reductions shall result in a reduction in the maximum building diagonal for the subject floors, and may not be achieved by means of inset or notching such that the diagonal is not reduced. *Figure 6.4.7 - Examples of Floorplate Reduction* show acceptable and unacceptable ways of applying the guidelines.

For buildings above 200 feet in total height, no tapering of the upper building is necessary if the average floorplate of the entire upper building is 11,000 square feet or less.

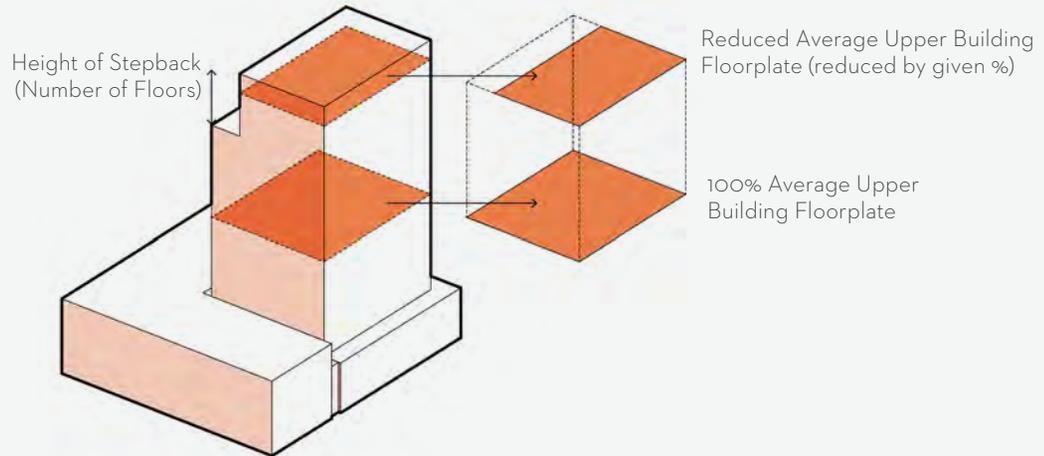


FIGURE 6.4.6 - Floorplate Reduction

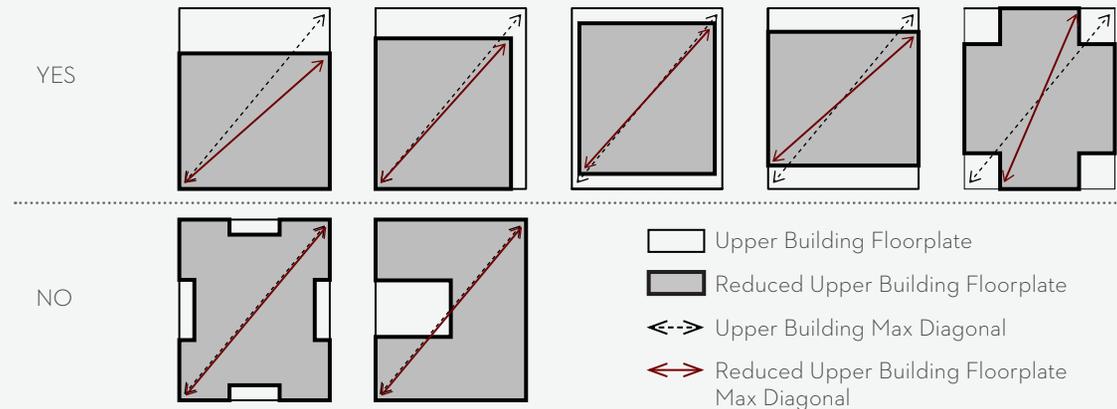


FIGURE 6.4.7 - Examples of Floorplate Reduction

STANDARDS

TABLE 6.4 UPPER BUILDING BULK CONTROLS

BLOCK	LAND USE (SECTION 1.1)	UPPER BUILDING MAX PLAN DIMENSION	UPPER BUILDING MAX DIAGONAL DIMENSION	HEIGHT OF BUILDING TOP	UPPER BUILDING MAX AVERAGE FLOORPLATE	% REDUCTION OF MAX AVG FLOORPLATE	HEIGHT OF STEPBACK
BLOCK A	Residential	140 feet	160 feet	20 feet	11,001 - 12,000 square feet	25%	Uppermost 5 floors
					11,000 square feet or less	None Required	Not Applicable
BLOCK B	Commercial	NA	NA	20 feet	25,000 square feet	None Required	Not Applicable
BLOCK C	Commercial	NA	NA	20 feet	20,000 square feet	10%	Uppermost 2 floors
BLOCK D	Residential	140 feet	160 feet	20 feet	12,000 square feet	None Required	Not Applicable
BLOCK E	Commercial	NA	NA	20 feet	NA	None Required	Not Applicable
BLOCK F	Residential	140 feet	160 feet	40 feet	11,001 - 12,000 square feet	25%	Uppermost 5 floors
					11,000 square feet or less	None Required	Not Applicable
BLOCK G	Commercial	NA	NA	20 feet	20,000 square feet	10%	Uppermost 2 floors
BLOCK H (FLEX)	If Residential	115 feet	150 feet	20 feet	10,000 square feet	None Required	Not Applicable
	If Commercial	NA	NA	20 feet	20,000 square feet	None Required	Not Applicable
BLOCK I (FLEX)	If Residential	115 feet	150 feet	20 feet	10,000 square feet	None Required	Not Applicable
	If Commercial	NA	NA	20 feet	20,000 square feet	None Required	Not Applicable
BLOCK J (FLEX)	If Residential	115 feet	150 feet	20 feet	10,000 square feet	None Required	Not Applicable
	If Commercial	NA	NA	20 feet	20,000 square feet	None Required	Not Applicable
BLOCK K	Residential	115 feet	150 feet	20 feet	10,000 square feet	None Required	Not Applicable

6.5 DESIGN OF TALLER BUILDINGS

The three taller buildings, Blocks A, D1, and F are located on transit street or open spaces, and act as landmarks for these important public places. These buildings are each situated in a unique place and context within the site and should each be designed to respond to their specific location.



ABOVE: A notch, combined with a change in material and a change in height breaks the mass of this building into three distinct forms. CREDIT: BNSK ARCHITECTS

GUIDELINES

6.5.1 DESIGN INTENT: BLOCK A

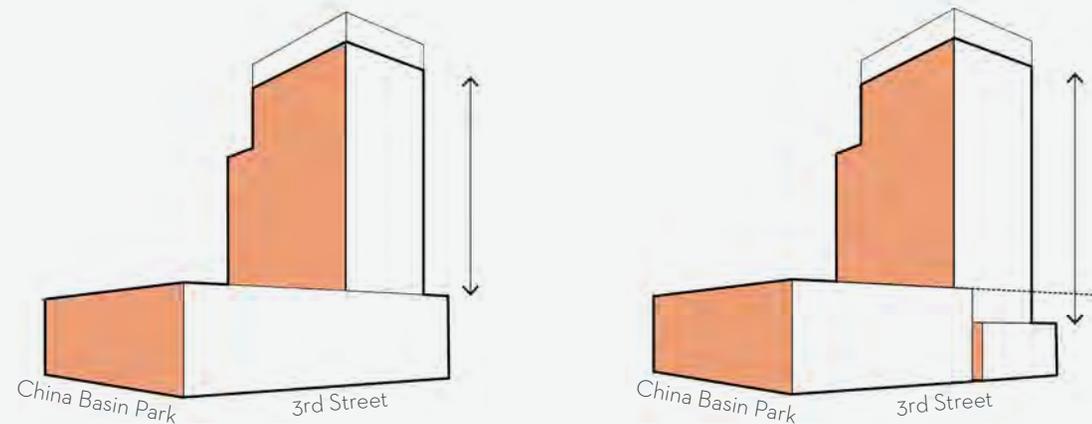
Block A, located at the acute corner of 3rd Street and China Basin Park acts as the 'prow of the ship,' visible at a distance on approach to the Lefty O'Doul Bridge south along 3rd Street. The north side streetwall of this block frames China Basin Park, while its west side is one of the longer streetwalls on the site. The design of Block A should respond to this specific context with the following approaches:

Break down the China Basin Park and 3rd Street streetwall of Block A into several smaller masses, each with different materials and/or fenestration. If the block is developed as one building, the breaking down of the massing can be achieved using different façade designs to look like separate buildings, or by using a variation on the same façade concept which differentiate masses

through setbacks or notches combined with contrasting transparency, color, or material.

Vary the base building height along 3rd Street so that the base building steps down to approximately 40 feet in height at the base of the upper building to give greater height to the form of the upper building. This strategy, combined with the changes in the streetwall will give the impression of the block as an assembly of masses, rather than a single, monolithic block.

Consider orienting the taper of the upper building so that it steps back from the eastern side of the building - creating a more generous taper when viewed from the north and south and a greater presence on the 3rd Street frontage.



ABOVE: The diagram on the left shows a base building with no notch or change in base building height, while the diagram on the right shows how adding a notch and lowering the base building in front of the upper building makes it appear more slender.

GUIDELINES

6.5.2 DESIGN INTENT: BLOCK D1

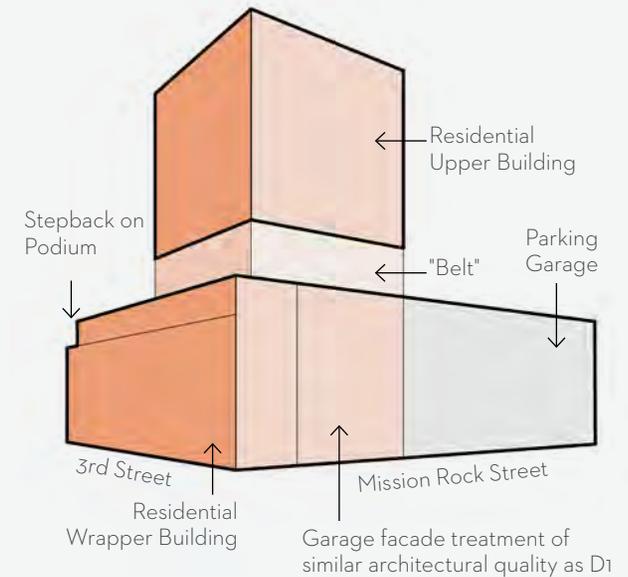
Block D1 marks the Mission Rock MUNI Metro Station along 3rd Street, and is particularly visible from the southern approach to the site. This building has constraints on its design because its structure could be combined with the parking garage on Block D2. Unlike the upper buildings on Blocks A and F, the upper building of Block D1 sits atop a higher streetwall, forming a 100-foot-tall wrap to the parking garage. This, combined with its location across Mission Rock Street from the Public Safety Building suggests a mass and form which can stand up to the robust scale of its surroundings. Due to its context, this building should consider the following design approaches:

Alternative A: Create a band course of greater transparency at the base of the upper building. Such a 'belt' on the building, along with a differentiated façade concept, can give the appearance of the upper building

as a truly distinct form, appearing to float above the base building.

Alternative B: Conversely; consider using a similar strategy for visually breaking up the podium as described on Block A, with a portion of the streetwall which is expressed as a lower height, combined with a notch between these massing elements. Use a change in the materials, massing, or unit layout of the upper levels of the residential base building along 3rd Street to reinforce a lower scale streetwall. An example of this is using a window-wall façade on floors 1-8, and then transitioning with a small stepback to a curtain-wall façade for the two upper levels, designed as two-level town homes.

In all cases the portion of the garage directly below the mass of the tower along Mission Rock Street should have a facade treatment of similar architectural quality to the residential building on D1. In no instance can parking be visible on the 3rd Street frontage.



A transparent "belt" separates upper and lower masses. CREDIT: MIR



An example of a tall residential building connected to a large parking garage. R CREDIT: OBIN HILL / ARQUITECTONICA



Stepping back the uppermost floors of a podium building creates the effect of a lower streetwall. PHOTO: PERKINS+WILL

6.5.3 DESIGN INTENT: BLOCK F

Block F is located on the northern side of Mission Rock Square and acts as a landmark identifying Mission Rock's community heart. Because of its prominence at this important open space location in the center of the site and its position on the skyline, the building will impact the identity of the site both from the ground level experience as well as from distant views.

It should be designed as a landmark building that is compelling in design and relates to Mission Rock Square through the design of the base building, the way the tower comes to ground, and through the ground level activity it supports.

The form of this building should be simple and elegant, expressing a compelling design concept that is well-scaled, interesting, and carefully detailed. The top of this building may be shaped with wall plane extensions or other non-habitable elements up to 40 feet above the maximum building height to allow for greater differentiation and architectural expression (see Table 6.4 - Upper Building Bulk Controls).



CREDIT: ADRIAN SMITH + GORDON GILL ARCHITECTURE



PHOTO: PERKINS+WILL



ABOVE: The four images above illustrate many different ways to terminate towers in visually interesting ways. CREDIT: LEFT - COOK + FOX ARCHITECTS / RIGHT - KOHN PEDERSON FOX



Block F should be designed to embrace and enhance the experience of Mission Rock Square. CREDIT: PERKINS + WILL

6.6 ENVIRONMENTAL COMFORT

Because of San Francisco's mild climate, outdoor spaces can be enjoyed all year round. However, even on warm days, sunny open spaces will become cold and uncomfortable if they are windy.

Mission Bay can experience stronger winds than other parts of San Francisco, with winds generally coming from the West, and highest wind speeds most often occurring during summer afternoons.

The massing of the buildings at Mission Rock have been designed with a stepback above the streetwall which serves to stop much of the wind from coming to ground, ensuring a comfortable pedestrian experience.

Beyond this, the following architectural features can be used to further minimize the impact of wind on the public realm.

GUIDELINES

6.6.1 DESIGN AND ORIENTATION OF TALL BUILDINGS

Design and orient tall buildings to promote air circulation and natural ventilation, yet minimize adverse wind conditions on adjacent streets, parks, and open space, at building entrances, and in public and private outdoor amenity areas.

The stepback of upper buildings as required by the location of Upper Building Zones will help to reduce the amount of wind that comes to ground. See *Figure 6.2 - Maximum Height Plan*.

6.6.2 WIND BAFFLES AND AWNINGS

Wind baffles and randomized balconies help to delaminate wind from the face of the building, thereby reducing the speed of the wind that may come to ground.

Ensure weather protection elements, such as overhangs and canopies, are well-integrated into the building design, carefully designed and scaled for the street, and positioned to maximize function and pedestrian comfort.

Large awnings and canopies can be effective when coupled with other wind reduction strategies.

6.6.3 LANDSCAPE STRATEGIES

Landscape can be a highly effective way to reduce or mitigate wind in the public realm. For guidance on species selection see *Section 2.7 - Urban Forest*.



Generous awnings can minimize the impact of wind at entries and sidewalks. PHOTO: PERKINS+WILL

07

BUILDING DESIGN

This chapter guides the development of high-quality, high-performance buildings at Mission Rock and encourages the design of well-scaled, attractive architecture.

The building envelope massing established in Chapter 6 provides for an order of form related to streetwall and building height. The design of the buildings within the constraints of these envelopes provides the opportunity to introduce variation and diversity of architecture.

To that end, these standards and guidelines encourage each building to have its own unique character, while playing a role in the creation of a coherent overall image of Mission Rock as a lively, appealing and inviting neighborhood.

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7.1 SUSTAINABLE BUILDINGS

Performance targets and sustainable design strategies for buildings at Mission Rock are outlined in the Mission Rock Sustainability Strategy, to be read in conjunction with this document. Guidelines given here with regard to sustainability are intended to support buildings in achieving the targets identified in the Mission Rock Sustainability Strategy - a 'living document' with targets that can be updated as technology improves.

Enhancing long-term sustainability is one of the key principles guiding these Design Controls, and Mission Rock's architectural design has been envisioned with this goal in mind. Mission Rock will be a Type 1 Eco-District, as defined by the City of San Francisco, allowing buildings to take advantage of sustainable resource management at the district scale. Buildings will tie into Eco-District infrastructure which will supply district-wide heating and cooling, and centralized water re-use.

This centralized infrastructure will make it easier for buildings at Mission Rock to achieve high energy targets. High performance means not simply taking advantage of the district-wide resources, but also reducing demand through efficient building design and community education and advocacy.

The following standards and guidelines allow for many different sustainable design approaches. It is up to the architect to design a building that will meet the performance criteria outlined in the Mission Rock Sustainability Strategy while also meeting the design criteria outlined herein.

STANDARDS

7.1.1 SUSTAINABILITY PERFORMANCE

All buildings shall meet or exceed the requirements of the Mission Rock Sustainability Checklists in the DA/DDA.

Also refer to the Sustainability Strategy for performance targets and strategies for achieving these targets.

7.1.2 PARTICIPATION IN TYPE 1 ECO-DISTRICT

The sustainability performance of buildings at Mission Rock is a critical part of achieving the goals of the Eco-District. Buildings shall be designed to connect into district-wide systems as described in the Mission Rock Sustainability Strategy and defined in the Mission Rock Infrastructure Plan.

7.1.3 SHOWERS AND LOCKERS

Subject uses shall provide shower and clothes locker facilities for short-term use of the tenants or Employees in that building. Facilities shall be calculated based on the total square footage of the building. Facilities shall be provided at the ratios given below or by code, whichever is higher.

For Commercial uses, showers and lockers shall be provided at the following ratio:

- ▶ 1 shower and 6 lockers where the occupied floor area exceeds 10,000 square feet but is no greater than 20,000 square feet,
- ▶ 2 showers and 12 lockers where the occupied floor area exceeds 20,000 square feet but is no greater than 50,000 square feet,
- ▶ 4 showers and 24 lockers are required where the occupied floor area exceeds 50,000 square feet.

For Retail and Production uses, showers and lockers shall be provided at the following ratio:

- ▶ 1 shower and 6 lockers where the occupied floor area exceeds 25,000 square feet but is no greater than 50,000 square feet,
- ▶ 2 showers and 12 lockers where the occupied floor area exceeds 50,000 square feet.

GUIDELINES

7.1.4 MINIMIZE HEAT GAIN

West- and South-facing facades should be designed to balance solar access with the need to control heat gain.

7.1.5 DAYLIGHTING AND NATURAL VENTILATION

Buildings should be designed to maximize the use of daylighting and natural ventilation for all interior spaces in order to provide a high quality indoor environment and reduce overall energy consumption.

Operable windows are strongly encouraged to allow residents access to fresh air, and as a resilient strategy for passive cooling.

7.1.6 VEGETATED & COOL ROOFS

Where building roofs are free of solar panels or other sustainability infrastructure, they should be designed to include systems such as vegetated roof covers, plants and roofing materials with high albedo surfaces in order to reduce heat island effect and slow rainwater runoff. Read in conjunction with *Section 7.2.6 - Residential Roofscapes* and *Section 7.3.4 - Commercial Roofscapes*.

7.1.7 GREEN DESIGN

Whenever possible, incorporate visible elements of sustainability – such as green roofs, shading devices, or photovoltaic panels – into the fabric of the building, and especially seen at the ground level so as to make visible the building's energy saving features. Larger elements in particular should be incorporated into the design concept of the building and site design.

7.1.8 INTERPRETIVE SIGNAGE

Provide interpretive signage to explain the features of the building which promote sustainability, and to educate visitors and occupants how their behavior can make an impact on overall building performance.

7.1.9 REGIONALLY APPROPRIATE VEGETATION

All vegetation on buildings, where it occurs, shall be regionally appropriate and not require permanent irrigation for landscaping in outdoor planted areas, rooftops and green walls.



Sustainable timber used as a visible green design element.
CREDIT: TLA & MARIE-CAROLINE LUCAT



Green roofs are a high-performing amenity. PHOTO: PERKINS+WILL

7.2 BUILDING DESIGN

Mission Rock will be a neighborhood that has a diversity of building sizes and heights which are tied together by a consistent commitment to high quality, human-scale design throughout.

Residential buildings at Mission Rock should be designed to promote social interaction amongst residents and develop a sense of community and safety by engaging the base of residential buildings with the adjoining public realm. Design should ensure a relatable human scale and rhythm of architecture, particularly at the base building. These buildings should reinforce a residential read and character, and convey a sense of life within by enlivening the exterior walls with balconies and appropriately scaled fenestration.

Commercial buildings at Mission Rock play an important role in adding diversity of program, form, materials, and activity to the neighborhood. They should be architecturally interesting, well-proportioned and reinforce the pedestrian qualities of the neighborhood. Companies are encouraged to express their individuality and values through the design of their buildings. Commercial building design should contribute to the overall urban qualities of Mission Rock by providing public-facing amenities and active uses on the second and third level facing the public realm. These buildings should strive to create healthy workplaces with plenty of daylight and fresh air.

All buildings should create visual contrast and interest by using a variety of material and changes of textures and colors that celebrate the richness and diversity of building forms at Mission Rock.

STANDARDS

7.2.1 BASE BUILDING MODULATION

Architectural modulation adds visual interest and provides relief by breaking down the façade of the building. To avoid long expanses of un-modulated building facades, building base frontages are to be modulated at an interval of at least every 90 feet as described below. This modulation requirement does not apply to building frontages less than 90 linear feet.

- ▶ A notch of at least 2 feet deep and 4 feet wide; OR
- ▶ A change in plane of least 1 foot, combined with a change in color, material, or fenestration.

See *Figure 7.2.1 - Base Building Modulation*

Exterior modulation should correspond to the delineations between individual units while corresponding to entries, porches, or setbacks along the sidewalk.

7.2.2 OPAQUE SURFACES

Long expanses of blank walls deaden the sidewalk experience and don't allow for "eyes on the street." Continuous opaque surfaces the full height of a floor or higher shall be no greater than 12 linear feet on any façade facing onto a public right of way, public easement, or park.

7.2.3 USABLE OPEN SPACE

Usable open space is defined as outdoor area designed for outdoor living, recreation or landscaping, including such areas on the ground and on decks, balconies, terrace, porches and roofs, which are safe and suitably surfaced and screened, and are on the same lot as the dwelling units they serve.

Usable open space must be provided in residential

buildings. Requirements shall either be met by providing common usable open space or private usable open space for each dwelling unit at the following ratios:

A) Common Usable Open Space

Common usable open space is defined as an area or areas designed for use jointly by two or more dwelling units.

Courtyards, rooftop terraces, and public passages shall count towards the provision of usable open space, and shall be provided at a ratio of 48 square feet per dwelling unit with a minimum dimension of 6 feet in any direction. Common open space shall be provided in a common area of the building or lot, or easily and independently accessible from each dwelling unit.

B) Private Usable Open Space

Private usable open space is defined as area that is private to and designed for use by only one dwelling unit.

- ▶ Private setback areas, balconies and decks shall count towards the provision of usable open space, and shall be provided at a ratio of 36 square feet per dwelling unit with a minimum dimension of 4 feet in any direction. Private open space shall be directly accessible from the dwelling unit it serves.

In addition to the important role in the provision of private usable open space, balconies also help residential buildings convey a sense of life within by providing an opportunity for residents to inhabit and enliven the exterior walls. Balconies add livability and sense of relatable human scale to a streetwall while at the same time expressing a readable residential character.

7.2.4 MECHANICAL EQUIPMENT

Mechanical ducts or vents must not be located adjacent

to areas designated for courtyards or terraces. Where used, fresh air intake grills must be incorporated into wall cladding or fenestration design or screened with landscape such that they are not visible.

Venting for ground floor activities must be exhausted through the roof of the building.

7.2.5 ROOFSCAPES

Rooftops of buildings that may be overlooked by others will be considered as a “fifth façade” and shall be carefully designed to be viewed from taller buildings.

Rooftop mechanical equipment greater than 4 feet in height shall be screened. Screening shall be incorporated into overall architectural character of the building and be at least of equal height to the mechanical equipment that it screens.

Base buildings which are overlooked by upper buildings shall have all mechanical and other normally rooftop mounted equipment contained in an enclosure that is screened from above. Any light source located on roofs shall be full cutoff type.

7.2.6 DWELLING UNIT EXPOSURE

All dwelling units shall face onto a public or private right-of-way, or onto an open area. Refer to the SUD for dimensions and further definition of the following open areas:

- ▶ A Public street, alley or mid-block passage
- ▶ An interior courtyard
- ▶ An exterior courtyard or terrace that is open to a public street, alley or mid-block passage
- ▶ Undeveloped airspace over rooftops of adjacent buildings



Base building modulation CREDIT: SJB ARCHITECTS



Use of color at the corner reveals special interior uses. CREDIT: GROUP8. PHOTO BY RÉGIS GOLAY

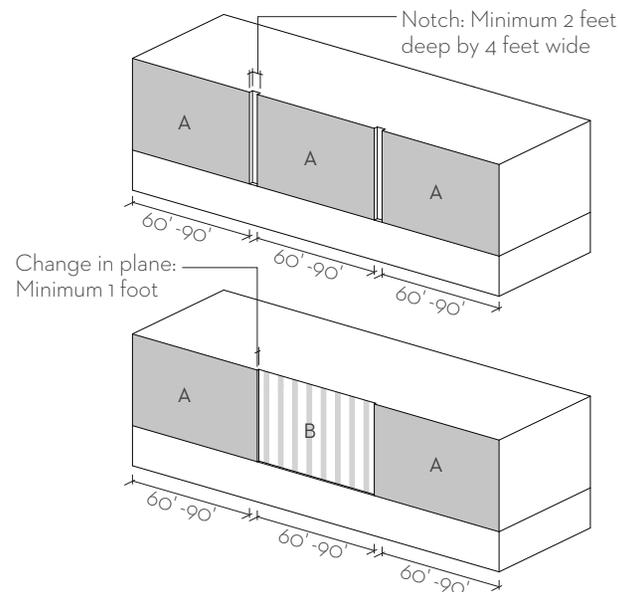


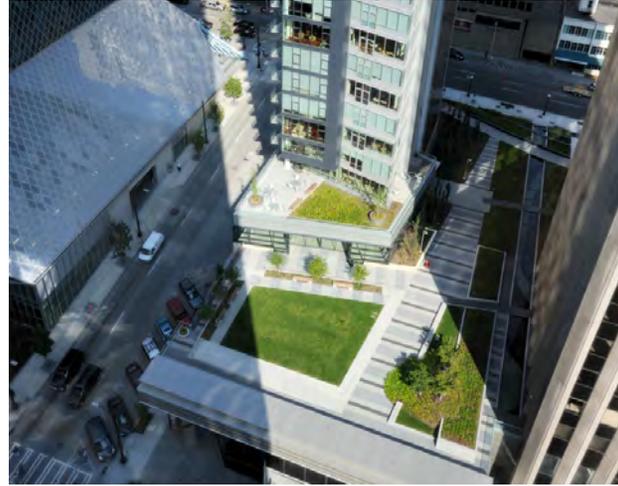
FIGURE 7.2.1 - Base Building Modulation



Facade pattern can contrast solid to opaque, light to dark CREDIT: CRISTIAN FERNÁNDEZ ARQUITECTOS



Contrast of solid and void, light and dark, opaque and transparent. CREDIT: AMELLER, DUBOIS & ASSOCIÉS ARCHITECTES



A residential roofscape should be considered a "fifth facade" PHOTO: PERKINS+WILL



The base of the building should be articulated into smaller massing components. CREDIT: BEHNISCH ARCHITEKTEN, PHOTO BY ANTON GRASSL/ESTO



Balconies are used together here with floorplate expression to express the residential scale of the building. PHOTO: PERKINS+WILL

GUIDELINES

7.2.6 MECHANICAL SCREENING

All mechanical equipment or outdoor storage areas should be screened with architectural detailing equivalent to that of the rest of the building.

Space for the location of ducts, vents, and other appurtenances associated with commercial and ground floor uses should be integrated into the building design.

Where used, fresh air intake grills must be incorporated into wall cladding or fenestration design or screened with landscape such they are not recognizable.

Similarly, exhaust ducts where complying with the conditions noted above must also be incorporated into wall cladding or fenestration and shall not be recognizable.

All other mechanical equipment or outdoor storage areas must be screened with architectural detailing equivalent to that of the rest of the building.

7.2.7 RESIDENTIAL SCALE

The following Guidelines should be read in conjunction with the Modulation called for in *Section 7.2.1 - Base Building Modulation* and *Chapter 6: Building Form*.

Residential buildings should be finely detailed to relate to a knowable, human scale. For example, when a pedestrian sees a chair on a balcony, they can understand the height of the balcony, because they know the scale of a chair. Similarly, building elements that begin close to the street level and repeat vertically up the façade of a building are knowable, because the observer can relate to the scale of the element that is close to them. As a district with both residential and commercial buildings, the residential

buildings bring a finer grained, human scale to the neighborhood experience to Mission Rock.

The design of the façade should consider the relationship of solid to void, bays and recesses and the creative use of contrasting colors, textures, and patterns.

A residential scale and proportion may be achieved using the following design measures:

- ▶ Balconies, projections, and changes in plane can be used to break up the massing of both the streetwall and upper building;
- ▶ Varied rooflines along the streetwall help to differentiate residential buildings from commercial buildings;
- ▶ Express the scale and proportion of individual residential units through the use of balconies, vertical notches or projections, and contrasting materials or changes in fenestration;
- ▶ Floorplates should be visually expressed on building facades to convey the height and configuration of the residential unit within. For example, a change from single-height to double-height unit should be made visible from a change in floorplate expression.

7.2.8 COMMERCIAL SCALE

The following Guidelines should be read in conjunction with the Modulation called for in *Section 7.2.1 - Base Building Modulation* and *Chapter 6: Building Form*.

The design of commercial facades should consider the relationship of solid to void, bays and recesses and the creative use of contrasting colors, textures, and patterns.

A commercial scale and proportion may be achieved using the following design measures:

- ▶ Break the façade up into smaller massing components toward the base (street level), with fewer, larger moves toward the top of the building;
- ▶ Projections and changes in plane can be used to break up the massing of both the streetwall and upper building;
- ▶ The longer the façade, the more significant the changes in plane, color, or material should be;
- ▶ Express the scale and proportion of interior programmatic uses through the use of vertical notches or projections and contrasting materials or changes in fenestration.

7.2.9 CONTRAST

Contrast is an important consideration that contributes to visual variety and interest in a building's design. It captures the viewer's attention and directs the eye to focus on important elements such as entry ways and design themes. Some ways to use contrast to increase visual interest are:

- ▶ Contrast of light and shadow, as with the surface of a projection which catches the sun against the shadow of a recess;
- ▶ Contrast of two different materials side by side, as with brick next to concrete;
- ▶ Contrast of opaque and transparent, as with window to wall, or window to spandrel panel;
- ▶ Contrast of scales, as with the small scaled pattern of tile next to a large pane of glass;

- ▶ Contrast of simple and complex, as with a simple fenestration pattern against a complex fenestration pattern;
- ▶ Use contrasts in light, material, opacity, or scale to reinforce a residential or commercial scale.

7.2.10 FENESTRATION

Fenestration is one of the most important elements in establishing the scale and detailing of a building. It is also the visual link between the inside private space and the outdoor public space.

Fenestration should be proportionate to the scale of the building. Fully glazed curtainwall should not be used as the predominant design material. For example, where curtain wall systems are used, spandrel panels should be used help create a visual contrast of solid material and transparent glass.

Windows should be transparent instead of tinted or reflective so that the internal life of the building can be seen from the outside, allowing streets and parks to benefit from the interior activity that buildings can visually bring to the public realm.

7.2.11 OUTDOOR AMENITY AREA

Buildings should provide generous common spaces including habitable rooftops or podium courtyards that invite use by residents or employees. Courtyards should be designed as welcoming common spaces, incorporating the individual patios of adjacent podium level units, or common indoor amenities where appropriate. Such courtyards should feature both paved and planted areas.

7.3 COLOR AND MATERIALS

The following Standards and Guidelines are intended to support simple and elegant designs that provide a clear expression of the structure and function of each building. Note that these guidelines apply to all parts of the building, including ground floor, streetwall, base building, and upper building.

STANDARDS

7.3.1 BIRD-SAFE BUILDINGS

Where applicable, buildings shall comply with the City of San Francisco's Bird-Safe Building Standards.

7.3.2 MATERIAL CONTINUITY

In order to create material continuity, façade materials that turn the corner should extend a minimum of 5 feet.

GUIDELINES

7.3.3 COLOR

Materials and glazing selected for buildings should not be dark in color. They should be low-reflectance and “naturally” colored, utilizing the inherent and integral qualities authentic to the chosen material.

7.3.4 GROUND FLOOR MATERIALS

Ground level facades shall be designed with higher quality materials that offer color, variety, wear-resistance, and visual interest to the pedestrian. Examples include wood, stone, tile masonry, brick or terracotta.

Materials shall be proportioned to relate to the pedestrian scale, contributing to a more inviting, vibrant, and enlivened public realm.

Ground floor facades shall be finished with more than one material and be unique to the individual program or building.

7.3.5 ENVIRONMENTALLY-APPROPRIATE MATERIALS

Due to the marine environment of Mission Rock, materials selected shall demonstrate superior performance related to moisture protection, corrosion, durability, ultraviolet resistance, and low maintenance requirements.

7.3.6 QUALITY AND DURABILITY

Exterior finishes should have the qualities of permanence and durability. Materials should be low maintenance and well-suited to the specific maritime micro-climate of the Mission Rock neighborhood.

GUIDELINES

7.3.7 LOCALLY SOURCED

The use of locally sourced and sustainable building materials is encouraged.

7.3.8 FUNCTIONAL AESTHETIC

Buildings should be designed to celebrate the industrial and maritime heritage of the site. Exterior materials and colors should be simple, undecorated and expose functional details as a symbolic association to the unique history of Mission Rock and the surrounding context.



Rainscreens are decorative yet functional features. PHOTO: PERKINS+WILL



Materials can be naturally rich in color. PHOTO: PERKINS+WILL



Use higher quality materials at the ground floor. CREDIT: MGAU, PHOTO BY TAKUJI SHIMMURA



Materials should express their natural qualities. CREDIT: PERKINS + WILL

7.4 SIGNAGE

Buildings are encouraged to use signage in innovative and engaging ways with the aim of making the public realm more attractive and legible. All signs will be integrated into the building design and be compatible with their surroundings.

Mission Rock signage is intended to recognize and enhance the unique character and location of this development relative to the adjacent Ballpark and the national exposure that this brings to this site.

The standards established by this Section 7.4 are not intended to in any way to preclude further design refinements, subject to review by the City, as to additional aspects such as material, color, graphics, types of representations, relationship of signs to one another and to architectural building features or general design quality.

STANDARDS

7.4.1 GENERAL ADVERTISING SIGNS

All exterior or publicly visible building and parking garage signage (interior wayfinding signage is exempt) within Mission Rock shall be in compliance with the provisions of Planning Code Article 6 that apply in the C-3 District. The signage review process is set forth in the DDA.

GUIDELINES

7.4.14 UNIQUE IDENTITY

Signage helps to highlight the image of a business or residential building while enhancing the appearance of the streetscape. The design of building signage should be of a creative nature that conveys a unique identity.

7.4.15 PEDESTRIAN SCALE

Signage should primarily address the pedestrian level and should typically not be located above the ground level.

7.4.16 HIGH QUALITY MATERIALS

High quality materials and detailing are encouraged in building signs. Where window signs are used, they should maintain a high degree of transparency.



An example of a conforming business sign.

PHOTO: PERKINS+WILL



An example of a conforming wall sign.

PHOTO: PERKINS+WILL



An example of a conforming projecting sign

PHOTO: PERKINS+WILL

7.5 LIGHTING

Building designs are encouraged to use lighting in innovative and engaging ways with the aim of making Mission Rock more attractive and secure, both during the day and at night.

The following standards and guidelines apply to all retail, residential, and commercial building lighting

STANDARDS

7.5.1. ENERGY EFFICIENCY

Refer to Sustainability Strategy for additional information on energy efficiency standards for target lighting power density, lighting control, equipment efficiency, and equipment controls.

7.5.2 LIGHT TRESPASS

At a minimum, all exterior lighting must be suitable for a given "Lighting Zone" as defined by USGBC and IESNA. It is expected that most of the Mission Rock development area will be LZ3. Lighting zones are defined as follows:

LZ3: Medium (Commercial/Industrial, High Density Residential). No more than 0.20 horizontal and vertical footcandles at the site boundary and 0.10 horizontal foot-candles 10 feet beyond the site boundary. Also, 5% of total initial luminaire lumens are emitted at an angle of 90 degrees above nadir or greater.

Maximum candela values for photometric distributions of interior luminaires shall fall within the building (i.e. Not through skylights, windows or other building fenestration).

Each photometric for every luminaire type shall be reviewed for compliance to standards.

7.5.3 LIGHT POLLUTION

All lighting must be shielded to prevent glare to private and public uses, especially residential units. The angle of maximum candela from each interior luminaire as located in the building shall intersect opaque building interior surfaces and not exit out through the windows.

All new site lighting shall incorporate cut-off control as well as the "Lighting Zone" credit requirements found in the U.S. Green Building Council's LEED v4 for New Construction. All luminaires shall be at least semi-cutoff with non-cutoff types only as permitted subject to review and approval.

Definitions of cutoff control are as follows:

- ▶ *Full cutoff: Zero candela intensity occurs at an angle of 90 degrees above nadir, or greater. Additionally, no more than 10% candela intensity occurs at an angle greater than 80 degrees above nadir.*
- ▶ *Cutoff: No more than 2.5% candela intensity occurs at an angle greater than 90 degrees above nadir, and 10% at an angle greater than 80 degrees above nadir.*
- ▶ *Semi-Cutoff: No more than 5% candela intensity occurs at an angle greater than 90 degrees above nadir, and 20% at an angle greater than 80 degrees above nadir.*
- ▶ *Non-Cutoff: No candela limitation.*

Lighting Power Allowance (LPA) shall comply with the current Title 24 or ASHRAE 90.1 standard, whichever is more stringent.

GUIDELINES

7.5.4 WELL-LIT ENTRIES

Doorways and addresses of buildings should be well-lit and visible.

7.5.5 MINIMIZING LIGHT TRESPASS

Lighting of walls, soffits and other surfaces should be applied strategically. It is also encouraged that all such surfaces that are visible to the exterior be studied for luminance ratios and glare, since illuminated surfaces rather than the light source itself can often be the major source of glare from a building.

All lighting adjacent to the Bay should be designed and oriented so that lighting projects away from the shoreline, thus minimizing light trespass into adjacent waters.

7.5.6 LUMINAIRE RATINGS AND EFFICIENCY

Luminaires should be selected with rating considerations as determining factors and should demonstrate at least 60-80 lumens per watt source efficacy.

The following codes should apply to lighting installations:

- ASHRAE 90.1
- California Title 24
- IESNA Recommended light levels

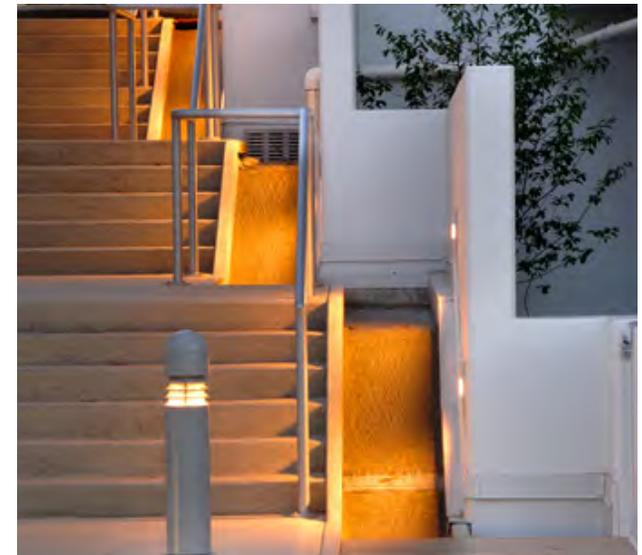
If alternate or equal fixtures are suggested during the submittal process, they should have efficiency equal to or greater than the originally specified products.

Lighting Power Allowance (LPA) shall comply with the current Title 24 or ASHRAE 90.1 standard, whichever is more stringent.



Light projected onto surfaces reduces light pollution.

PHOTO: PERKINS+WILL



Well-lit entry that reduces light pollution PHOTO: PERKINS+WILL

7.6 OFF-STREET PARKING

In addition to the Parking structures at Block D2 and below Mission Rock Square, off-street parking is permitted within buildings on all blocks at Mission Rock. For guidelines on parking entries into buildings, refer to Section 6.7 for design of ground floor servicing areas.



STANDARDS

7.6.1 OFF-STREET PARKING

There is no minimum parking requirement for any use. Podium or basement parking is permitted in all blocks at Mission Rock and below grade at Mission Rock Square.

A maximum of total 100 off-street parking spaces is allowed within buildings at Mission Rock in aggregate across the whole site (excluding Block D2 and the Mission Rock Square garages), which can be accommodated in any combination in any of the buildings on any blocks.

For Blocks A, B, F, G, J and K, off-street parking shall be accessed via Exposition Street. For Blocks C, E, H, and I, off-street parking shall be accessed via Long Bridge Street. Access requirements for these entries is described in Section 5.2 - Building Servicing and in Section 7.6.4 - Vehicular Entry and Exit.

Standards and guidelines for these off-street parking locations do not apply to the parking structure on Block D2, which has its own specific set of controls. See 7.7 - Parking Structure (Block D2).

7.6.2 UNBUNDLED PARKING

All off-street vehicle parking spaces shall be leased or sold individually and not tied to the rental or purchase of any property at Mission Rock.

7.6.3 CAR SHARE PARKING

A minimum of 31 off-street car share parking spaces are required at Mission Rock in aggregate across the whole site at buildout (including Block D2), which can be accommodated in any combination in any of the buildings on any blocks.

7.6.4 BIKE PARKING

Secure, Class I bicycle parking shall be provided at the following minimum ratios, or as required by code, whichever is higher:

- One per dwelling unit, one per 2,500 sqft of office, and one per 3,750 sqft of retail.

Class I bike parking should be located along desire lines through buildings and in parking garages to make it as convenient and easy to use as possible. Examples include access via building lobbies, service corridors, or with an exterior door on the ground floor.

7.6.5 VEHICULAR ENTRY AND EXIT

Where vehicle parking is provided, there shall be a maximum of one vehicle entry lane and exit lane per Block (for a total of two lanes). They must be combined into one point of access to be located in the Servicing Zone as indicated in Figure 6.7 - Addressing and Servicing.

The maximum dimension of a single parking entry/exit lane shall not exceed 12.5 feet in width, and the total opening for a parking entry/exit point can occupy a maximum of 16 horizontal feet of frontage, if combined with a shared loading bay, the loading bay and parking entry/exit point combined may only occupy a maximum of 35 horizontal feet of frontage.

Coordinate the dimensions and design of parking entry/exit points with the requirements for stormwater gardens, street trees, and pedestrian paths.

7.6.6 PARKING WRAP

Where provided, parking must be fully concealed. Half-level openings or ventilation grill work is not permitted to be visible on building exteriors. Exposed structured parking at or above the street level is not permitted on any façade facing a public right-of-way or open space.

All above-grade parking shall be lined by usable building space that is a minimum of 20 feet deep from the building face. Usable building space shall include any allowed use, plus access stairs and elevators.

Above standards to not apply to Block D2 which has its own specific set of controls. See 7.7 - Parking Structure (Block D2).

GUIDELINES

7.6.7 VISUALLY TRANSPARENT GATES

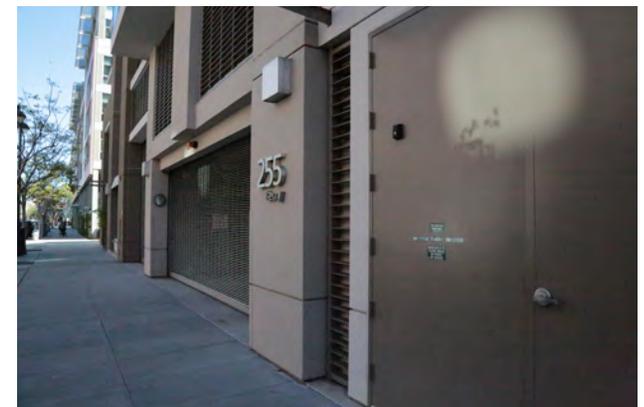
Gates for parking garages should be visually transparent for an increased sense of safety brought by higher visibility between the street level and the interior parking garage.

7.6.8 PEDESTRIAN ENTRIES

Parking entries and stairways linking parking structures to public ways should be attractive, well-lit, and secure. If provided, the below grade parking garage should have entries designed to be integrated with park kiosks or adjacent buildings.

7.6.9 AUDIBLE WARNING

Audible warning of vehicles exiting off-street parking should comply with the City of San Francisco and ADA standards



Parking garage gates should be visually transparent. PHOTO: PERKINS+WILL

7.7 PARKING STRUCTURE (BLOCK D2)

The parking structure at Mission Rock will be built to accommodate the current parking on Lot A, which serves the Ballpark on game day events. This building will also provide parking for people who live and work at Mission Rock through optional parking leases.

Locating parking in a centralized facility and unbundling parking leases from development are two important strategies in reducing car-dependence at Mission Rock. The parking Structure at Mission Rock may also house the sustainable infrastructure that will support Mission Rock as a Type 1 Eco-District.

This building also has an opportunity to serve as an intermodal facility that links drivers coming into the city with the many other modes that service this area such as MUNI, Caltrain, bike share, car share, water taxis and ferries.

The ground floor of the building will contain retail uses, including a possible transit concierge to help visitors orient themselves to the various transit opportunities in the area, and a bike commuter facility with lockers, showers, and bike repair services.

STANDARDS

7.7.1 PARKING MAXIMUMS

A maximum of total 3,000 off-street parking spaces are allowed in Block D2. There are no minimum parking requirements for the Block D2 Parking Structure.

7.7.2 ACTIVE GROUND FLOOR

The parking structure is required to provide a minimum of 10,000 square feet of active uses, and/or transit related services at the ground floor.

7.7.3 UNBUNDLED PARKING

All off-street vehicle parking spaces shall be leased or sold individually and not tied to the rental or purchase of any property at Mission Rock.

7.7.4 MODULATION

Architectural modulation adds visual interest and provides relief by breaking down the facade of the building. To avoid long expanses of un-modulated building facade, every 60-90 linear feet, the façade of the parking structure shall have a change in plane of at least 1 foot, combined with a change in material.

7.7.5 BLANK WALLS

Solid, undifferentiated walls on the parking structure shall be no greater than 12 feet wide on any given façade.

7.7.6 VISUAL CONNECTIVITY

The ground floor of the parking structure shall be at least 75% visually transparent or physically permeable to allow for lines of sight into the parking area where there is no retail or active uses.

7.7.7 FAÇADE SCREENING

The parking structure shall be architecturally or artistically screened and designed with attention to detail compatible with the adjacent surrounding buildings.

7.7.8 ROOF SCREENING

The roof of the parking garage will be overlooked by other buildings and will be considered as a “fifth façade” that shall be carefully designed to be viewed from taller buildings and surrounding hills. Rooftop parking, where it occurs, shall be visually screened via shading devices, trellises, canopies, or photovoltaic solar panels.

All mechanical and other normally rooftop mounted equipment shall be contained in an enclosure that is screened from above. Any light source located on the roof shall be full cutoff type.

7.7.9 FLAT FLOOR SLABS

Floor slabs that are set at a slope, such as speed ramps, shall not be expressed at the façade of the parking structure.

GUIDELINES

7.7.10 ARTICULATION

Façade design should be integrated with the design of the overall building massing. Express the massing of the parking structure as several volumes with the use of vertical recesses, changes in materiality, and stepping in and out of the façade.

The two long faces of the building, facing on Long Bridge Street and Mission Rock Street, should have a higher level of articulation and refinement.

7.7.11 VIEW TERMINATION

Special treatment should be given to the portion of the façade that terminates the view along the Shared Public Way.

7.7.12 MATERIALS

Higher quality building materials should be emphasized in the façade design, at the ground floor, pedestrian touch points, and circulation areas.

7.7.13 MINIMIZE HEAT GAIN

The use of planting or high-albedo materials are encouraged to minimize heat gain.

7.7.14 LIGHTING

Light spillage from the parking structure should be minimized. Indirect lighting should be used to light interior areas of the garage visible to the exterior.

All lighting for parking areas must have a low cut-off angle in order to prevent light from casting beyond the parking area boundary. Read in conjunction with *Section 7.4 - Lighting*.

7.7.15 LIGHT TRESPASS

Parapet edges of the parking trays, including the roof, must be higher than vehicle headlights to screen adjacent properties.

7.7.16 WAYFINDING

Take opportunities to be playful and creative with wayfinding and environmental graphics.

7.7.17 PUBLIC ART

The parking structure should incorporate public art wherever possible into the façade design and design of pedestrian touch points and circulation areas.

Places that would particularly benefit from the integration of Public Art are: the ground floor of the building, the facade facing the Shared Public Way, and pedestrian entry points.

7.7.18 BICYCLE COMMUTER SUPPORT

The parking structure should incorporate uses at or around the ground floor that support commuter cyclists such as bike share facilities, changing rooms and showers, a bike repair shop, and other contextually appropriate uses, especially relevant to its location along the Blue Greenway.

7.7.19 MULTIMODAL INFORMATION

Near pedestrian circulation areas such as stairs, entries, and vertical circulation points, incorporate real-time information dashboards and route maps about the various modes of transit available near the garage, including but not limited to: MUNI, Caltrain, water taxi and bike share.



This garage is a good example of how graphic wayfinding and roof screening can add interest. CREDIT: NBJ ARCHITECTS AND PHOTOS BY PAUL KOZLOWSKI



This parking garage is covered with an artistic, kinetic screen that ripples in the wind. CREDIT: NED KAHN / UAP



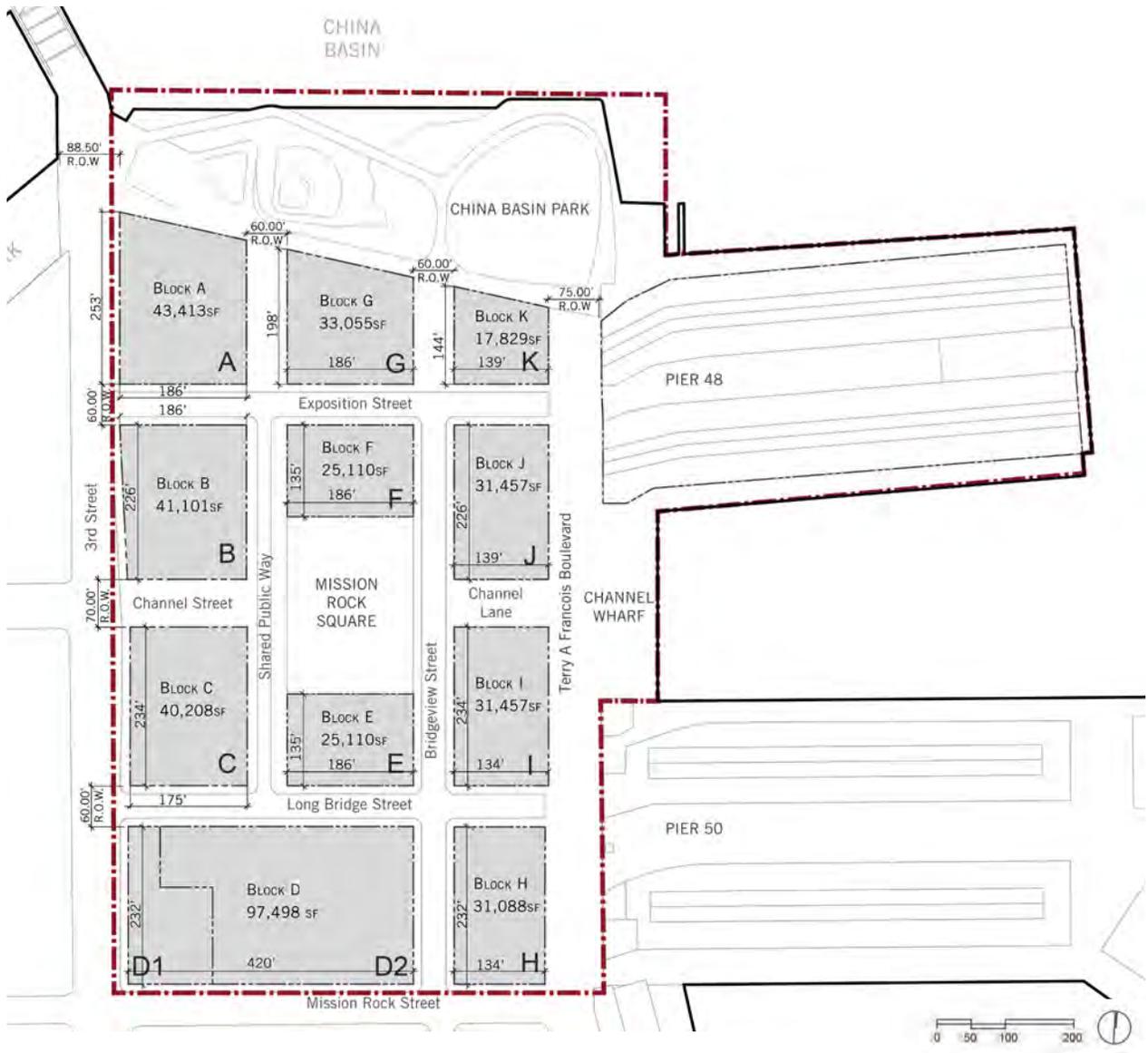
This building is not a parking garage, but is a good example for how the frontage of a mostly windowless building can be given depth and articulate a finer building scale. CREDIT: WOODS BAGOT

Summary of Block Standards

This appendix has been provided as a summary of baseline standards for each Block. While this summary is meant to be a helpful tool, satisfying the standards described in the Block Standards alone does not constitute compliance with these Design Controls.

A

APPENDIX



BLOCK PLAN

Note: All dimensions shown are for illustrative purposes only. Actual parcel and street R.O.W. dimensions to be per the Tentative and Final Parcel Maps.

BLOCK STANDARDS AND GUIDELINES USER GUIDE

The following pages provide a summary of baseline standards for each Block. While this summary is meant to be a helpful tool, satisfying the standards described in the Block Standards alone does not constitute compliance with these Design Controls. Below is a description of the notations used for each Block.

Property Line

The legal boundary of each Block.

Dimension control

The legal dimension of the Block and building envelope controls. Refer to *Chapter 7: Building Form* for the full set of building envelope controls.

Upper Building

The line of the upper building envelope above the base building. Refer to *Chapter 7: Building Form* for upper building envelope controls.

Corner Zone

The dimension to which Corner Zone controls apply. Refer to *Section 5.2.3 - Corner Zone* for definition and controls.

Servicing Zone

The zone in which servicing may be located on each Block. Refer to *Section 5.3 - Building Access* for controls.

XXX.X' Maximum Building Height

The maximum envelope height for both the base and upper building. Refer to *Section 6.2 - Maximum Height Plan* for controls regulating building height.

Ground Floor Activation Zone

The minimum required depth and height of ground floor uses on each Block. Refer to *Chapter 5: Ground Floor* for the full set of ground floor controls.

“Active” Ground Floor Active Doorways

Indicates the minimum number of active doorways required for each ground floor frontage. Refer to *Section 5.4.4 - Active Doorways* for the definition of Active Doorways. See *Chapter 6: Ground Floor* for the application of active doorway controls to each type of ground floor zone.

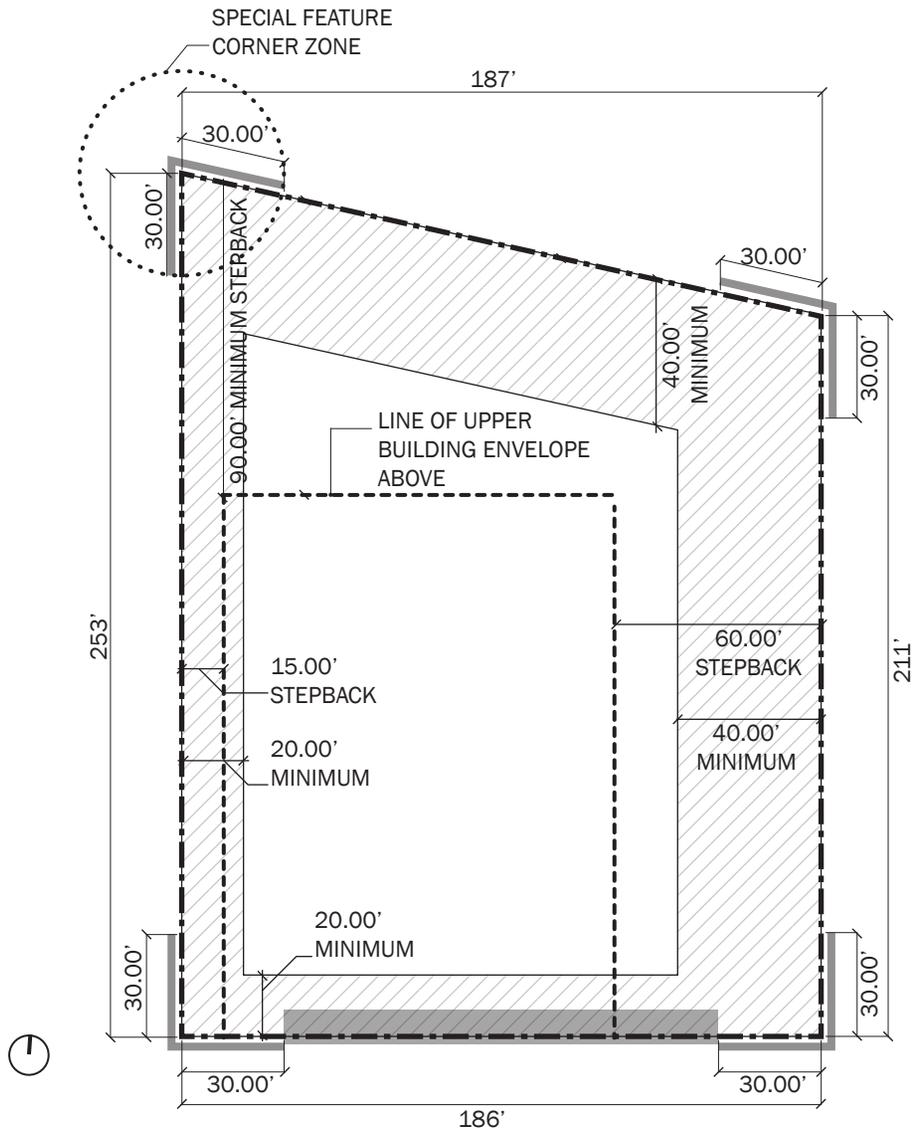
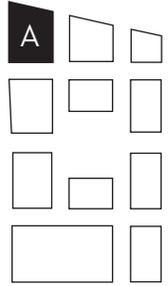


Key Corners

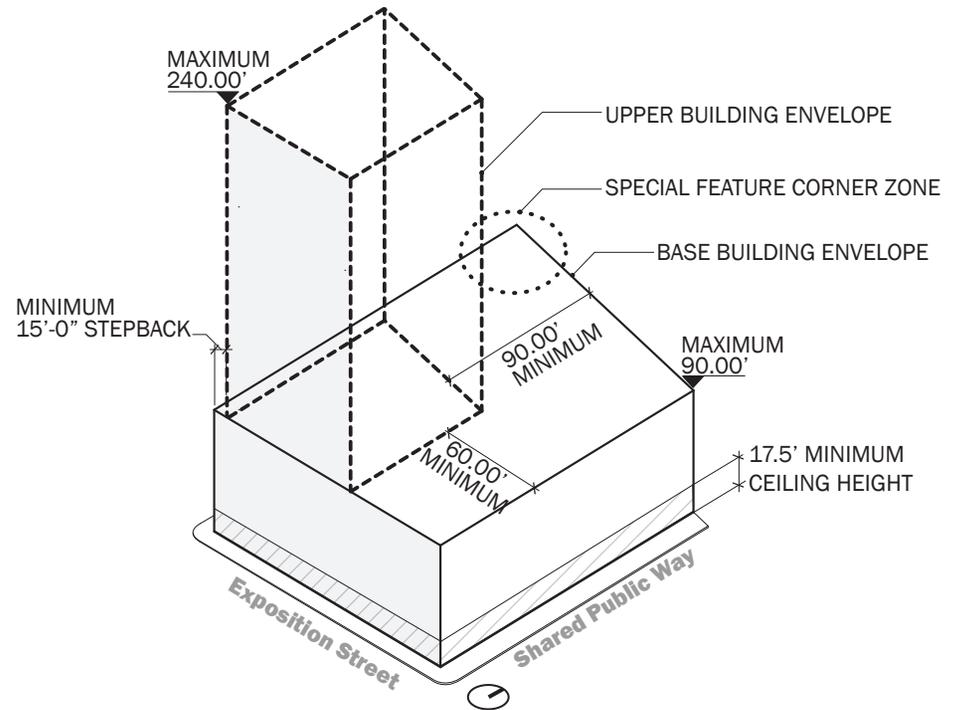
Specific block corners where additional design attention is required. Refer to *Section 6.3.9 - Key Corners* for definition and controls.

SUMMARY OF BLOCK STANDARDS

BLOCK A

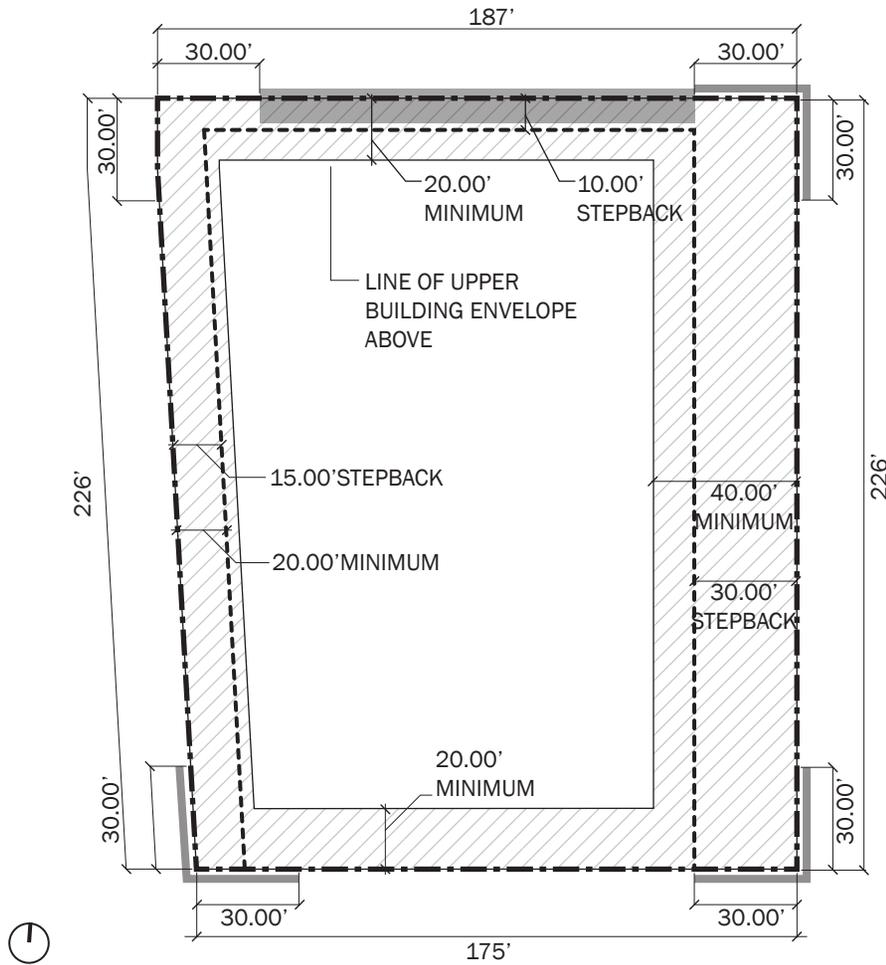
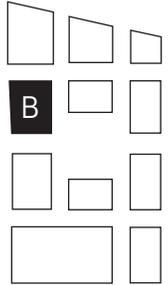


Note: Parcel dimensions shown are for illustrative purposes.

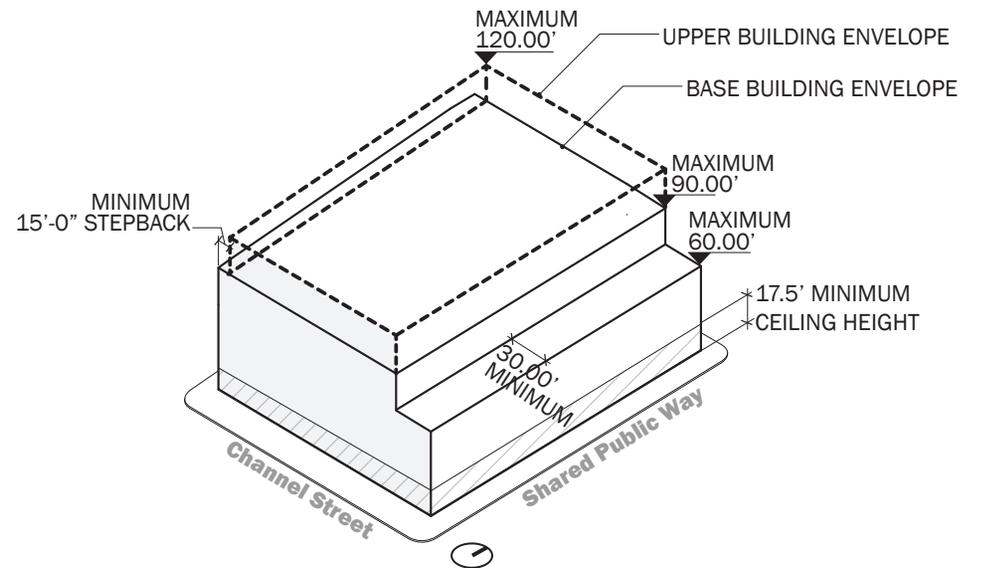


SUMMARY OF BLOCK STANDARDS

BLOCK B

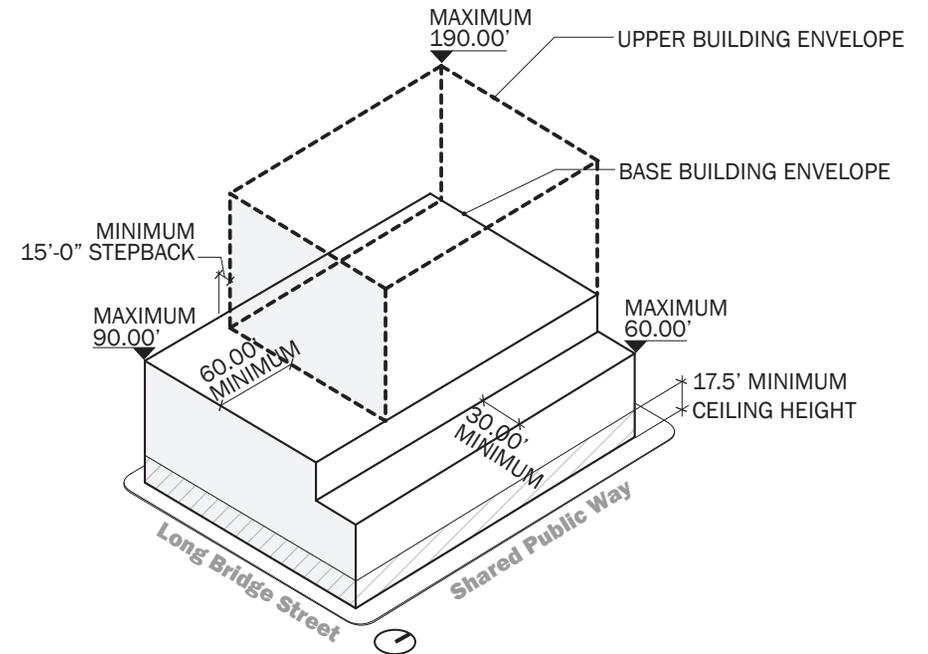
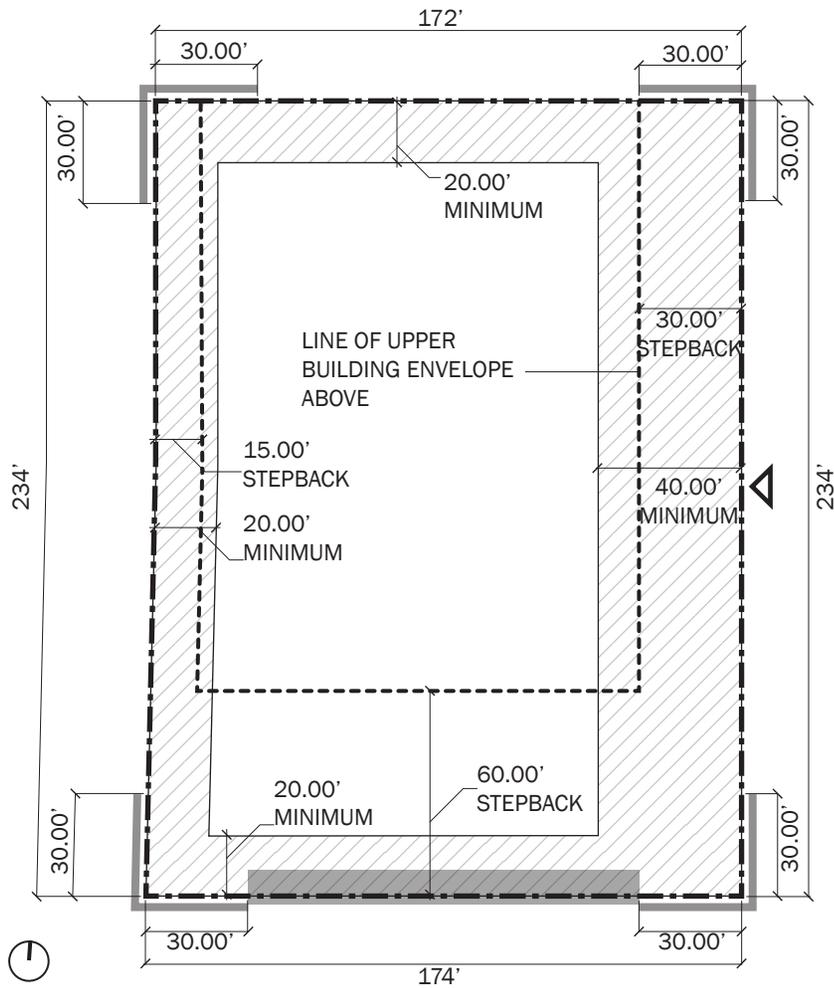
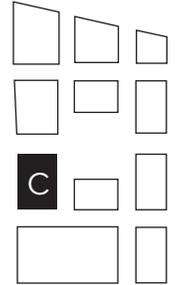


Note: Parcel dimensions shown are for illustrative purposes.



SUMMARY OF BLOCK STANDARDS

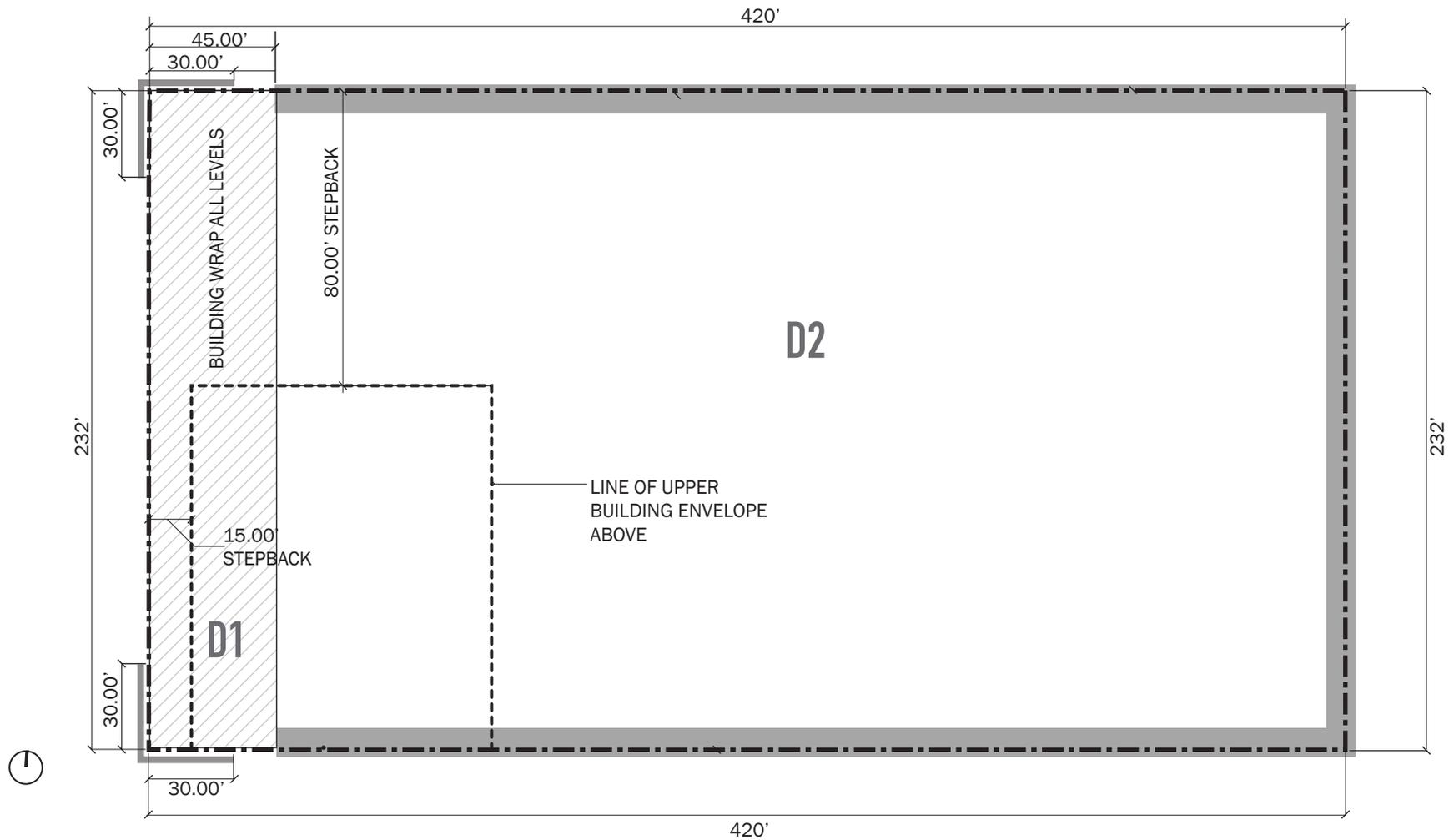
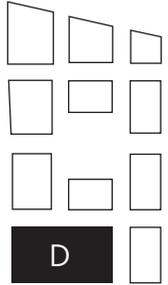
BLOCK C



Note: Parcel dimensions shown are for illustrative purposes.

SUMMARY OF BLOCK STANDARDS

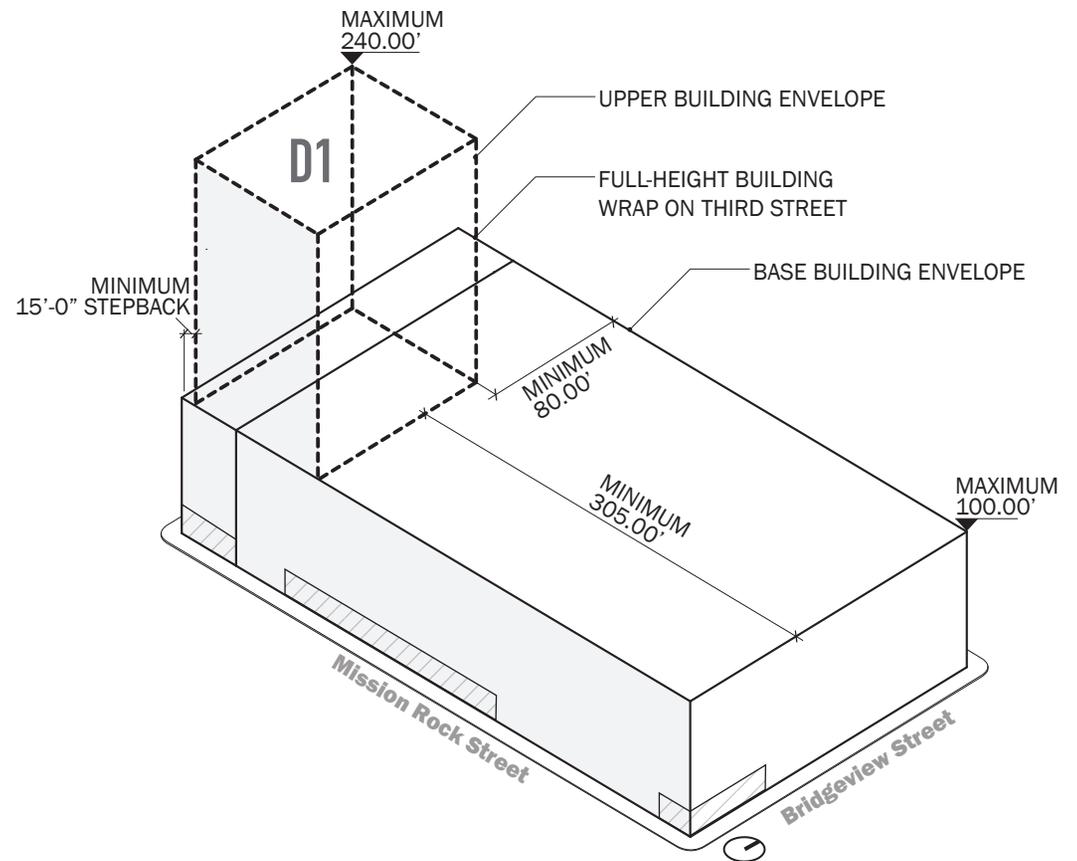
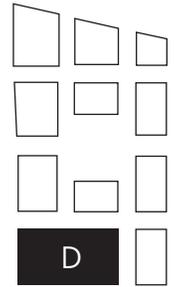
BLOCK D



Note: Parcel dimensions shown are for illustrative purposes.

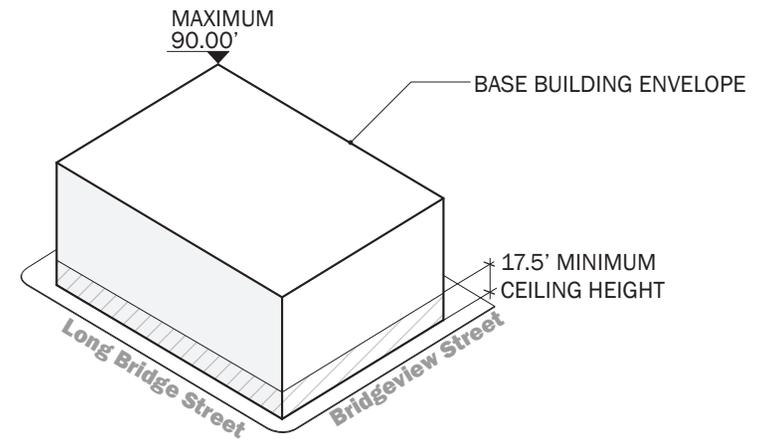
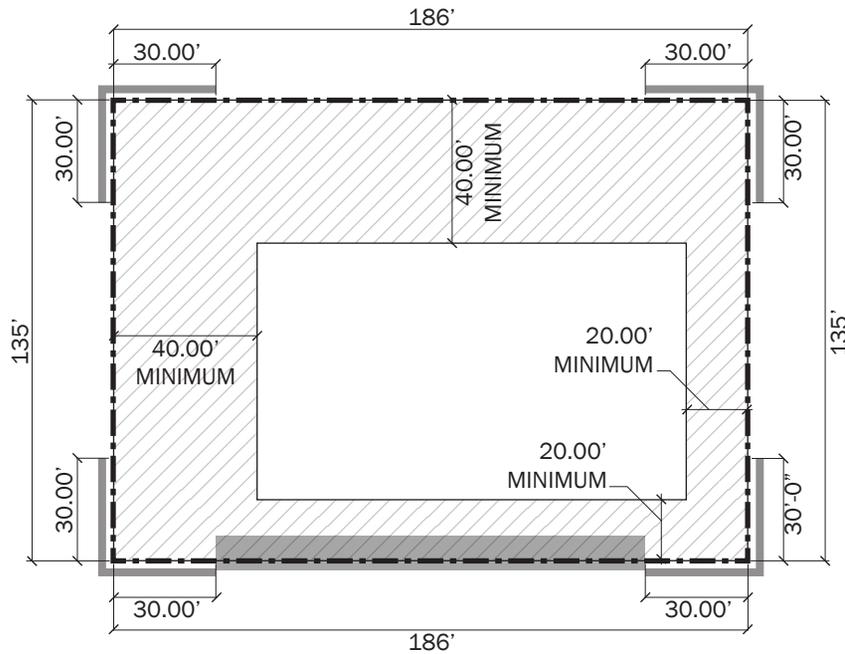
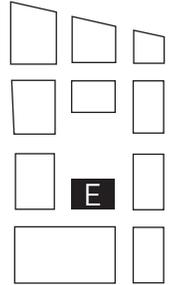
SUMMARY OF BLOCK STANDARDS

BLOCK D



SUMMARY OF BLOCK STANDARDS

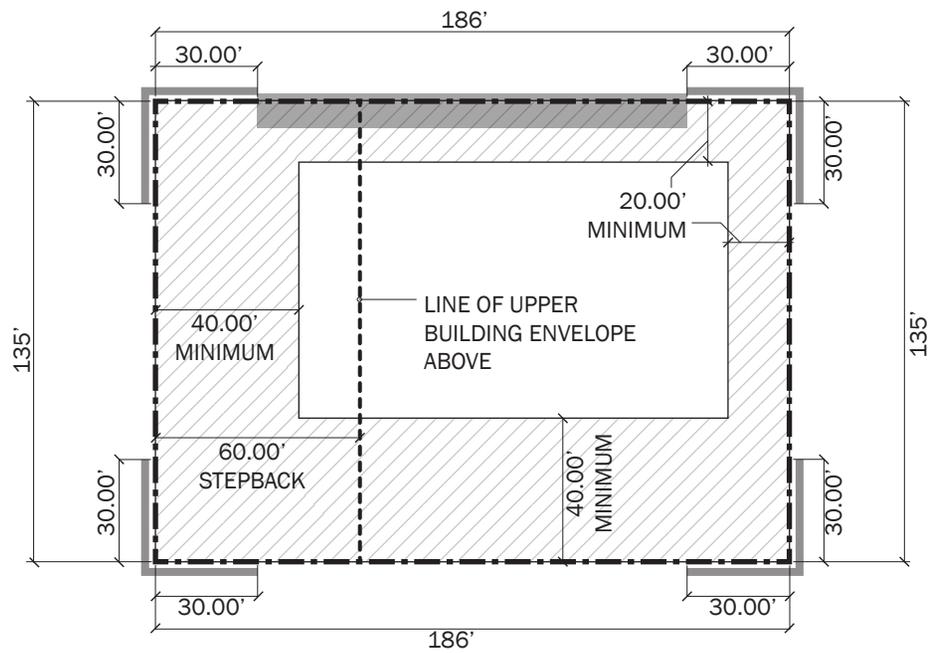
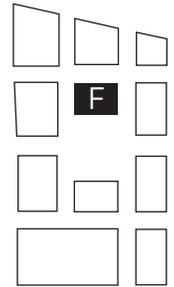
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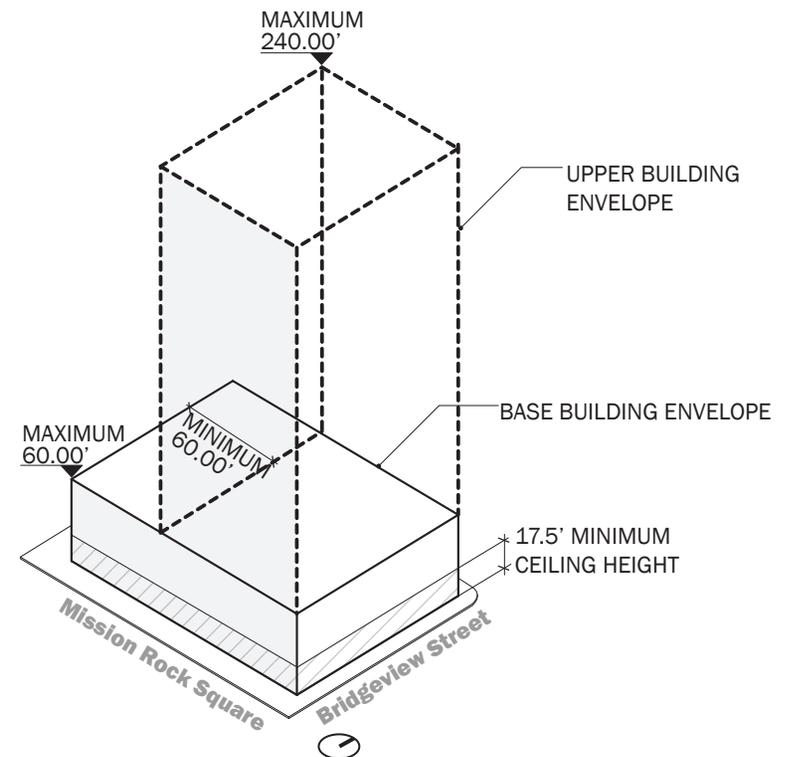
Note: Parcel dimensions shown are for illustrative purposes.

SUMMARY OF BLOCK STANDARDS

BLOCK F

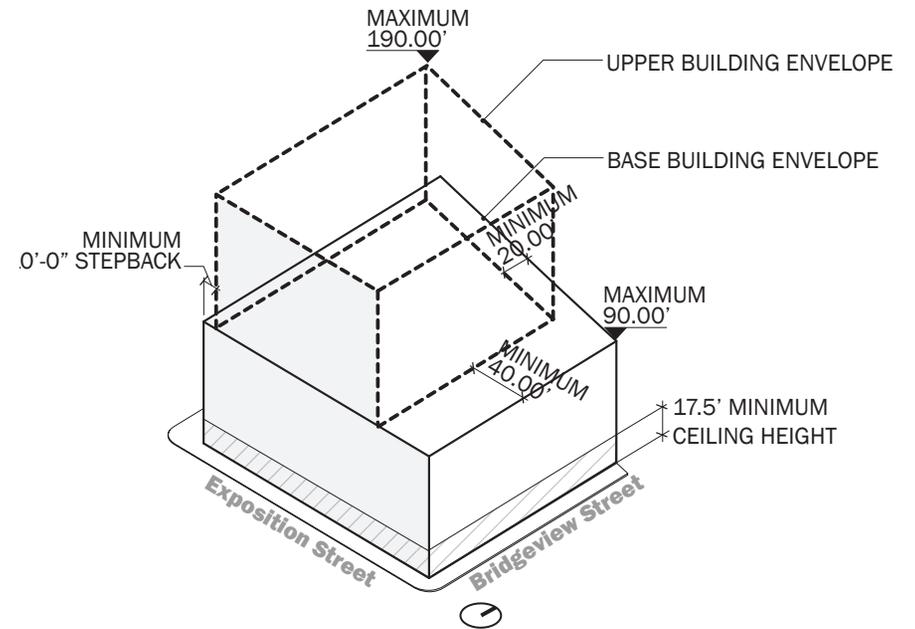
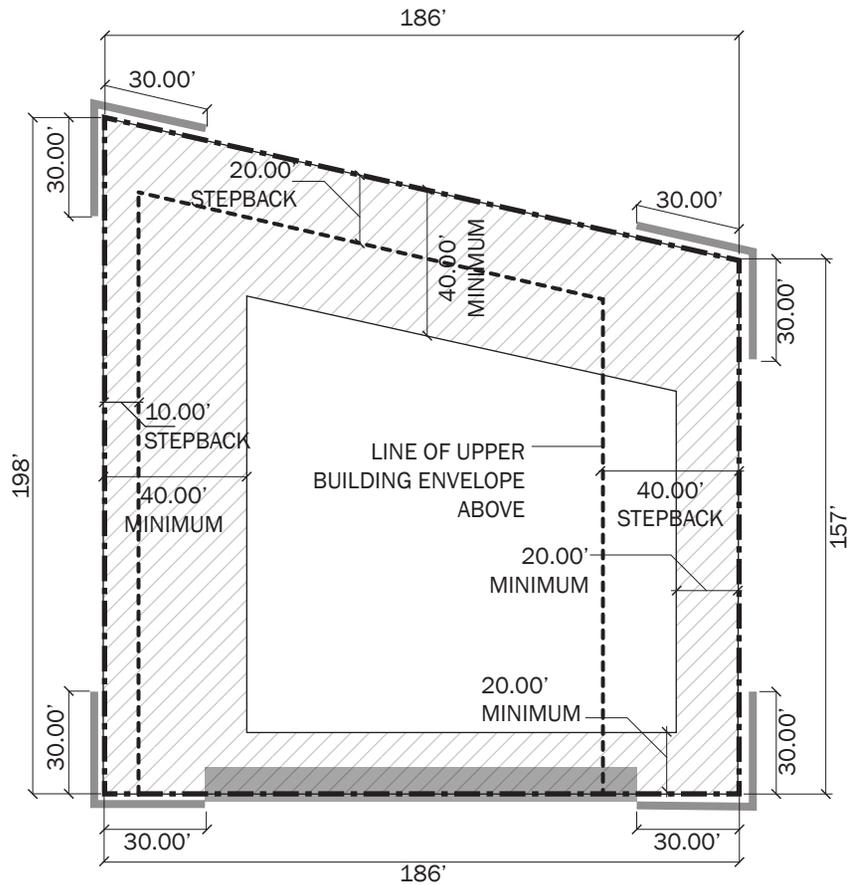
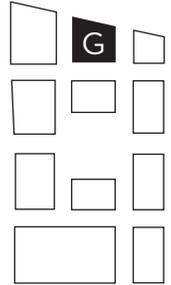


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SUMMARY OF BLOCK STANDARDS

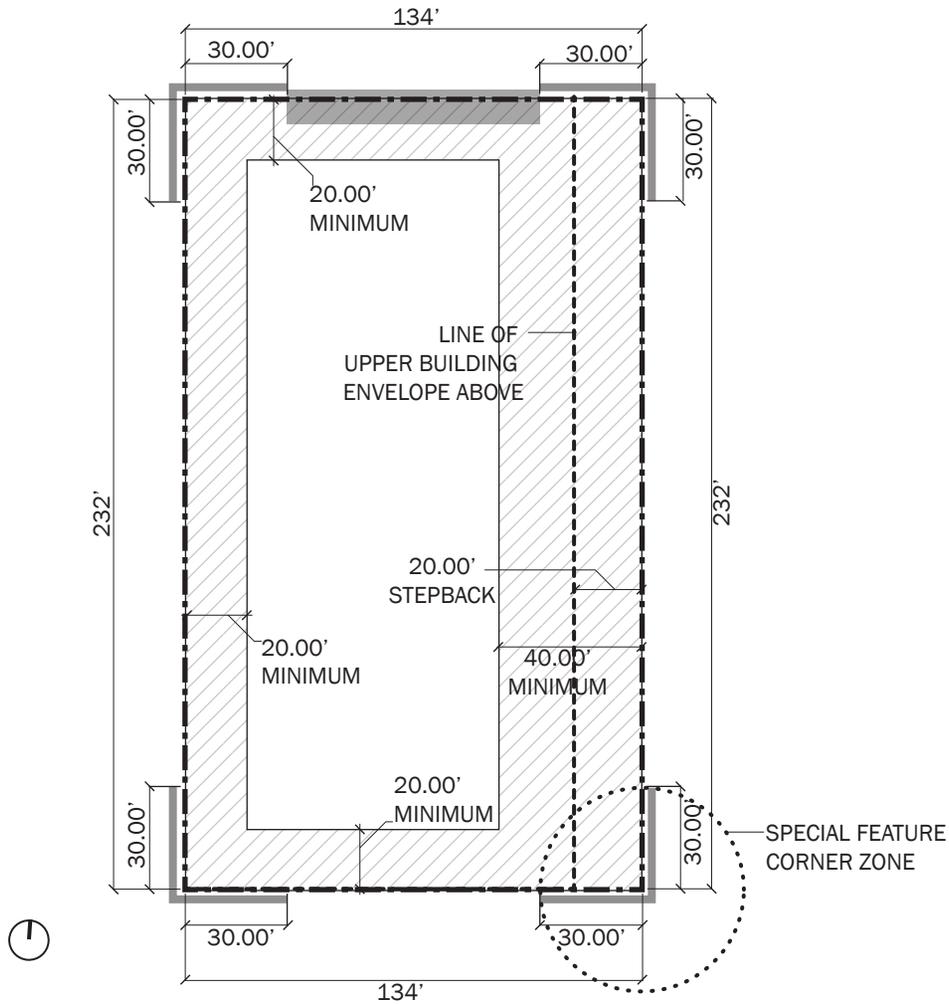
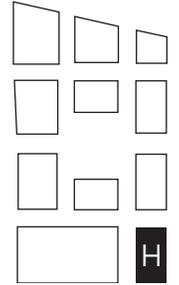
BLOCK G



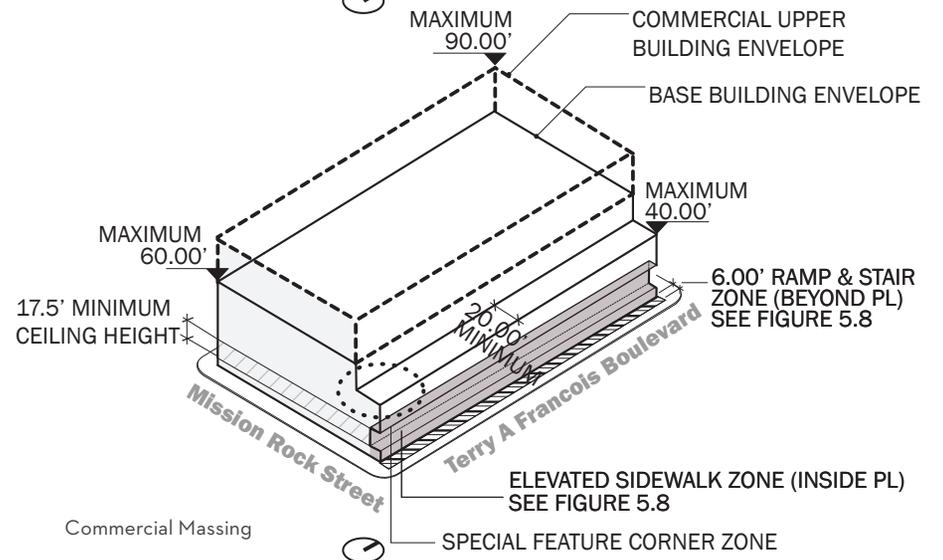
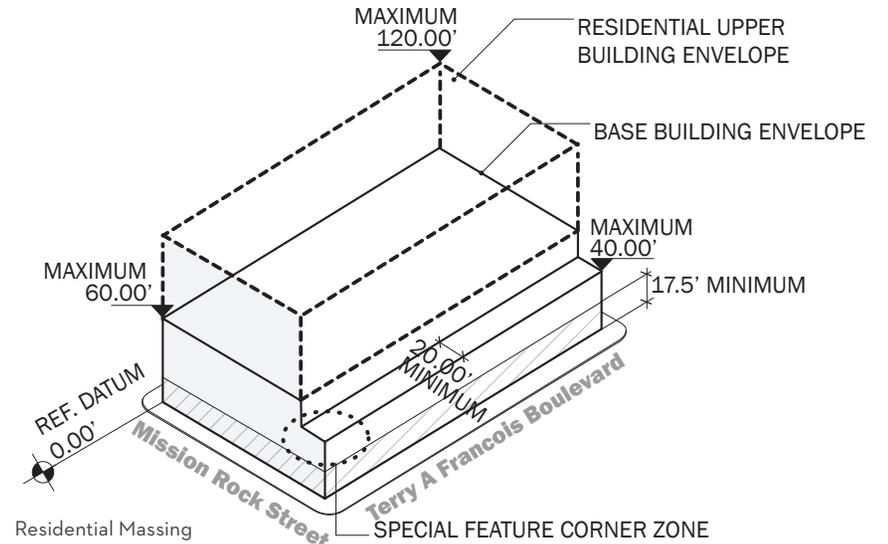
Note: Parcel dimensions shown are for illustrative purposes.

SUMMARY OF BLOCK STANDARDS

BLOCK H

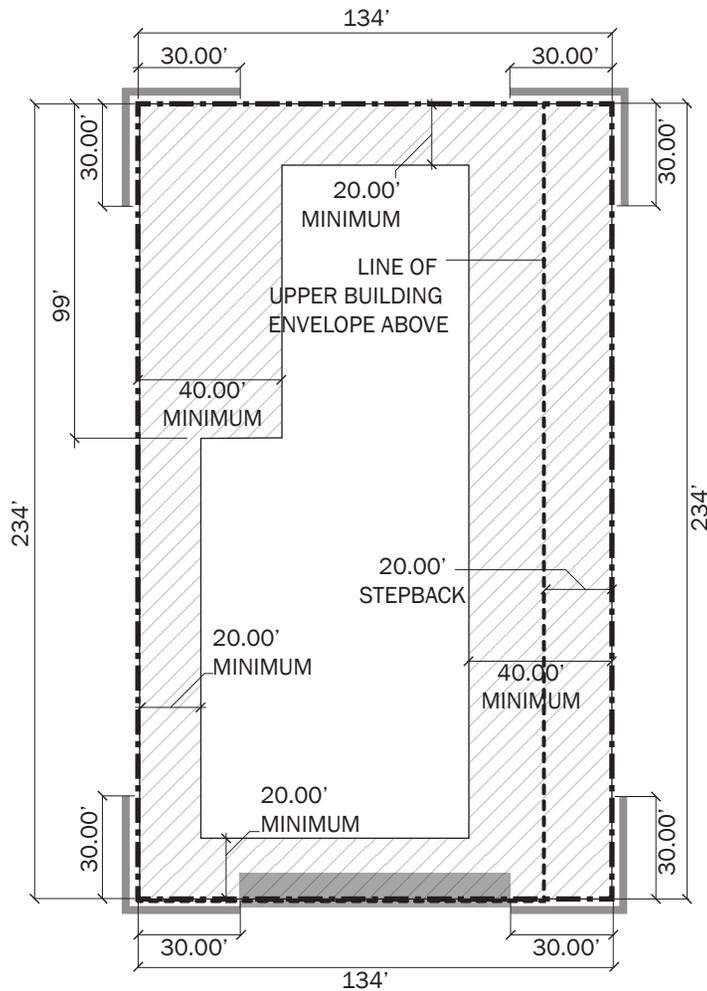
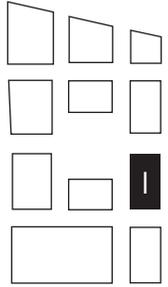


Note: Parcel dimensions shown are for illustrative purposes.

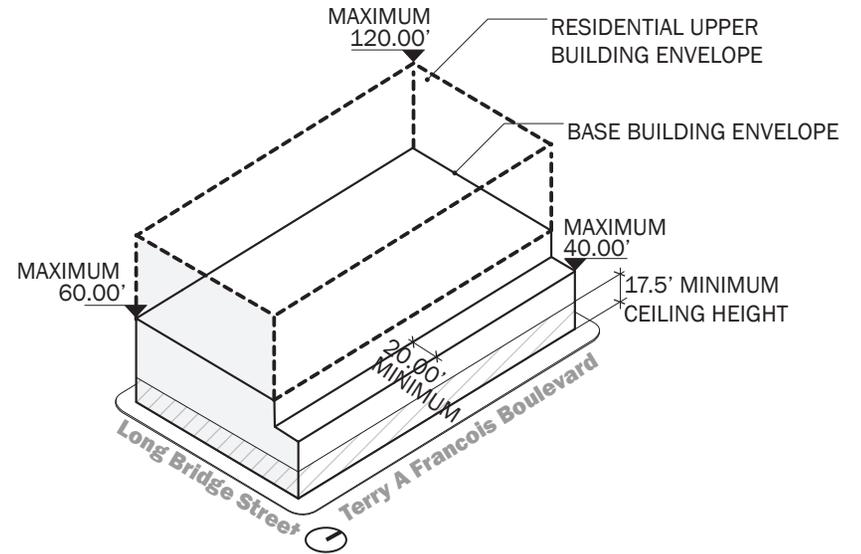


SUMMARY OF BLOCK STANDARDS

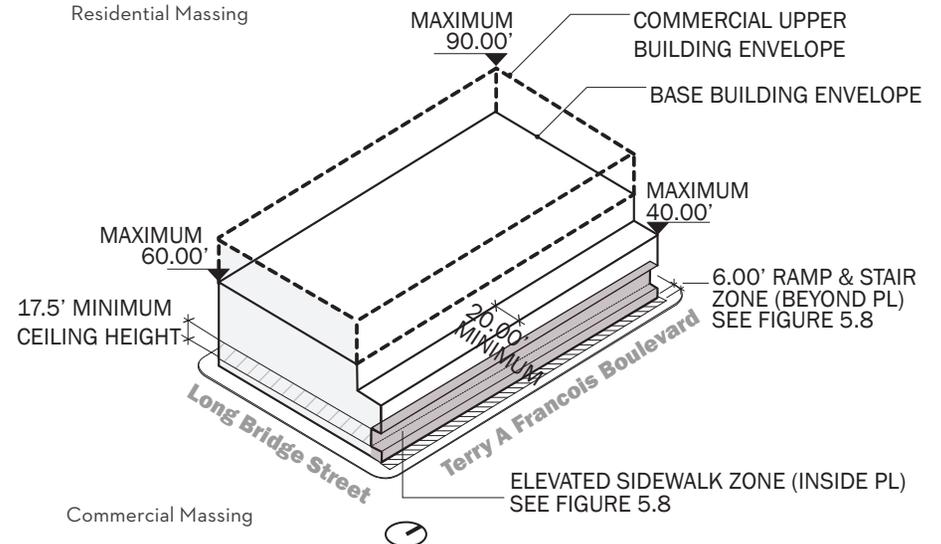
BLOCK I



Note: Parcel dimensions shown are for illustrative purposes.



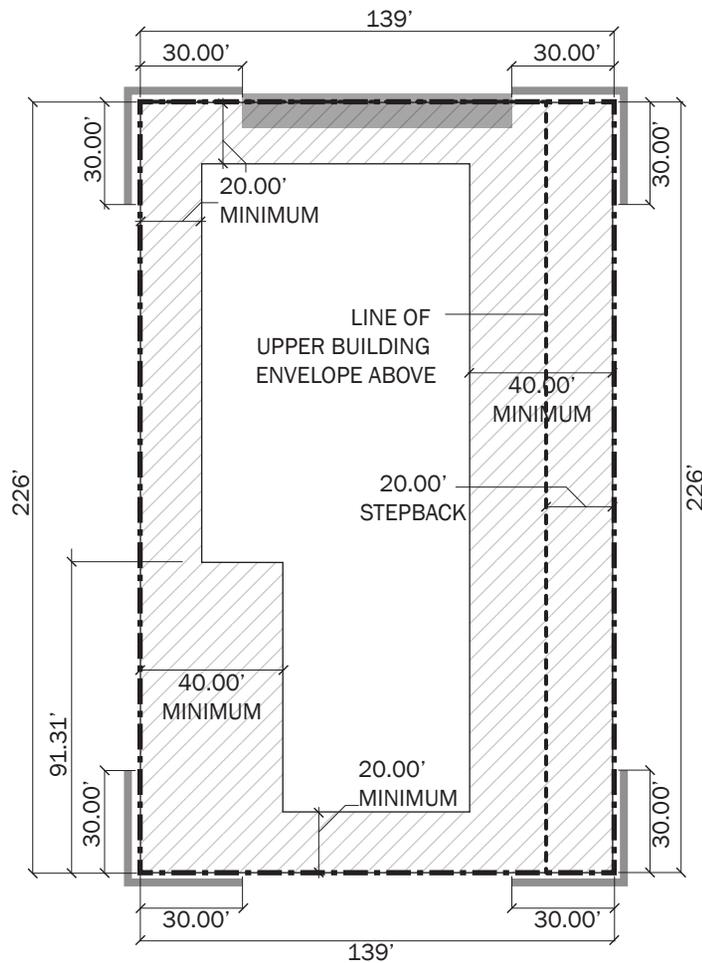
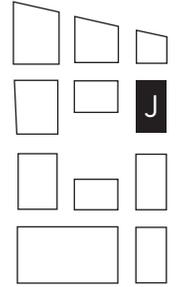
Residential Massing



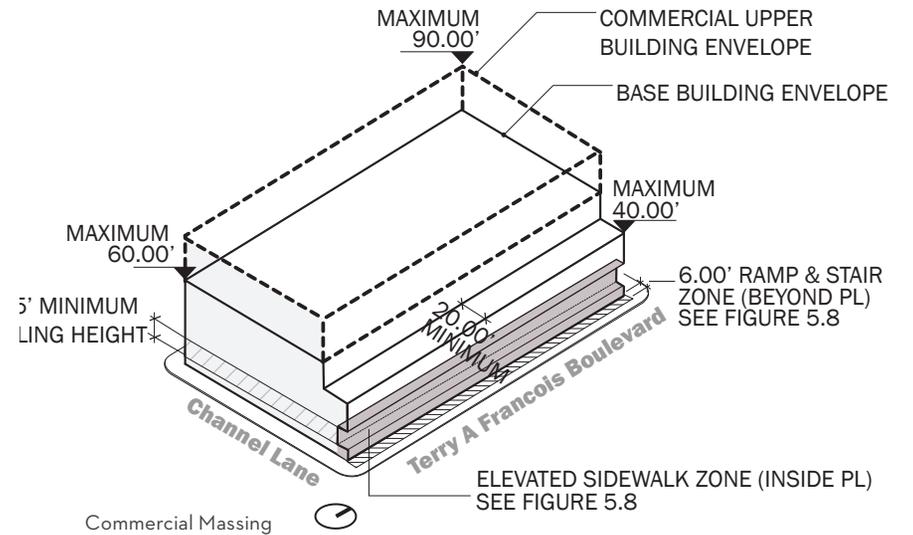
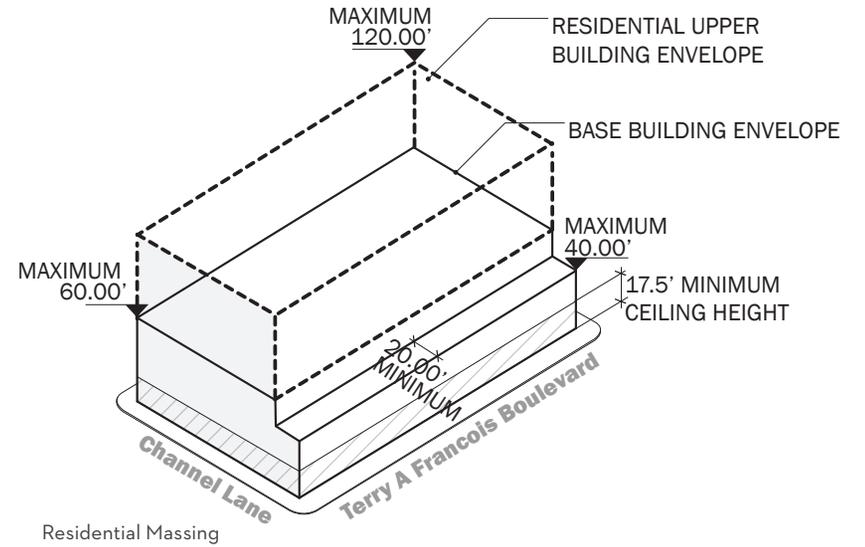
Commercial Massing

SUMMARY OF BLOCK STANDARDS

BLOCK J

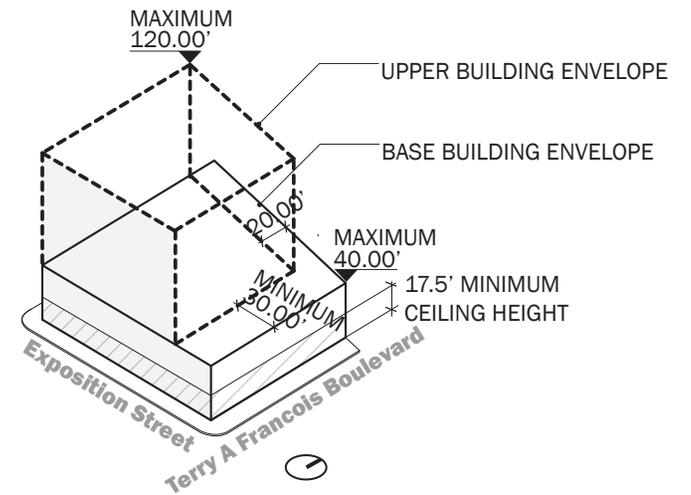
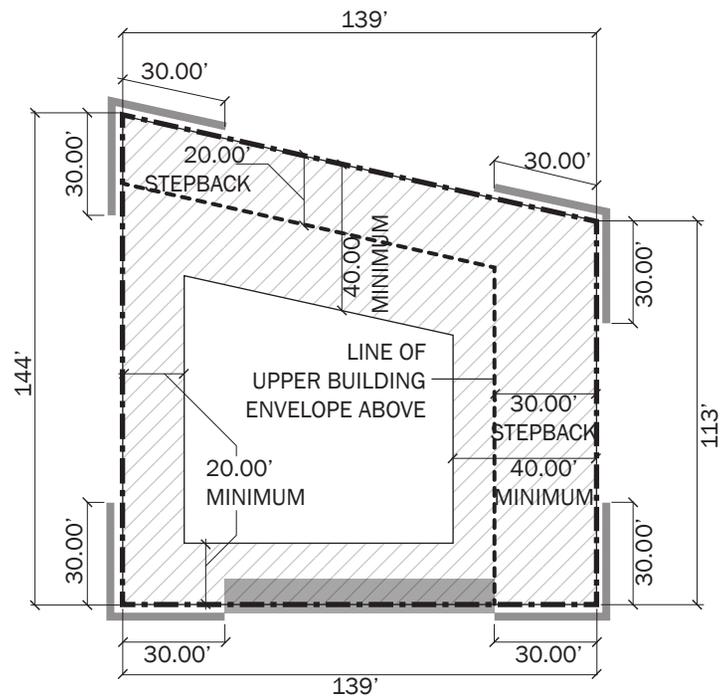
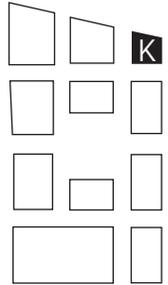


Note: Parcel dimensions shown are for illustrative purposes.



SUMMARY OF BLOCK STANDARDS

BLOCK K



Note: Parcel dimensions shown are for illustrative purposes.

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B

GLOSSARY OF TERMS

GLOSSARY OF TERMS

Active Doorway

The main public-serving entry for a ground floor tenant.

Active Edge

A portion of a public right of way or public open space that a user of a building is allowed to occupy and create opportunities to enliven the street through furniture, signage, and merchandizing.

Articulation

Minor variations in the massing, setback, height, fenestration, or entrances to a building, which express a change across the elevation or facades of a building. Articulation may be expressed, among other things, as bay windows, porches, building modules, entrances, or eaves.

Approach Slab

An architectural detail that provides transition between the building slab and sidewalk or driveway, commonly used where differential settlement is likely to occur. On end the approach slab is directly supported on, but not anchored to, the building foundation structure, allowing the slab to hinge in reaction to the settling of the sidewalk. This detail allows for the hinged edge to effectively bridge the changing grade between the building's finished floor and the sidewalk.

Base Building

The Base Building is the lower portion of the envelope that creates the streetwall.

Block Boundary

An area of land designated to contain a specific building type or land use within a development block.

Building Envelope

The maximum dimensions of width, depth, height and bulk—within which building may exist on a given site.

Building Top

Defined as the portion of the building above the roof of the uppermost habitable floor.

Concertina Doors

A door with hinged sections that can be folded flat against one another when opened.

Controls

A set of guidelines and standards that established conceptual frameworks for land use, urban form, streets and public spaces in the Project Area.

Cycletrack

A grade-separated track for cyclists only. A contraflow cycle track runs counter to vehicular traffic.

Design Guidelines

See Guideline.

Design Standard

See Standard.

Development Block

Bounded areas defined for the purpose of site organization, establishing standards and guidelines and guiding physical development.

Diverter

A solid object at least 30 inches high and within 24 inches of the ground that guides pedestrians away from an occupied area of the sidewalk. Diverters must be flush with the building at approximately 90 degrees.

Elevated Walkway

Raised platform designed to allow for continuous pedestrian movement along the building frontage, facilitating shared loading facilities for production uses

Finished Grade

Because the majority of the site will be elevated to adapt to sea level rise, the finished grade for portions of Mission Rock will be set at a higher elevation than pre-development grade, as determined by the Mission Rock Infrastructure Plan.

Flexible Blocks

Specific Blocks on the site that are zoned for either commercial or residential.

Frontage

The portion of a development block or lot facing a street, park or other publicly accessible open space. Includes the facade of the building as well as the program or activities contained within the building that front on the public realm.

Frontage Zone

A zone along building frontages for Active Edge uses such as seating, signage, and merchandizing.

Ground Floor Setbacks

Space between the property line and the ground floor façade, measured perpendicular to the property line.

Guideline

Descriptions of building features or qualities to be considered in project designs, often requiring subjective analysis and demonstration of compliance with intent.

High Retail Zone

Zone that represents the highest level of intensity of shops, cafes, and retail.

Horizontal Development

Horizontal improvements, including infrastructure, streetscape and open space improvements that the master horizontal developer is responsible to construct.

Insets

A minor setback parallel to the property line along an entire frontage that applies only to the ground floor.

Kiosk

A small, flexible structure that contains food service and/or other retail components, with total footprint area not to exceed 200 SF (square feet) in size.

Lightweight Structure

A structure such as retail kiosks or public restrooms that do not exceed 600 GSF (gross square feet) in size.

Loading

Loading in this document refers to dedicated zones for passenger loading.

Loading Dock

A covered area within the building footprint where loading and unloading of goods may occur. Other building services such as trash compactors, dumpsters, maintenance, and storage areas may also be located here.

Massing

The exterior shape of a building or structure.

Maximum Plan Dimension

The maximum linear horizontal dimension of a building or structure at a given level, between the outside surfaces of its exterior walls.

Modification

An approved allowance for variations to certain development controls when a set of specific design guidelines are met.

Modulation

Major variation in the massing, height, or setback of a building (as a means of breaking up a structure's perceived bulk).

NIC

"Not in Contract" - indicates an area out of the scope of the project.

Parapet

A portion of a wall that projects above a roof.

Pedestrian Scale

The quality of the physical environment which reflects a sympathetic proportional relationship to human dimensions and which contributes to the pedestrian's perception and comprehension of the size, scale, height, bulk and/or massing of buildings or other features of the built environment.

Permeability

Extent of retail frontages designed to be opened up to the public realm.

Projections

Enclosed and unenclosed building area above the ground floor that encroach into the public right-of-way, such as a bay, column, cornice, or window molding.

Public Trust

The Public Trust Doctrine protects sovereign lands for the benefit, use and enjoyment of the public. Trust lands belong to the public and are to be used to promote publicly beneficial uses that connect the public to the water.

Raised Intersection

A traffic calming device whereby the intersection of two streets is raised above the level of the roadway.

Resilient

A district protected by effective defenses, adapted to mitigate climate impacts, and able to recover more quickly when those defenses are occasionally breached.

Sea Level Rise Benchmarks

MHW: (Mean High Water): the elevation benchmark used by BCDC to determine the 100' Shoreline Band. For Mission Rock, the 2016 MHW elevation is 94.3 Mission Bay Datum (MBD), and 5.7 NAVD 88.

BFE: The Base Flood Elevation, as determined by FEMA, which is the minimum elevation at which structures must be elevated or flood-proofed in compliance with FEMA/National Flood Insurance Program (NFIP) regulations to protect from the 1% annual flood event (100-year event). For the site vicinity, this elevation is 98.4 MBD, or 9.7 NAVD 88.

Servicing

Servicing refers to dedicated zones for commercial deliveries, freight loading, and building servicing; the design of these zones will be coordinated with specific blocks and land uses.

Stepback

The required distance between the vertical edge of a building above a specified height, or between the vertical edge of a building and the property line at a specific height.

Shared Public Way

Right-of-way that is designed as a single surface with no grade differentiation between street and sidewalk areas, and where roadway space is shared between pedestrians and slow-moving vehicles (SF Better Streets Plan).

Shared Street

See Shared Public Way.

Small Park Structure

A lightweight structure with total footprint area not to exceed 1,500 square feet. Where public restrooms are provided, total footprint area is not to exceed 3,000 square feet.

Social Object

Distinctive, fun, and iconic sculpture, building or landscape elements, recognizable to a particular place, that identify varied scales of gathering and use.

Standard

Mandatory and measurable design specifications applicable to all new construction.

Setback

A setback of the upper floors of a building which is greater than the adjacent setback of the lower floors.

Stoop

An outdoor entryway into residential units raised above the sidewalk level. Stoops may include steps leading to a small porch or landing at the level of the first floor of the unit.

Storefront

The facade of a retail space between the sidewalk grade and the ceiling of the first floor.

Street Room

Intimate social spaces within a street right-of-way characterized by small scale, special materials such as planting, paving, lighting, and fixed and movable furnishings, and/or program, such as retail kiosks.

Streetlife

The creation of social spaces and uses with special character and intimate scale within street right-of-ways.

Streetlife Zone

A zone within the sidewalk adjacent to the curb that houses streetscape elements such as trees, lighting, benches, and stormwater rain gardens. Equivalent to a Furnishing Zone as defined in the 2015 Subdivision Regulations.

Streetscape

The distinguishing elements and character of a particular street as created by its width, paving materials, design of the street furniture, pedestrian amenities and setback and form of surrounding buildings.

Streetwall

The aggregate effect of the façade of buildings along a property line adjacent to a public street or open space. The typical context for this term is in defining the public realm and framing or engaging the street.

Special Use District (SUD)

A Special Use District (SUD) is adopted by ordinance into the planning code and describes zoning controls such as land use, height and bulk, parking ratios, exposure, and so on. The Mission Rock SUD adopts the Mission Rock Design Controls as the document which guides the development of Mission Rock.

Sustainable Design

A multi-disciplinary design approach to balance environmental responsiveness, resource efficiency, and community context.

Tabletop Intersection

A traffic calming device whereby the intersection of two streets is raised to the level of the adjacent sidewalk.

Terrace

A raised, flat platform associated with and providing egress from a building [usually residential].

Throughway

An unobstructed path of travel for pedestrians.

Transparency

The degree of visibility through a building façade; OR

A characteristic of clear facade materials, such as glass, that provide an unhindered visual connection between the sidewalk and internal areas of the building.

Upper Building

The Upper Building is the portion of the building which rises above the Base Building.

Urban Forest

The site-wide composition of a diverse tree palette with ecological, aesthetic, and functional benefits.

Wayfinding

Tools which orient users of an area to ensure the ability to navigate through an area. Tools include signs, graphic communications, spatial markers, streetscape elements, building design, and the street network.

Working Waterfront

A street/public realm typology that prioritizes production uses and acknowledges the industrial and maritime heritage of the waterfront where it is located.

The following uses are permitted uses within Mission Rock. The list is intended to be read in conjunction with Chapter 1, which includes permitted uses by Block, and Chapter 5, which described ground floor required/ permitted uses. Please also see the SUD, which governs in the event of any inconsistency with this Appendix C. Unless otherwise defined in the SUD or these Design Controls, the definitions in the Planning Code apply in determining the nature and scope of these uses.

C

LAND USE CHART

PERMITTED LAND USES

SEE FIGURE 1.1 LAND USE PLAN

MISSION ROCK PARCELS	RESIDENTIAL USES	PRODUCTION USES	COMMERCIAL USES	RETAIL USES	PARKING GARAGES (3)	OTHER USES
A (RESIDENTIAL MIXED USE)	P	P	P	P	NP	P
B (COMMERCIAL MIXED USE)	P	P	P	P	NP	P
C (COMMERCIAL MIXED USE)	P	P	P	P	NP	P
D1 (RESIDENTIAL MIXED USE)	P	P	P	P	NP	P
D2	NP	NP	NP	NP	P	NP
E (COMMERCIAL MIXED USE)	P	P	P	P	NP	P
F (RESIDENTIAL MIXED USE)	P	P	P	P	NP	P
G (COMMERCIAL MIXED USE)	P	P	P	P	NP	P
H (FLEX COMMERCIAL OR RESIDENTIAL MIXED USE)	P	P	P	P	NP	P
I (FLEX COMMERCIAL OR RESIDENTIAL MIXED USE)	P	P	P	P	NP	P
J (FLEX COMMERCIAL OR RESIDENTIAL MIXED USE)	P	P	P	P	NP	P
K (RESIDENTIAL MIXED USE)	P	P	P	P	NP	P
PIER 48	NP	P	NP	NP	NP	P

LAND USE CHART

COMMERCIAL			PRODUCTION		RESIDENTIAL
<p>AUTOMOTIVE Parking Garage, Private*</p>	<p>INSTITUTIONAL Education Post-Secondary Institution School Trade School</p> <p>Healthcare Medical Cannabis Dispensary Residential Care Facility</p> <p>Community Child Care Facility Community Facility Community Facility, Private Job Training Philanthropic Administrative Services Public Facility Religious Institutions Social Service or Philanthropic Facility</p>	<p>SALES AND SERVICES Catering Design Professional Laboratory Life Sciences Office, General Philanthropic Administrative Services Services, Administration Services, Business Services, Non-Retail Professional Trade Office</p>	<p>AGRICULTURAL Agriculture, Neighborhood Greenhouse</p>	<p>INDUSTRIAL Automotive Assembly Food, Fiber, & Beverage Processing, 1 Grain Elevator Live Stock Processing 1 Live Stock Processing 2 Manufacturing, Heavy 1 (woodworking mill only)** Manufacturing, Heavy 2 (rendering or reduction of fat, bones, or other animal material only)** Manufacturing, Heavy 3 (Manufacture, refining, distillation, or treatment of any of the following only: candles (from tallow), dye, enamel, lacquer, perfume, printing ink, refuse mash, refuse grain, or soap)** Manufacturing, Light Metal Working Sales, Wholesale** Storage, Wholesale**</p>	<p>Dwelling Unit Group Housing Homeless Shelters Hotel, Residential Live/Work Unit Senior Housing Single Room Occupancy Unit Student Housing</p>

RETAIL

AUTOMOTIVE

- Automotive Repair***
- Automotive Wash***
- Parking Garage, Public*

ENTERTAINMENT, ARTS AND

RECREATION

- Arts Activities
- Entertainment, General
- Entertainment, Nighttime
- Entertainment, Outdoor
- Movie Theater

SALES AND SERVICES

- Animal Hospital
- Bar
- Cat Boarding
- Gift Store, Tourist-Oriented
- Grocery Store, General
- Grocery Store, Specialty
- Gym
- Hotel****
- Jewelry Store
- Kennel
- Liquor Store
- Massage Establishment
- Massage, Chair and Food
- Mobile Food Facility
- Mortuary
- Non-Automobile Vehicle Sales/Rental

- Pharmacy
- Restaurant
- Restaurant, Limited
- Retail Sales and Services, General
- Services, Financial
- Services, Health
- Services, Limited Financial
- Services, Personal
- Services, Retail Professional
- Take-Out Food
- Tobacco Paraphernalia Store
- Trade Shop
- Walk-Up Facility

OTHER USES

- Community Recycling Center
- Open Recreation Area
- Passive Outdoor Recreation
- Public Transportation Facility
- Utility Installation, District Serving Utility Installation only
- Wireless Telecommunications Services Facility

*Only permitted on Block D2 and on other Blocks as provided in the DA and DDA.

**Only permitted as accessory to a Production Use.

***Only permitted as accessory to a Parking Garage.

****Up to 300 hotel rooms.



PERKINS
+ WILL

CMG