

March 9, 2017

PIER 70 SUD

DESIGN FOR DEVELOPMENT



Union Iron Works Shipyard | Pier 70 in Its Own Words
Watercolor by Wendy MacNaughton

March 9, 2017

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DESIGN FOR DEVELOPMENT

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DOCUMENT GUIDE

The Pier 70 SUD Design for Development (D4D) provides the vision, intent, use, character, and requirements for the future design of buildings and public realm within the 35-acre Pier 70 Project Site.

TERMS AND BOUNDARIES

As shown in the facing figure, the Pier 70 Project Site is defined by 20th Street to the north, 22nd Street to the south, Illinois Street to the west, and the Bay to the east. The Project Site is shown as a black dashed line and the larger Pier 70 Area boundary is shown as a solid black line. Chapter 1 provides further description and context for site areas and the project. Commonly used terms and designations are defined as follows.

Documents

- **"PIER 70 SUD".** Pier 70 SUD refers to Section 249.XX of the Planning Code.
- **"D4D".** D4D refers to the Pier 70 SUD Design for Development document.
- **"PLANNING CODE".** All references to "Planning Code" refer to the San Francisco Planning Code as of the time of entitlement unless otherwise noted.

Site Areas

- **"PIER 70 AREA".** Pier 70 Area corresponds to the 69-acre Pier 70 area, which includes the Cove, Ship Repair, the Historic Core, and the Pier 70 Project Site.
- **"HISTORIC DISTRICT".** Historic District refers to the Union Iron Works (UIW) Historic District.
- **"PIER 70 PROJECT SITE" OR "SITE".** Pier 70 Project Site refers to the 35-acre Pier 70 development site.

The Project

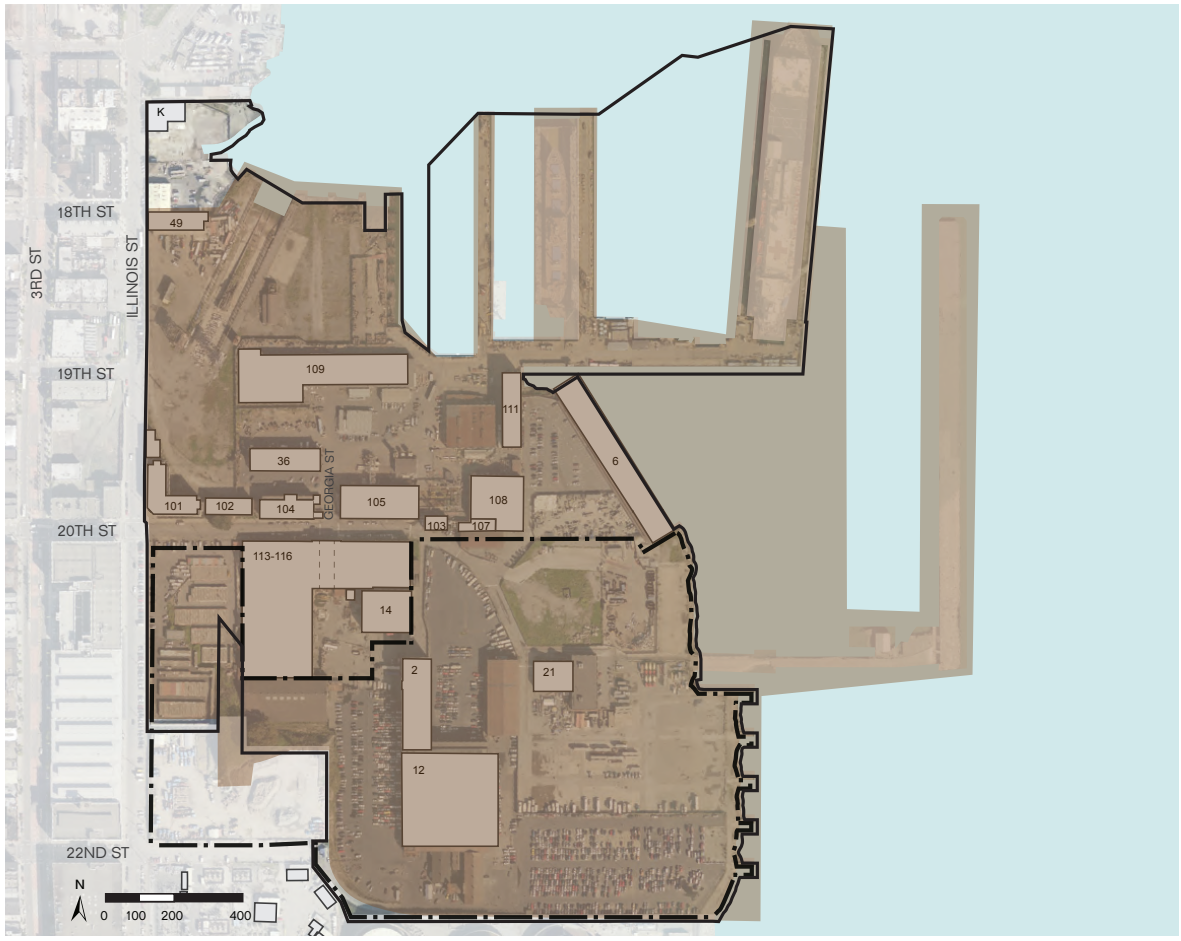
- **"PIER 70 PROJECT" OR "PROJECT".** Pier 70 Project refers to the 35-acre Pier 70 design and development proposal.

RELATED DOCUMENTS

This Design for Development document is to be read and applied in conjunction with the Pier 70 SUD as incorporated in the San Francisco Planning Code. The permitted land uses described in this D4D document are consistent with the Pier 70 SUD. This D4D document implements those controls with more detailed design standards and guidelines.

Pier 70 Project D4D is supported by the following project-specific technical documents:

- Pier 70 SUD Sustainability Plan
- Pier 70 SUD Transportation Plan
- Pier 70 SUD Infrastructure Plan
- Development Agreement



Site Areas

HOW TO USE

SECTION INTRODUCTION

Where included, introductory text provides an overview of the standards and guidelines to follow, but is not itself a standard or guideline.

STANDARDS

Numbered in teal, standards are requirements. Compliance is mandatory, and modification or deviation from standards is strictly regulated by the procedures laid out in the SUD.

GUIDELINES

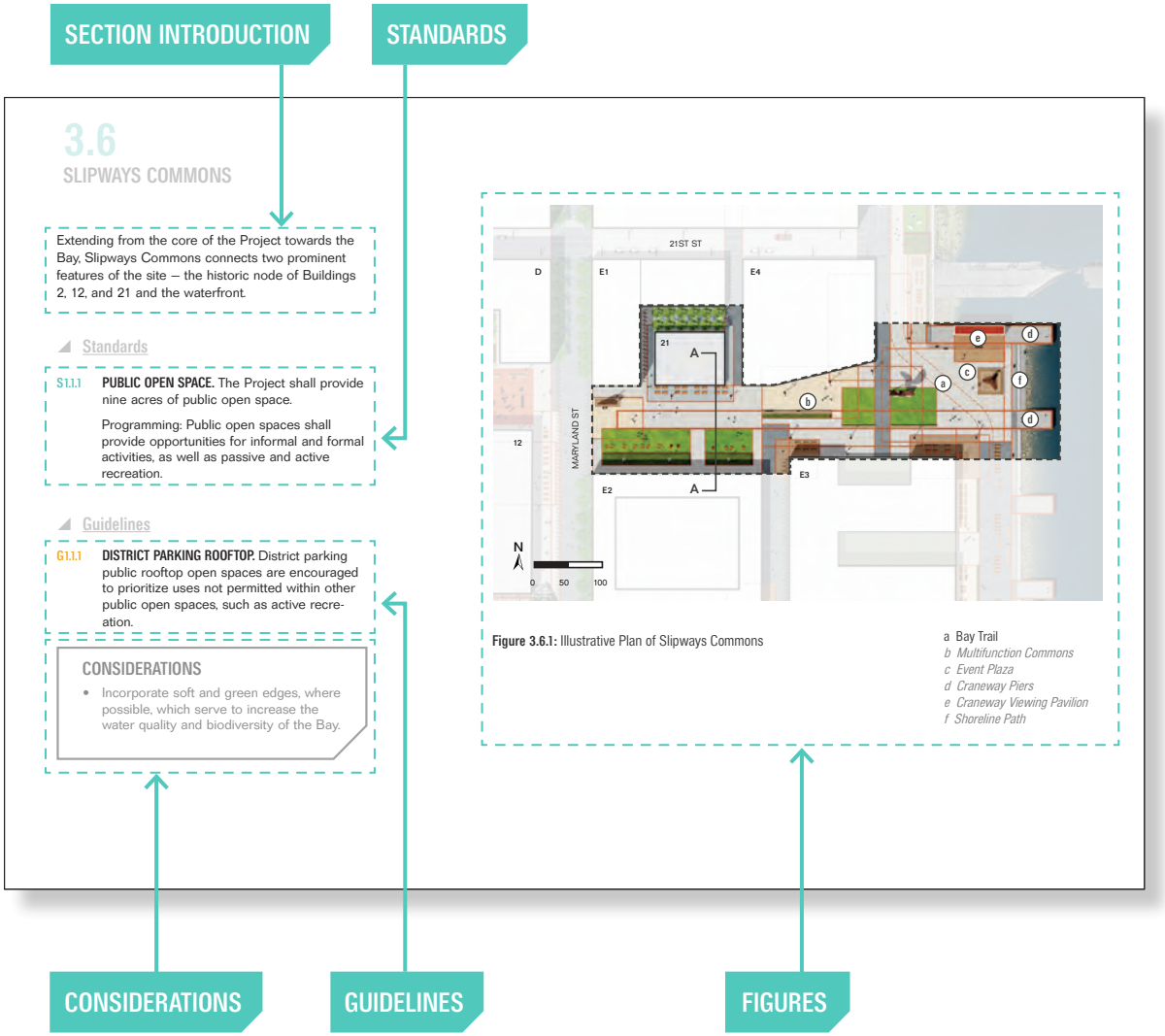
Numbered in orange, guidelines are typically more subjective and set forth design intent, design expectations, and encouraged or discouraged features. Accordance with guidelines generally is anticipated in order to fully implement the intent of the D4D. Project sponsors should consider guidelines in good faith, recognizing that achieving consistency with many (though not all) guidelines may be subjective or subject to external conditions or factors, or may be achieved through a variety of strategies.

CONSIDERATIONS

Bulleted in grey sidebars, considerations provide general intent and best practice recommendations. Compliance with considerations is not required.

FIGURES AND TABLES

Numbered consecutively according to their respective sections, figures, and tables describe standards and guidelines.

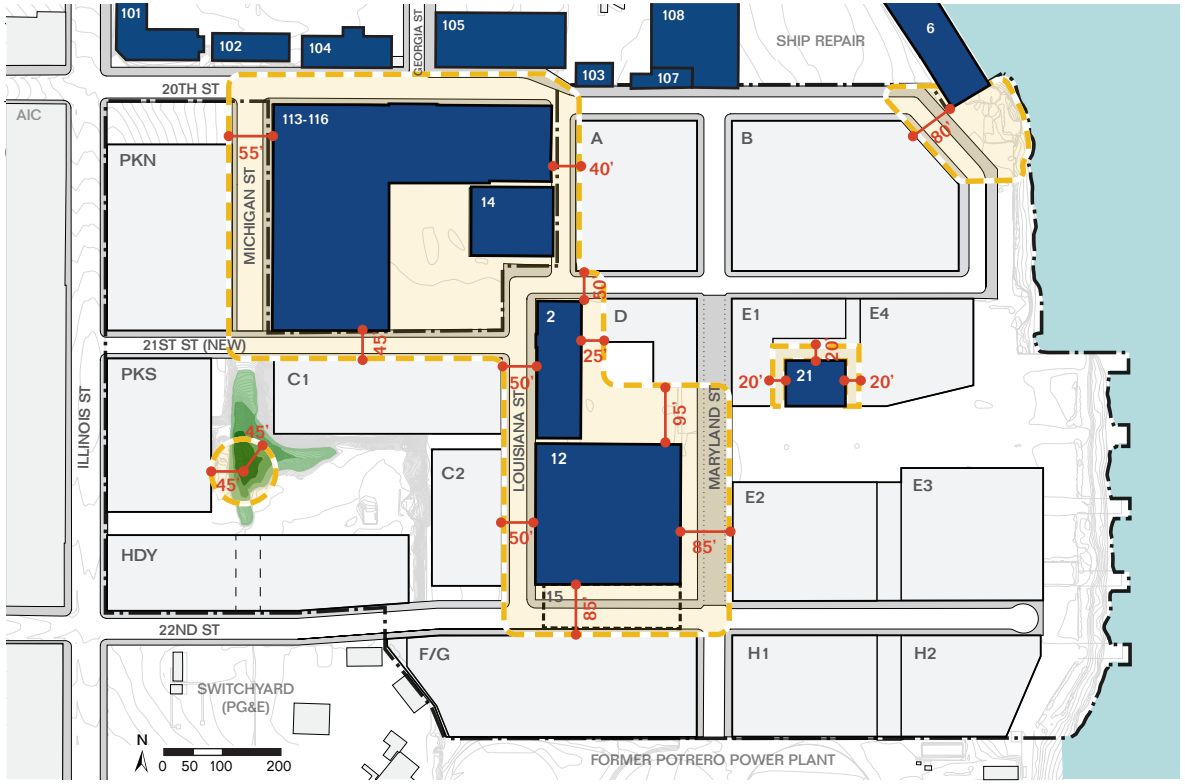


ILLUSTRATIVE PLANS AND SECTIONS

Illustrative plans and sections show potential design solutions based on required standards and guidelines. Illustrative content is not final or required. These figures are identified as “Illustrative” in the figure name. Illustrative information is also denoted in the legend by italicized grey text, as shown in the facing figure. Some illustrations may include annotation that outlines standards (shown in black roman text), also shown in the facing figure.

PIER 70 D4D BASELINE PLAN

A standardized parcel plan, as shown in the facing figure, has been used throughout the D4D for consistency and ease of illustration. The standards and guidelines in the D4D permit a limited range of land uses, massing, and circulation options, which may result in a parcel plan that differs from the D4D Baseline Plan. Areas shown in white between development pads denote mid-block pedestrian and/or vehicular passages. The Building 15 structural frame along 22nd Street is shown in the Baseline Plan with a dashed line. Its retention is subject to structural feasibility.



Illustrative Plans and Sections

Pier 70 Project Site
Pier 70 Area Historic Buildings
Irish Hill Remnant
New Construction Buffer Zones
Minimum Distances of Buffer Zones
XX'

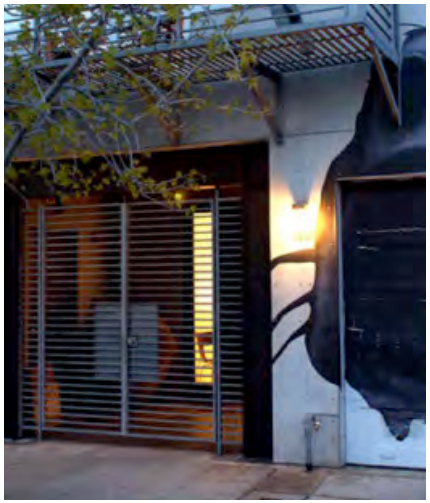
Potential Retained Building 15 Structural Frame

ILLUSTRATIVE

STANDARDS















SURROUNDING NEIGHBORHOOD
Project Inspiration and Vision





Photo Credit: Forest City / Shae Rocco

1 PROJECT OVERVIEW

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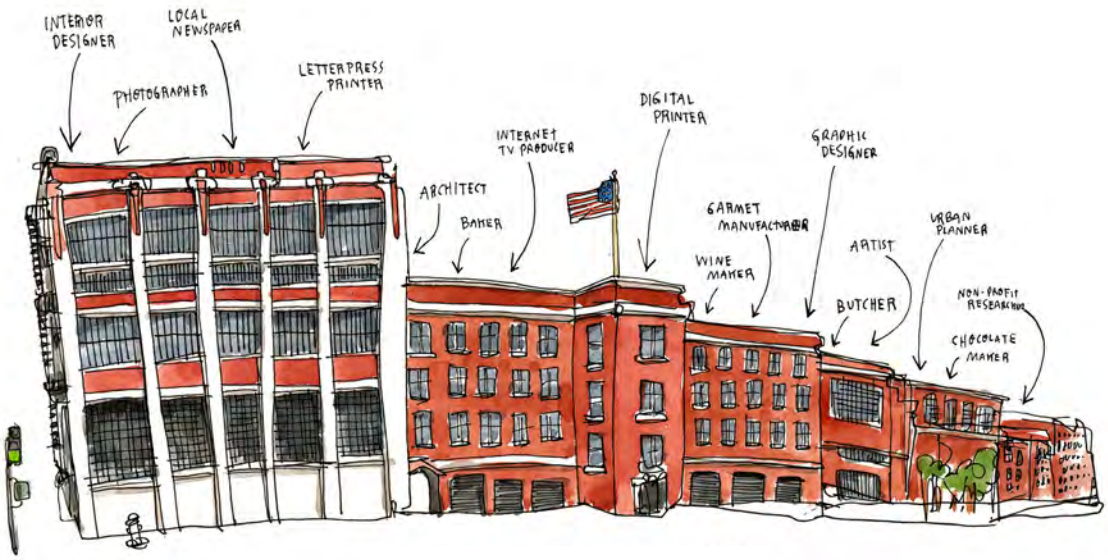
1.1 PROJECT VISION AND GOALS

Pier 70 is a place that has been obscured over time. Once a hub of industry and craftsmanship, today the level of activity has greatly declined. This Design for Development document for the Pier 70 Project outlines a vision to reintegrate and restore the Pier 70 Project Site—a portion of the 69-acre Pier 70 Area—into the fabric of San Francisco, creating an active, sustainable neighborhood that pays homage to its industrial past.

The future of the Project Site is envisioned as an extension of the nearby Dogpatch neighborhood. The Dogpatch neighborhood weds community and industry, engaging residents, workers, artists, and manufacturers alike into a lively mix of uses and activities. The Project reflects this diversity and creativity, inviting all to the parks, which are lined with local establishments, restaurants, arts uses, and event spaces, each with individual identities.

New buildings within the site complement the industrial setting and fabric in size, scale, and material. Historic buildings are artfully repurposed into spaces for local manufacturing and community amenities. The open spaces are also a collection of different "mosaics" at multiple scales, shaped by nearby buildings, framing the reclaimed waterfront, and creating a platform for a range of activities and experiences. In the future, local interactions, revealed art and fabrication, and a connectedness to the newly accessible waterfront will support a new part of the neighborhood that is truly of San Francisco.

For a description of proposed land uses, see Section 1.5 Design Process.



American Industrial Center Building | Pier 70 in Its Own Words
Watercolor by Wendy MacNaughton

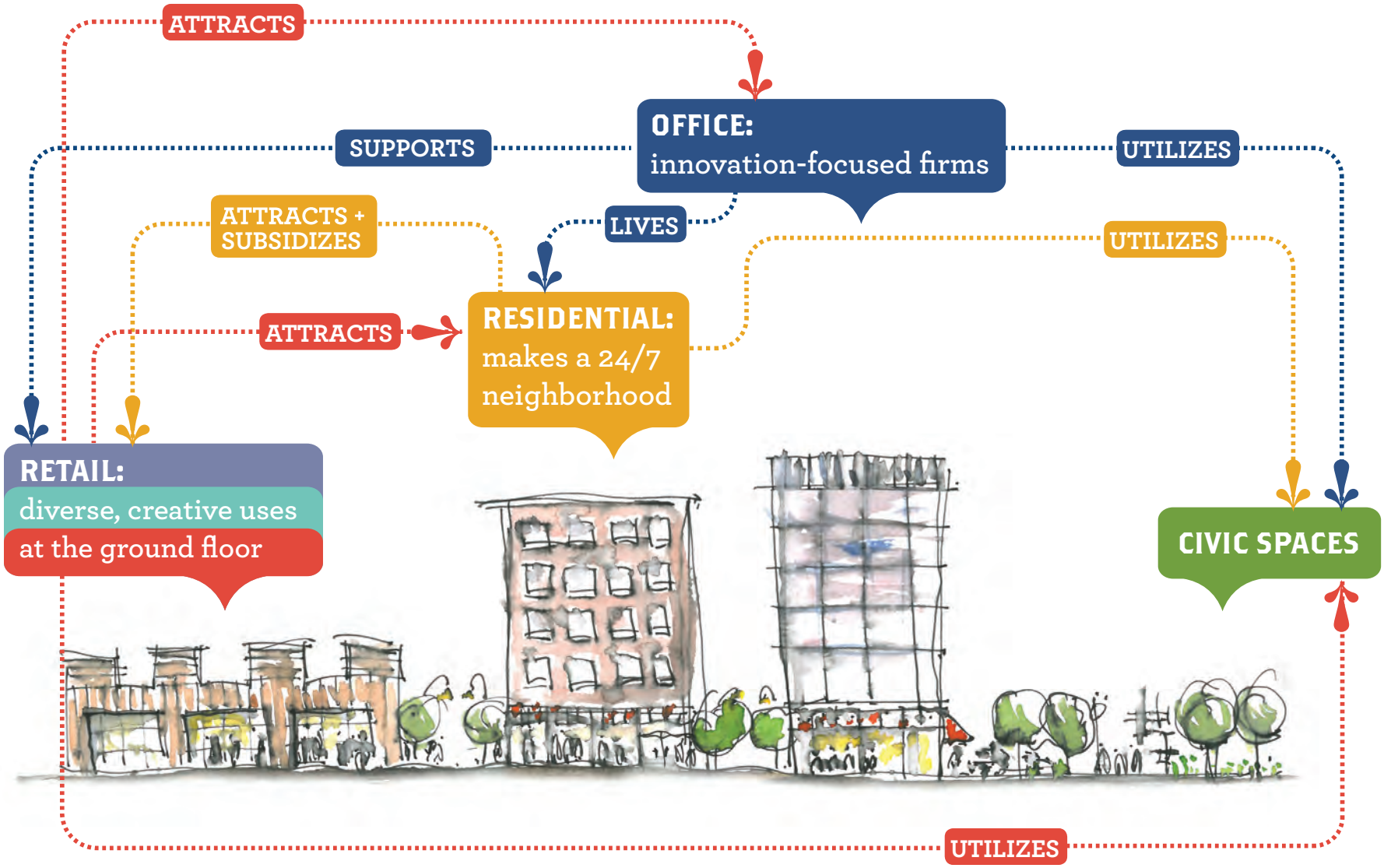


FIGURE 1.1.1: Pier 70 Urban Ecosystem
Watercolor by Evan Rose

The following objectives guide the Pier 70 Project:

01. CREATE A UNIQUE SAN FRANCISCO NEIGHBORHOOD
Support a diverse, thriving community with accessible open spaces, retail, and arts.

02. IMPLEMENT PROPOSITION F (NOVEMBER 2014)
Advance open space, housing, affordability, preservation, commercial, and waterfront policies.

03. PROVIDE A VARIETY OF HOUSING
Establish diverse household types with dense, mixed-income, and affordable buildings for owners and renters.

04. IMPLEMENT SUSTAINABILITY GOALS TO REDUCE PROJECT IMPACT ON THE ENVIRONMENT
Encourage energy, emissions, and water conservation systems to lower the Project's carbon footprint.

05. PROVIDE ACCESS TO THE SAN FRANCISCO BAY WATERFRONT
Develop a new waterfront park, extend and establish the Bay Trail/Blue Greenway.

06. REHABILITATE HISTORIC RESOURCES AND DEVELOP COMPLEMENTARY NEW CONSTRUCTION
Adhere to national and municipal criteria for historic preservation and infill design.

07. GENERATE BUSINESS AND EMPLOYMENT OPPORTUNITIES
Support local workers and businesses throughout the design, construction, and operation phases.

08. PREPARE FOR SEA LEVEL RISE AND SEISMIC EVENTS
Implement site infrastructure, buildings, and financing strategies that adapt to sea level rise and seismic events.

09. CATALYZE THE PORT'S SITE-WIDE GOALS IN THE PIER 70 PREFERRED MASTER PLAN
Develop new infrastructure, streets, utilities, and revenue streams to fund other Pier 70 improvements.

10. DEVELOP A HIGH-QUALITY AND ECONOMICALLY FEASIBLE PROJECT
Produce a market rate return on investment that covers Project operation and maintenance costs.



FIGURE 1.1.2: Site Location and Context

Pier 70 Project Site

1.2 SITE LOCATION AND CONTEXT

PIER 70 AREA SUB-DISTRICTS

The Pier 70 Preferred Master Plan (Section 1.3 Planning Context) identified five sub-districts within the Pier 70 Area to support diversity, historic continuity, and creativity at the site. The Port owns all sub-districts except as noted in the Illinois Parcels description. The sub-districts include:

- **HISTORIC CORE.** Historic Core consists of the significant historic buildings flanking 20th Street.
- **SHIP REPAIR.** Ship Repair includes active ship repair buildings and dry-docks along the water, north of 20th Street.
- **THE COVE.** The Cove includes an approximately 11-acre future Crane Cove Park south of Mariposa Street and bounded by the Historic Core and Ship Repair to the south.
- **28-ACRE SITE.** The 28-Acre Site is a mixed-use infill development site between 20th and 22nd Streets and between the Historic Core and the Bay. It includes Assessor's Block 4052/Lot 001 and Block 4111/Lot 004.
- **ILLINOIS PARCELS.** The Illinois Parcels constitute an approximately seven-acre mixed-use infill development site that includes an approximately 3.4-acre Port-owned parcel, called the "20th/Illinois Parcel," along Illinois Street at 20th Street (Assessor's Block 4110/Lot 001) and an approximately 3.6-acre parcel, called the "Hoedown Yard" (HDY), at Illinois and 22nd streets (Assessor's Block 4120/Lot 002 and Block 4110/Lot 008A), which is owned by Pacific Gas and Electric (PG&E). The Hoedown Yard includes a 0.2-acre portion of street right-of-way that bisects the parcel. The 0.2-acre Michigan Street right-of-way is a recorded easement; however, no physical roadway exists.

PIER 70 PROJECT SITE

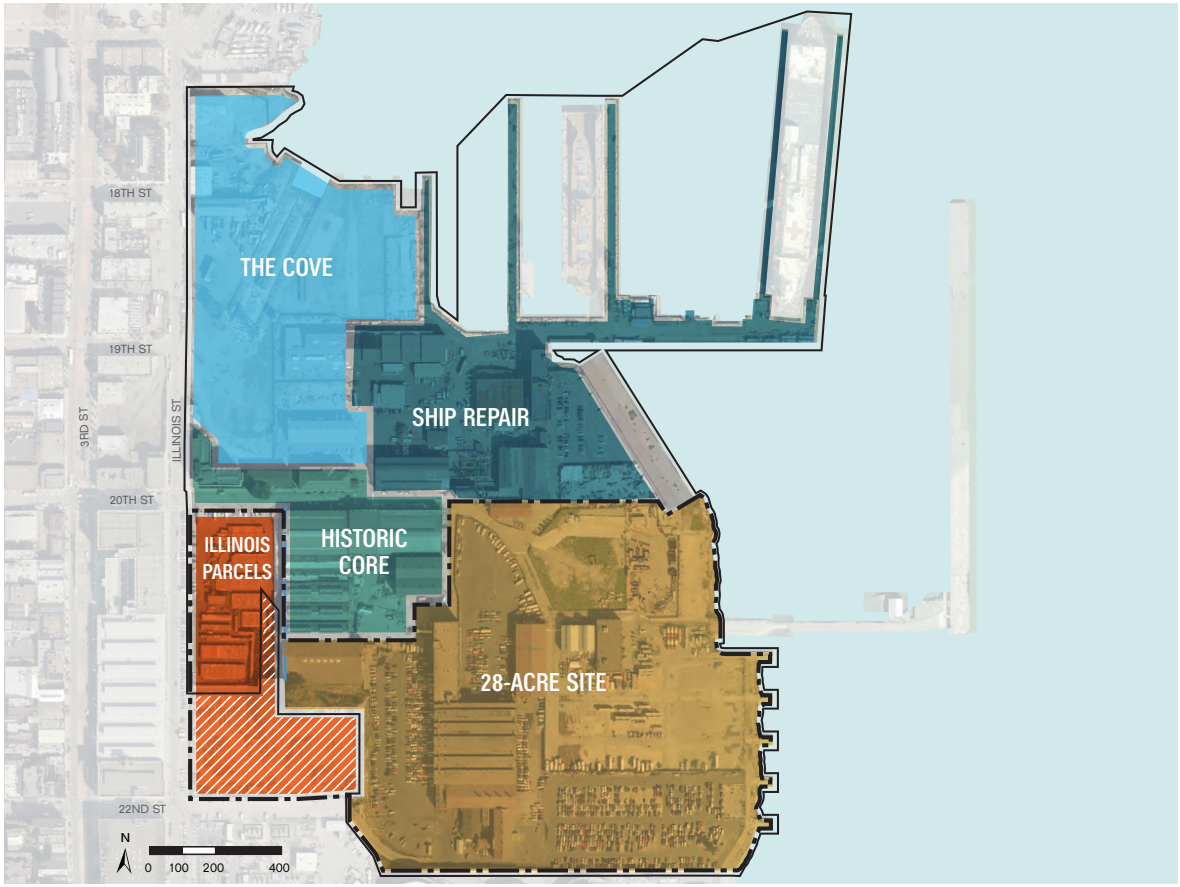


FIGURE 1.2.1: Pier 70 Sub-Districts

THE PIER 70 PROJECT SITE

The site is approximately 35 acres, bounded by Illinois Street to the west, 20th Street to the north, the Bay to the east, and PG&E Property and the former Potrero Power Plant to the south. The site includes two development areas (the 28-Acre Site and the Illinois Parcels) and will contain a minimum of 14 parcels or development pads (which may be further subdivided), three historic buildings, and a network of public open spaces, streets, and pedestrian facilities, as shown in Figure 1.2.2.

The majority of the site is located within the Pier 70 Area, owned by the City and County of San Francisco under the jurisdiction of the Port of San Francisco. The remainder of the site, known as the Hoedown Yard, is owned by PG&E. The City has a transferable option to acquire the Hoedown Yard if PG&E can find a new location for this heavy industrial use.

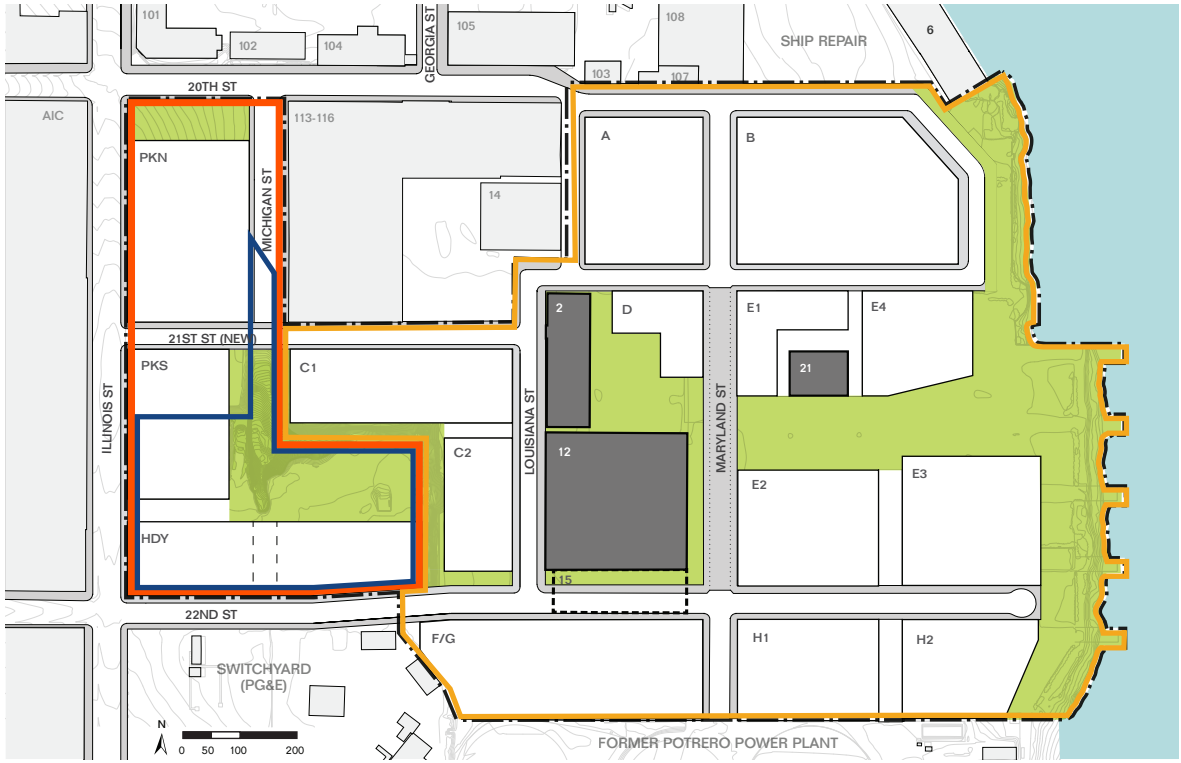


FIGURE 1.2.2: Pier 70 Project: Development Areas and Open Spaces

1.3 PLANNING CONTEXT

EASTERN NEIGHBORHOODS PROGRAM

The Eastern Neighborhoods Program, adopted in 2009, addressed neighborhoods that historically contained the majority of the City's industrially-zoned land. One of the goals of the Eastern Neighborhoods Program was to find a balance between the growth of housing and commercial space in these areas, while still dedicating areas for Production, Distribution, and Repair (PDR) facilities. The Pier 70 Project provides space for all three of these uses to expand towards the water.

The Central Waterfront Plan is one of the four plan areas included in the Eastern Neighborhoods Program. The Pier 70 Project aligns directly with the key plan goals to encourage mixed use development consistent with the neighborhood character, support increased housing while respecting production areas, advocate for multimodal transit, promote access to the waterfront, and call for improvements to the public realm.

The Pier 70 Project Site is located south of Mission Bay, east of Potrero Hill and Dogpatch neighborhoods, and within the northeastern sector of the Central Waterfront Plan. Though the site is included in the Central Waterfront Plan, it was intentionally not rezoned as part of the Eastern Neighborhoods Program, anticipating a Port-led community planning process, which led to the Pier 70 Preferred Master Plan in 2010.



FIGURE 1.3.1: Eastern Neighborhoods Area Plan

Pier 70 Project Site

PIER 70 PREFERRED MASTER PLAN

The Pier 70 Preferred Master Plan (endorsed in April 2010) is the result of a Port-led community planning process that identified the vision and goals for the Pier 70 Area. The plan anticipated the need for the Port to select a qualified master developer to lead the planning and implementation of large areas within Pier 70.

The Preferred Master Plan outlined the following eight goals, which form the basis of the design development of the Project:

- Create a National Register Historic District and rehabilitate its historic resources, which offers several benefits, including reduced historic rehabilitation costs through federal historic rehabilitation tax credits and other preservation-based financial programs, greater flexibility under local, state, and federal regulations and Building Code requirements, and a streamlined environmental review process.
- Preserve the long-term viability of the ship repair industry.
- Create a major new shoreline open space system that extends the Bay Trail/Blue Greenway.
- Promote sustainable mixed-use infill development and economic vitality that includes climate adaptation strategies.
- Provide sites for office, research, emerging technologies, light industry, commercial, culture, and recreational uses to expand the City's economic base and generate revenue for public benefit.
- Promote pedestrian-oriented development and foster alternative, sustainable transportation modes and practices.
- Extend the City's street grid to enhance public access and integrate new development.
- Remediate environmental contamination to enable public use and enjoyment of Pier 70 and its waterfront and improve environmental quality.

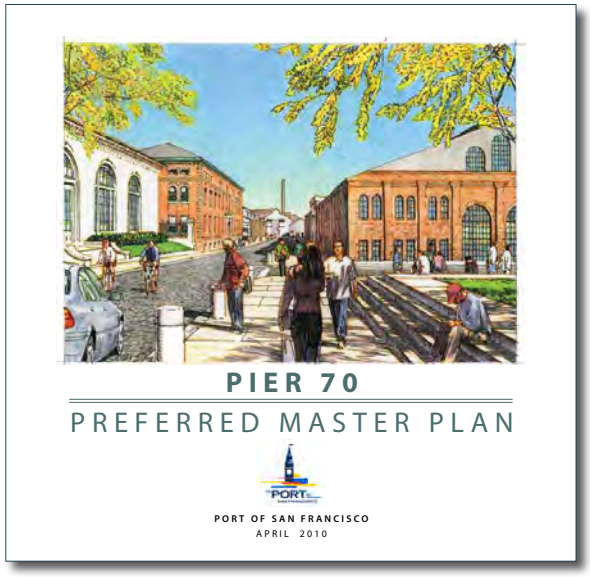


FIGURE 1.3.2: Pier 70 Preferred Master Plan

UNION IRON WORKS HISTORIC DISTRICT

The UIW Historic District includes 66 acres of the 69-acre Pier 70 Area and was listed in the National Register of Historic Places (NRHP) in 2014, as recommended in the Port Master Plan. The UIW Historic District consists of buildings, piers, slips, cranes, ship repair activities, and landscape and circulation elements that are associated with steel shipbuilding. The UIW Machine Shop, built in 1884, was the first during a period of industrial architecture built on site ending with World War II. For more information, see Section 6.6 Rehabilitation of Historic Buildings.

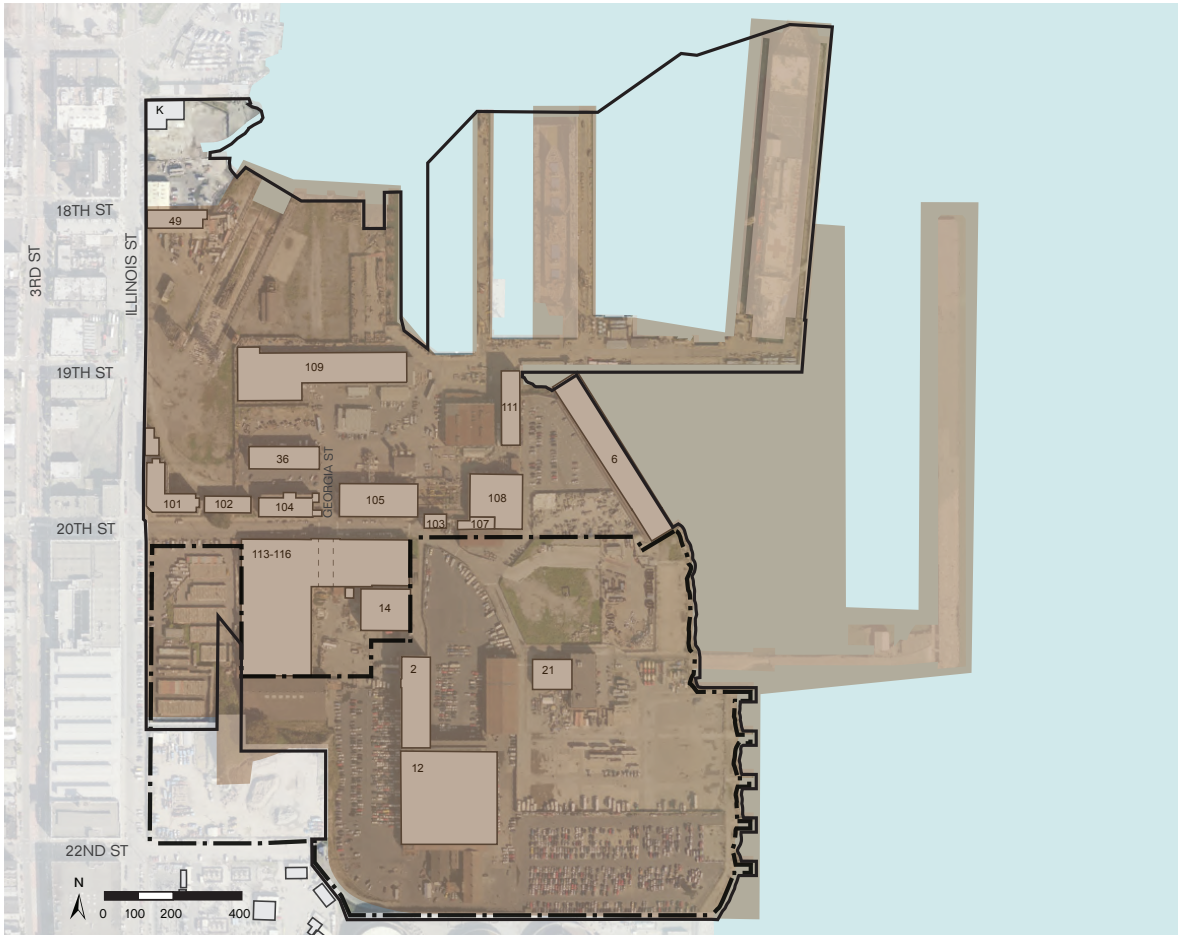


FIGURE 1.3.3: Union Iron Works Historic District

Note: UIW Historic District boundary is drawn as shown in the National Register of Historic Places Registration Form.

SAN FRANCISCO BAY TRAIL / BLUE GREENWAY

The Blue Greenway is the City of San Francisco's project to improve the City's southerly portion of the 500-mile, nine-county regional Bay Trail, as well as the newly established Bay Area Water Trail and associated waterfront open space system. The Bay Trail/ Blue Greenway will expand recreational and water-oriented activities and green corridors to surrounding neighborhoods, including public open spaces proposed for the Pier 70 Project.



FIGURE 1.3.4: Existing Bay Trail at San Francisco Embarcadero



FIGURE 1.3.5: San Francisco Bay Trail/ Blue Greenway Plan

TIDELANDS TRUST

Portions of the site are subject to the Tidelands Trust doctrine (Trust), a common law public trust and the statutory trust under the Burton Act, as amended and administered by the State of California. The Trust imposes certain use restrictions on historical tidal and submerged lands along the waterfront to protect the interests of the people of the State of California in commerce, navigation, and fisheries, as well as other public benefits recognized to further Trust purposes, such as recreation and environmental preservation. The Port has obtained state legislation (AB 418) that authorizes the State Lands Commission to approve a Trust exchange that would free portions of the project site from the Trust, and impress the Trust on others.

Use of Trust lands is generally limited to waterborne commerce, navigation, fisheries, water-oriented recreation, including commercial facilities that must be located on or adjacent to water, and environmental preservation and recreation, such as natural resource protection, wildlife habitat and study, and facilities for fishing, swimming, and boating. Ancillary or incidental uses that promote Trust uses or accommodate public enjoyment of Trust lands, are also permitted, such as hotels, restaurants and specialty retail. Residential and general office uses are generally not permitted uses on Trust lands.

Areas in Figure 1.3.6 indicated as “Subject to Trust”, including those overlaid with “BCDC 100-foot Shoreline Jurisdiction,” are subject to the use restrictions imposed by the Trust. All lands within the Pier 70 Area that are currently subject to Port jurisdiction will continue to be held by the Port as assets of the Trust, but the Trust termination lands will be freed of any Trust or Burton Act use or alienation restrictions.

BAY CONSERVATION AND DEVELOPMENT COMMISSION

Areas of the Project up to 100 feet landward of Mean High Water (MHW) are subject to the permitting jurisdiction of the San Francisco Bay Conservation and Development Commission. BCDC’s mandate is to regulate shoreline development, prevent Bay fill (except in limited circumstances for water-oriented uses), and ensure maximum feasible public access to the Bay. BCDC also encourages the preservation of industrial uses and creating public access to the waterfront. BCDC’s statutory jurisdiction includes all property within 100 feet of the MHW.

US ARMY CORPS OF ENGINEERS

The Project shoreline improvements bayward of the High Tide Line are subject to the permitting jurisdiction of the US Army Corps of Engineers.

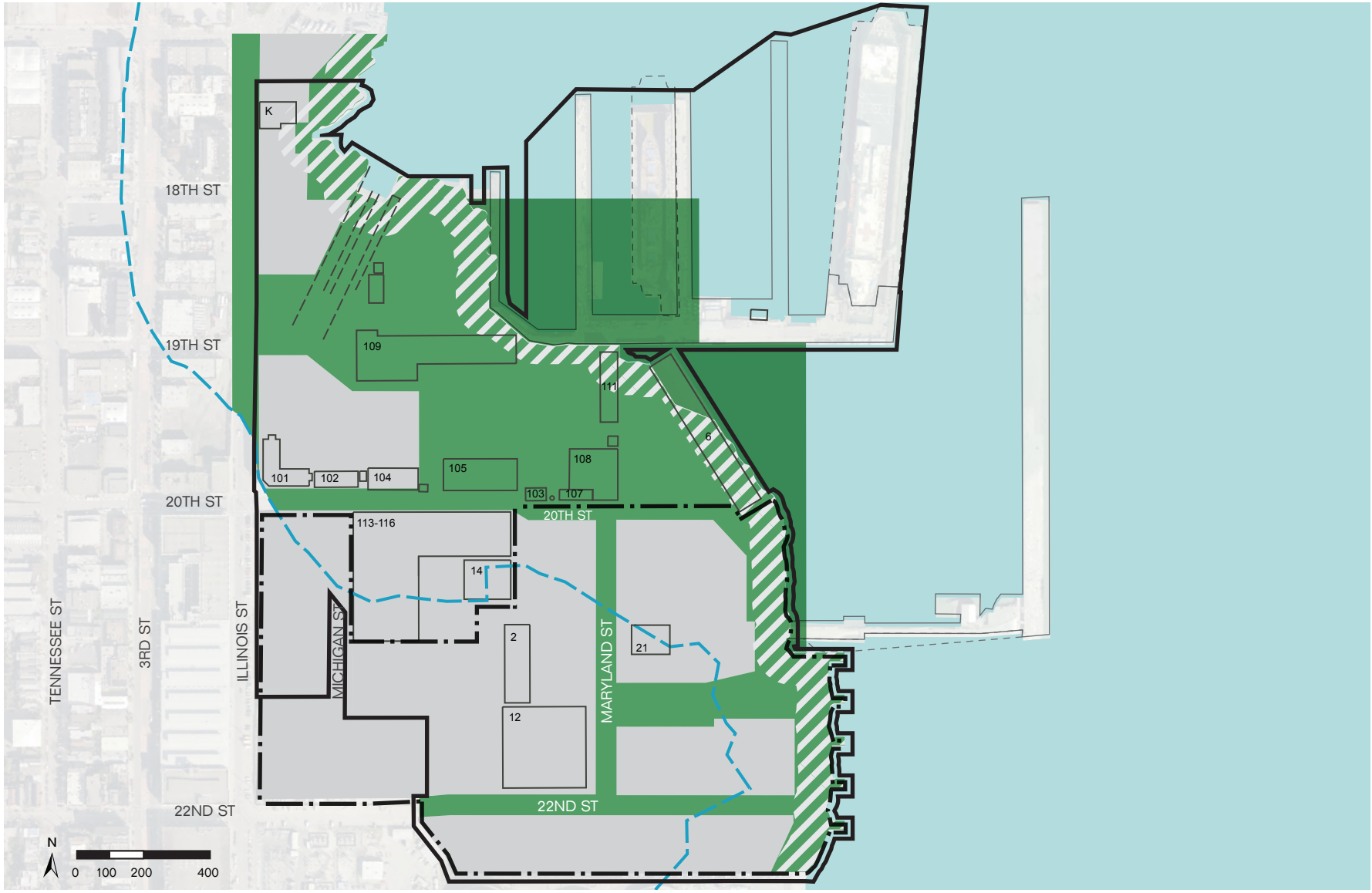


FIGURE 1.3.6: Future Public Trust Configuration

1.4 PROJECT TIMELINE

PIER 70 PROCESS

In 2007, the Port of San Francisco commenced a master planning and community outreach process for the Pier 70 Area. In 2008, Proposition D on the municipal ballot passed, allowing the City to apply hotel and payroll expense tax revenues from future development towards improvements at Pier 70. The planning and community outreach process culminated in 2010 with the endorsement of the Pier 70 Preferred Master Plan (Section 1.3 Planning Context).

Building on the direction of the Preferred Master Plan, the Port issued a Request for Qualifications for a development partner for those identified infill opportunities within the Pier 70 Area and ultimately selected Forest City. From 2011 through today, the vision for the Project has grown directly from the goals outlined in the Preferred Master Plan, conversations with the Dogpatch community and stakeholders citywide, as well as important input and feedback from City agencies, including the Port Commission. Starting in 2013, the Project initiated temporary events and activities to test design ideas and allow the community to visit and experience the site. Between 2011 and 2016, over 75,000 visitors attended over 50 events, allowing community members the opportunity to experience Pier 70 for the first time.

In 2014, a citywide ballot measure authorizing an increase in height limits at the 28-Acre Site passed with 73 percent support. This ballot measure represents how the intensive outreach and conversations with community members and stakeholders directly influenced the vision for Pier 70, ensuring that it is a place that will be embraced by locals and visitors alike.

This nearly ten-year sequence of outreach and participation—from the Preferred Master Plan to special events and temporary activation of the site, as well as close collaboration with City agencies—led to the standards and guidelines outlined in this D4D document.

PROPOSITION F

In 2014, the San Francisco electorate approved Proposition F, a ballot measure that authorized a height increase at the 28-Acre Site from the existing 40 feet to 90 feet. Proposition F conditioned the effective date of the proposed height increase on completion of an EIR and approval of a development plan for the 28-Acre Site by the Port Commission and Board of Supervisors.

The major components of Proposition F relate to the 28-Acre Site and are as follows:

- Nine acres of waterfront parks, playgrounds, and recreation opportunities;
- Between approximately 1,000 and 2,000 new housing units;
- 30 percent of all new housing units at below-market rates and majority of new housing units as rental;
- Restoration of historic structures essential to the integrity of the UIW Historic District;
- Substantial new and renovated space for arts, cultural, small-scale manufacturing, local retail, and neighborhood-serving uses;
- Preservation of the existing Noonan Building community in new state-of-the-art space on-site;
- Between approximately 1,000,000 and 2,000,000 square feet of new commercial and office space;
- A transportation demand management program that includes accessory parking facilities and other mobility-enhancing

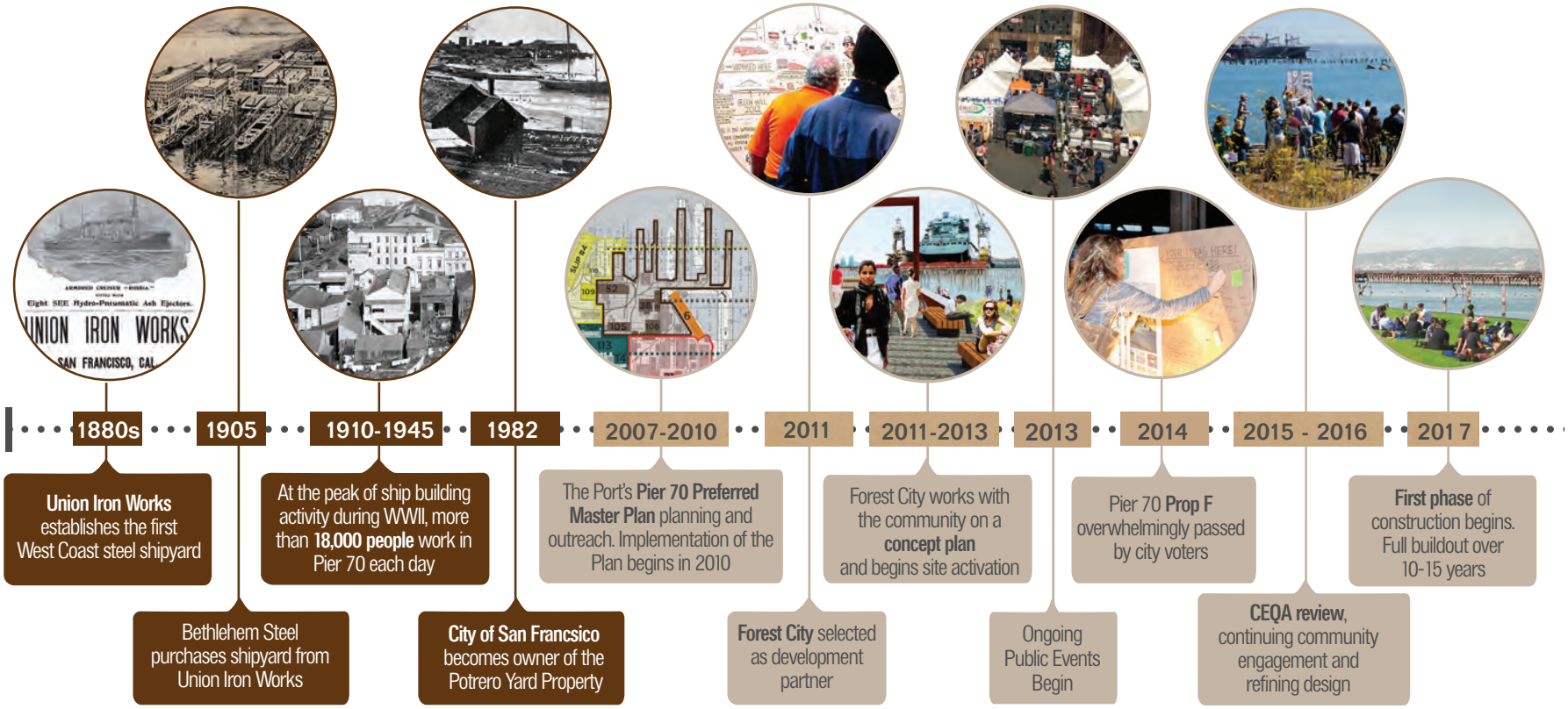


FIGURE 1.4.1: Pier 70 Timeline

1.5 DESIGN PROCESS

SITE CONDITIONS

The site today is characterized by existing historic and natural features, by environmental factors, and by current uses, which include warehouses, automobile storage lots, artists' studios, and an interim event venue.

- **HISTORIC FEATURES – BUILDINGS AND SLIPWAYS.** The most prominent features of the site are its historic buildings and the slipways. These special features are central in the massing and open space design of the project. Buildings 2, 12 and 21 anchor the active center of the project, and the slipways are embedded in the site plan as a landscape feature.

- **NATURAL FEATURES AND TOPOGRAPHY.** The site has varying topographic conditions, with an approximately 30-foot increase in elevation at the western extent of the 28-Acre Site, and the remnant of Irish Hill rising to approximately 35 feet. The site has minimal and scattered vegetation, with impervious surfaces covering approximately 98 percent of the 28-Acre Site and approximately 43 percent of the Illinois Parcels. A significant portion of the existing site is filled land.

- **SITE ADJACENCIES.** The Project is sensitive to various site adjacencies and acknowledges the need to buffer uses incompatible with residential buildings. Parcels adjacent to Ship Repair are designated for office uses, and parcels adjacent to the former Potrero Power Plant and PG&E switchyard are mixed-use parcels, to allow flexibility depending on the future adjacent uses.

- **SITE CHALLENGES.** New infrastructure is required to create public access, connect to utilities, service the site and address liquefaction. Environmental remediation will be undertaken by PG&E. Liquefaction risk areas will be addressed by subsequent geotechnical analysis.

- **SHORELINE.** The Project has over 1,300 feet of shoreline along its eastern edge, including the craneway piers that extend into the Bay. The waterfront park will be designed to provide public access as close to the shoreline as is safe and feasible, and the Bay Trail will be built to withstand the current highest estimate of 2050 sea level rise.

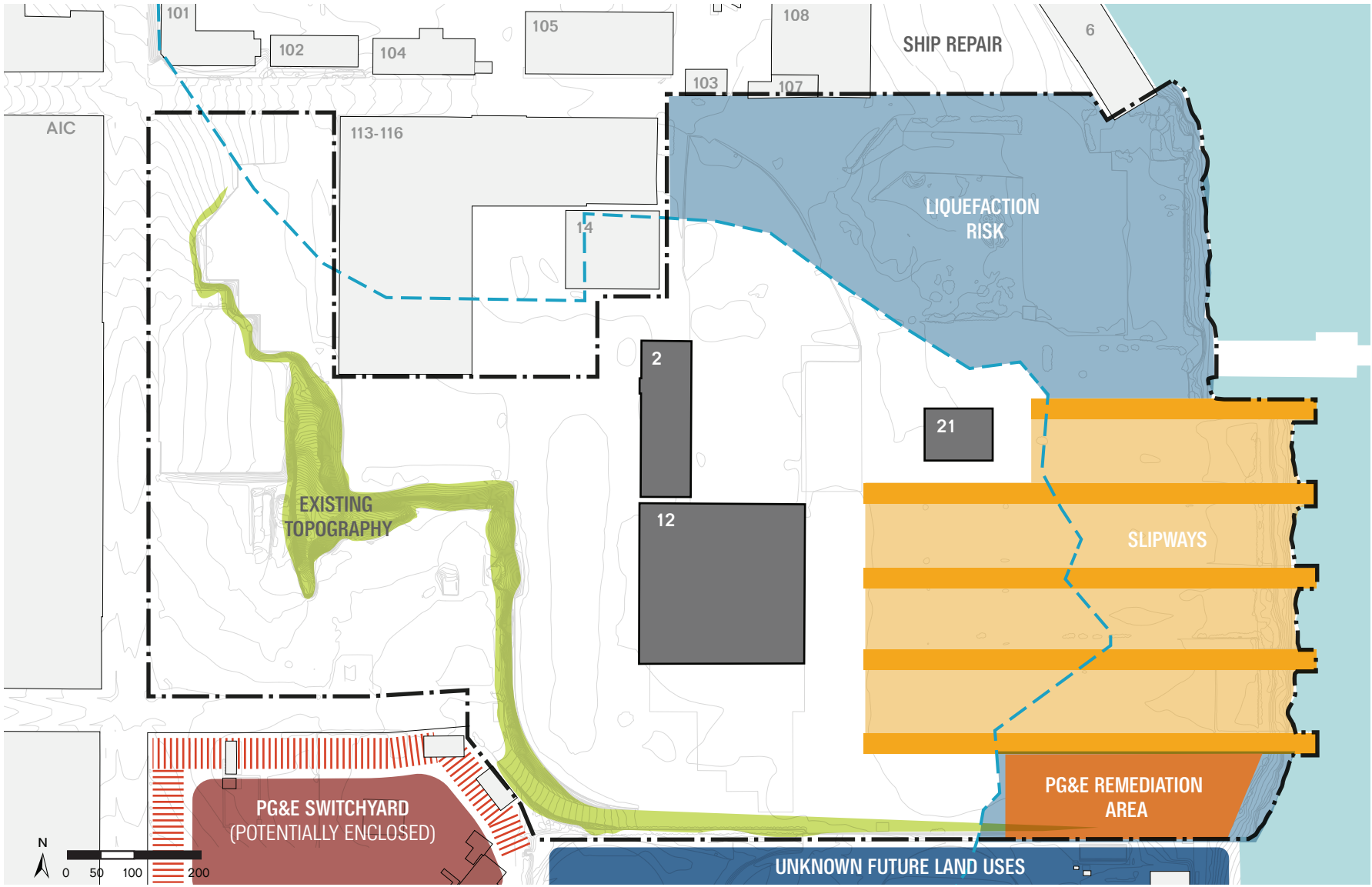


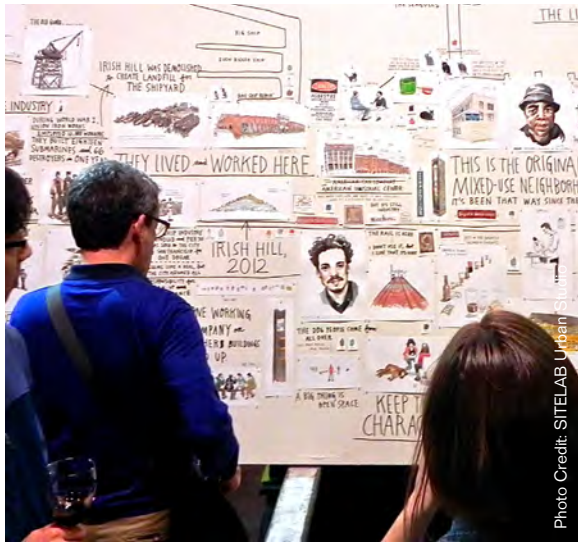
FIGURE 1.5.1: Site Conditions

OBSERVATIONS AND NEIGHBORHOOD THEMES

The community outreach process revealed a series of themes and observations most critical to the users and neighbors of Pier 70, listed in Figure 1.5.2. Ranging from program and density ideas to qualitative observations of the diversity and culture in place, these collective goals guided the development of a series of "principles of place" that evolved through the design process into a series of design principles (page 20).



FIGURE 1.5.2: Neighborhood Themes



Wendy MacNaughton Community Exhibit and Open House (2013)



Kayak Tours (2012)



Concept Plan Workshop and Site Tour (2013)



Urban Air Market (2013)



Ghost Ship Halloween (2013 – ongoing)



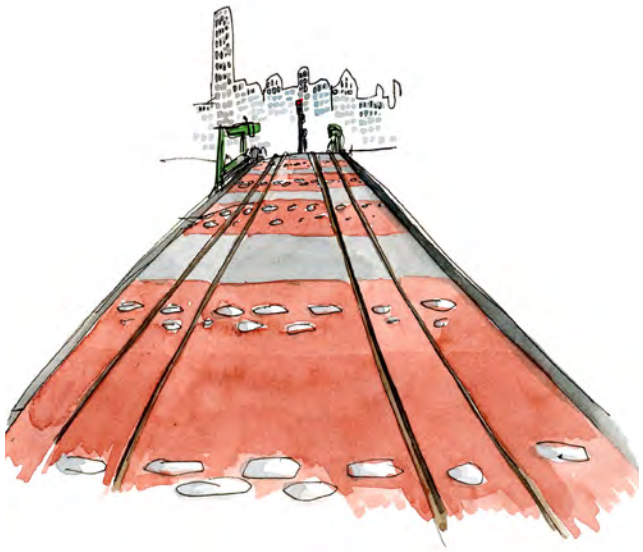
Open House (2013 – ongoing)

FIGURE 1.5.3: Pier 70 Project Events and Outreach

DESIGN PRINCIPLES

Historical research, site conditions, conversations with neighbors, workshops and interviews with local stakeholders, and artist engagement led to a series of Design Principles for the Project.

These principles provide a framework for the D4D document to inform the future revitalization of this undiscovered piece of San Francisco's waterfront.



Union Iron Works Rail Lines | Pier 70 in Its Own Words
Watercolor by Wendy MacNaughton



01. CELEBRATE INDUSTRY AND HISTORY

The Project seeks to honor the former industry, labor, and craft of this historic port. Ships were built or repaired from the time of the Spanish American War, reaching a height of operations during World War II. The extant buildings, characterized by a variety of construction types, scales, and materials, reflect a site that was regularly evolving and purpose-built. The Project will restore activity to the site, provide opportunities for ongoing craft and light manufacturing, and prioritize architecture that responds to the material qualities of the industrial history.



Photo Credit: Shae Rocco/ Forest City

02. EXTEND THE DOGPATCH COMMUNITY

With its adjacent light industrial uses and ship repair activities, the site presents an opportunity to bring industry and community together, and create a truly mixed-use and vibrant neighborhood.

Dogpatch is characterized by its diverse group of residents, visitors, and workers including an established arts and fabrication community. The Project will be an extension of Dogpatch, creating a mix of uses and building types to include a range of living and working spaces. The Project will provide diverse and creative uses supported by pedestrian-oriented ground floor designs along the streets and open spaces and opportunities for local retailers and artists.



Photo Credit: Shae Rocco/ Forest City

03. CREATE A NETWORK OF PUBLIC SPACES

With a network of public open spaces that extend the pedestrian and bicycle network from Dogpatch to the waterfront, the Project will serve as an amenity to, and expansion of, the existing community. The network of spaces reflects the historic layout of the site – in materiality and arrangement of the narrow alleys and in-between spaces that once supported the ship repair needs nearby.



Photo Credit: Shae Rocco/ Forest City

04. OPEN THE WATERFRONT TO THE PUBLIC

The waterfront park extends into the site to connect the Bay with the historic Buildings 2, 12, and 21. The site plan provides a framework to extend the waterfront park to the south and into the former Potrero Power Plant site through the proposed Bay Trail/Blue Greenway along the shoreline.

The waterfront park design at the site provides opportunities for active and passive uses, for both individuals and groups, with promenades, picnic areas, wide vistas, and intimate moments.

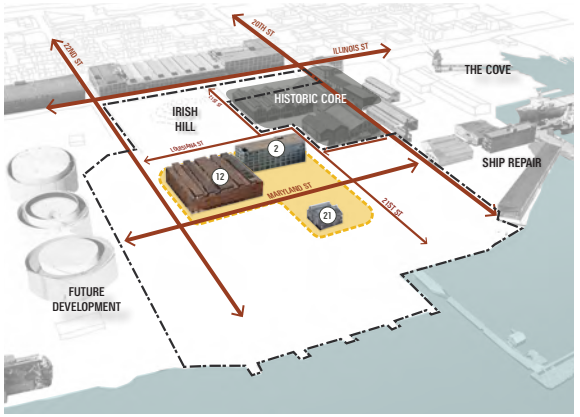
SITE CONCEPT

The site concept is based on design principles and major themes informed by the neighborhood surrounding the site. The following key components guide the Project master plan:

1. **HISTORIC NODE.** Celebrate the industrial heritage of the site by creating a node of historic buildings.
2. **EXISTING STREET GRID.** Connect the site to the surrounding area by extending existing streets to the waterfront.
3. **WATERFRONT PARK.** Create a distinct waterfront park that connects to the historic buildings.
4. **CREATIVE CORE.** Place a human-scaled creative mix of uses, including retail, arts, and light industrial, at the center to serve as the hub of the neighborhood.



(1) Create a Central Historic Node



(2) Extend the Existing Street Grid to the Water



(3) Create a Continuous Waterfront Park



(4) Place a Creative Core at the Center

FIGURE 1.5.4: Site Concept

Pier 70 Project Site
Public Open Spaces
Creative Core: Retail, Arts, and Light Industrial

LAND USE SCENARIOS

The Project will be a truly mixed-use neighborhood, with controls that prioritize both residential and commercial uses in tandem with ground floor retail, arts, and manufacturing space. As is the case in much of San Francisco, the Project will establish a land use program wherein certain parcels are zoned as mixed use and could be developed either for primarily commercial-office or residential uses. In addition, two parcels in the Project (C1 and C2) could be built as either district parking structures, or residential, or commercial-office uses, depending on future market demand. C1 is shown as a garage in all scenarios, but is permitted to be residential or commercial based on future parking needs. C2 is shown as residential in all scenarios, but is permitted to be a garage based on future parking needs.

MID-POINT SCENARIO *

The Mid-Point Scenario provides a likely example between the "Maximum Residential" and "Maximum Office" scenarios. This scenario balances residential and commercial uses showing Parcels F and G as well as the Hoedown Yard parcels as commercial use, with the other flexible parcels developed as residential use.

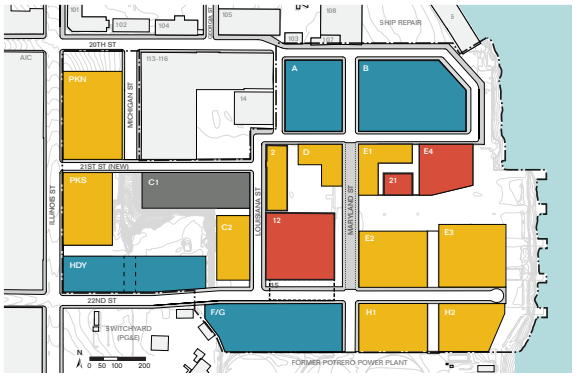


FIGURE 1.5.5: Illustrative Land Use Plan, Mid-Point Scenario

* The Mid-Point Scenario is used as the baseline illustration in this D4D document.

MAXIMUM RESIDENTIAL SCENARIO

The Maximum Residential Scenario depicts all potential residential parcels developed as residential, for the maximum number of units.

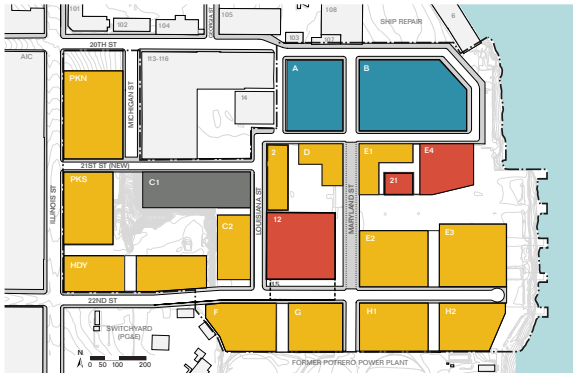


FIGURE 1.5.6: Illustrative Land Use Plan, Maximum Residential Scenario

MAXIMUM OFFICE SCENARIO

The Maximum Office Scenario depicts all potential commercial parcels developed as commercial-office, for the maximum amount of office space.

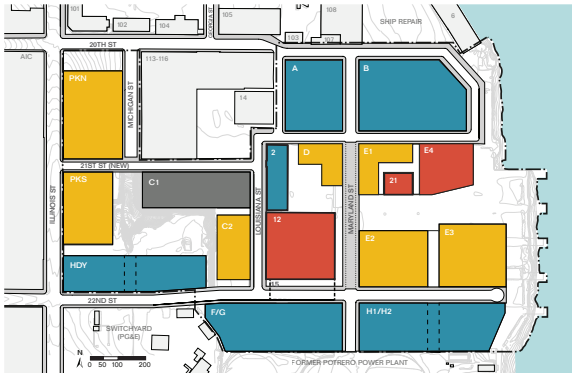


FIGURE 1.5.7: Illustrative Land Use Plan, Maximum Office Scenario

Pier 70 Project Site
Commercial-Office
Residential
Retail, Arts, and Light Industrial
District Parking

1.6 DESIGN FRAMEWORK

The framework outlines how the design principles identified in Section 1.5 are applied on site through large planning moves and overarching strategies. While the design standards and guidelines in the following chapters specify intent and fixed requirements for each parcel, street and open space element, the framework focuses on four key aspects of the Project: land use, public realm design, cultural resources, and massing/architectural design.

LAND USE FRAMEWORK

The Project ensures a mix of uses to create a sustainable neighborhood through diversity, creativity, and commitment to industry, as described in the project vision. Three core principles guide the land use of the Project:

- **MIXED USE.** The Project aims to create a density of uses including market-rate and affordable residential, commercial, parking, and public open space. The mixed-use neighborhood will also include a spectrum of local retail and arts spaces including neighborhood retail, artist studios and cultural spaces, eating and drinking venues, light industrial, local manufacturing, and entertainment establishments.

- **CREATIVE CORE AND PRIORITY RETAIL.** The creative core is envisioned as the pedestrian-scaled active zone of the Project and includes Buildings 12, 21, and E4 dedicated to retail, arts, and light industrial uses. Priority retail frontages within the creative core (see Figure 1.6.1) are protected on the ground floor for retail, arts, light industrial, and other public uses to relate to the park and to create an inviting and safe public realm.

- **FLEXIBLE USES.** The former Potrero Power Plant site and the PG&E switchyard—both with unknown futures—bound the site to the south. To accommodate the uncertain adjacencies and be compatible with future development, this D4D document embeds flexibility for select parcels to be built as either residential or commercial buildings.

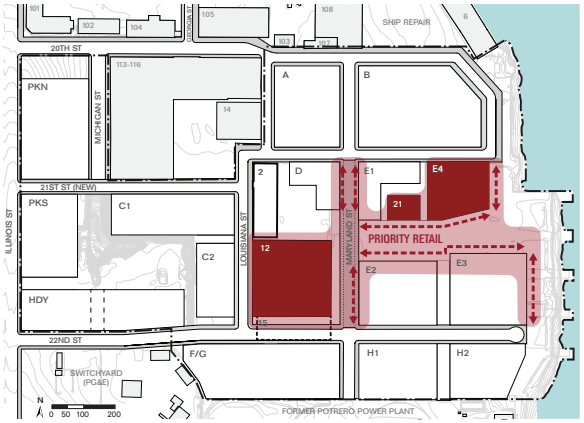


FIGURE 1.6.1: Creative Core & Priority Retail



FIGURE 1.6.2: Land Use Framework

- Pier 70 Project Site
- Public Open Spaces
- *Commercial Use*
- *Residential Use*
- *Retail, Arts and Light Industrial*
- *Potential Rooftop Public Open Space*

PUBLIC REALM FRAMEWORK

Inspired by the existing character of the site, the public realm within the Project provides a series of differently sized and designed spaces — with wide open views and moments of discovery between and through buildings.

The Project's public realm prioritizes pedestrians and bicyclists, supported by design guidelines for ground floors to enhance pedestrian experience of the site. The open space design integrates art, artifacts, and interpretive signage in the landscape to relate to the rich industrial history of the site. The public realm includes both the Project's open space network and streets, as described below, and as further defined in Chapters 3, 4, and 7 of this D4D.

- **OPEN SPACE NETWORK.** Historically, the open spaces at Pier 70 were multi-functional and served to extend and support uses of adjacent buildings. Inspired by this distribution of multi-purpose outdoor spaces, the Project's open space design is intended as a rich "mosaic" of urban parks and shoreline spaces, each defined by a series of overlapping "frames" in the ground. The open space network creates different social spaces throughout the site and offers a variety of destinations connected by pedestrian paths. This framework serves to organize the nine-acre open space into zones of varying scales and functions and offers opportunities to delineate important historic markers where appropriate. Figure 1.6.5 shows the historic arrangement of open spaces, and Figure 1.6.4 and Figure 1.6.6 illustrate the framework concepts.



Create a Variety of Public Spaces – Space for Social Interaction



Create a Variety of Public Spaces – Space for Respite



Prioritize Pedestrians and Bicyclists



Create a Variety of Flexible Public Spaces

FIGURE 1.6.3: Public Realm Objectives



View of Slipways Commons Looking East



View of Slipways Commons Looking West

FIGURE 1.6.4: Example Scenarios of Open Space Design

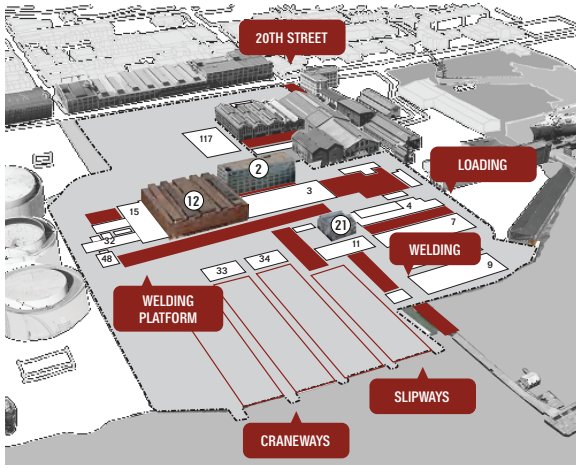


FIGURE 1.6.5: Open Space Framework Inspiration

Pier 70 Project Site
Historic Building Footprint
Historic Open Areas

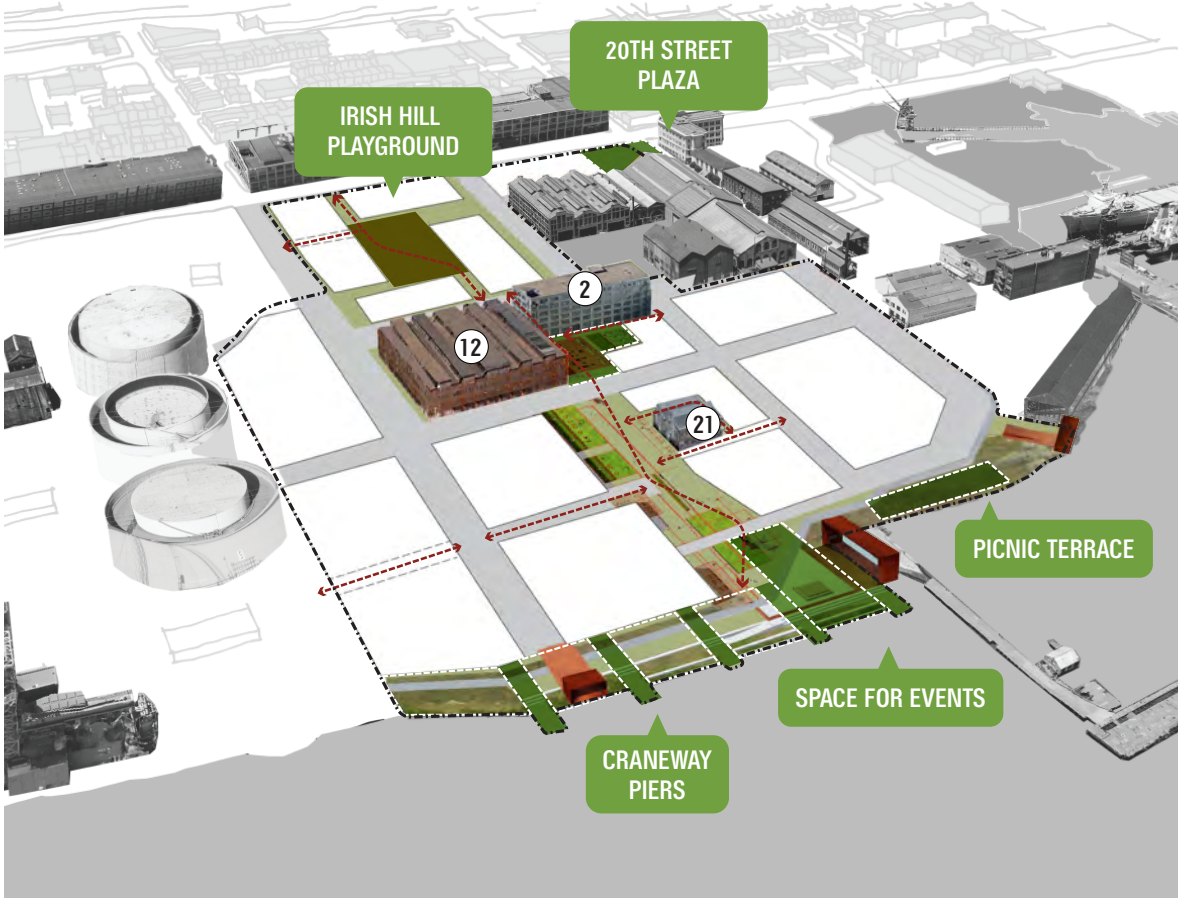


FIGURE 1.6.6: Open Space Framework

Pier 70 Project Site

- **STREETS AND STREETSCAPE.** The street network extends existing streets from Dogpatch to the new public waterfront within the Project. Streets are designed to balance prioritizing safety and comfort of pedestrians and bicyclists with accommodating a variety of modes, including loading and parking. Distinct sidewalk throughways and a network of pathways ensure pedestrian safety and comfort; commuter and recreational bicycle routes protect bicyclists; centralized parking facilities serve the site and minimize circling; and loading is focused on certain routes to minimize conflicts with other modes. The character and design of each street relates to its context and function within the Project: 20th Street serves to connect the historic buildings to the water, 22nd Street serves as the neighborhood mixed-use street. 21st and Louisiana Streets are new streets that provide service and loading access throughout the site.

  Maryland Street serves as the main retail corridor, with specialty treatment and pedestrian priority design (see Section 4.2 for further description). The Bay Trail extends along the length of the waterfront. Additionally, a network of paths extends throughout the site to create an alternative circulation network for pedestrians. While 20th and 22nd Streets directly connect Dogpatch to the water, the pedestrian paths offer a route to meander through the site and to discover various elements of the public realm.

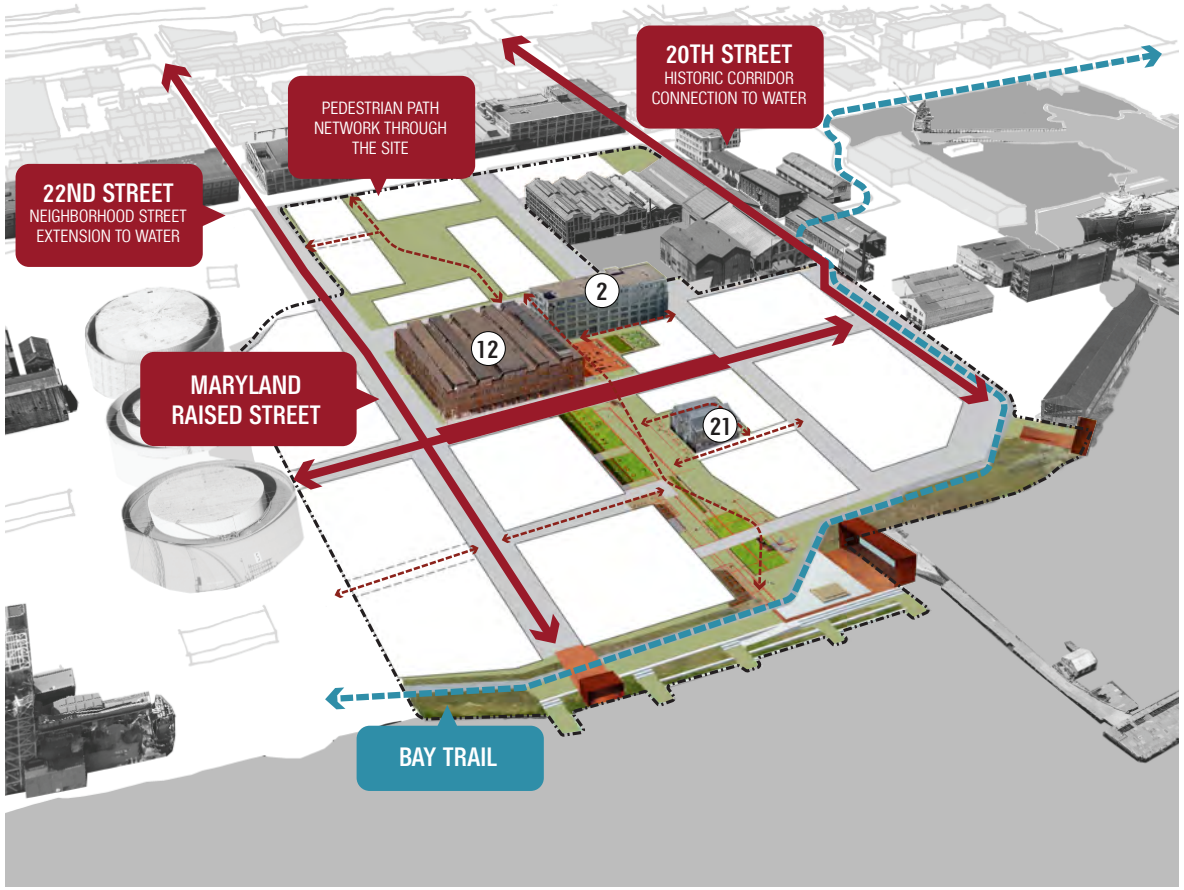


FIGURE 1.6.7: Streets Framework

Pier 70 Project Site

- **ART AND ARTIFACTS.** Art and artifacts in the landscape create a cohesive network of public realm elements that are aesthetically and historically significant at the site. Strategies include repurposing found objects on the site (coordinated with sitewide historic interpretation plans), and creating new opportunities for artists to contribute to Pier 70's evolving identity.

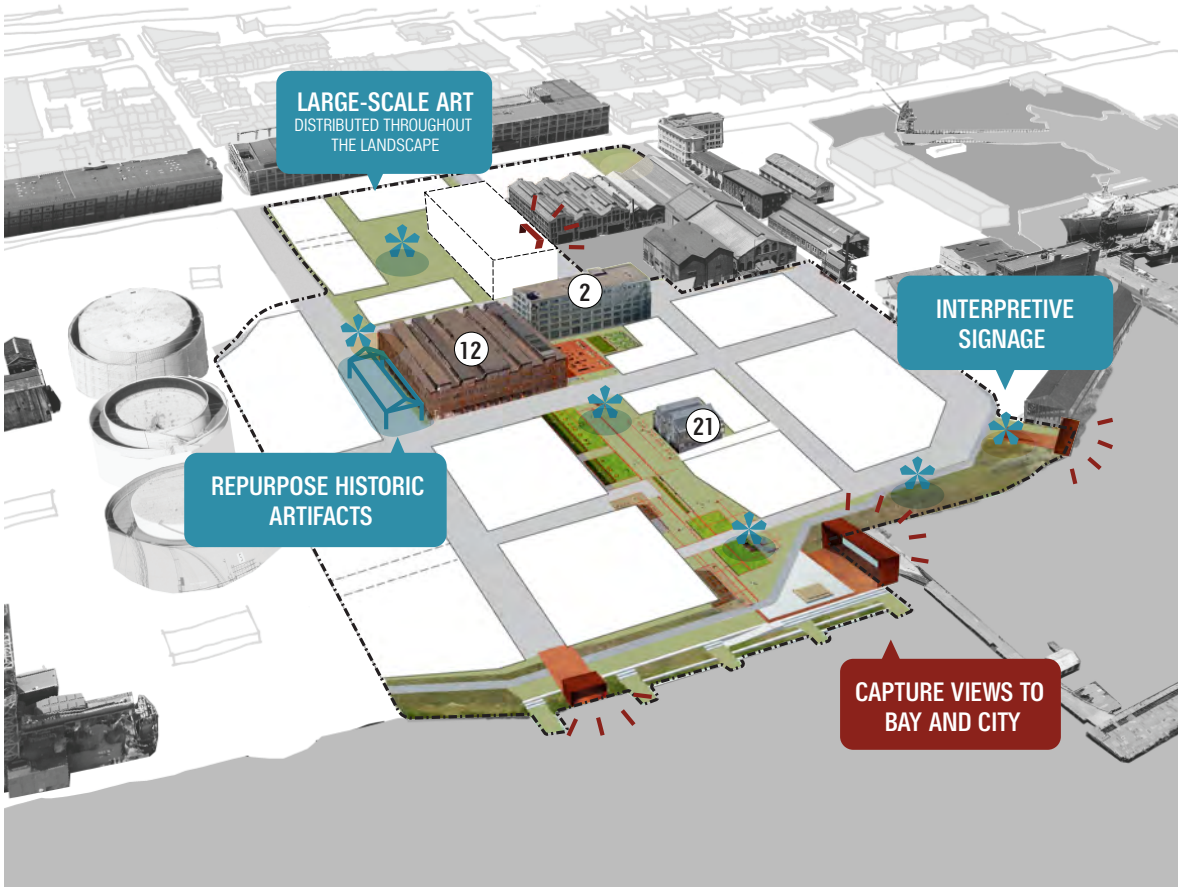


FIGURE 1.6.8: Art and Artifact Framework

Pier 70 Project Site









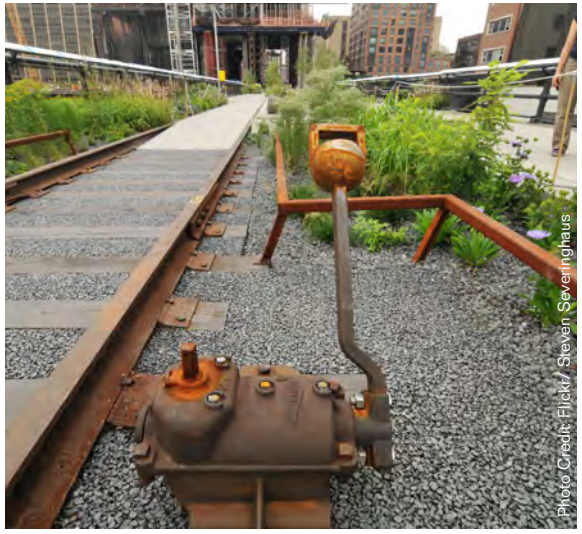




FIGURE 1.6.9: Art and Artifacts Precedents

FIGURE 1.6.10: Illustrative Views of Art and Artifacts

CULTURAL RESOURCES FRAMEWORK

The UIW Historic District is understood through contributing cultural resources that remain at the site and character-defining features identified in the National Register of Historic Places. The architecture of the Project draws inspiration from its identity as a historic site, and seeks to protect the legibility of its industrial history. This is achieved by creating a framework for rehabilitation of existing resources as well as defining strategies for specific new buildings to relate to, and be compatible with, the site's cultural resources, while staying true to their contemporary construction.

Buildings 2, 12 and 21 are important cultural resources at the core of the site that will be rehabilitated to create the cultural and social centerpiece of the Project.



Building 12

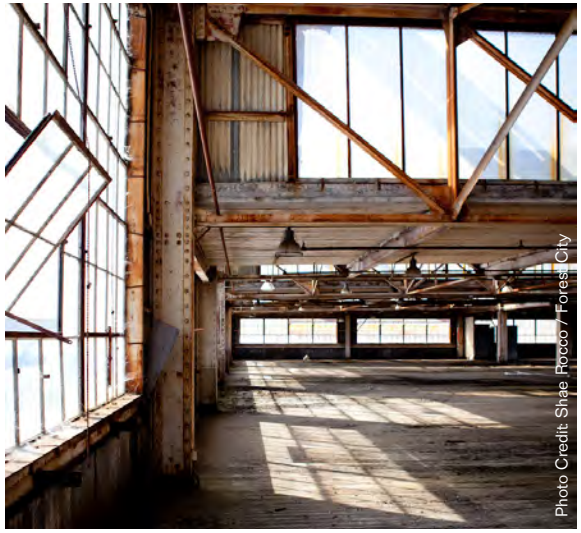


Building 2

FIGURE 1.6.11: Cultural Resources



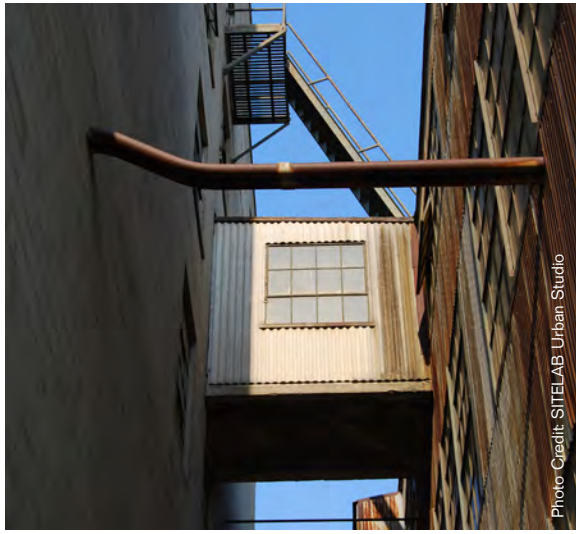
Building 12 - Roof



Building 12 – Interior



Building 12 – Interior



Building 2 and 12 Connector



Building 21 – Exterior



Building 21 – Detail

MASSING AND ARCHITECTURE FRAMEWORK

Inspired by the site's historic character and its natural features, including the waterfront and varied topography, the massing and architecture framework sets a new approach for design guidelines that protects the site's industrial heritage and carries the site's industrial scale and character forward to all future buildings while encouraging architectural invention. The standards and guidelines set a specific yet flexible framework with a toolkit of strategies that may be applied to various parcels. Strategies are tailored to address immediate adjacencies. Detailed controls ensure the design of the ground floor is appropriately urban and pedestrian friendly.

The Project is uniquely suited for buildings with large footprints, which are consistent with the site's industrial history while lending more flexibility for multiple uses. The massing and architecture framework draws from techniques used in existing industrial buildings to craft new large buildings within the Project, including attention to craft, texture, material treatment and pattern.





Base Treatment, Streetwall, and Ground Floor





Materiality, Grain, and Façade Treatment





Relationship to and Compatibility with Historic Buildings

FIGURE 1.6.12: Architectural Design Precedents

- **PROJECT-WIDE MASSING AND ARCHITECTURE.** The Project includes buildings with varying footprints—small and large—that are limited to a maximum height of 90' (Section 1.4). The Project aims to encourage a variety of building forms within the established height limit to create visual and experiential interest. With attention to ground floor treatments, streetwall and façade articulation, building forms are required to respond to the pedestrian-scale. The massing of each parcel is further crafted by standards and guidelines that reflect its relationship to adjacent historic buildings and open spaces, as described below.

- **LOCATION-SPECIFIC MASSING AND ARCHITECTURE.** Location-specific strategies address crafting long façades in key locations, accentuating waterfront façades, as well as designing key features of the Project, such as mid-block connectors and adjacency to cultural resources. To that end, the standards and guidelines set in the D4D recognize different parameters for each parcel: while buildings in close proximity to historic buildings are required to reflect the industrial character of the district in a contemporary matter, buildings in close proximity to the water are required to integrate public amenities, and select buildings with long façades are required to invest in texture, craft, and architectural details.



FIGURE 1.6.13: Massing and Architecture Framework

Pier 70 Project Site



PIER 70
Urban Air Market

Photo Credit: Shae Rocco / Forest City

2 LAND USE

2.1 ZONING AND LAND USE 38

2.2 GROUND FLOOR USES 42

2.1 ZONING AND LAND USE

The Project promotes the formation of a mixed-use district, including affordable and market-rate housing, commercial-office, retail, arts, light industrial and cultural uses, as well as parking. The Project site is zoned as Pier 70-MU. In addition to the permitted uses are additional standards and guidelines designed to create an active ground floor, with a focus on food, retail, arts, and local manufacturing.

To facilitate the City and Port's long-term goal of redevelopment and revitalization of the site, the Pier 70 SUD designates land uses for each parcel that are compatible with the historic character of the Pier 70 Area and site adjacencies.

Particular parcels prioritize: 1) Residential, 2) Commercial, or 3) Retail, Arts, and Light Industrial uses. A select number of parcels along the southern edge of the site are additionally permitted to be "flexible" or mixed-use, as denoted in Figure 2.1.1 with hatched colors. Flexible parcels are designated with the intent to: (1) relate to ultimate uses planned at adjacent sites, including the former Potrero Power Plant and PG&E Substation; and (2) relate appropriately to future parking demands. Retail, Arts, and Light Industrial uses are intended to allow flexibility for light industrial manufacturing, artist studio space, cultural and arts uses, event spaces, and retail uses that may include eating and drinking.

Figure 2.1.1 illustrates the predominant land uses, as described in Section 1.5 and Section 1.6. Uses apply to all floors, including mezzanines and ground floors, unless otherwise noted. In order to allow for flexibility and an evolution of uses and definitions, the standards focus on overall categories of use and denote specific uses within each category that are not permitted.

Standards

S2.1.1 **LAND USE.** The Pier 70 Project is zoned Pier 70-MU. All uses shall be permitted, except as listed in Table 2.1.1 as Not Permitted (NP). Accessory uses shall be limited to 33 percent of the floor area, with the exception of accessory parking. Accessory parking shall be limited to 50 percent of the floor area of the principal use in order to provide for increased capacity in select buildings to act as a shared parking resource for multiple buildings of the same use (see Section 5.4 for parking limits).

Ground floor uses shall be further regulated by Section 2.2 Ground Floor Uses.

S2.1.2 **DWELLING UNIT DENSITY LIMIT.** Dwelling unit density shall not be limited by lot area. See Section 6.12 Residential Building Elements and Open Space for dwelling unit exposure standards and residential open space requirements.

S2.1.3 **PUBLICLY ORIENTED ACCESSORY RETAIL USES IN PARKS AND OPEN SPACES.** Accessory uses are allowed in parks and open spaces, subject to the approval process outlined in the Pier 70 SUD. Accessory uses include uses that are complementary to passive and active open space uses.

The following uses are permitted in open spaces at grade and on elevated rooftops:

- Eating and Drinking Use – Restaurant may serve beer, wine, or hard liquor;
- Catering Services;
- Temporary Uses, Intermittent Activities;
- Art Activities and Spaces;
- Nighttime Entertainment;
- Outdoor Activity Area; and
- Entertainment.

Accessory buildings shall not exceed one story in height. No individual structure shall be greater than 3,000 square feet, and the total area of all structures combined shall not exceed 6,000 square feet. Public restrooms shall be permitted, and are excluded from the square footage measurement.

S2.1.4 **OFF-STREET PARKING.** Parking structures are permitted on parcels C1 and C2 only. Parking is permitted on all parcels as an accessory use, except in Parks and Open Spaces. Refer to Section 5.4 Off-Street Parking and Section 6.13 Garage and Service Entry Design for more information on parking maximums, locations, dimensions, and design of parking facilities and entries.

S2.1.5 **INTERIM USES.** Interim uses, including surface parking and arts, retail, and entertainment uses are permitted in accordance with the Pier 70 SUD.

Guidelines

G2.1.1 **PUBLIC RESTROOMS.** Provision of high-quality and sufficient public restrooms is encouraged within the open space network.



FIGURE 2.1.1: Land Use Concept

Note: Hatch represents land use options for flexible or mixed-use parcels.

*Building 12 is permitted to have office uses, except on the ground floor where only accessory office use is permitted.

TABLE 2.1.1: Permitted Land Uses

PERMITTED USE CATEGORY	PIER 70 SUD PARCELS										EXCEPTIONS
	2	12	21	A	B	C1	C2	D	E1	E2	
RESIDENTIAL USES	P	NP	NP	NP	NP	P	P	P	P	P	
INSTITUTIONS	P	P	P	P	P	P	P	P	P	P	
RETAIL AND SERVICES	P	P[1]	P[1]	P[1]	P[1]	P	P	P	P	P	[1]Tourist Hotel – NP
OFFICE	P	P[1,2]	NP	P	P	P	P	NP[3]	NP[3]	NP[3]	[1]Service, Medical – NP [2]Office Use – NP on Ground Floor [3]Office Use – P on Ground Floor Only
ARTS AND ENTERTAINMENT	P[1]	P[1]	P[1]	P[1]	P[1]	P[1]	P[1]	P[2]	P[2]	P[2]	[1]Movie Theater – No More than 3 Screens [2]Movie Theater – NP
INDUSTRIAL/ "PDR"	P[1,2]	P	P	P[2]	P[2]	P[1,3]	P[1,3]	P[1,2]	P[1,2]	P[1,2]	[1]PDR-1 / Light Industrial – Ground Floor Only if the Building contains Residential [2]PDR-2 – NP [3]PDR-2 – P Only if the Building is a Parking Garage
PARKING	NP[1]	NP[1]	NP[1]	NP[1]	NP[1]	P	P	NP[1]	NP[1]	NP[1]	[1]Accessory Parking Permitted. Parking lots are not permitted, except as provided for in S2.1.5 as an interim use.

P = Permitted Use

NP = Non-Permitted Use

TABLE 2.1.1: Permitted Land Uses (continued)

PERMITTED USE CATEGORY	PIER 70 SUD PARCELS									EXCEPTIONS
	E3	E4	F	G	H1	H2	PKN	PKS	HDY	
RESIDENTIAL USES	P	NP	P	P	P	P	P[1]	P[1]	P[1]	[1]Ground Floor Residential on Illinois Street – NP
INSTITUTIONS	P	P	P	P	P	P	P	P	P	
RETAIL AND SERVICES	P	P[1]	P	P	P	P	P	P	P	[1]Tourist Hotel – NP
OFFICE	NP[3]	P[1,2]	P	P	P	P	NP[3]	NP[3]	P	[1]Service, Medical– NP [2]Office Use – NP on Ground Floor [3]Office Use – P on Ground Floor Only
ARTS AND ENTERTAINMENT	P[2]	P[1]	P[1]	P[1]	P[1]	P[1]	P[2]	P[2]	P[1]	[1]Movie Theater – No More than 3 Screens [2]Movie Theater – NP
INDUSTRIAL/ "PDR"	P[1,2]	P	P[1,2]	P[1,2]	P[1,2]	P[1,2]	P[1,2]	P[1,2]	P[1,2]	[1]PDR-1 / Light Industrial – Ground floor only if the building contains residential [2]PDR-2 – NP
PARKING	NP[1]	NP[1]	NP[1]	NP[1]	NP[1]	NP[1]	NP[1]	NP[1]	NP[1]	[1]Accessory Parking Permitted. Parking lots are not permitted, except as provided for in S2.1.5 as an interim use.

P = Permitted Use

NP = Non-Permitted Use

Note: For definitions of use categories and excluded uses, see Appendix A.

2.2 GROUND FLOOR USES

Active, public, and creative uses are encouraged on the ground floor of buildings. To create a walkable, vibrant retail core along the waterfront park, priority retail and service uses are densely concentrated along Maryland Street between 21st and 22nd Street, and along Slipways Commons (See Section 3.6). See Section 6.13 for controls related to parking on ground and upper stories.

Standards

S2.2.1 **MEASURING FRONTAGES.** A frontage shall be defined as the vertical exterior face or wall of a building and its linear extent that is adjacent to or fronts on a right-of-way or open space. Percentages of Priority Retail/ Retail and Service Frontages shall be measured by linear feet for each zone indicated. Building frontage excludes space allowed for parking and loading access, building egress, and access to mechanical systems.

S2.2.2 **MEASURING CORNERS.** For buildings along 20th, 22nd, and Maryland Streets, corners shall be defined as the first 75 feet from the intersection along the frontage of a building. For all other locations, corners shall be defined as the first 50 feet from the intersection along the frontage of a building. See Figure 2.2.1.

S2.2.3 **PRIORITY RETAIL FRONTAGES.** As listed below, a minimum of 50 percent of the shaded Priority Retail Frontage zone shown in Figure 2.2.2 shall be occupied by the following uses:

- Retail (excluding financial services, banks, or real estate services);
- Bar and restaurant;
- Arts and culture;
- PDR; and
- Entertainment.

As an exception to the above, Parcel E4, due to its waterfront location, shall require a minimum of 33 percent Priority Retail of the extent of the east and south frontages. The priority retail uses on Parcel E4 may consolidate required linear feet on a single designated frontage.

The minimum depth of regulated uses for all Priority Retail frontages is 25 feet from the subject façade. A maximum of 40 feet of lobby frontage per building may count towards linear Priority Retail frontage requirement.

S2.2.4 **RETAIL AND SERVICE FRONTAGES.** To embed a broader set of active uses elsewhere on the site, including community facilities and personal services, Retail and Service Frontages shall occur along the northern and southern waterfront edge, as well as along the 200-foot portion of C1 facing Orton Plaza and on key gateways into the site from Illinois Street and corners adjacent to the Maryland Street corridor between 21st and 22nd Streets, as shown in Figure 2.2.2. Specified frontage zones shall be limited to the uses listed in S2.2.3 Priority Retail Frontages plus the following additional uses for a minimum of 50 percent of the shaded Retail and Services frontage zone identified in Figure 2.2.2:

- Personal services;
- Medical services;
- Financial services and banks;
- Fitness centers and gyms;
- Institutions;
- Community facilities; and
- Events and activity space.
- For C1 only, small offices up to 5,000 square feet.

The minimum Retail and Service depth shall be 25 feet. If C1 is built as a garage, the minimum depth shall be 20 feet to preserve parking layout feasibility.

S2.2.5 **GROUND FLOOR OFFICE FRONTAGE.** Ground floor commercial-office uses on 20th and 22nd Streets, as shown on Figure 2.2.2, shall not exceed 75 percent of the frontage for Parcels A, B, F, G, HDY, H1, and H2. Remaining portions of the frontages should provide usable spaces for a viable non-office use, including all uses listed in S2.2.3 and S2.2.4. See 6.8 Building Base and Ground Floor for ground floor design standards.

Guidelines

G2.2.1 GROUND FLOOR OFFICE FRONTAGES. When located on the ground floor, particularly along 22nd or 20th Street, commercial spaces with frontages longer than 30 feet are encouraged to locate and make visible social or common functions, such as lounges, kitchens, cafeterias, activity spaces, meeting rooms, and conference rooms along the street edge to create visual activity and engagement.

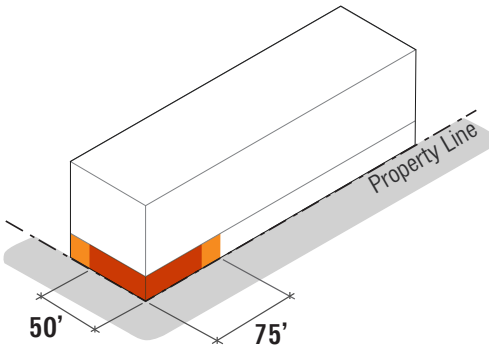


FIGURE 2.2.1: Measuring Corners

75' along 20th Street, 22nd Street and Maryland Street

50' along all other corners

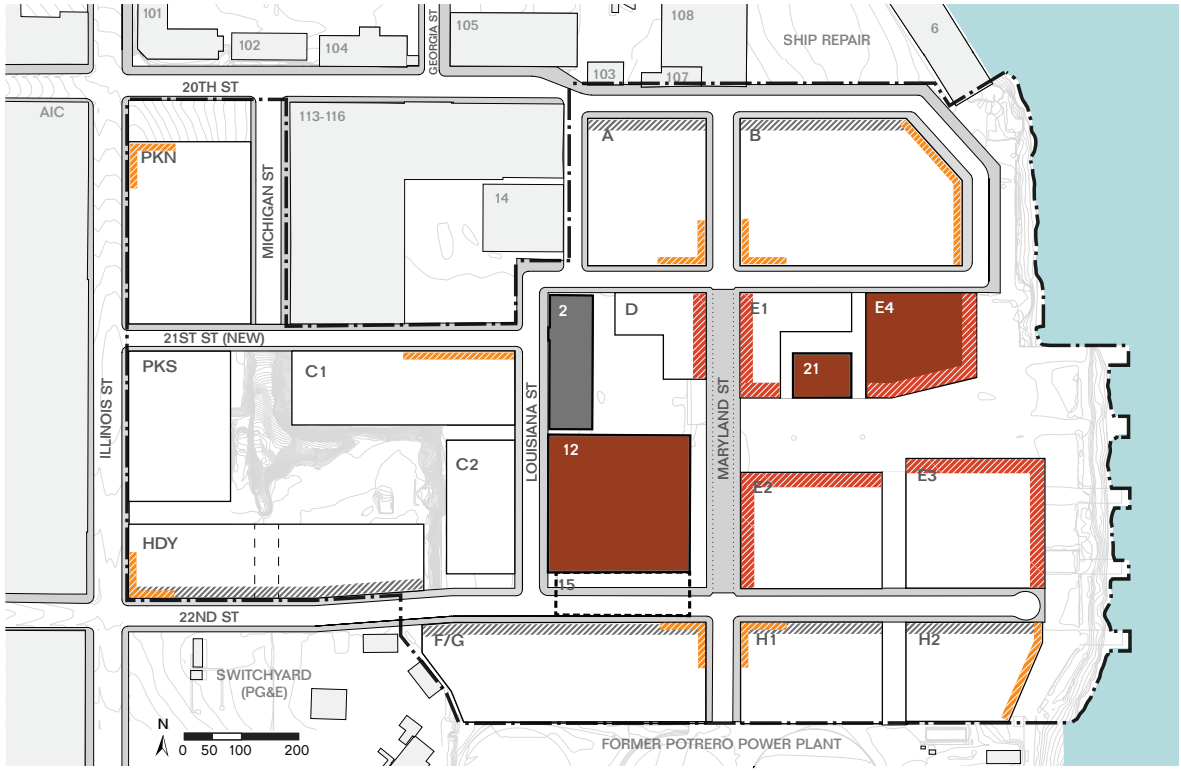


FIGURE 2.2.2: Ground Floor Frontage Controls

Buildings with Predominantly Retail, Arts, and Light Industrial Use

Priority Retail Frontage Zone

Retail and Service Frontage Zone

Frontages with Limits on Commercial-Office



PIER 70
Rendering of Slipways Commons

3 OPEN SPACE NETWORK

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OVERVIEW

3.1 OPEN SPACE DESIGN INTENT

Future development within the Project will create a new nine-acre public open space network along San Francisco's central waterfront. The parks and shoreline complement other waterfront improvements outside of the site, expanding the neighboring Dogpatch community and opening up views to the water. Pedestrian connectivity and universal accessibility are maintained through the entire open space network.

A continuous waterfront park along the length of the shoreline will extend the Bay Trail/Blue Greenway from the north to the south of the site. From the water's edge, a series of open spaces serve as an extension of the waterfront towards the site's interior, linking the waterfront to the historic and social center point of the site. While providing public access as near to the water as possible, the Project shoreline and waterfront parks will be designed for anticipated sea level rise.

Open space design of the Project encompasses creating a new habitat and ecology that respects the historic and industrial nature of the site.

The Project's open spaces connect to active ground floor uses through areas for seating, indoor and outdoor events, and through creating visual connections to cultural, retail, and light industrial activities within adjacent building ground floors.

The Project's open spaces will host a variety of public events, including happy hours, outdoor film screenings, music concerts, fairs and markets, food events, street festivals, art exhibitions and theatre performances. Currently the site hosts approximately 50 events per year. While typical future events would occur up to three times a month and have attendance of approximately 500 to 750 people, larger-scale events would occur approximately four times per year, with an attendance of up to 5,000 people.

The design and programming intent of the Project's open spaces are as follows:

- **FLEXIBLE.** Create flexible open spaces that can host a variety of activities and be inviting on quiet days as well as days with multiple events.
- **EVOLVING.** Foster ever-changing, informal, and formal activities with attention to seasonal ecologies in order to encourage repeat visitors.
- **LAYERED.** Develop multi-purpose program elements, minimizing single-purpose facilities. Incorporate multiple approaches to integrating vegetation into the open spaces while maintaining integrity of the historic industrial character.
- **YEAR-ROUND.** Attract people to the site year-round by providing activities for all seasons and times of day.
- **ACCESSIBLE FROM THE START.** Build on the success of ongoing Building 12 events, with temporary or permanent program elements and provide access during construction through phasing.



Flexible: Lounging on the Lawn



Evolving: Temporary Art Installation



Layered: Historic Artifacts and Vegetation



Year-round: Family Play



Year-round: Waterfront Dining



Accessible from the Start: Markets

FIGURE 3.1.1: Open Space Intent: Precedents

3.2 HISTORIC LANDSCAPE

Historically, the man-made landscape within the site was composed of multi-functional open spaces that served to extend uses of adjacent buildings, and of physical features, to support ease of industrial activities, such as rail lines and slipways for the shipbuilding cranes.

One natural landscape component that still remains today is an approximately 35-foot tall remnant of Irish Hill – once a site of housing for workers from adjacent industries. The remnant of Irish Hill, today approximately seven percent of what it once was, is a serpentine outcropping with a small stand of trees on its eastern embankment.

Standards

S3.2.1 **IRISH HILL.** No significant modification of landform shall be permitted on Irish Hill Remnant area as defined in Figure 3.2.1, beyond any geotechnical or environmental modification that may be required.

Guidelines

G3.2.1 **PLAY STRUCTURES.** Play structures are permitted adjacent to the face of Irish Hill remnant, so long as they maintain a minimum distance of 10 feet from the base of the remnant, as shown in Figure 3.2.1. See Section 3.11 Irish Hill Playground.

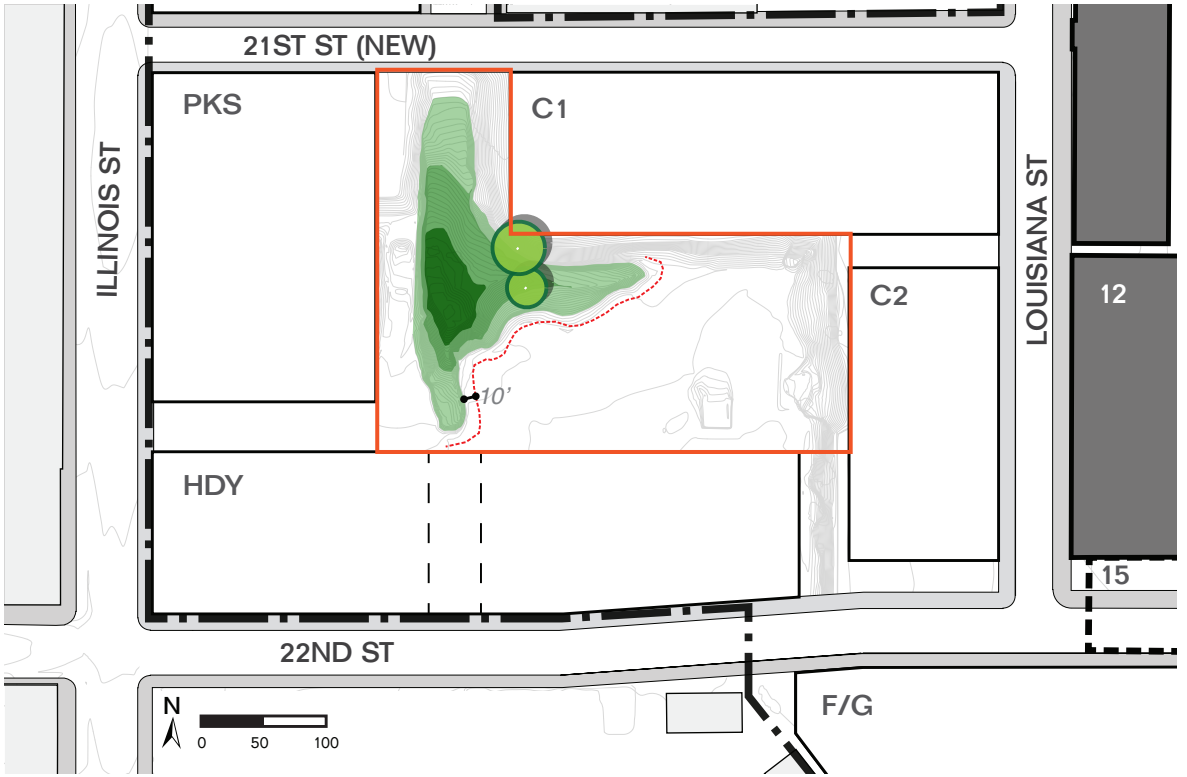


FIGURE 3.2.1: Enlarged Plan of Irish Hill Remnant

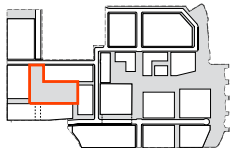










FIGURE 3.2.2: Irish Hill Remnant Today

3.3 PROJECT-WIDE PUBLIC OPEN SPACE REQUIREMENTS

This section provides standards and guidelines that apply to the network of public open spaces within the Project (Figure 3.4.1).

For intent and controls for individual open space zones, including the shoreline, refer to Sections 3.5–3.12. For standards and guidelines on various open space systems within the site, refer to Sections 3.13–3.17. For lighting within public open spaces, see Section 7.3 Open Space Lighting. Private residential open space standards and guidelines can be found in Section 6.12 Residential Building Elements and Open Space.

Standards

S3.3.1 **PUBLIC OPEN SPACE.** The Project shall provide nine acres of public open space.

Programming: Public open spaces shall provide opportunities for informal and formal activities, as well as passive and active recreation.

Dimensions: To ensure that open space is truly usable, public open spaces shall be a minimum of 10 feet in width and be publicly accessible.

S3.3.2 **SIGHTLINES.** Views to Buildings 2, 12, 21, 113, 101, and to the waterfront shall be maintained, as identified in Figure 6.15.1. Furnishings and artworks are permitted provided they do not occlude the majority of a key view to the water or referenced buildings.

S3.3.3 **VARIETY OF USES.** The network of public open spaces shall support a wide range of activities and attractions, each relating to their adjacent building uses or site conditions.

Programs may include, but are not limited to:

- Markets, food and outdoor dining, picnics and barbecues;
- Seating, gathering, family spaces, and sunbathing;
- Viewing the Bay;
- Outdoor performances;
- Cinemas and events;
- Public art and artifacts;
- Site-wide historic interpretation;
- Community gardens and food plots;
- Recreation and playgrounds where not in conflict with the Trust; and
- Dog runs or dog parks, where not in conflict with the Trust.

Guidelines

G3.3.1 **DISTRICT PARKING ROOFTOP OPEN SPACE.** District parking public rooftop open spaces are encouraged to prioritize uses not permitted within other public open spaces, such as active recreation. For details, see Section 3.12 Potential District Parking Rooftop. Rooftop public open spaces should be designed to be accessible from multiple locations.

G3.3.2 **VEGETATION.** Future vegetation at the site should be recognized as part of the new landscape and not a historic feature. Refer to Section 3.13 for additional details.



FIGURE 3.3.1: Illustrative Open Space Plan

3.4 OPEN SPACE ZONES OVERVIEW

Eight public open spaces comprise the Pier 70 Project open space network. Each open space supports a wide range of flexible programming related to its specific location and adjacent building uses and serves as a public outdoor "room" for social activity, which could be small or large-scale; active or passive; intimate or festive. This flexibility and diversity ensures that people's needs for recreational, community oriented, and ecologically sustainable amenities are met.

The proposed Project will provide total nine acres of publicly owned open space comprised of the elements listed below. The intent for programming and character for each space is individually described in Sections 3.5-3.12, as listed below:

- Waterfront area (approximately 5.0-acre) that includes Waterfront Terrace (Section 3.5), Slipways Commons (Section 3.6), and Waterfront Promenade (Section 3.7);
- Pier 70 Shoreline (approximately 1,300 linear feet; Section 3.8);
- Building 12 Plaza and Market Square (approximately 1.5-acre; Section 3.9);
- 20th Street Plaza (approximately 0.5-acre; Section 3.10); and
- Irish Hill Playground (approximately 2.0-acre), an open space adjacent to the existing remnant of Irish Hill (Section 3.11).

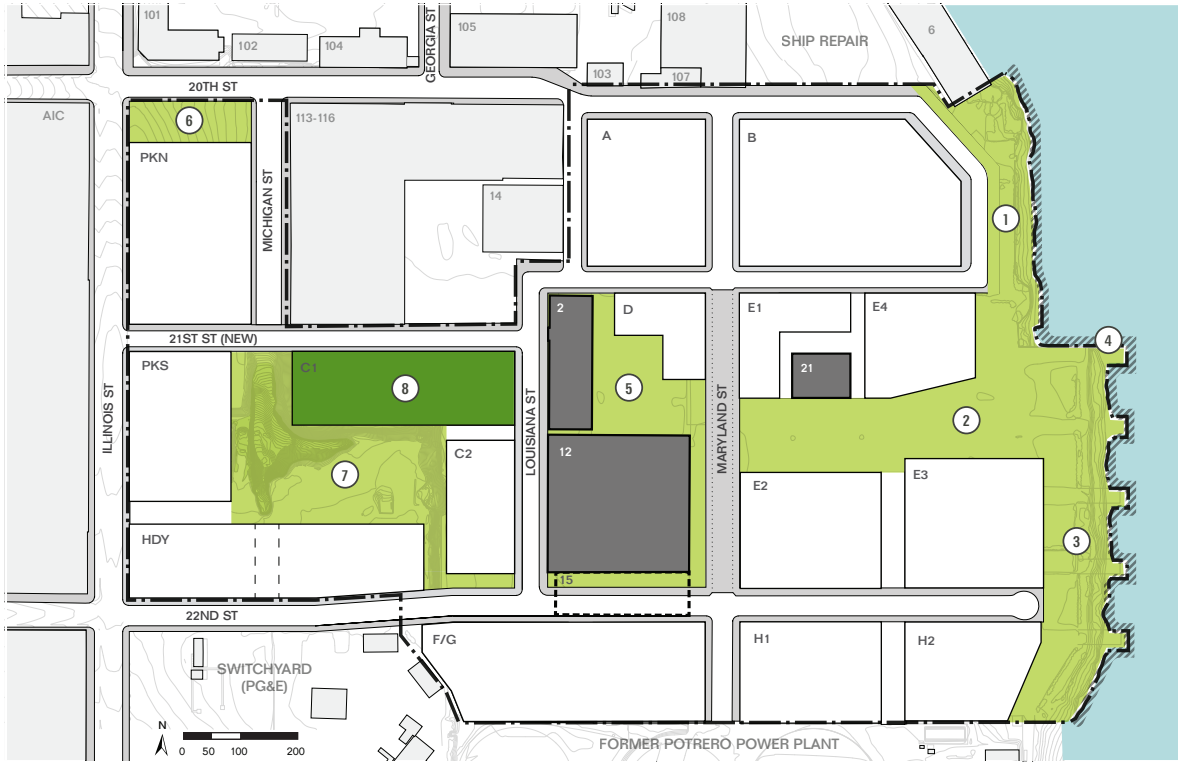


FIGURE 3.4.1: Overview of Public Spaces

Public Open Space
Potential Rooftop Public Open Space

1 Waterfront Terrace
2 Slipways Commons
3 Waterfront Promenade
4 Pier 70 Shoreline
5 Building 12 Plaza and Market Square
6 20th Street Plaza
7 Irish Hill Playground
8 Potential District Parking Rooftop

3.5 WATERFRONT TERRACE

The northern portion of the Project's waterfront—the Waterfront Terrace—provides opportunities to experience dramatic views of the Bay and ongoing ship repair activities to the north. This open space will accommodate informal activities, as well as leisurely picnicking and enjoying the view. The terrace design includes five primary components:

- **THE BAY TRAIL.** See Section 4.5.
- **BUILDING 6 VIEWING PAVILION.** Marking the entry to Building 6, the pavilion sits adjacent to one of the lowest points on the site in close proximity to the water. The pavilion provides space for individual viewing of the Bay, large group events, and may also relate to a future use of Building 6. The design of the pavilion should focus on simplicity and flexibility, while accommodating sea level rise (see Section 3.8 Pier 70 Shoreline), and should be consistent with Section 3.17 Viewing Pavilions.
- **THE SOCIAL LAWN.** The social lawn is a primarily softscape area, with minimal hardscape and paving elements in order to encourage people to sit, play, relax, and enjoy the panoramic views. Recommended programs include temporary recreation, group fitness, and informal leisure activities such as lawn games, sunbathing, and picnicking. The lawn should be sufficiently lit for continued usage at night.

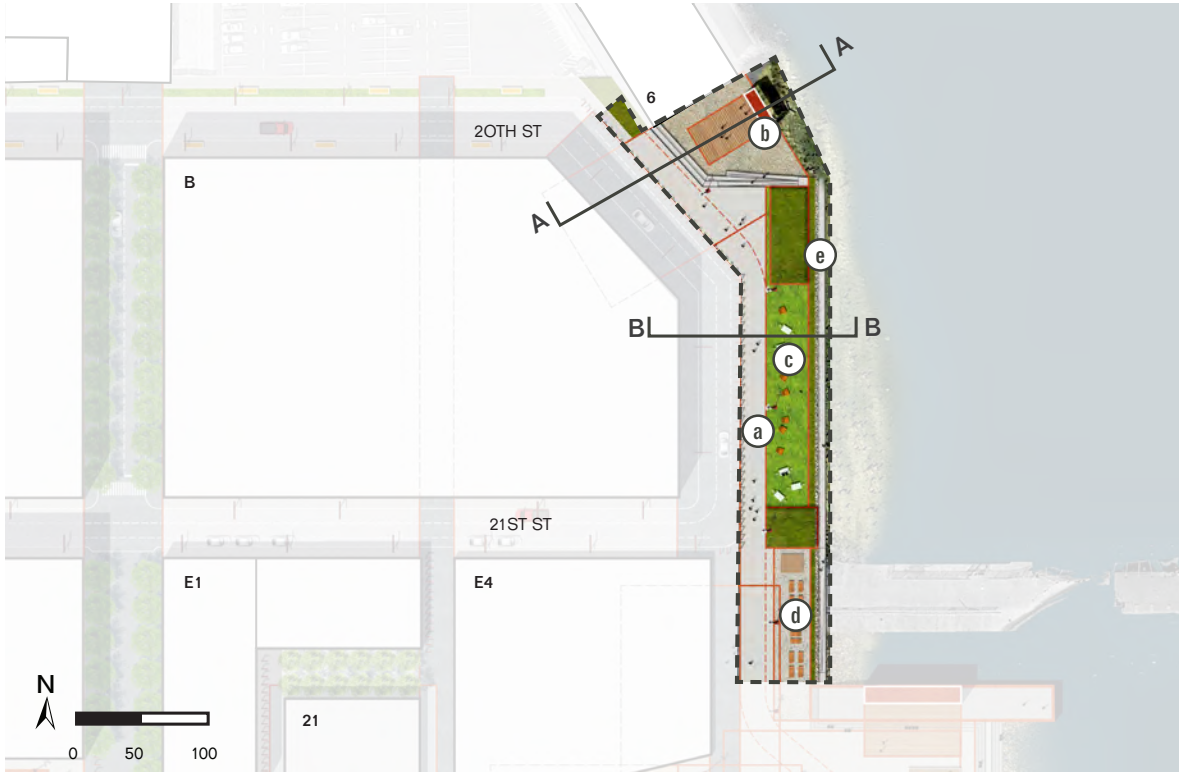
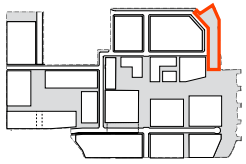


FIGURE 3.5.1: Illustrative Waterfront Terrace Plan



a Bay Trail
b Building 6 Viewing Pavilion
c Social Lawn
d Picnic Terrace
e Shoreline Path

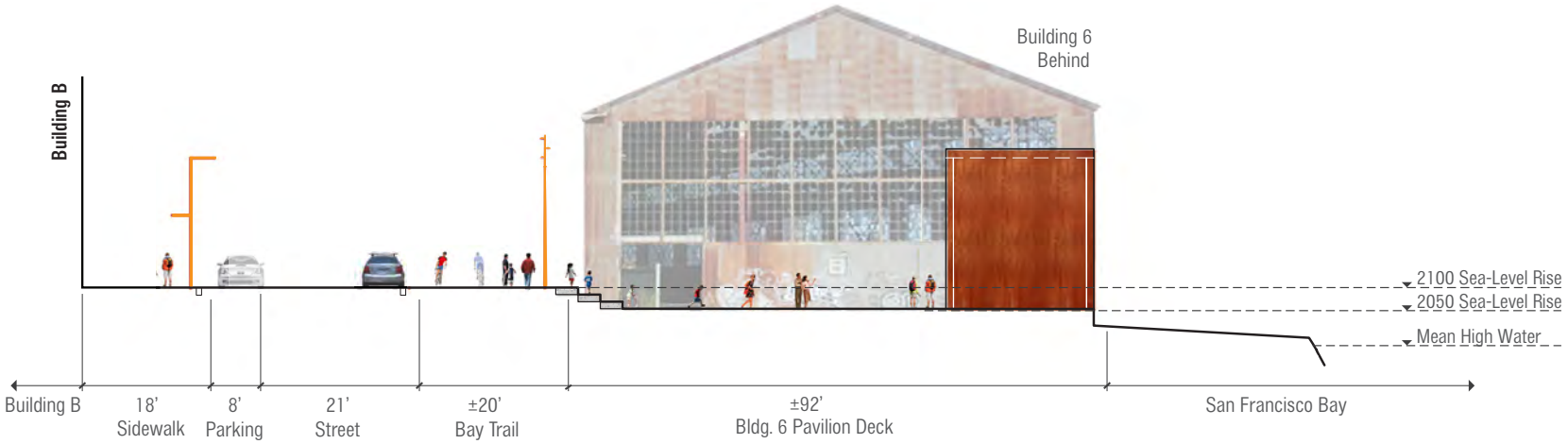


FIGURE 3.5.2: Illustrative Waterfront Terrace Section A-A

Note: All dimensions and elevations are illustrative only. Building 6, shown in section, is outside of the Project Site, but will be elevated by the Port and designed to withstand sea level rise.

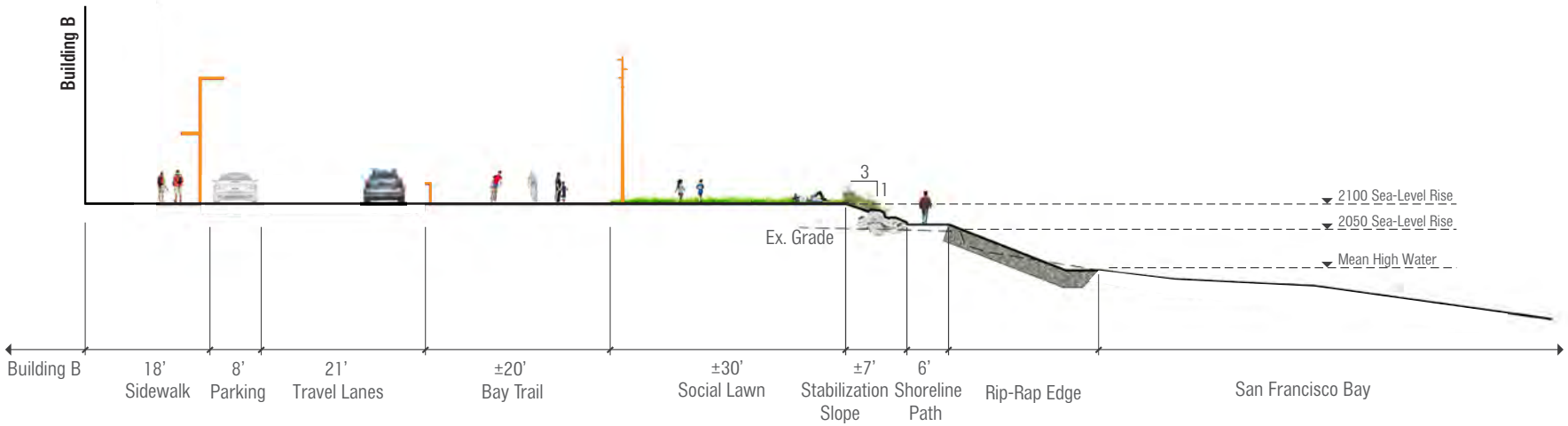


FIGURE 3.5.3: Illustrative Waterfront Terrace Section B-B

Note: All dimensions and elevations are illustrative only.

- **THE PICNIC TERRACE.** The picnic terrace is a primarily hardscape social space with movable seating where people can enjoy the scenery. The picnic terrace should be designed for informal picnicking and enable food and beverage operations where feasible. A variety in seating should be included to accommodate all age groups: chairs, benches, chaise lounges, and/or oversized seating. For furnishing controls, see Section 3.16 Site Furnishing.

- **SHORELINE PATH.** See Section 3.8.

Guidelines

G3.5.1 **SOCIAL LAWN.** The lawn should be a minimum of 20 feet in width to accommodate usage by multiple individuals or groups.

G3.5.2 **PICNIC TERRACE.** The picnic terrace is encouraged to maintain a minimum width of 20 feet to allow flexibility for large and small groups alike.





FIGURE 3.5.4: Social Lawn Precedents





FIGURE 3.5.5: Picnic Terrace Precedents

3.6 SLIPWAYS COMMONS

Extending from the core of the Project towards the Bay, Slipways Commons connects two prominent features of the site – the historic node of Buildings 2, 12, and 21 and the waterfront. Ground floors of adjacent buildings directly engage the public realm at Slipways Commons by extending the interior program outwards. Six primary components define the Slipways Commons:

- **THE BAY TRAIL.** See Section 4.5.
- **MULTIFUNCTION COMMONS.** The majority of Slipways Commons is a multifunction space that includes: at least one softscaped lawn, café terraces with casual seating that extend the ground floor programming of adjacent buildings, and a flexible open hardscape area with zones of plantings or stormwater management. The commons should offer spaces for lounging, respite, social interaction, and observation. Café terraces may be located along the northeastern and/or northwestern corners of Building E3, the park frontage of Building E4, and the southern face of Building 21 to activate the open space (See Section 2.2 Ground Floor Uses). Café and outdoor seating may serve retail and restaurant facilities within buildings, or be publicly accessible.

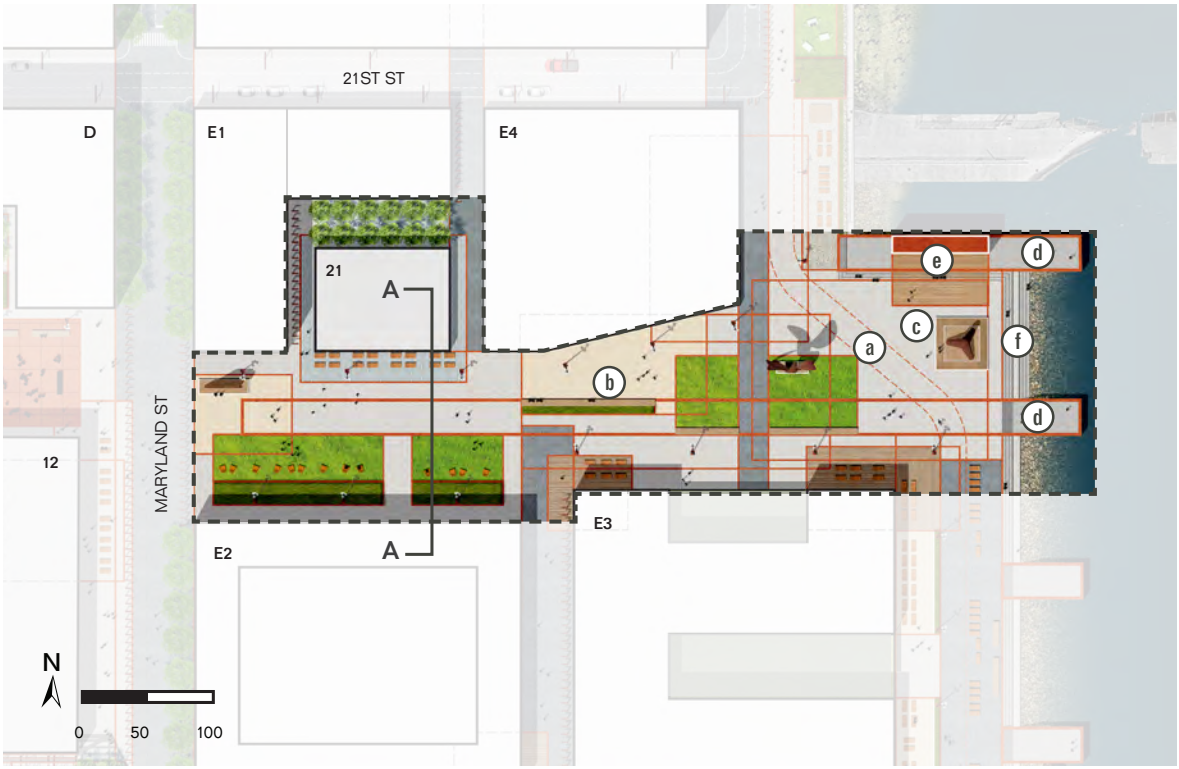
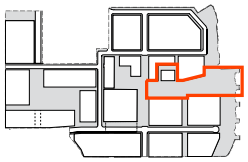


FIGURE 3.6.1 Illustrative Slipways Commons Plan



a Bay Trail
b Multifunction Commons
c Event Plaza
d Craneway Piers
e Craneway Viewing Pavilion
f Shoreline Path

- **EVENT PLAZA.** The event plaza is a flexible open space that can accommodate large- and small-scale events, community gatherings, and passive uses, with the backdrop of the Bay. Design of the plaza should support daytime and evening programming such as art, light shows, evening festivals, and performances. The plaza is encouraged to be defined through distinct paving materials and/or use of arts and artifacts adjacent to the plaza. Events in this area may extend into the area designated as the Bay Trail.

- **CRANEWAY PIERS.** The craneway piers that extend the shoreline into the Bay will be publicly accessible and offer platforms for observation and contemplation. While no formal programming is proposed, the craneway piers may include opportunities for fishing, reflection, bird-watching or viewing of the Bay and City. Material treatment is encouraged to reflect or reveal original construction where feasible.

- **CRANEWAY VIEWING PAVILION.** The craneway viewing pavilion frames views to the north of the San Francisco skyline with the dry dock area in the foreground. The craneway viewing pavilion is primarily a passive viewing space, but may additionally serve as a platform to support extension of large events within the Slipways Commons. Design of the pavilion should be consistent with the standards and guidelines described in Section 3.17 Viewing Pavilions.

- **SHORELINE PATH.** See Section 3.8.



FIGURE 3.6.2: Illustrative Slipways Commons Section A-A

Note: All dimensions and elevations are illustrative only.

Guidelines

G3.6.1 **MULTIFUNCTION COMMONS.** Lawns should be multipurpose spaces with a minimum width of 20 feet to provide usable space for small and large groups alike.

G3.6.2 **EVENT PLAZA.** At minimum, the event plaza should provide a 25,000 square-foot space to accommodate concerts, outdoor movie screenings, and a range of other events. This area may overlap with or be shared with the Multifunction Commons.





FIGURE 3.6.3: Event Plaza Precedents



FIGURE 3.6.4: Multifunction Commons Precedent



FIGURE 3.6.5: Craneway Pier Precedent

3.7 WATERFRONT PROMENADE

A generous shoreline promenade lines the southern portion of the Project's waterfront, and serves as a place of interaction and movement throughout the day. The Waterfront Promenade's seven features accommodate a variety of programs and uses arranged in a sequence of linear spaces:

- **THE BAY TRAIL.** See Section 4.5.
- **OUTDOOR DINING TERRACES.** Outdoor dining spaces encourage pedestrians to visit and experience the local waterfront and amenities. Outdoor dining spaces are encouraged along the western edge of the waterfront promenade. Potential locations may also be adjacent to the eastern faces of buildings E3 and H2. Outdoor dining areas should remain flexible with movable tables, chairs and picnic tables. Café and outdoor seating may serve retail and restaurants within buildings or be publicly accessible.
- **SEATING PROMENADE.** Furnished and terraced seating options are encouraged to parallel the eastern edge of the Bay Trail to provide respite and encourage prolonged visit to the waterfront. Seating terraces are encouraged to act as social features, and encourage relaxation and enjoyment at the Bay. Additionally, the placement of seating uses along the waterfront, in lieu of habitable buildings, anticipates long-term changes in the shoreline. Use of large-scale furnishings, including chaise seating, picnic tables, and movable lounge chairs, is encouraged.
- **SHORELINE PATH.** See Section 3.8.

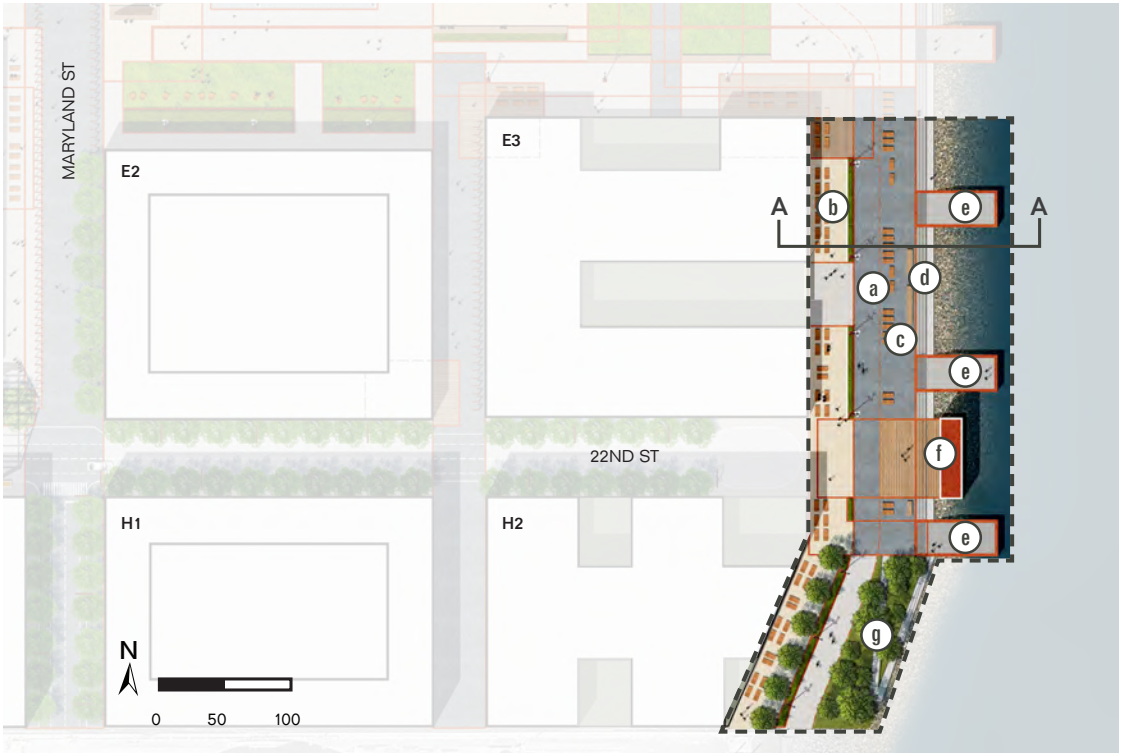
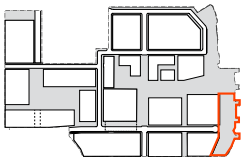


FIGURE 3.7.1: Illustrative Waterfront Promenade Plan



a Bay Trail
b Outdoor Dining Terraces
c Seating Promenade
d Shoreline Path
e Craneway Piers
f 22nd Street Viewing Pavilion
g. Tree Grove

- **22ND STREET VIEWING PAVILION.** The 22nd Street viewing pavilion extends 22nd Street to the Bay by directly framing views to the east. The pavilion primarily serves as a passive viewing space. Location of the pavilion should align with the 22nd Street right-of-way. Design of the pavilion should be consistent with the standards and guidelines described in Section 3.17 Viewing Pavilions.
- **TREE GROVE.** Running parallel to the Bay Trail at the southern edge of the site, a focused area of trees provides an element of nature at a distance from Historic Core.
- **CRANEWAY PIERS.** See Section 3.6.





FIGURE 3.7.3: Shoreline Path Precedents

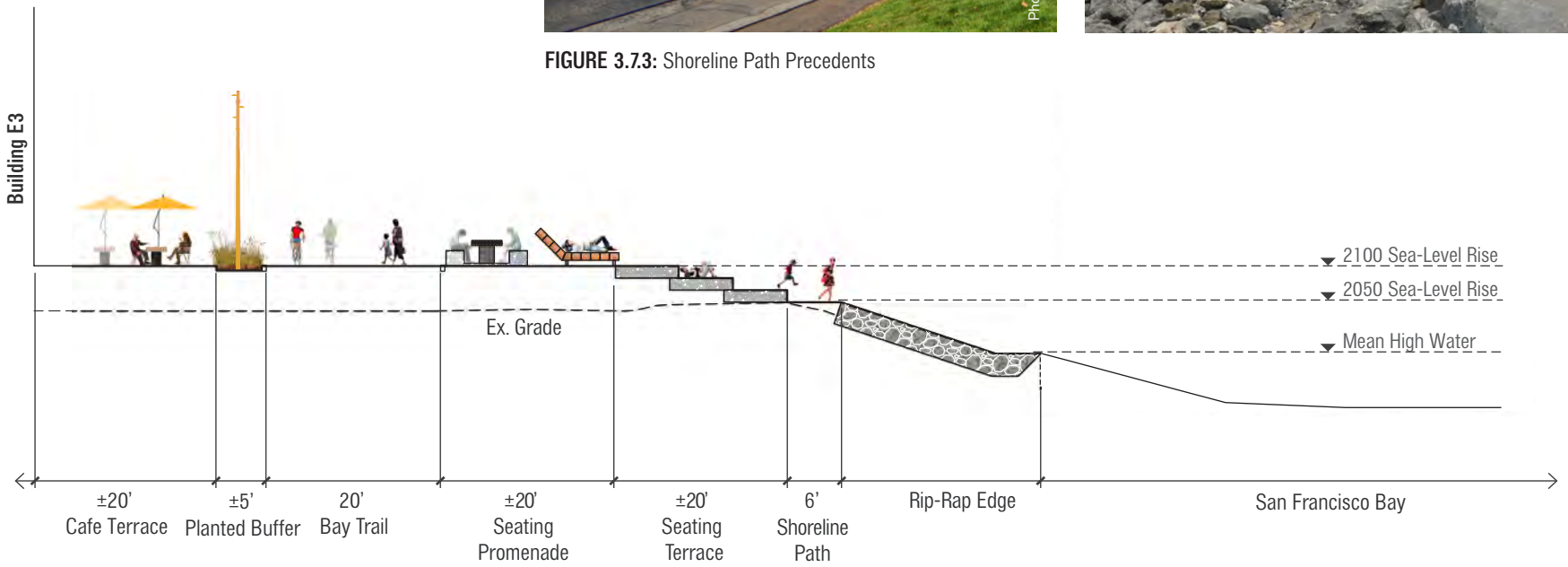


FIGURE 3.7.2: Illustrative Waterfront Promenade Section

Note: All dimensions and elevations are illustrative only.

Guidelines

G3.7.1 **OUTDOOR DINING TERRACES.** Dining terraces should maintain a minimum width of 15 feet to accommodate seating for small to medium groups.

G3.7.2 **SEATING PROMENADE.** The seating promenade is encouraged to be a minimum of 15 feet in width.





FIGURE 3.7.4: Outdoor Dining Precedents





FIGURE 3.7.5: Seating Promenade Precedents

3.8 PIER 70 SHORELINE

As part of the site design, the shoreline will be a grand public park that makes the waterfront newly accessible to the public.

The shoreline will serve both local residents and visitors, linking together a series of spaces that allow for reflection as well as informal play activities. The design of the shoreline respects the industrial character and habitat, and is sensitive to an ever-changing environment.

Figure 3.8.2 - Figure 3.8.9 illustrate a variety of conditions and strategies that may be employed along the Pier 70 Shoreline. The shoreline design is encouraged to utilize more than one strategy along the edge to create a variety of experiences where the park meets the water.

Standards

S3.8.1 **ORIENTATION AND VIEWS.** The design shall strategically orient spaces towards the best vantage points, views of the city skyline and across the Bay.

S3.8.2 **ACCESS.** The shoreline shall be accessible from the waterfont park with multiple access points up to the water where feasible.

S3.8.3 **ENVIRONMENTAL RESPONSE.** The shoreline design shall utilize careful detailing to ensure resiliency and responsiveness to wave conditions and sea level rise, both in the near-term constructed improvements as well as a built-in ability to adapt to future conditions, in coordination with BCDC, Army Corps of Engineers and the Port of San Francisco.



FIGURE 3.8.1: Illustrative Pier 70 Shoreline Plan

S3.8.4 **NEW CONSTRUCTION BUILDINGS.** New construction buildings and immovable facilities shall be elevated to accommodate the 66-inch sea level rise, which is the worst-case 2100 estimate.

S3.8.5 **PUBLIC AMENITIES.** The Bay Trail and other public amenities, including viewing pavilions and site furnishings shall be elevated and designed to accommodate 24-inch sea level rise, which is the worst-case 2050 estimate. See S4.5.2 Bay Trail.

Guidelines

G3.8.1 **ADAPTIVE MANAGEMENT.** The shoreline should be designed with features such as terracing and natural buffers to accommodate both gradual sea level rise and wave run-up during storm events.

G3.8.2 **SHORELINE PATH.** Set along the edge of the shoreline separate from Bay Trail, a shoreline path provides intimate access as close to the water as possible for sightseeing, recreation, and uninterrupted access to the waterfront. The informal shoreline path should be a minimum of six feet in width.

CONSIDERATIONS

- Encourage social interactions, activities, and events through a diverse range of active and passive uses along the shoreline.
- Incorporate soft and green edges, where possible, which serve to increase the water quality and biodiversity of the Bay.





FIGURE 3.8.2: Illustrative Stepped Edge





FIGURE 3.8.3: Illustrative Rip-Rap Edge

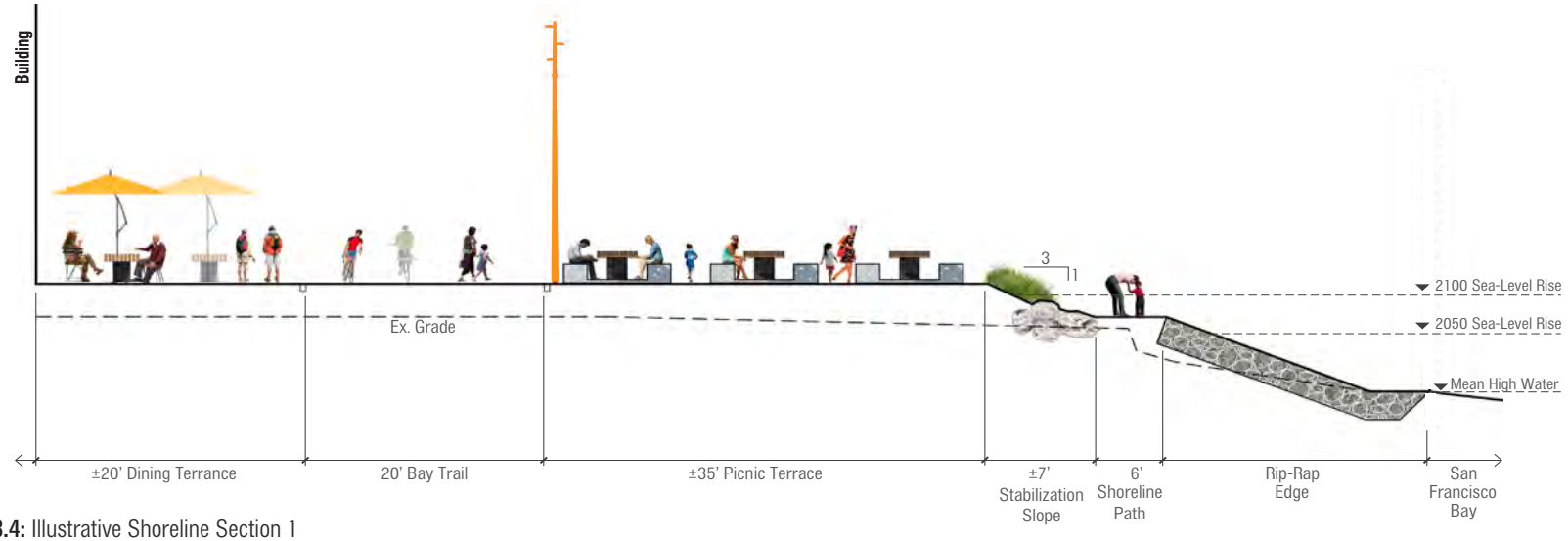


FIGURE 3.8.4: Illustrative Shoreline Section 1

Note: All dimensions and elevations are illustrative only.

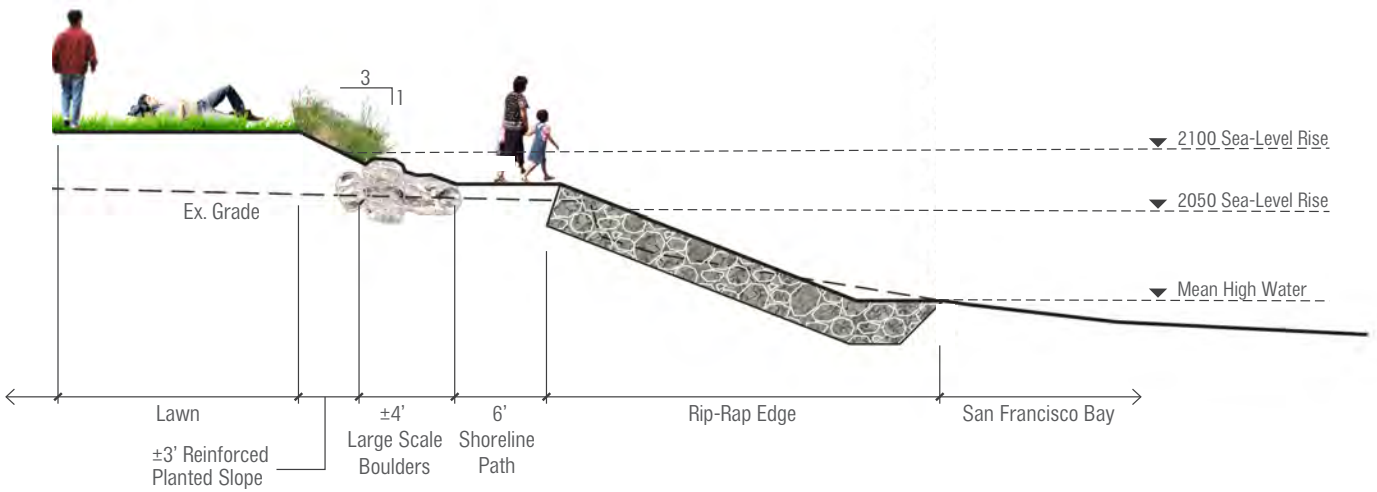


FIGURE 3.8.5: Illustrative Shoreline Section 2

Note: All dimensions and elevations are illustrative only.









FIGURE 3.8.6: Illustrative Planted Edge

FIGURE 3.8.7: Illustrative Sloped Edge

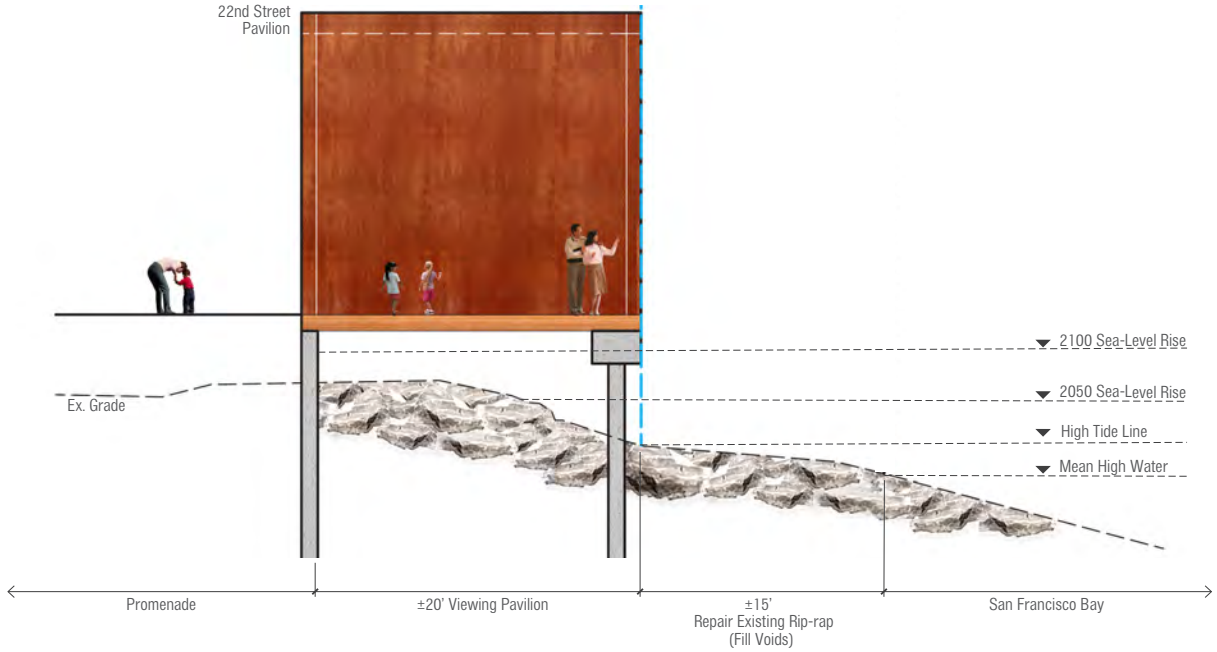


FIGURE 3.8.8: Illustrative Shoreline Section 3

Note: All dimensions and elevations are illustrative only.

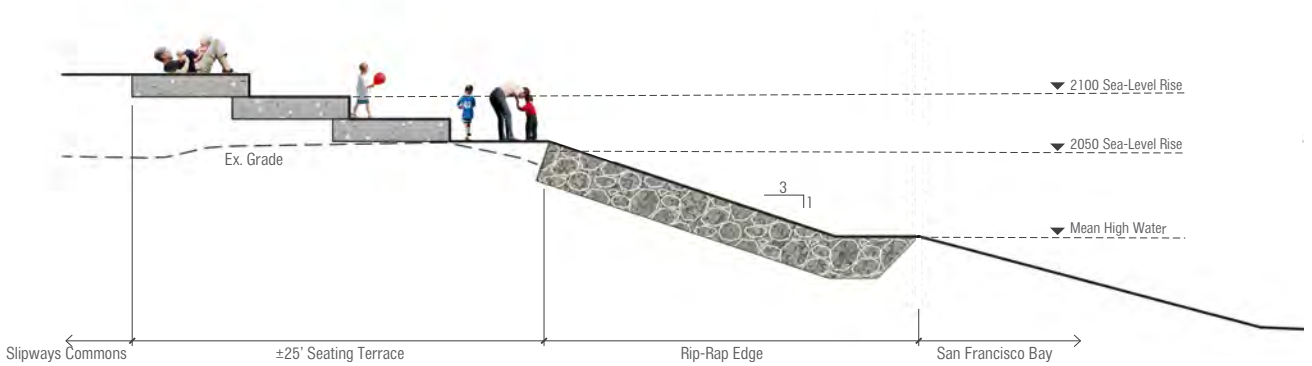


FIGURE 3.8.9: Illustrative Shoreline Section 4

Note: All dimensions and elevations are illustrative only.

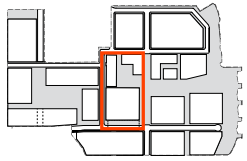
3.9 BUILDING 12 PLAZA AND MARKET SQUARE

Envisioned as the social centerpiece of the Project, the Building 12 Plaza and Market Square provide opportunities for outdoor markets, group events, and engagement with the historic buildings at the site. The Plaza and Market Square evoke the site's dynamic past with its use of the functional yards and spaces in between buildings. Building 12 and its adjacent open spaces are defined by the following four components:

- **MARKET SQUARE.** Rehabilitated buildings and new construction flank Market Square on three sides, creating a sense of enclosure. Four access ways connect the square, which anchors the public space network. Each passage provides distinct experiences for entering the square: a pedestrian opening on 21st Street, between Building 2 and Parcel D to the north; an existing passageway through Buildings 2 and 12; a Building 12 entrance; and a direct entry from Maryland Street. Market Square is a vantage point to experience the historic buildings, and is intended to be a flexible space for formal and informal events, including open-air markets, community gatherings, and small performances. The compact tree grove complements the primarily hardscape plaza and Building D by providing shaded seating opportunities. Through coordinated paving materials, Market Square extends Maryland Street to accommodate vendors and food trucks.



FIGURE 3.9.1: Illustrative Building 12 Plaza and Market Square Plan



a Market Square
b Building 12 Entry Plaza
c Maryland Street Platform
*d Building 15 Structural Frame**

*Pending structural feasibility study

- **BUILDING 12 ENTRY PLAZA.** The plaza south of Building 12 provides a generous entryway and an opportunity to introduce the history and evolution of Pier 70. The design of the plaza includes the Building 15 Structural Frame, feasibility permitting. The plaza may include seating, artifact displays, a café or outdoor dining component, and interpretive elements that are consistent with the Pier 70 interpretive signage plan. Café and outdoor seating may serve retail and restaurant facilities within Building 12, or be publicly accessible.

- **MARYLAND STREET PLATFORM.** The Maryland Street Platform creates a generous frontage for Building 12 along Maryland Street. It expands Building 12's program to function as it did historically, when ship building activities moved regularly from the interior to the exterior of Building 12. Design of the platform supports varying uses for small and large groups including temporary events, and community gathering activities, such as markets held within Building 12 as well as street events held during temporary Maryland Street closures. Planting is avoided throughout the platform to allow for maximum flexibility of use. Through coordinated paving materials, the platform extends Maryland Street to accommodate vendors and food trucks.

- **BUILDING 15 STRUCTURAL FRAME.** If retained, Building 15 will serve as a salvaged artifact to symbolize a transition from the past to the present. Building 15's structure frames 22nd Street and an entrance to Building 12, with interpretive signage about the structure and its use incorporated nearby. Retention of the Building 15 structure is subject to structural feasibility.

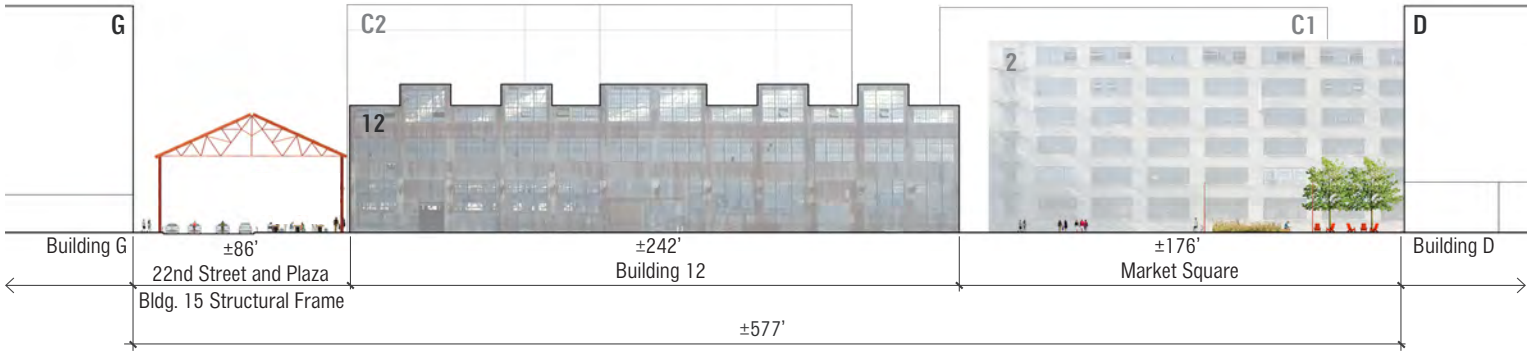


FIGURE 3.9.2: Illustrative Building Market Plazas and Market Square Section A-A

Note: All dimensions and elevations are illustrative only.

Guidelines

G3.9.1 **MARKET SQUARE.** Along the north edge of Building 12 within Market Square, a clear pedestrian path with a minimum width of nine feet should be provided to connect with the pedestrian path between Building 2 and Building 12.

G3.9.2 **BUILDING 12 ENTRY PLAZA.** Subject to topographical and general feasibility, the plaza (including any associated open area) should be a minimum of 25 feet in width to ensure a minimum throughway perpendicular to 22nd Street and to align with the entrance of Building 12. The throughway may have limited installations and furnishings, while maintaining a generous entry. To the extent feasible, the plaza's design should manage grade change to maximize usable square footage.



Outdoor Dining



Urban Air Markets

FIGURE 3.9.3: Market Square Precedents



Temporary and Permanent Art



Artifacts

FIGURE 3.9.4: Building 12 Entry Plaza Precedents

G3.9.3 **MARYLAND STREET PLATFORM.** Subject to topographical and general feasibility, the platform should be 25 feet in width from the building frontage to the Maryland Street ROW boundary. Permanent objects should be strategically located to maintain clear dimensions for temporary stalls, vendors, and installations, and to allow clear passage from the interior of Building 12 to the platform.



Outdoor Cafe



Vendors

FIGURE 3.9.5: Maryland Street Platform Precedents

3.10 20TH STREET PLAZA

As a place of entry and arrival to the Project, the 20th Street Plaza at 20th Street and Illinois Street has the potential to be a powerful anchor to visitors of the site. The plaza design is intended to be simple and not detract from the presence of Buildings 101 and 113-116. The plaza visually and physically connects the existing fabric of Dogpatch to the Historic Core and new development within the Project.

- **ENTRY PLAZA.** The corner of 20th and Illinois is a highly visible location that marks the entrance to the Project and is an opportunity to orient and welcome visitors to the site. The plaza may include a café with seating amenities along the frontage of 20th street. The entry plaza should include interpretive signage and wayfinding for the Pier 70 Area. Interpretive program elements should be consistent with the Pier 70 interpretive signage program. See also Section 7.5 General Signage.

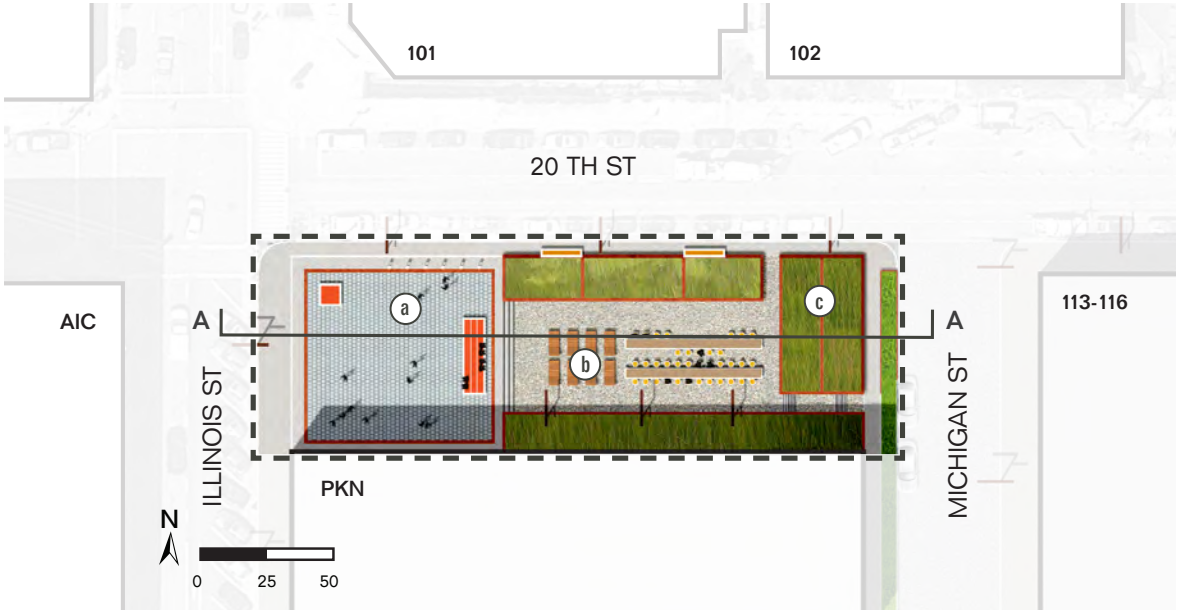
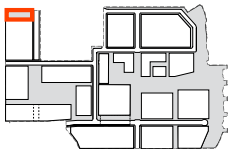


FIGURE 3.10.1: Illustrative 20th Street Plaza Plan

a Entry Plaza
b Seating Terrace
c Planted Garden



- **SEATING TERRACE.** The seating terrace is a primarily hardscape area that supports the entry plaza. The seating terrace should be designed as a flexible social space with ample seating for visitors to mingle, relax, and enjoy the views of the historic buildings. The terrace may include movable and/or oversized seating options designed in compliance with S3.16.1- S3.16.3. The seating terrace should be designed to manage grade changes in order to maximize usable area.

- **PLANTED GARDEN.** A softscape area within the plaza that enhances pedestrian comfort and may provide stormwater management. The garden should include a variety of native plant species, and may include interpretive narrative elements to communicate the natural history of the site and/or environmental processes.

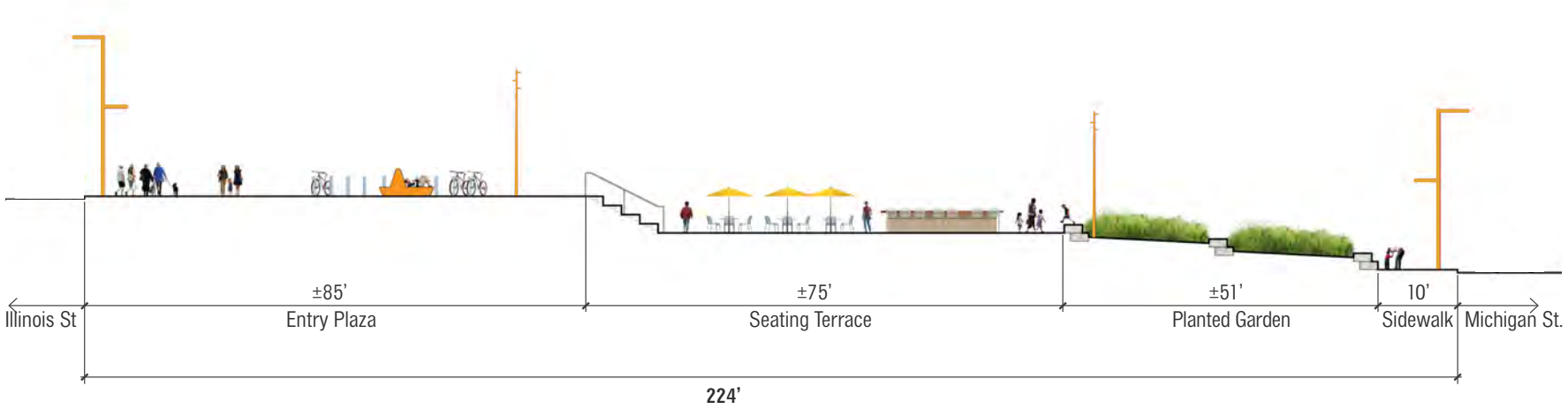


FIGURE 3.10.2: Illustrative 20th Street Plaza Section

Note: All dimensions and elevations are illustrative only.









FIGURE 3.10.3: Entry Plaza Signage Precedents



FIGURE 3.10.4: Furnishing Precedents



FIGURE 3.10.5: Planted Garden Precedents

3.11 IRISH HILL PLAYGROUND

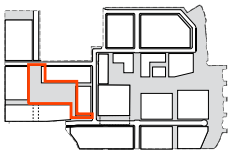
Situated adjacent to the remnant of Irish Hill, this open space is defined primarily as a playground for the existing neighborhood and future residents, and will include areas within the flat portion dedicated to recreation and gardening. The open space maintains views to the Irish Hill remnant (see Section 3.2). The programming should prioritize playground uses. However, additional programs such as a small dog park or run may be incorporated as long as they do not conflict with the playground use. Any rooftop open space provided on rooftops of C1 or C2 will be additive to the Irish Hill Playground area (see Section 3.12). Components of the Irish Hill Playground include:

- **PLAYGROUND.** As the defining feature of the courtyard, bounded by Buildings C1, C2, PKS and HDY, the playground should serve all age groups, and occupy a significant portion of the courtyard while allowing room for other components listed below. Additional amenities such as climbing walls, play slopes, stairways, or play structures are encouraged to engage the building surfaces and grade changes of the courtyard. The playground should have a minimum of two universally accessible entries: one from Illinois Street and another from 22nd Street. An additional pathway from the playground to Louisiana Street is encouraged if topography does not limit access. The playground should consider provision of public restrooms with facility for family use.



FIGURE 3.11.1: Illustrative Irish Hill Playground Plan

a Playground
b Picnic Grove
c Seating Area



- **PICNIC GROVE.** The picnic grove provides a densely planted and shaded area for visitors to sit and relax adjacent to the playground and emphasizes the vegetative character of Irish Hill. The picnic grove should include seating options for individuals and groups. All furnishings should be designed in compliance with Section 3.16 Site Furnishing.

- **SEATING AREA.** Open yet intimate, the seating area provides opportunities for visitors to unwind while also enabling more eyes on the park with a range of seating options for individuals and groups. The area is encouraged to be located along the north edge of the HDY parcel, from the mid-block passage to the eastern edge of the HDY parcel. Materials should be durable yet casual in character, and may include, but are not limited to, sustainable hardwood, composite wood, and pre-cast elements.

Guidelines

G3.11.1 **PLAYGROUND.** The playground should be a minimum of 15,000 square-feet in size to accommodate various play amenities.

G3.11.2 **PICNIC GROVE.** In order to create an area of respite from the surrounding built fabric, the grove is encouraged to maintain a minimum width of 50 feet.

G3.11.3 **SEATING AREA.** The seating area should be a minimum of 15 feet in width to provide ample space for circulation and seating options.

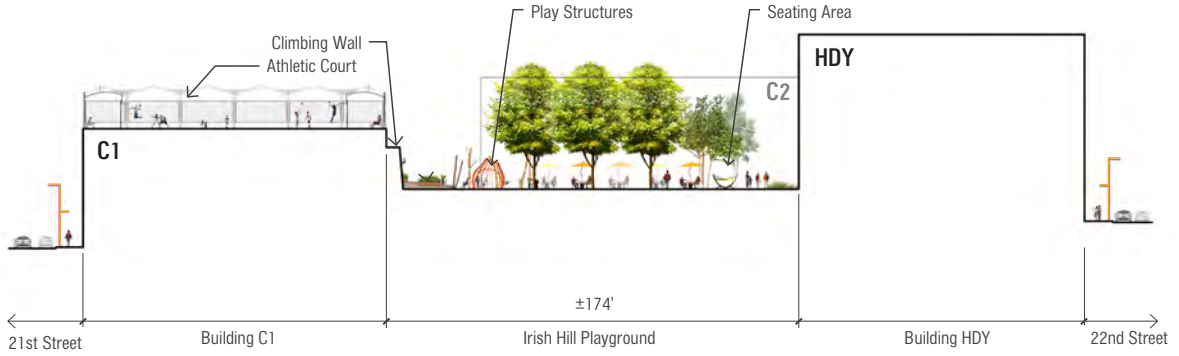


FIGURE 3.11.2: Illustrative Irish Hill Section A-A

Note: All dimensions and elevations are illustrative only.



FIGURE 3.11.3: Illustrative Irish Hill Section B-B

Note: All dimensions and elevations are illustrative only.





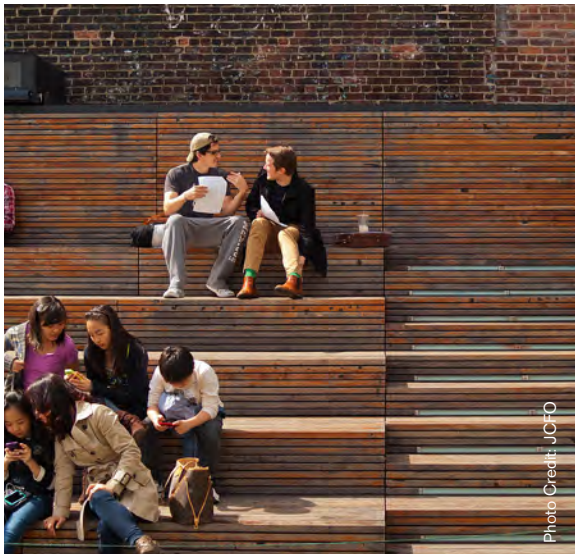




FIGURE 3.11.4: Play Slope Precedents



FIGURE 3.11.5: Picnic Grove Precedents



FIGURE 3.11.6: Seating Area Precedents

The plan shown in Figure 3.11.1 extends a mostly level topography northward to the C1 building edge assuming the use of the building as a district garage, thereby maximizing the usable space available for the playground (Figure 3.11.2).

An alternative illustrative plan for the Irish Hill Playground is presented in Figure 3.11.7. It assumes C1 is built as a residential or commercial building, thereby requiring separation between the building and topography to provide daylight to the building. See Figure 3.11.8.

There is no proposed grading of Irish Hill remnant. See S3.2.1.

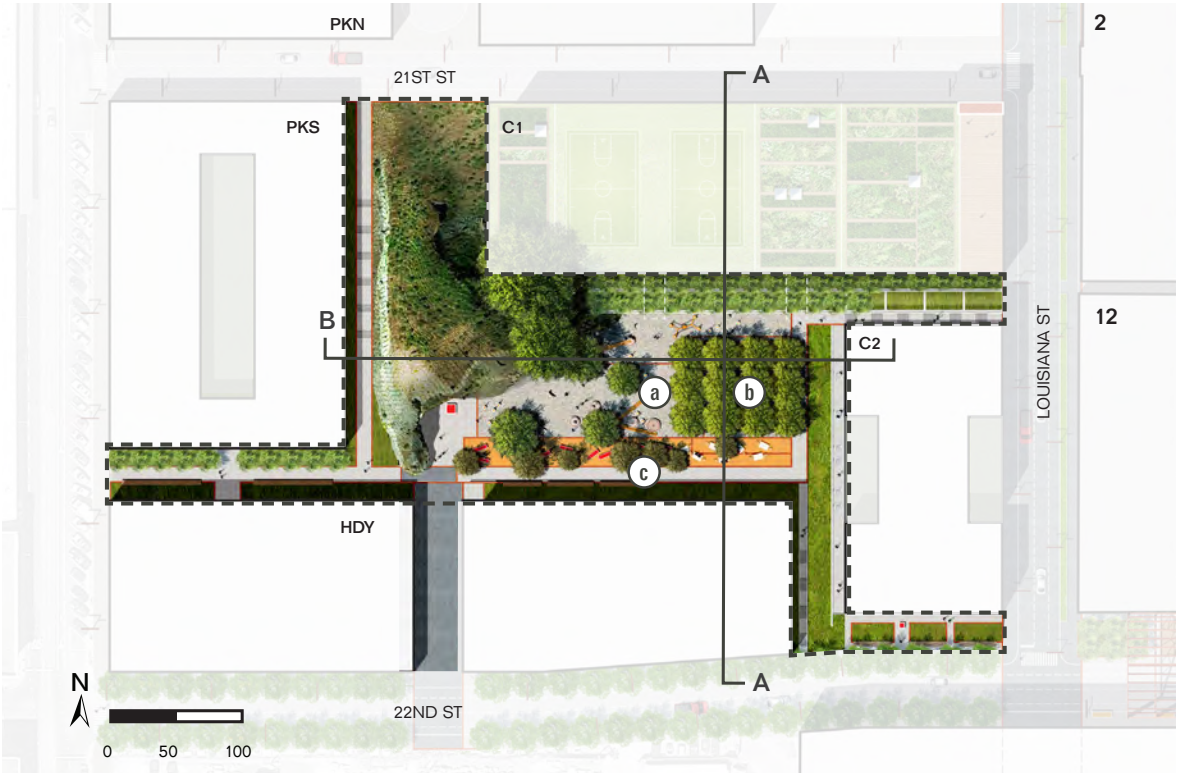
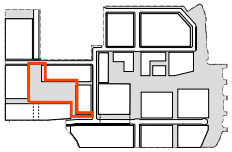


FIGURE 3.11.7: Illustrative Irish Hill Alternative Plan



a Playground
b Picnic Grove
c Seating Area



FIGURE 3.11.8: Illustrative Irish Hill Alternative Section A-A

Note: All dimensions and elevations are illustrative only.

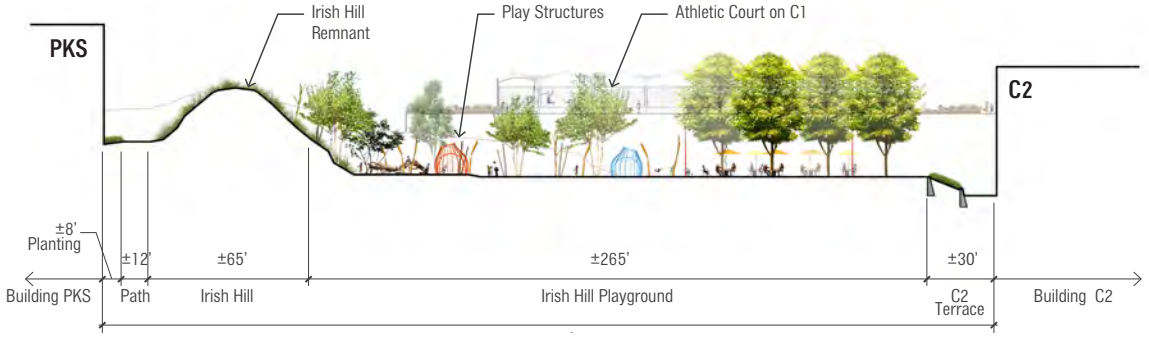


FIGURE 3.11.9: Illustrative Irish Hill Alternative Section B-B

Note: All dimensions and elevations are illustrative only.

3.12 POTENTIAL DISTRICT PARKING ROOFTOP

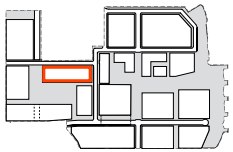
The rooftops of C1 or C2, if built as parking structures, would provide public open space and further expand the range of open space amenities within the Project. The rooftop open spaces accommodate uses that are not permitted within the Trust areas (See Section 1.3 Tidelands Trust), such as active recreation. Rooftop open spaces may include one or more of the following four key components:

- **RECREATION FIELD OR COURT.** Addressing the demand for active recreation facilities in the surrounding neighborhood, the rooftop offers space for recreation that may focus on a single activity or be designed as multi-purpose courts. Potential programming may include, but is not limited to: basketball, tennis, handball, volleyball, and bocce ball. A recreation court should be included on the building rooftop in order to accommodate a range of recreational activities. Natural or artificial playing surfaces may be used for the intended sports facilities, see S3.15.5.

- **COMMUNITY GARDEN PLOTS.** Intended to serve the community, the garden plots should be accessible to the public and may be managed by either a community organization or by local residents. Community gardens may be designed as raised planters, a series of plots, or one large plot. The amount of space allotted to community garden plots should be scaled appropriately to the level of maintenance and oversight available and to accommodate demand for active recreation.



FIGURE 3.12.1: Illustrative District Parking Rooftop Plan



a Recreation Field or Court
b Community Garden Plots
c Observation Deck
d C1 Rooftop Viewing Pavilion

- **OBSERVATION DECK.** The observation deck capitalizes on its rooftop location to capture panoramic views of the ship repair facility, the Bay, and the City skyline. The observation deck is encouraged to be flexible to accommodate gatherings in addition to providing space for enjoying views. Public access to the deck should be visible and inviting from Irish Hill Playground, 21st Street, and Louisiana Street with signage for clear wayfinding to the public open space. To contrast with the other rooftop components, the observation deck should consider distinct paving or decking.

- **C1 ROOFTOP VIEWING PAVILION.** Located at a vantage point on the rooftop of C1, the viewing pavilion is primarily a passive viewing space that frames a view of the ship repair activities immediately to the north of the site and the City skyline. Design of the C1 rooftop viewing pavilion is encouraged to be integrated with the observation deck, and be consistent with the standards and guidelines described in Section 3.17 Viewing Pavilions.

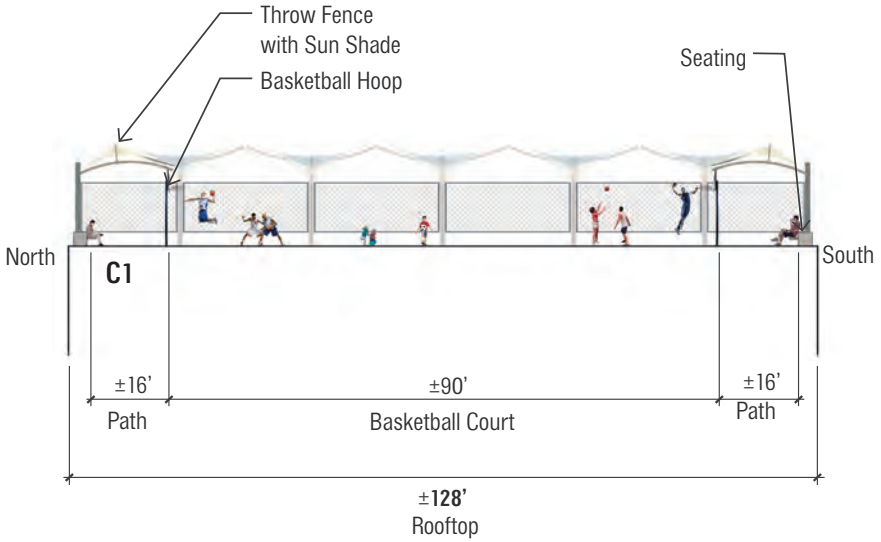


FIGURE 3.12.2: Illustrative Section A-A: Active Recreation

Note: All dimensions and elevations are illustrative only.

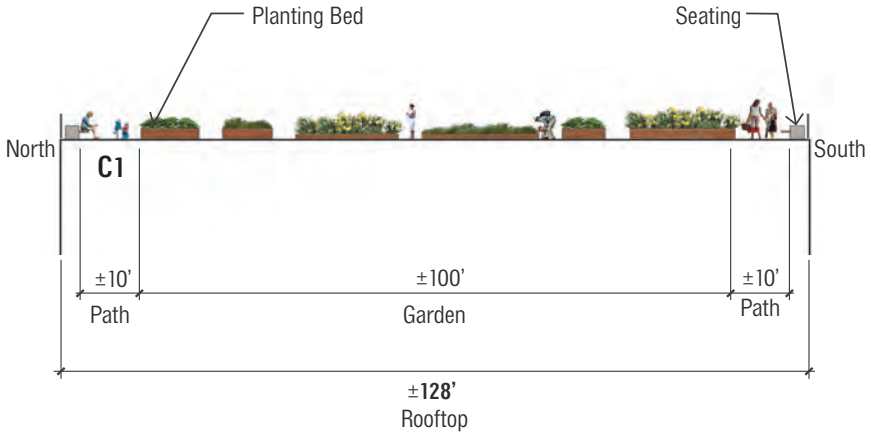


FIGURE 3.12.3: Illustrative Section B-B: Food/Garden Plots

Note: All dimensions and elevations are illustrative only.













FIGURE 3.12.4: Multi-purpose Court Precedents

FIGURE 3.12.5: Community Garden Plot Precedents

FIGURE 3.12.6: Observation Deck Precedents

OPEN SPACE SYSTEMS

SYSTEMS OVERVIEW

The Project's network of open spaces incorporates multiple functions, ranging from recreational to performative. A number of systems create a common language throughout the network of open spaces. This section identifies standards and guidelines for the following systems:

- Vegetation (Section 3.13)
- Stormwater Management (Section 3.14)
- Materials (Section 3.15)
- Site Furnishing (Section 3.16)
- Viewing Pavilions (Section 3.17)



Vegetation in Formerly Industrial Landscape
High Line Park, New York, NY



Stormwater Management
Seattle, WA



Site Furnishings and Materials
San Francisco, CA



Paving Pattern and Ground Treatment
Valby, Denmark

3.13 VEGETATION

The Project's planting palette relates to the site's industrial history and characters, as well as site ecology and concern for water conservation, and aims to create a landscape that connects people to nature, is resilient, and appropriate for a public urban waterfront. Vegetation within the Project will create an "enhanced native" palette, reflective of the wild grasses growing at the site today and combining species native to San Francisco and the Bay Area along with non-native, non-invasive, and salt- and drought-tolerant species that are appropriate for the challenging setting of an urban waterfront.

In this former industrial landscape, vegetation was generally absent from the site. Vegetation at the site will be recognized as part of the new landscape and not a historic feature. For example, wild and rustic plantings may reflect the "emergence" of a landscape in an industrial setting, or vegetation may be formally set apart as a clear addition to the industrial landscape.

Vegetation is to be distributed and varied. The palette for the Project includes species that have proven their adaptability to the conditions along the Bay, either in planted areas or in designed public spaces. This allows for the creation of a bio-diverse robust landscape, one that thrives on relatively low levels of water and other inputs, and flourishes with appropriate levels of maintenance.

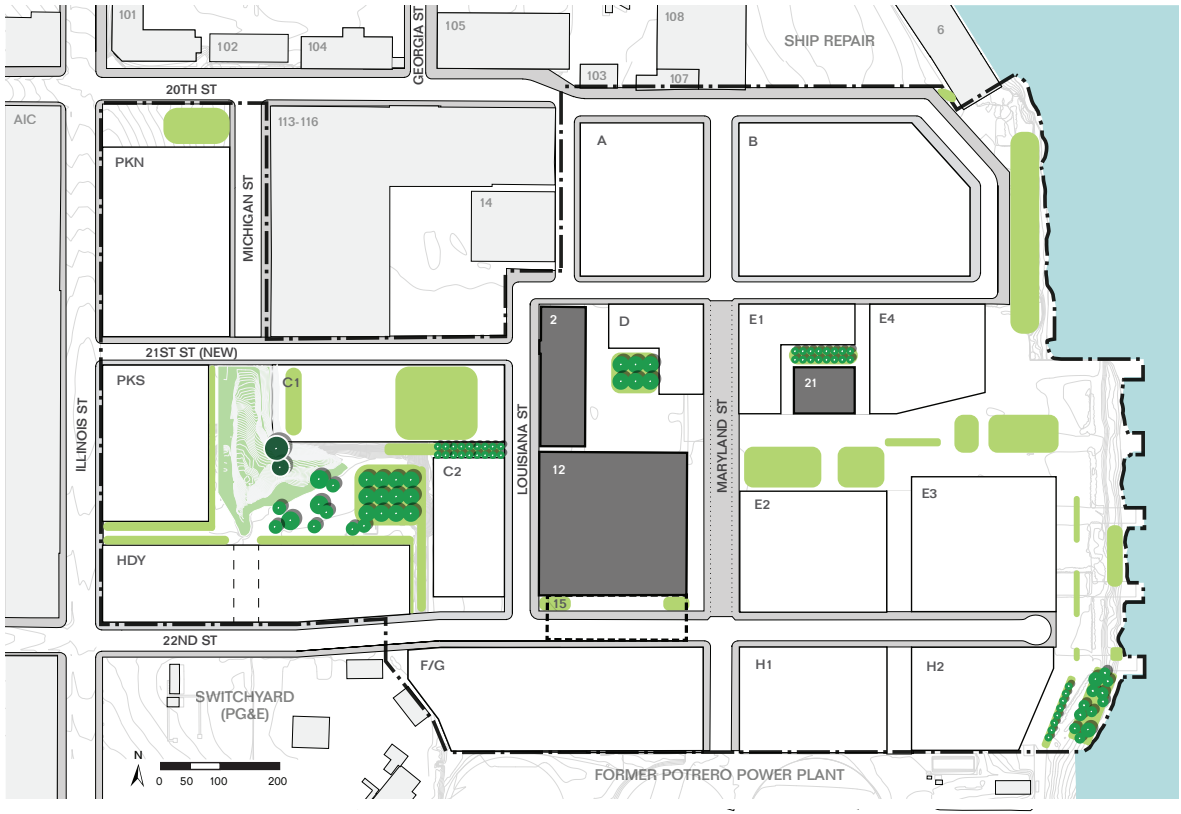


FIGURE 3.13.1: Illustrative Open Space Softscape and Vegetation Plan



Switch Grass, Panicum virgatum



Purple Needlegrass, Stipa pulchra



Germander Sage, Salvia chamaedryoides



Wild Bergamot, Monarda bradburiana



California Oat Grass, Danthonia



Torch Aloe, Aloe arborescens



Blazing Star, Liatris spicata



Wavy Hair Grass, Deschampsia flexuosa



Lavender, Lavandula 'Goodwin Creek Grey'



Cardinal Flower, Lobelia cardinalis



Wild Rye, Elymus



Purple Aster, Symphyotrichum puniceum



Fennel, Foeniculum vulgare



Yarrow, Achillea millefolium



Feather Reed Grass, Calamagrostis x acutiflora

FIGURE 3.13.2: Examples of Recommended Planting Types

Note: For recommended palette of tree types, see Section 4.8.

Standards

S3.13.1 **VEGETATION IN A HISTORIC DISTRICT.** Vegetation within the Project shall be designed to be compatible with the UIW Historic District and recognizable as part of a new, additive landscape. For details on Street Trees and Plantings, see Section 4.8 Street Planting.

S3.13.2 **RAIN WATER GARDEN, MEADOWS AND PERENNIALS.** The proposed gardens and meadow areas of the Project shall serve as a natural counterpoint to the industrial character of the pavement and historic buildings. Gardens shall serve to frame settings for groups of all sizes to enjoy the views of the Bay. In addition, certain gardens may also address stormwater run-off in the event that the overall stormwater management program requires it.

Other factors include: hardiness, drought and salt-tolerance, low maintenance, and aesthetic character.

Guidelines

G3.13.1 **PLANTING TYPE.** Meadow grasses should be dominated by native switch grass, wild rye, and California oat grass, accented by torch aloe, germander sage, and lavender, and further enriched with herbaceous perennials including sages, blazing star, cardinal flower, and bold succulents, such as agaves, aeoniums, and aloes. Existing plantings, such as fennel and yarrow, are also acceptable.

G3.13.2 **PERMITTED SPECIES.** Tree species listed in G4.8.1 are encouraged throughout the open space network.



Sidewalk with Stormwater Planter



Perennial Garden



Overly Ornamental Planting

FIGURE 3.13.3: Rain Water Garden, Meadows and Perennials

✕ Denotes noncompliant condition

3.14 STORMWATER MANAGEMENT

Water is a precious resource in California, the Bay Area, and at the site. Water will be used to support a range of sustainable and vegetated landscapes. Stormwater management will be designed in compliance with the San Francisco Stormwater Management Requirements (SMR), and reduce overall stormwater flows from the Project.

Standards

S3.14.1 **STORMWATER DESIGN.** The Project is located within a combined sewer area, where stormwater is treated at a plant downstream. The Project shall be required to reduce the rate and volume of stormwater runoff during the design-level event in accordance with the San Francisco SMR. This may be achieved through a variety of best management practices (BMP), including storage, local treatment for reuse, and green infrastructure, where feasible, to manage runoff from across the site including streetscape areas.

CONSIDERATIONS

- Detention, such as structural soil cells, cisterns, or underground storage vaults, should be used as the primary means to manage stormwater as required prior to release. Green infrastructure technology including rain gardens, bio-retention in lawn, meadow and plaza areas, may be utilized where appropriate.

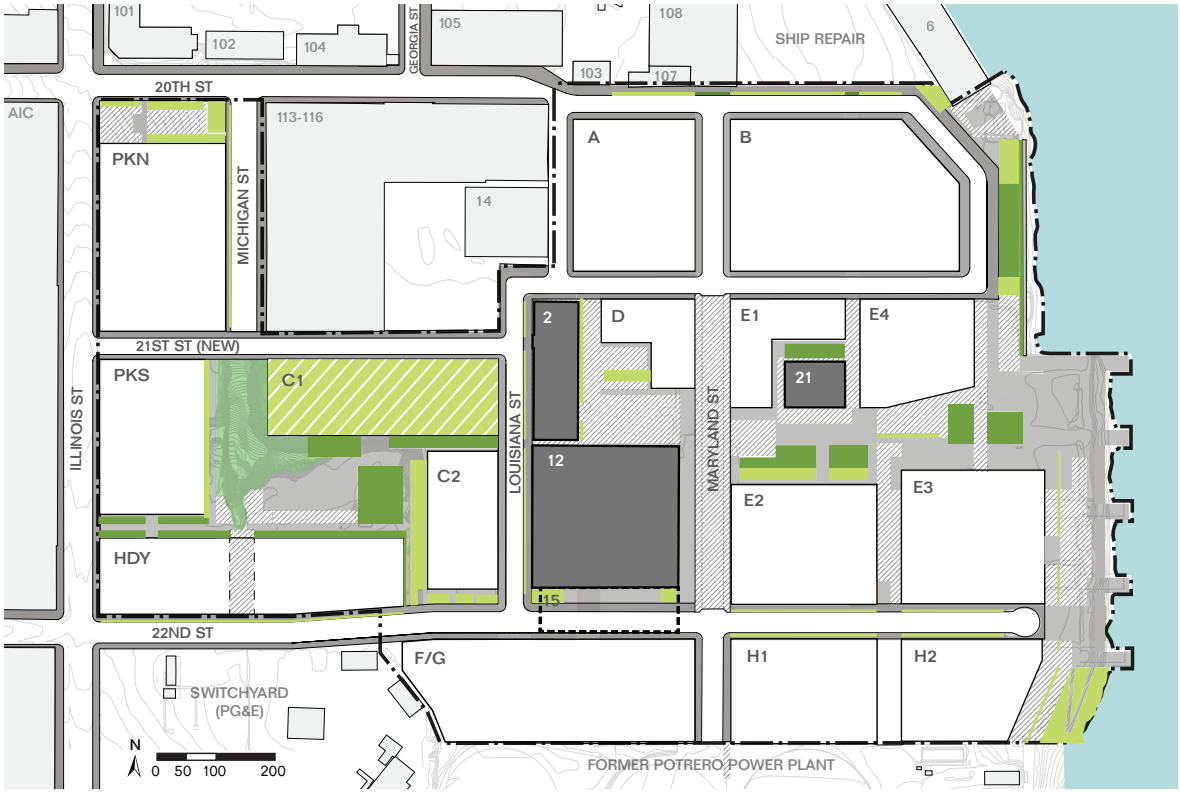


FIGURE 3.14.1: Illustrative Stormwater Management Plan



Planted Catch Basin



Stormwater Runnel



Planted Stormwater Filter Strip



Bio-swale Median



Stormwater Runnel



Bio-Swale With Limited Vegetation

FIGURE 3.14.2: Stormwater Management - Soft Condition

FIGURE 3.14.3: Stormwater Management - Hard Condition

FIGURE 3.14.4: Compliant and Noncompliant Stormwater Management Design

✖ Denotes noncompliant condition

3.15 MATERIALS

With attention to tactility and detail, the open space materials and design honor the site's past as a working waterfront, and complement the site's textured and layered character.

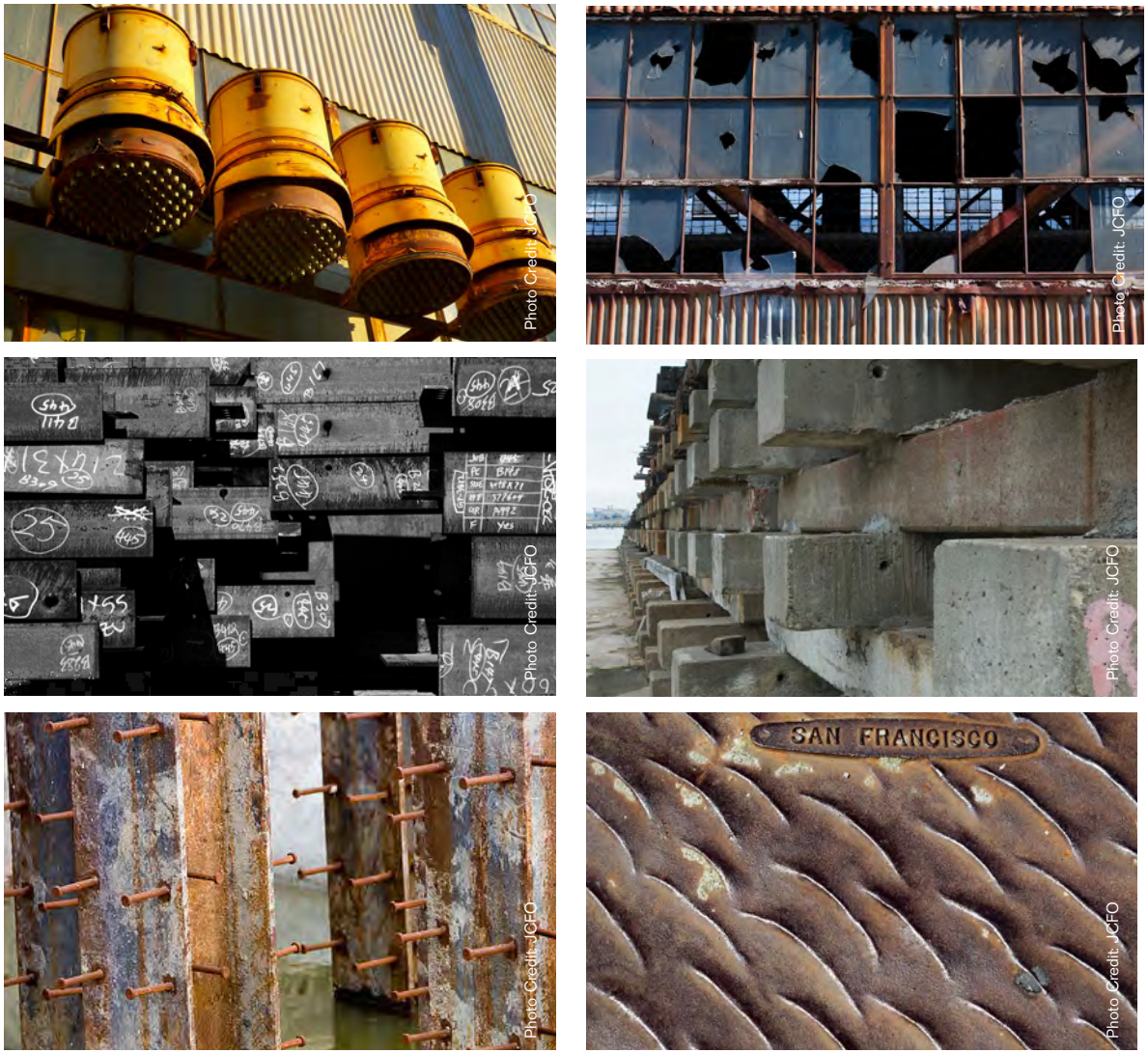


FIGURE 3.15.1: Existing Site Materiality

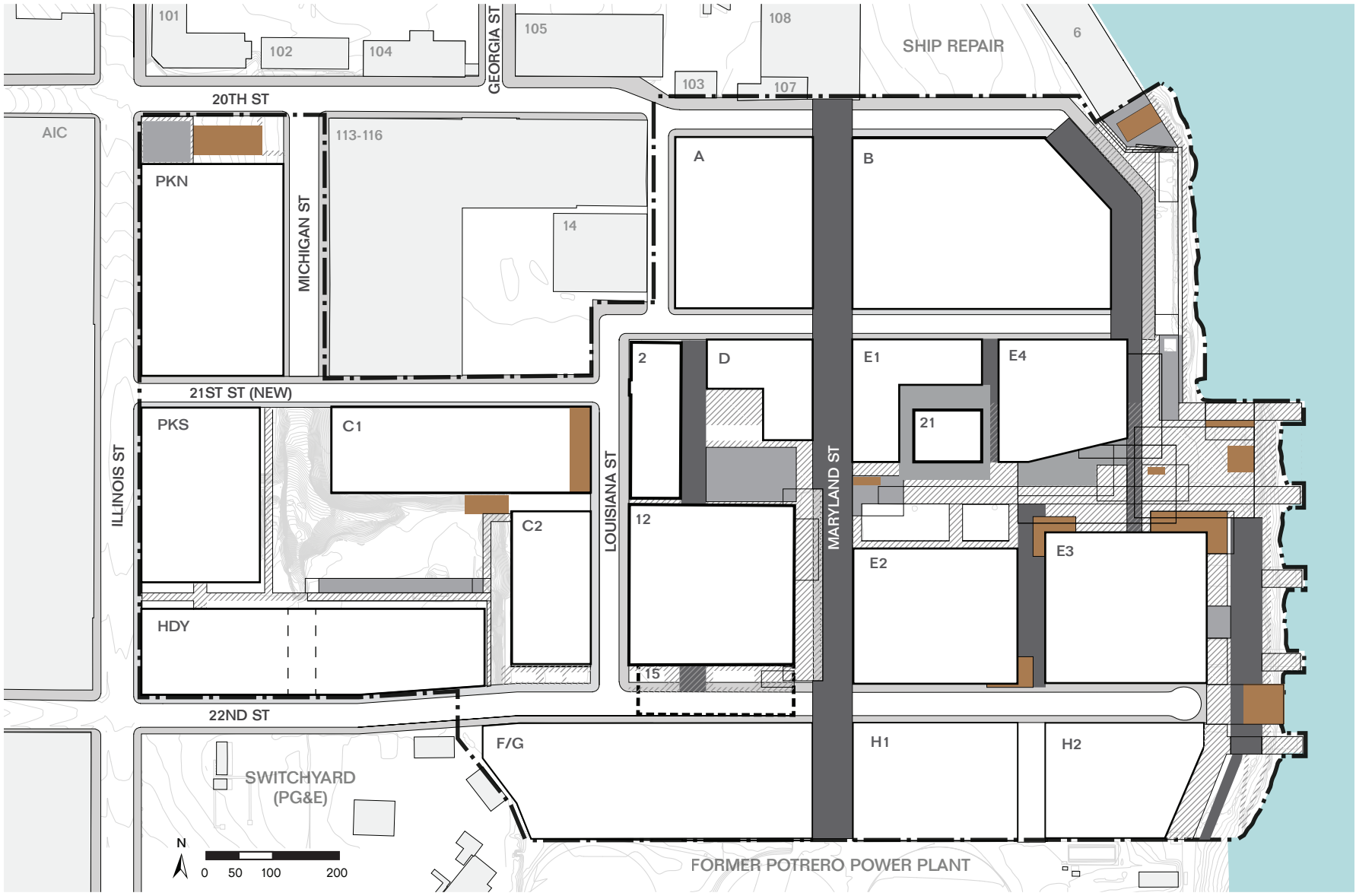


FIGURE 3.15.2: Illustrative Open Space Materials Plan

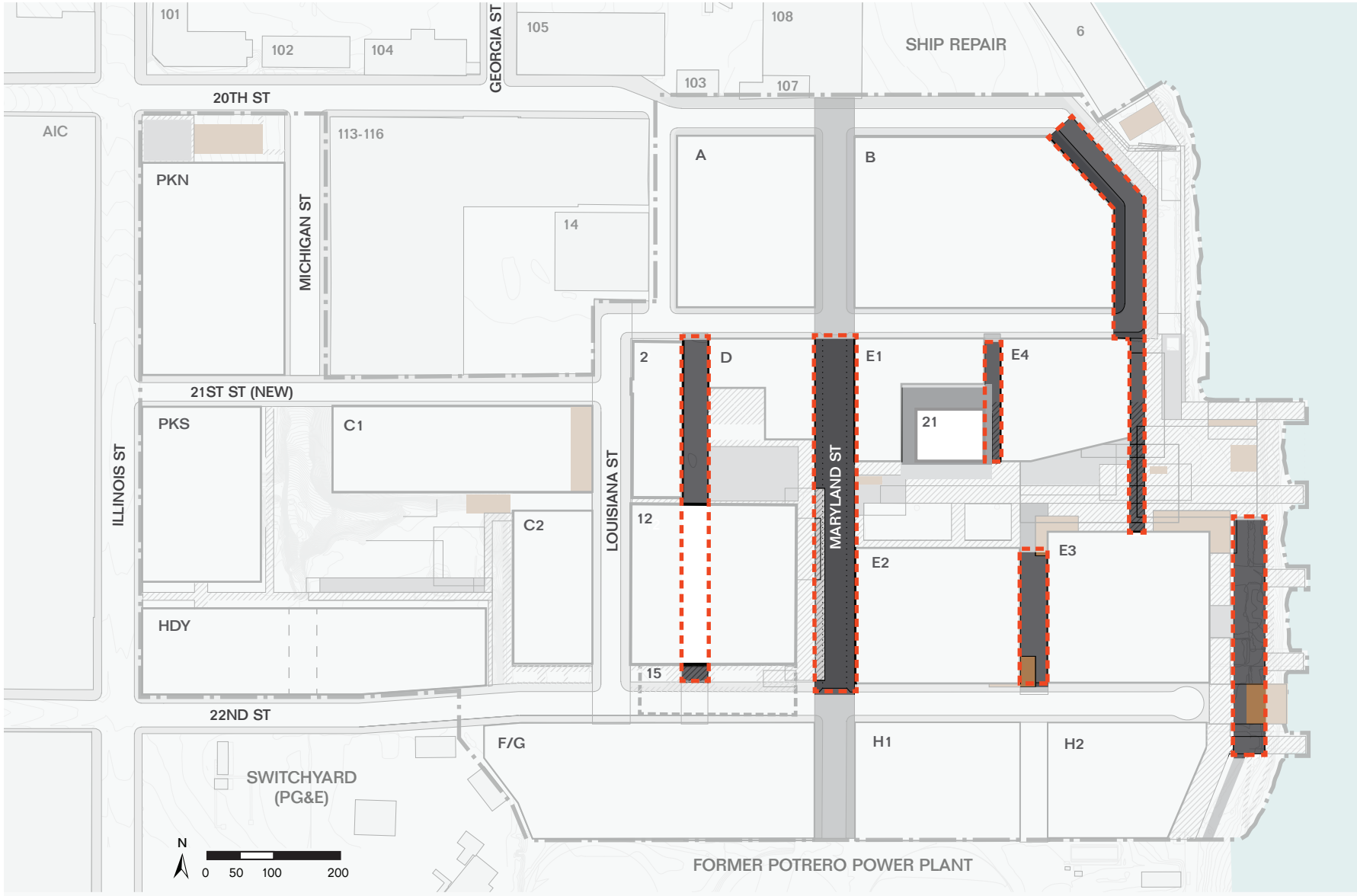


FIGURE 3.15.3: Illustrative Open Space Materials – Priority Zones Plan

Standards

S3.15.1 **CHARACTER.** Materials and treatment of public spaces and streets, including material grain, color, texture and technique of assembly, shall relate to the industrial history and qualities of the site while avoiding the appearance of false historicism. All paving surfaces shall use materials that can withstand extensive daily use and wear-and-tear.

S3.15.2 **TACTILE FLOOR.** Tactile floors are intended to distinguish the north-south promenades as distinctive linear rooms with pavements that are highly tactile and pedestrian-friendly, as shown in Figure 3.15.2. Figure 3.15.3 designates priority areas for tactile floors. The tactile floor materials shall be made with small pavers such as cobble, brick, or unit pavers to prioritize and enrich the pedestrian experience. In contrast to the other treatments within the Project, which are cast in place (CIP) concrete or asphalt, the designated priority areas shall be distinctive with a highly tactile material finish.

- Proposed tactile floor materials include: stone paver, tumbled concrete paver, split-face granite cobble, brick, and smooth concrete paver.
- Stamped concrete and asphalt shall not be used as a tactile floor material.
- Proposed color palette is grey, both warm and cool tones, as these are indicative of historical pavements.





FIGURE 3.15.4: Tactile Floor


Stone Paver


Split-Face Granite Cobble


Smooth Concrete Paver


Tumbled Concrete Paver


Brick


Stamped Concrete and Asphalt

FIGURE 3.15.5: Compliant and Noncompliant Tactile Floor Materials

✕ Denotes noncompliant condition

S3.15.3 **PLAZAS.** Materials for plazas shall consider daily pedestrian use, as well as loading for emergency vehicles or large-scale installations.

- The materials shall provide level surfaces onto which furnishings, stages and elements can be placed.
- Proposed plaza materials include: exposed aggregate concrete, CIP concrete, and split-face granite cobble.

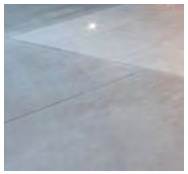




FIGURE 3.15.6: Plazas


Split-Face Granite Cobble


Exposed Aggregate Concrete


CIP Concrete


CIP with Broom Finish


Stamped Concrete

FIGURE 3.15.7: Compliant and Noncompliant Plaza Materials

✖ Denotes noncompliant condition

S3.15.4 **DECKS AND TERRACES.** Decks and terraces shall serve as spaces for gathering, lounging and dining.

- Decks and terraces shall provide level surfaces onto which furnishings, stages, and elements can be placed.
- Proposed decks and terrace material shall include: sustainable hardwood, composite wood decking, decomposed granite, exposed aggregate concrete, and split-face granite cobble.
- Stamped concrete and asphalt shall not be used as deck and terrace material.
- The permitted color palette shall be grey, both warm and cool tones, to relate to historical pavements. Coloring integral to wood materials also permitted.

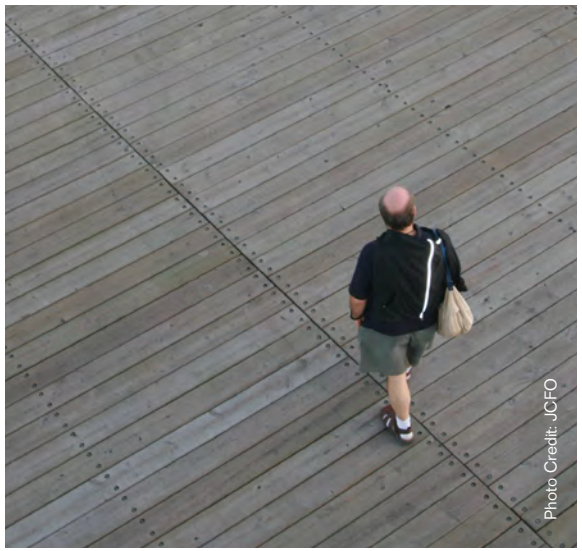
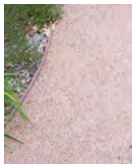




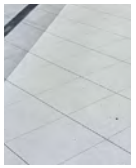
FIGURE 3.15.8: Decks and Terraces


Sustainable Hardwood


Composite Wood Decking


Decomposed Granite


Exposed Aggregate Concrete


Scored Concrete


Mulch


Stamped Concrete

FIGURE 3.15.9: Compliant and Noncompliant Deck and Terrace Materials

✖ Denotes noncompliant condition

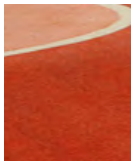
S3.15.5 **PLAY AND ATHLETIC SURFACES.** For play, athletic, and recreational surfaces, the surface materials shall be selected to withstand extensive use and minimize demand for maintenance or replacement.

- Proposed play and athletic surface material include: rubberized play surfacing, artificial turf, thermoplastic paint striping, engineered mulch, and grass.
- Mulch (except engineered mulch) shall not be used as play and athletic surface material.





FIGURE 3.15.10: Play and Athletic Surfaces


Rubberized Play Surface


Artificial Turf


Reinforced Lawn/Turf


Grass


Paved Courts with Thermoplastic Paint Striping


Engineered Mulch

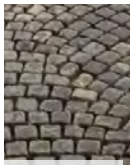

Split-Face Granite Cobble

FIGURE 3.15.11: Play and Athletic Surface Materials

Guidelines

G3.15.1 **MOSAIC FRAMES.** The materials used to outline the open space mosaic frames are intended to both define outdoor "rooms" as well as evoke the industrial history of the site. The materials used should be bold and legible against adjacent materials and maintain a consistent orientation.

G3.15.2 **MATERIAL SELECTION.** Materials should be selected for their visual character (texture, color, aggregate, and finish). Use of recycled, reclaimed, recyclable, and local materials is encouraged.

G3.15.3 **PATTERNS.** Surfaces should not be designed with elaborately applied patterns. Any patterning should be the pragmatic result of the use of unit pavers.

CONSIDERATIONS

- The overall character of surface materials within the Project's open spaces should use a consistent palette but allow for shifts and variation in order to differentiate the use and varying character of smaller open spaces.
- Use of light-reflective paving is encouraged to reduce heat island effect.
- Where feasible, open space design is encouraged to incorporate reuse of existing cobblestones recovered from 20th Street.





FIGURE 3.15.12: Mosaic Frames Examples

3.16 SITE FURNISHING

Site furnishings within the Project will invite people to linger. The primary materials for furnishings are concrete, steel, and wood – either reclaimed from found beams and structures or crafted from resilient hardwood – to evoke the industrial character of the site.

Site furnishings include dining seating, lounge seating, benches, bicycle racks and receptacles. Furnishings should be oversized, to evoke the industrial heritage of the site, and encourage gathering and sociability. Specialized large-scale picnic tables accommodate individuals and larger groups, with long, communal tables offering a unique dining experience on the waterfront. Movable tables and chairs are arranged throughout the open space. Wood, stone, and concrete materials are preferred for seating surfaces. Café and outdoor seating may serve retail and restaurants, or be publicly accessible.

◢ Standards

S3.16.1 **SEATING DESIGN.** Seating shall be designed to be generous to allow people to sit, stand, lounge, lie, huddle, and gather on landscape furniture, all oriented to the activity or views. Seating shall include different types to accommodate all ages: chairs, benches, and chaise lounges.

S3.16.2 **CUSTOM FURNISHING.** Custom site furnishing in the Project shall include large-scale features to evoke industrial heritage and encourage sociability. Furnishings shall provide a range of elements that support the programmatic needs of the Project—sitting, lounging, gathering, dining, viewing and performing, as shown in Figure 3.16.1.

S3.16.3 **NON-CUSTOM SITE FURNISHING.** Benches, movable chairs, bicycle racks, bollards, trash, and recycling bins shall augment the more distinctive "custom" furnishings and provide necessities across the site. The furniture shall match the material palette, form, and style of the site and be functional and provide a range of fixed and movable elements that support the programmatic needs of the Project, as shown in Figure 3.16.2.

CONSIDERATIONS

- Benches should be a mix of social and/or individual types. Oversized benches that accommodate groups of people and a variety of seating arrangements are encouraged.



CHAISE LOUNGE



PICNIC TABLE



WATERFRONT BENCH



SEATING BLOCK



BICYCLE RACK

FIGURE 3.16.1: Custom Site-Furnishing Examples



STANDARD MOVABLE CAFE TABLE AND CHAIRS
Forms and Surfaces
Column Table Vista Chairs



MOVABLE LOUNGE CHAIR
Standard Adirondack Chair



STANDARD BENCH
Landscape Forms - Multiplicity



STANDARD LITTER AND RECYCLING RECEPTACLE
Forms and Surfaces
Universal

FIGURE 3.16.2: Non-Custom Site Furnishing Examples

3.17 VIEWING PAVILIONS

To heighten and dramatize the experience of viewing the Bay and City, the open space design calls for a series of Viewing Pavilions. These large-scale open space installations are all located and positioned to orient visitors towards the most striking views, each captured within the rectilinear frames of the pavilions.

Standards

S3.17.1 **FRAMING VIEWS.** The Viewing Pavilions shall be designed as framing devices to strategically highlight and frame iconic views of the City and the Bay.

S3.17.2 **DESIGN.** Viewing Pavilions shall be predominantly open and incorporate the following elements: a framing structure highlighting a key view; a deck that is delineated from the surrounding area with a distinct ground treatment and/or an elevation change; softscape or hardscape areas to support informal activities and leisure; and interpretive elements as appropriate.

S3.17.3 **ORIENTATION.** The frames shall function as orientation devices and double-sided gateways, framing views out to the City and Bay, as well as views back into the site.

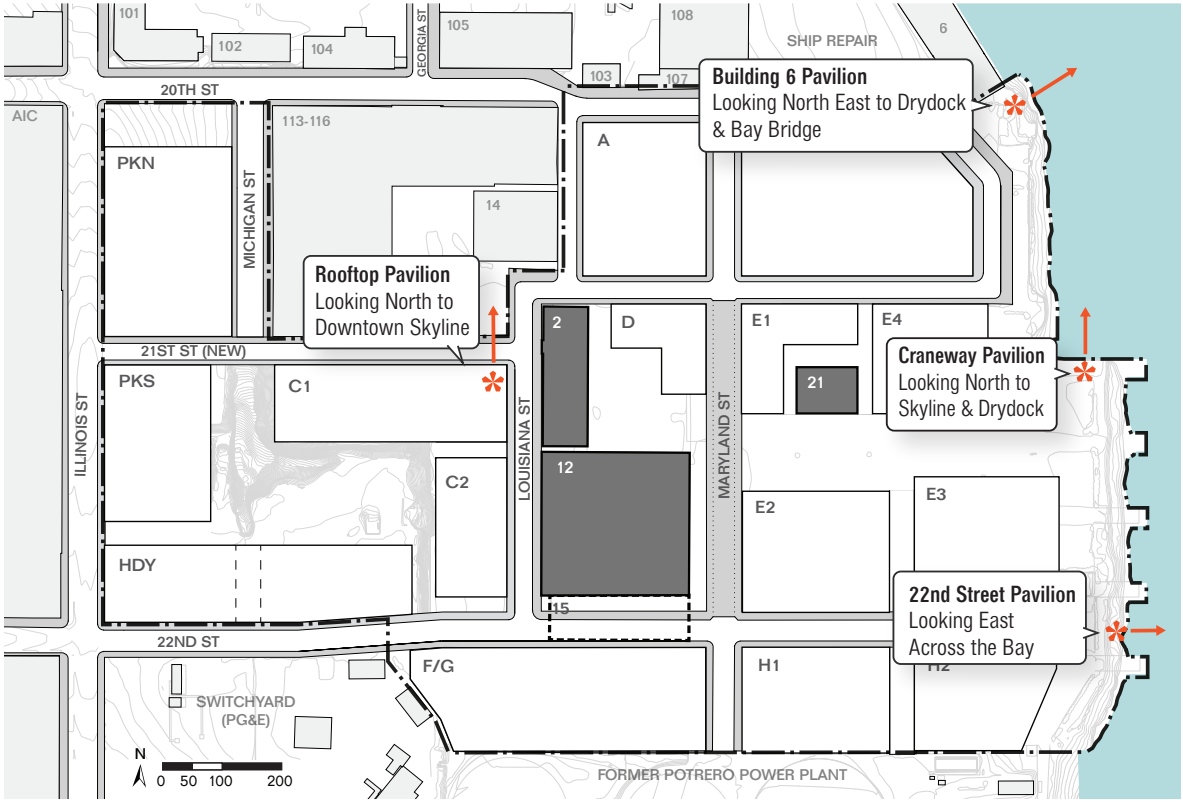


FIGURE 3.17.1: Illustrative Viewing Pavilions Locations Plan



Building 6 Viewing Pavilion



Craneway Viewing Pavilion



Irish Hill Viewing Pavilion

FIGURE 3.17.2: Illustrative Renderings of Viewing Pavilions

CONSIDERATIONS

- The design and dimensions of the framing structures should evoke the materiality and industrial scale of the site, with a suggested minimum height of 15 feet.



Photo Credit: Shae Rocco / Forest City

Pier 70
Illinois Street and 22nd Street

4 STREETS AND STREETSCAPES

4.1 TRANSPORTATION OVERVIEW 102
4.2 STREET HIERARCHY AND CHARACTER 103

STREET NETWORKS

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4.1 TRANSPORTATION OVERVIEW

The Project's streets and streetscapes are intended to create a truly urban network that facilitates easy and enjoyable movement by pedestrians and bicyclists, while providing efficient movement for passenger and service vehicles. Streets will be designed in compliance with the Pier 70 SUD Transportation Plan and Pier 70 SUD Infrastructure Plan.

The Pier 70 Project site is located adjacent to numerous forms of transportation including the MUNI T Line, 22 and 48 bus routes, and is a short distance from Caltrain and I-280. The site is also connected to recreational and commuter cycle routes.

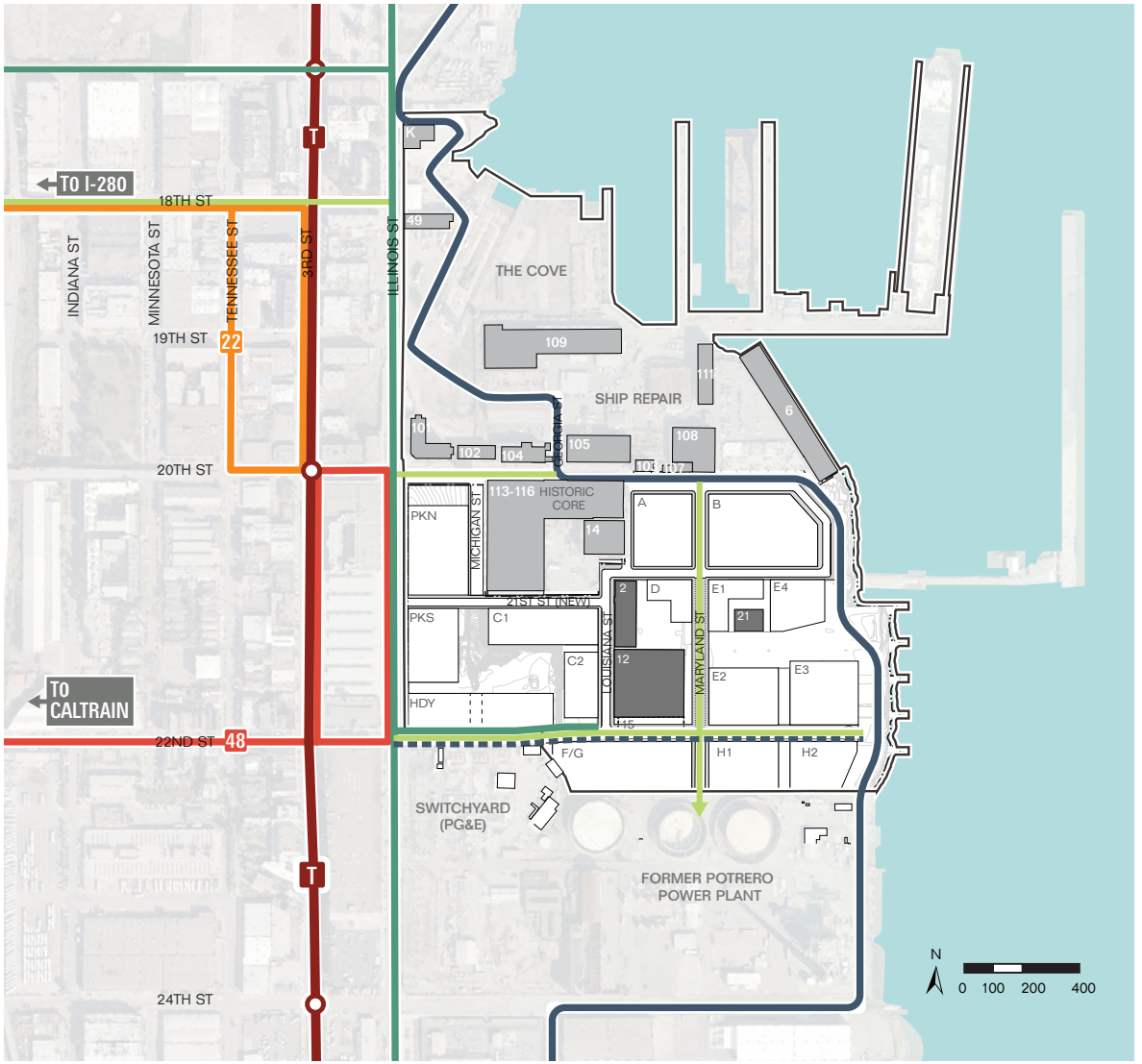


FIGURE 4.1.1: Transportation Context

4.2 STREET HIERARCHY AND CHARACTER

The streets and their design build upon the grid of the surrounding neighborhood, extending eastward to connect to the waterfront and linking together north-south streets to create continuity with adjacent future development. Pier 70 Project streets range in character depending on their function, adjacent land uses, and their proximity to the Historic Core, as illustrated in Figure 4.2.1. Design intent for each street segment is described further in Section 4.11.

The public right-of-way (ROW) is the space of a public street bounded by property lines on opposite sides of the street. The ROW must accommodate a comprehensive set of mobility, infrastructure, and streetscape elements, including facilities for pedestrians and bicyclists, persons with disabilities, vehicular access (cars, trucks, shuttles, and transit), utilities, stormwater management, furnishings, plantings, and storefronts. Mid-block passages provide additional circulation and access for parking and loading. The intent of the Project street network is to balance the overall objectives while maintaining consistency with the site's historic character.

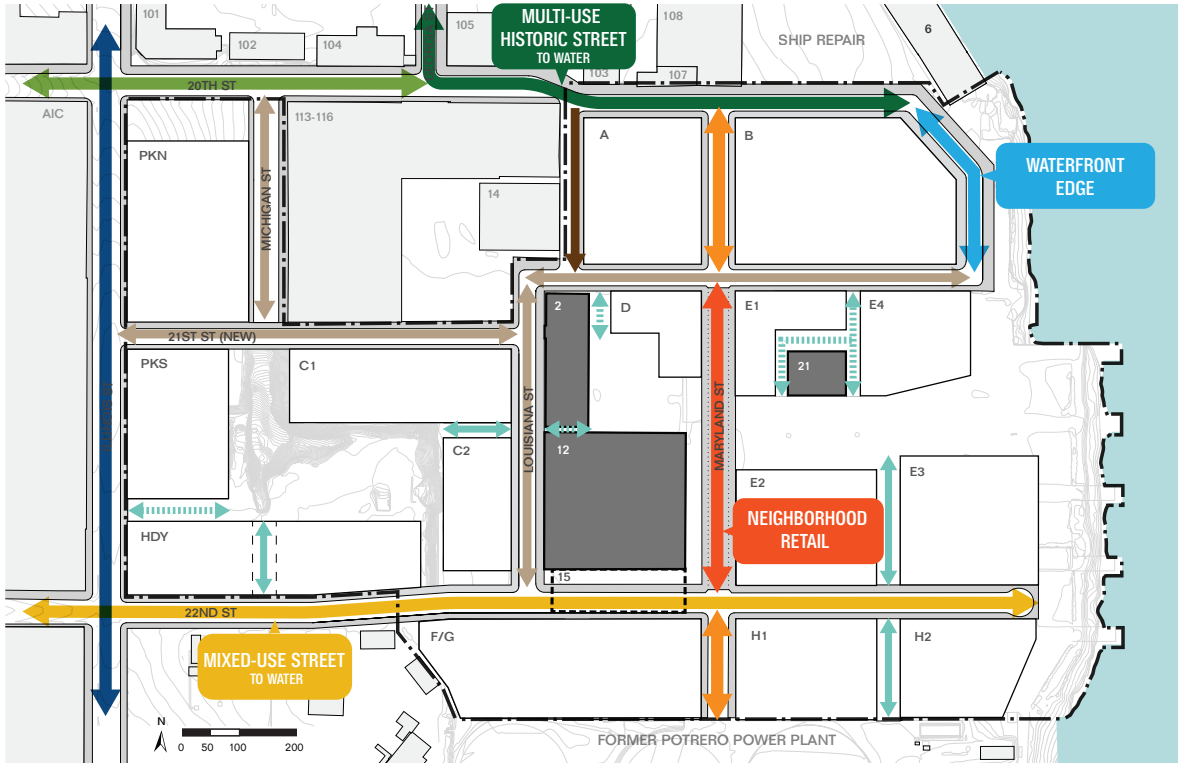


FIGURE 4.2.1: Street Character Intent

Note: Michigan Street public ROW will terminate at 150 feet, with private vehicular usage permitted beyond.

Standards

S4.2.1 **PUBLIC RIGHT-OF-WAY.** All public ROWs shall be open to the sky. The only location with a permitted permanent structure over the roadway shall be at 22nd street if Building 15's structural frame is retained.

20th Street, 22nd Street, and Maryland Street serve residential, commercial, and retail uses in addition to some light-industrial uses. For these streets, public ROW widths shall be between 55 feet to 67 feet to provide ample space for pedestrian circulation and effective vehicular circulation.

21st Street, Louisiana Street North, Louisiana Street South and Michigan Street will have less activity with fewer pedestrian-focused frontages and more service loading. ROW widths shall be limited to a range from 30 feet to 55 feet.

S4.2.2 **RAISED STREETS.** Maryland Street between 21st Street and 22nd Street serves as a bridge between two public open spaces – Slipways Commons and Market Square. This segment of Maryland shall be a Raised Street or Shared Public Way. It is intended that the street will be able to be closed to all vehicular traffic for events in the adjacent open spaces and in Building 12.

Additionally, 20th Street at the waterfront shall be a Raised Street or Shared Public Way in order to connect pedestrians to the waterfront park.

Guidelines

G4.2.1 **PEDESTRIAN AND BICYCLE PRIORITY.** Traffic calming measures such as raised traffic tables and specialty paving treatments are encouraged. Implementation is subject to coordination with City agencies.

G4.2.2 **RAISED STREETS.** Because Raised Streets assist in traffic calming and emphasize pedestrian and bicycle priority, application of Raised Street treatment is encouraged in following location (in addition to the required segment along Maryland Street and 20th Street at the waterfront): 22nd Street between Louisiana Street and the water; and other locations where pedestrian priority is appropriate.

RAISED STREET

A Raised Street promotes priority use by pedestrians by applying a continuous single surface treatment across the width of the street and flush curbs. A Raised Street is a variation on the SF Better Streets Plan "Shared Public Way." While both street types, Raised Streets and Shared Public Ways, prioritize pedestrian usage and traffic calming measures, Shared Public Ways promote pedestrian usage throughout the roadway, whereas Raised Streets provide crosswalks to designate where pedestrians have priority to cross. The goal of designating Raised or Shared Streets is to calm traffic to create a safe environment that encourages public recreational use. Additionally, such streets emphasize public open space character, and provide more flexible configurations to allow for unencumbered movement during events when streets are closed.

STREET NETWORKS

4.3 PEDESTRIAN NETWORK

The streets within the Project are designed to create a safe and comfortable experience for travelers of all modes, especially pedestrians. As shown in Figure 4.3.1, the open space—from Buildings 2 and 12, and through Maryland Street to the waterfront—provides a large, contiguous, pedestrian-first area. A mix of both direct and meandering pathways provides multiple ways for one to traverse from Illinois Street to the waterfront.

The San Francisco Better Streets Plan (BSP) outlines the following zones within the public ROW, of which, frontage, throughway, furnishing and edge zones constitute a typical sidewalk, as illustrated in Figure 4.3.2:

FRONTAGE ZONE

"The area adjacent to the property line where transitions between the public sidewalk and the space within buildings occur."

THROUGHWAY ZONE

"The portion of the sidewalk for pedestrian travel along the street."

FURNISHING ZONE

"The portion of the sidewalk used for street trees, landscaping, transit stops, street lights, and site furnishings."

EDGE ZONE (OR CURB ZONE)

"The area used by people getting in and out of vehicles parked at the curbside."

PARKING ZONE (OR EXTENSION ZONE)

"The area where pedestrian space may be extended into the parking lane, via features such as bulb-outs with mid-block plazas."

Source: San Francisco Better Streets Plan, Chapter 4 Approach: Designing Great Streetscapes

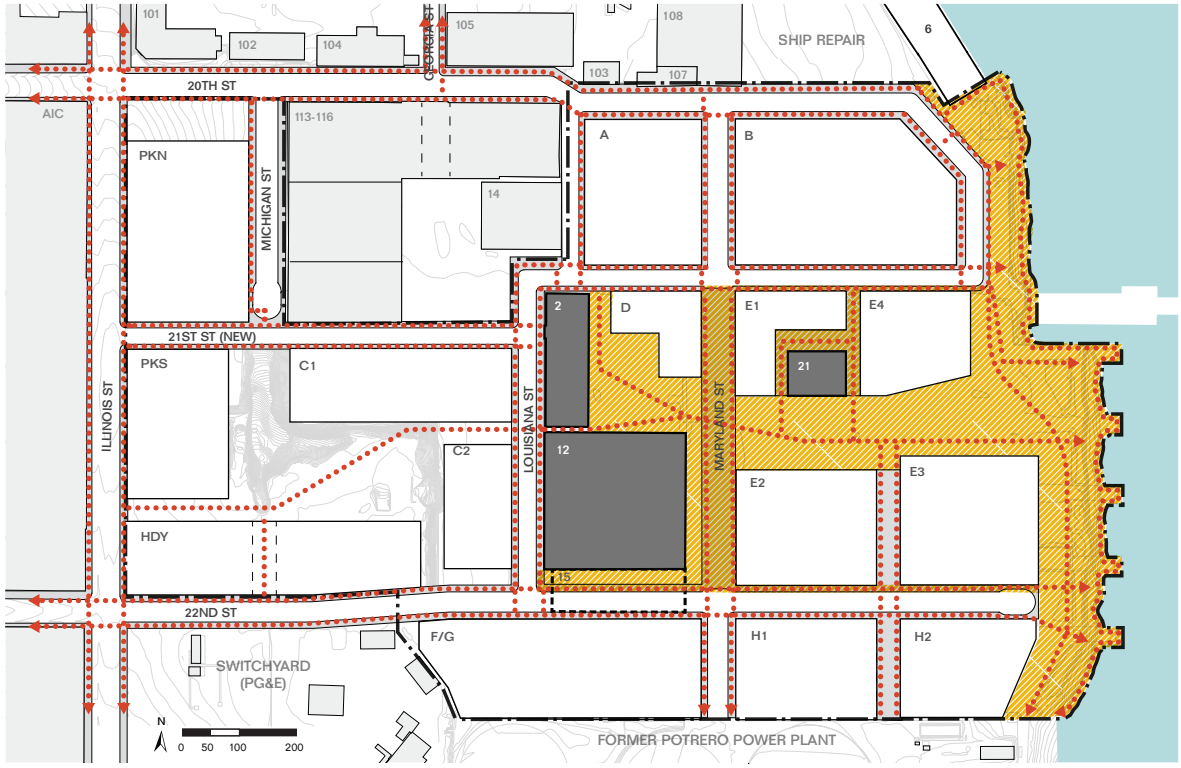


FIGURE 4.3.1: Priority Pedestrian Zone

Priority Pedestrian Zone
Pedestrian Circulation

Standards

S4.3.1 **PEDESTRIAN REQUIREMENTS.** Minimum sidewalk widths shall adhere to the standards and guidelines specified for each street segment shown in Table 4.3.1.

S4.3.2 **THROUGHWAY ZONE.** All streets shall provide a minimum six-foot wide throughway zone to allow for clear and unobstructed pedestrian pathways as illustrated in Figure 4.3.3. 20th Street at the Waterfront shall provide a minimum eight-foot wide throughway zone.

S4.3.3 **PEDESTRIAN ELEMENTS.** The pedestrian network shall include pedestrian elements in the frontage and furnishing zones such as awnings, street trees, lighting, architectural features, and signage for lively, compelling streets. Infrastructure and non-contributing elements shall be located in non-intrusive locations, and consolidated wherever possible.

S4.3.4 **PRIORITY PEDESTRIAN ZONE.** The priority pedestrian zone indicated in Figure 4.3.1 shall be designed with attention to paving, materiality, signage and other pedestrian friendly elements in order to encourage pedestrian movement throughout the priority zone.

Guidelines

G4.3.1 **CURB EXTENSIONS.** Curb extensions, or bulb-outs, are encouraged on corners and mid-block locations wherever feasible in order to increase pedestrian visibility, shorten pedestrian crossing distances, visually narrow the roadway, and slow turning vehicles. This may be coordinated in tandem with other traffic calming measures as described in G4.6.1.

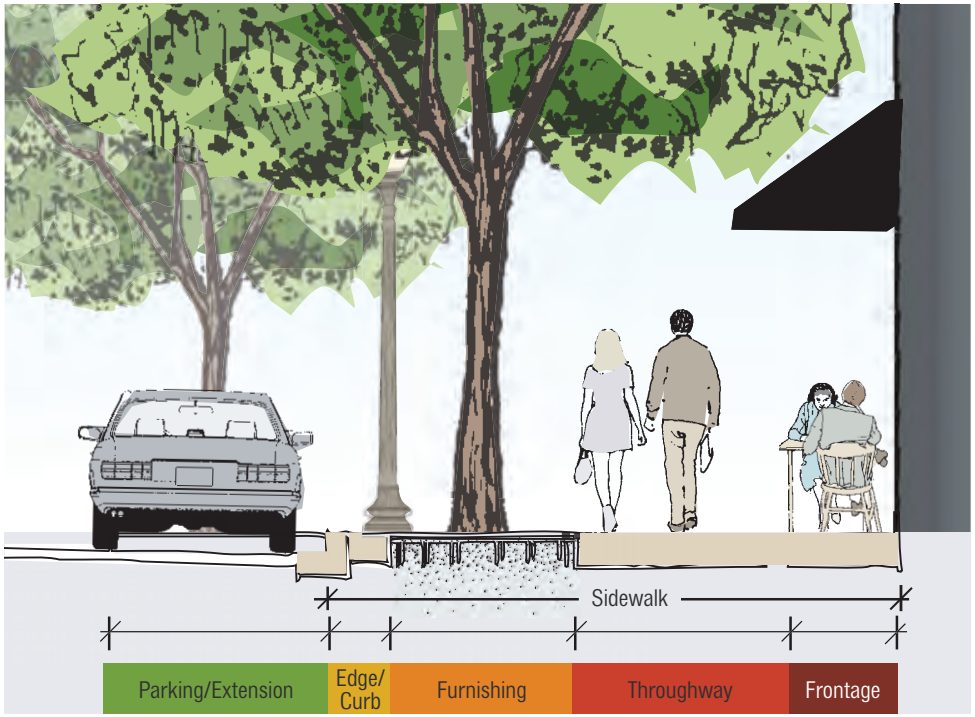


FIGURE 4.3.2: Sidewalk Zones Section
Source: SF Better Streets Plan

CONSIDERATIONS

- Placement of pedestrian amenities such as seating should be integrated into streetscapes. Bicycle parking, waste and recycling bins, and other streetscape elements should be organized and consolidated in the sidewalk furnishing zones.

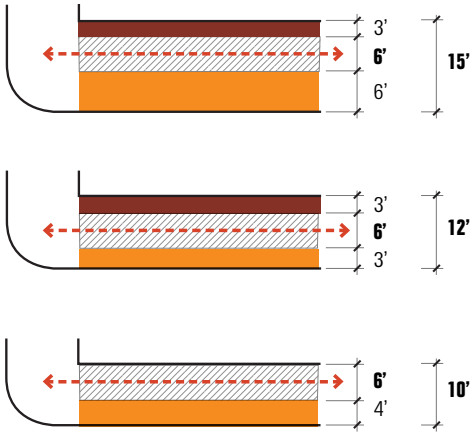


FIGURE 4.3.3: Effective Sidewalk Width – 6' Minimum Throughway Zone

Frontage Zone
Throughway Zone
Furnishing Zone

TABLE 4.3.1: Minimum Sidewalk Widths

STREET SEGMENT	MINIMUM SIDEWALK WIDTH (West side / East side) or (North side / South side)
20th Street between Illinois Street and Georgia Street	14'*/14'* *Width may vary due to irregular historic building frontages
20th Street between Georgia Street and Louisiana Street	16' (BT)*/11'* *Width may vary due to irregular historic building frontages
20th Street between Louisiana Street and the Waterfront	16' (BT)/12'
20th Street at the Waterfront	18'*/Open Space *Width may be reduced for truck turning near intersections
21st Street between Illinois Street and Louisiana Street	9.5'/9.5'
21st Street between Louisiana Street and the Waterfront	9'*/9' *Width may be reduced for truck turning near intersections
22nd Street between Illinois Street and the Waterfront	12'/12'* *Width may be reduced to accommodate Building 15 footings
Maryland Street between 20th Street and 22nd Street	12'/12'
Maryland Street between 22nd Street and former Potrero Power Plant site	11'/11'
Louisiana Street between 20th Street and 21st Street	- /9'
Louisiana Street between 21st Street and 22nd Street	12'*/12' *Width may be reduced for truck turning near intersections
Michigan Street	10'/7'

Note: BT=Bay Trail (See Section 4.5)

4.4 MID-BLOCK PASSAGES

Mid-Block passages are publicly accessible pedestrian and vehicular routes that create a connection between public streets and/or open spaces. Selected mid-block passages are pedestrian-only and closed to motorized vehicles, though accessible by emergency and maintenance vehicles. Select required mid-block passages are permitted to have building connectors above the passage, as noted in Table 4.4.1 and Section 6.17.

Standards

S4.4.1 **MID-BLOCK PASSAGE LOCATIONS.** At least one mid-block passage shall be required in the locations indicated in Figure 4.4.1. Each passage may be located anywhere within the illustrated allowable easement zone.

S4.4.2 **MID-BLOCK PASSAGE DIMENSIONS.** All mid-block passages with vehicular access shall meet the minimum width requirement of 25 feet. Pedestrian-only mid-block passages shall be a minimum of 20 feet in width (except the existing passage between Buildings 2 and 12). Required mid-block passages shall further comply with the minimum dimensions per location listed in Table 4.4.1. Mid-block passages shall be 100 percent open to the sky except those indicated in Table 4.4.1 and Figure 4.4.1 as permitting a building connector above. Refer to Section 6.17 for more information on building connector standards.

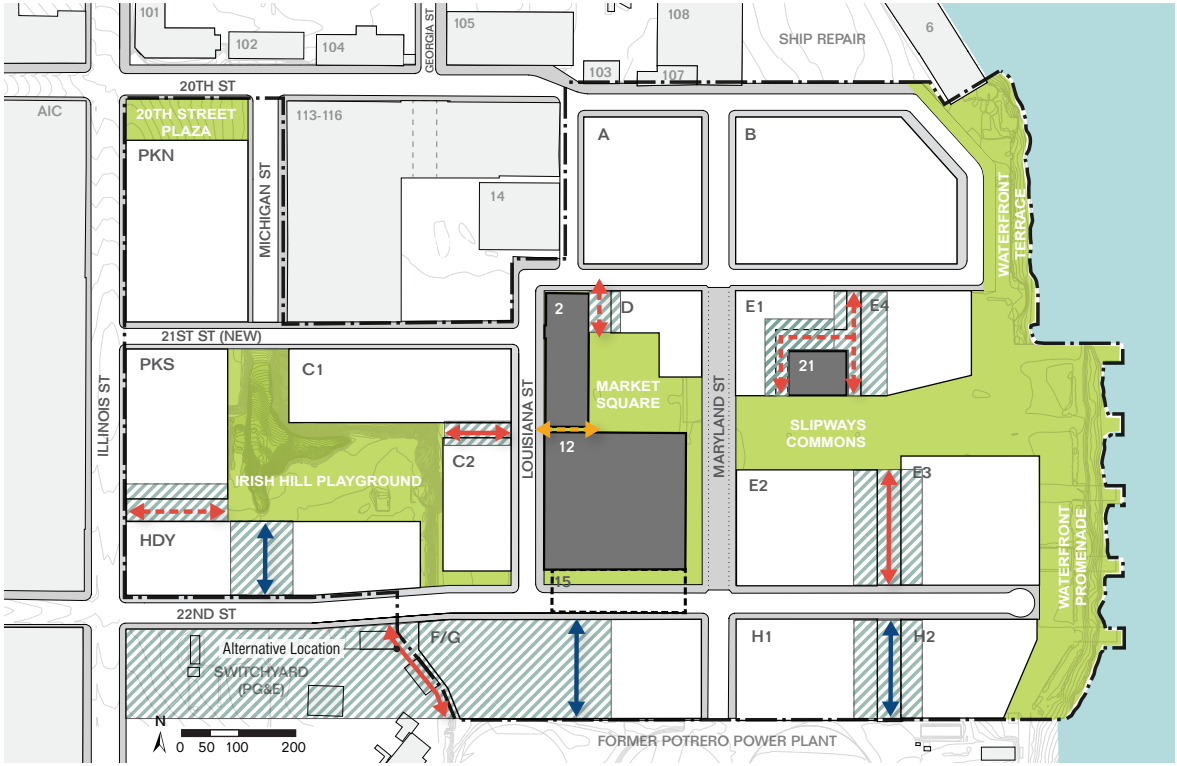


FIGURE 4.4.1: Mid-Block Passage Locations

Note: Michigan Street public ROW will terminate at 150 feet, with private vehicular usage permitted beyond.

Project Public Open Space
Allowable Easement Zone

Pedestrian and Vehicular Access
Open-to-Sky
Building Connector Permitted Above

Pedestrian Only
Open-to-Sky
Existing Passage

S4.4.3 **MID-BLOCK PASSAGE DESIGN.** Passages shall be appropriately lit and passages that have building connectors above shall contain at least one direct connection to the building's lobby.

CONSIDERATIONS

- Where feasible, pedestrian amenities, including seating, landscaping, public art, retail displays, café access, or opportunities for temporary kiosks, food, or retail trucks are encouraged in mid-block passages.

TABLE 4.4.1: Minimum Dimensions for Mid-Block Passages

LOCATION	MIN. WIDTH	TYPE	ACCESS TYPE
East-West, between PKS and HDY	40'	Open-to-Sky	Pedestrian only
North-South, between E1 and E4	20'	Open-to-Sky	Pedestrian only
North-South, between E2 and E3	40'	Open-to-Sky	Vehicles Permitted
East-West, between Building 2 and Building 12	N/A	Existing Passage	Pedestrian only
East-West, and North-South between Building 21 and E1	20'	Open-to-Sky	Pedestrian only
East-West, between C1 and C2	25'	Open-to-Sky, Pedestrian Bridge permitted if both C1 and C2 have public rooftop open space	Vehicles Permitted
North-South, HDY	40'	Building Connector Permitted Above (Section 6.17)	Vehicles Permitted
North-South, between Illinois Street and Maryland Street, south of 22nd Street	25'/40'	If located west of F/G parcel: 25' minimum, open-to-Sky; If located within F/G parcel: 40' minimum, building connector permitted above (Section 6.17)	Vehicles Permitted
North-South, between H1 and H2	40'	Building Connector Permitted Above (Section 6.17)	Vehicles Permitted



Active Programming, Seating, Daylighting, and Detailed Architectural Treatment
North End Way, New York, NY



Activated Corridor, Program Connections at Multiple Levels
ExCel Exhibition Centre, London, UK



Daylighting, Landscaping, Seating, Special Architectural Treatment, and Connector above
T-Site, Tokyo, Japan



Narrow Activated Pedestrian Passageway between Existing Buildings
Goodrich Alley, Kansas City, MO



Residential Passage with Active Ground Floor Uses
Mission Bay North, San Francisco, CA



Narrow Residential Passage
Malmo, Sweden



Gated, Inaccessible Passage
Mission Bay North, San Francisco, CA



Inactive Frontage, Setback with Landscape as Buffer
Mission Bay, San Francisco, CA

FIGURE 4.4.2: Examples of Compliant and Noncompliant Mid-Block Passages
✕ Denotes noncompliant condition

4.5 BICYCLE NETWORK

A key goal for the project is to foster safe and efficient bicycle circulation. At the northern end, the bicycle network extends the Bay Trail via 20th Street to Georgia Street and 19th Street. At the southern end, the Bay Trail will temporarily access Illinois Street via 22nd Street and be designed to connect to any future extension of the Bay Trail directly south of the site. The Bay Trail will be designed to support recreational bicycling.

Standards

S4.5.1 **BICYCLE REQUIREMENTS.** The Project shall include bicycle lanes, bicycle-safety-oriented street design, and bicycle-parking facilities to promote bicycling within and around the site. The bicycle network shall connect Illinois Street to the waterfront. Minimum requirements for bicycle facilities and locations shall be provided per Figure 4.5.1. For further information on bicycle parking and support spaces, see Section 5.1 Bicycle Parking.

S4.5.2 **BAY TRAIL.** As a part of the regional waterfront network, the Project shall maintain continuity of the San Francisco Bay Trail (Bay Trail) along the entire length of the Project shoreline.

As defined in the 2016 San Francisco Bay Trail Design Guidelines, a "shared-use trail" shall be provided. A shared-use trail is designed for use by both bicyclists and pedestrians and provides a completely separated right-of-way for exclusive, non-motorized use with minimal cross-flow from vehicular traffic. A shared-use trail is analogous to a "Class 1" bicycle path as described in the California Highway Design Manual.

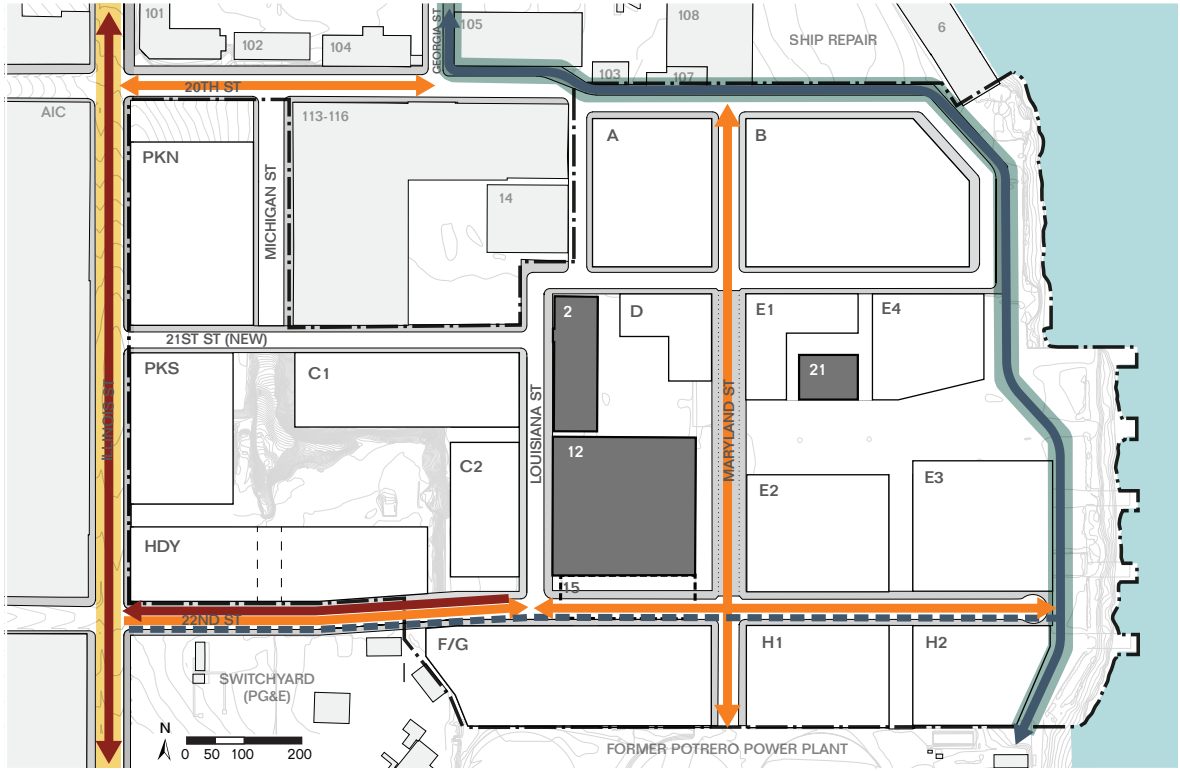


FIGURE 4.5.1: Bicycle Network

Minimum widths and buffers shall be provided as listed below:

- Bay Trail along 20th Street: At minimum, a width of 16 feet shall be maintained for the shared use trail, including a required two-foot wide buffer between the trail and any adjacent vehicular or parking lanes.
- Bay Trail within waterfront park: At minimum, a width of 20 feet shall be maintained for the shared use trail, including a required two-foot wide buffer between the trail and any adjacent vehicular or parking lanes. A sample section of Bay Trail at Waterfront Promenade is illustrated in Figure 4.5.4. While the trail within the waterfront park is not required to be buffered from the adjacent open spaces, paving treatment of the trail shall be distinct from surrounding material.
- Required buffers may be planted, distinguished by distinct paving treatment, or provide vertical barriers such as bollards or lighting. Buffers may include the width of curb.

Where it is not feasible to provide a shared use trail (due to existing ROW limits, historic buildings or other site conditions), an alternative Bay Trail design shall be permitted, so long as it is compliant with, or provides an equivalent alternative to the bicycle and pedestrian facilities described in the 2016 Bay Trail Design Guidelines.

As shown in Figure 4.5.1, the Bay Trail shall temporarily be permitted to align with 22nd Street to connect to the existing bicycle lane on Illinois Street. The temporary alignment provides a continuous loop through the site pending development at the former Potrero Power Plant site. The design of the 22nd Street temporary alignment shall not be required to follow Bay Trail Design Guidelines.

S4.5.3 **CLASS 2 BICYCLE LANE.** Minimum width of a separated one-way bicycle lane shall be five feet. A Class 2 Bicycle Lane shall be incorporated on 22nd Street between Louisiana Street and Illinois Street for westbound bicycle movement, to ensure ease of bicycle movement along the increased slope of the segment of 22nd Street.

S4.5.4 **CLASS 3 SHARED LANES (SHARROWS).** Class 3 shared lanes provide for shared use with vehicular traffic. All Class 3 Shared Lanes shall include shared lane pavement markings, in accordance with MUTCD Figure 9C-9 bicycle-and-chevron sign, located a minimum of every 100 feet to alert all travel lane users of the shared nature of the space, as shown in Figure 4.5.2.



FIGURE 4.5.2: Example Class 3 Shared Lane (Sharrow) Pavement Marking



FIGURE 4.5.3: Example Class 3 Shared Lane (Super Sharrow) Pavement Marking

Guidelines

G4.5.1 **BICYCLE SAFETY.** In order to increase bicycle safety, colored pavement at bicycle boxes, conflict areas, or intersection crossings is encouraged to highlight bicycle and motor vehicle conflict areas.

G4.5.2 **CLASS 3 SHARED LANES (SHARROWS).** To establish safe cycling routes throughout the site, bicycle facilities should draw awareness between bicyclists and drivers. Provision of additional lane markings and stand-alone signs or roadway markers indicating lanes to be shared is encouraged, in accordance with state and federal regulations.

G4.5.3 **BAY TRAIL DEMARCATION.** The portion of the Bay Trail within the waterfront park should be demarcated with flush edging, such as stone or steel, for clear identification and legibility.

CONSIDERATIONS

- Programs that encourage commuter and recreational cyclists (including bicycle repair and rental facilities) should be incorporated into the bicycle network, where appropriate.
- Provision of "super sharrows" as shown in Figure 4.5.3, or other similar strategies with continuous lane markings, is encouraged to create awareness of sharing lanes between bicyclists and drivers.

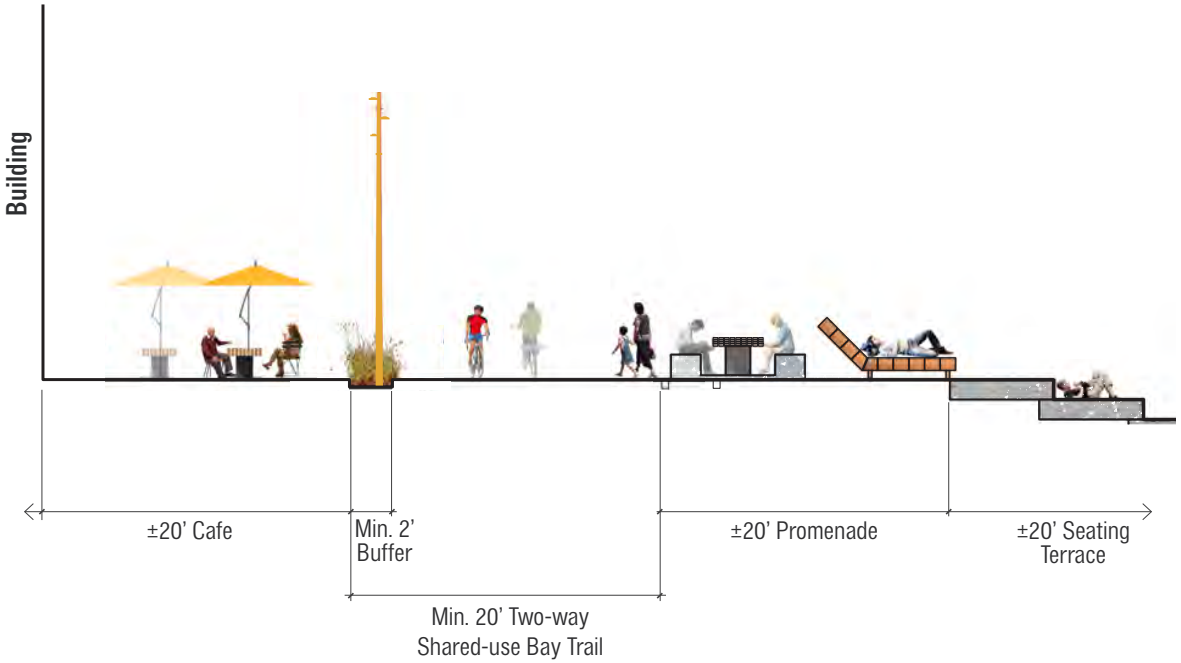


FIGURE 4.5.4: Bay Trail Section at the Waterfront

4.6 VEHICULAR NETWORK

All streets within the site have two travel lanes, including one lane for each direction of traffic, with the exception of Louisiana Street North, which is a one-way southbound street as illustrated in Figure 4.6.1.

Standards

S4.6.1 **TRAVEL LANE WIDTH.** Travel lanes shall be a maximum of 10 feet in width, provided there is an adjacent parking lane of eight feet. Where there is no adjacent parking lane, travel lanes shall be permitted to increase to a maximum of 11 feet in width. Eleven-foot wide travel lanes shall be permitted for MUNI access. A 20-foot travel lane shall be permitted as an exception only on Louisiana Street North to allow for continued industrial uses, and access for fire and emergency personnel at the Historic Core.

S4.6.2 **22ND STREET TERMINUS.** Where 22nd Street intersects the waterfront park, a terminus of a minimum radius of 51 feet shall be provided for vehicular turning, as shown in Figure 4.6.1.

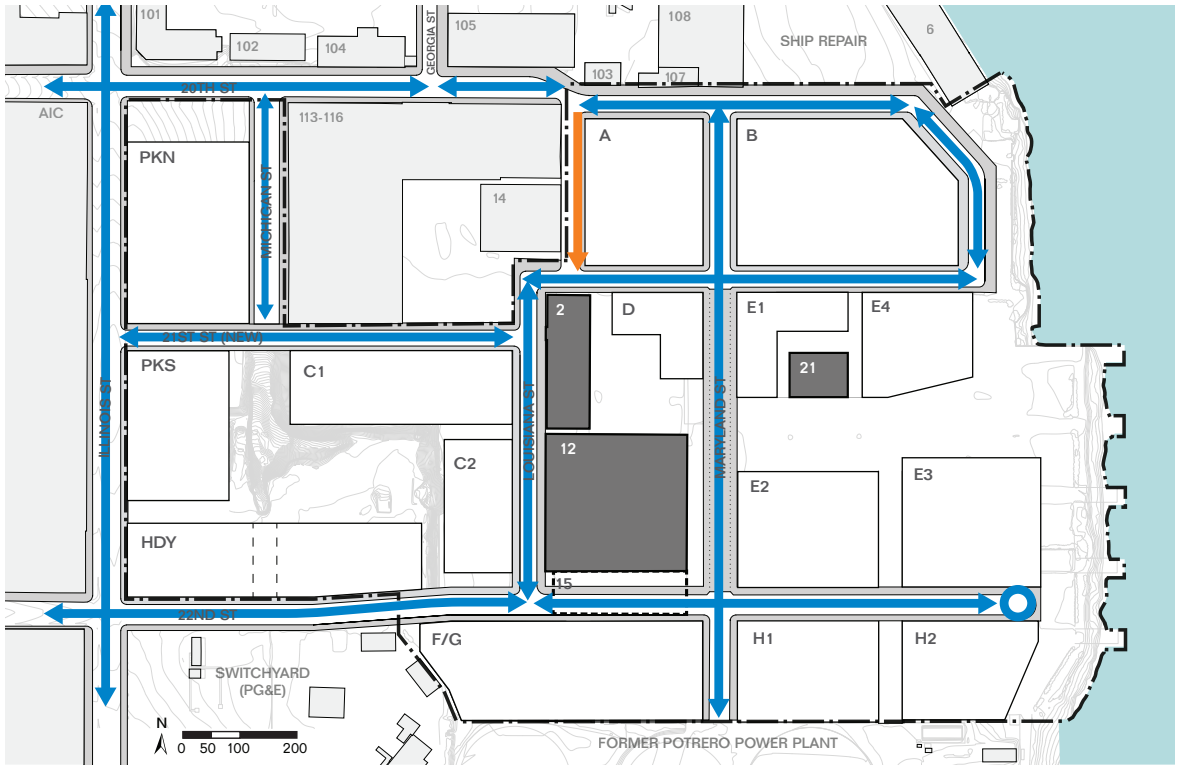


FIGURE 4.6.1: Vehicular Access Network

Note: Michigan Street public ROW will terminate at 150 feet, with private vehicular usage permitted beyond.

Guidelines

G4.6.1 **TRAFFIC CALMING.** To calm traffic and increase pedestrian safety, travel lanes should be the minimum width feasible and should provide on-street parking where possible, as well as incorporate techniques such as bulb-outs or chicanes, wherever feasible. Examples of traffic calming measures are shown in Figure 4.6.2.

G4.6.2 **REDUCED SPEED LIMIT.** Lowering the speed limit to 20 miles per hour should be considered for roadways within the site. Implementation of this guideline is subject to coordination with SFMTA.



FIGURE 4.6.2: Example of Bulb-outs and Chicanes

4.7 TRANSIT NETWORK

Standards

S4.7.1 **TRANSPORTATION DEMAND MANAGEMENT.** The Project shall establish a Transportation Management Agency (TMA) to coordinate and implement Transportation Demand Management (TDM) strategies and provide a shuttle service to connect the site to regional transit hubs, including BART and Caltrain, and local hubs, including MUNI.

S4.7.2 **TRANSIT ACCESS.** MUNI buses shall not be permitted on Maryland Street between 21st Street and 22nd Street.

Guidelines

G4.7.1 **MUNI BUS AND COMMERCIAL SHUTTLE ROUTE.** MUNI bus and commercial shuttle services should follow the route illustrated in Figure 4.7.1. Buses should be able to service the site via 22nd Street in order to connect the site, surrounding neighborhood, and future development of the former Potrero Power Plant. Bus route to be finalized in coordination with SFMTA.

G4.7.2 **PIER 70 TMA SHUTTLE ROUTE.** Shuttle service provided by the Pier 70 TMA should follow one of the two potential routes illustrated in Figure 4.7.1. The service is intended to complement and not replace MUNI service and should be oriented to the needs of residents and employees.

To minimize conflicts, drop-off zones may be created by removing street parking.

G4.7.3 **TRANSIT STOPS.** Sidewalk transit stops should be located near curb extensions wherever feasible. Refer to the Better Streets Plan for standards on placement and layout of transit bulb-outs and shelters, and transit-specific streetscape elements including but not limited to vegetation, signage, furnishing, and lighting.

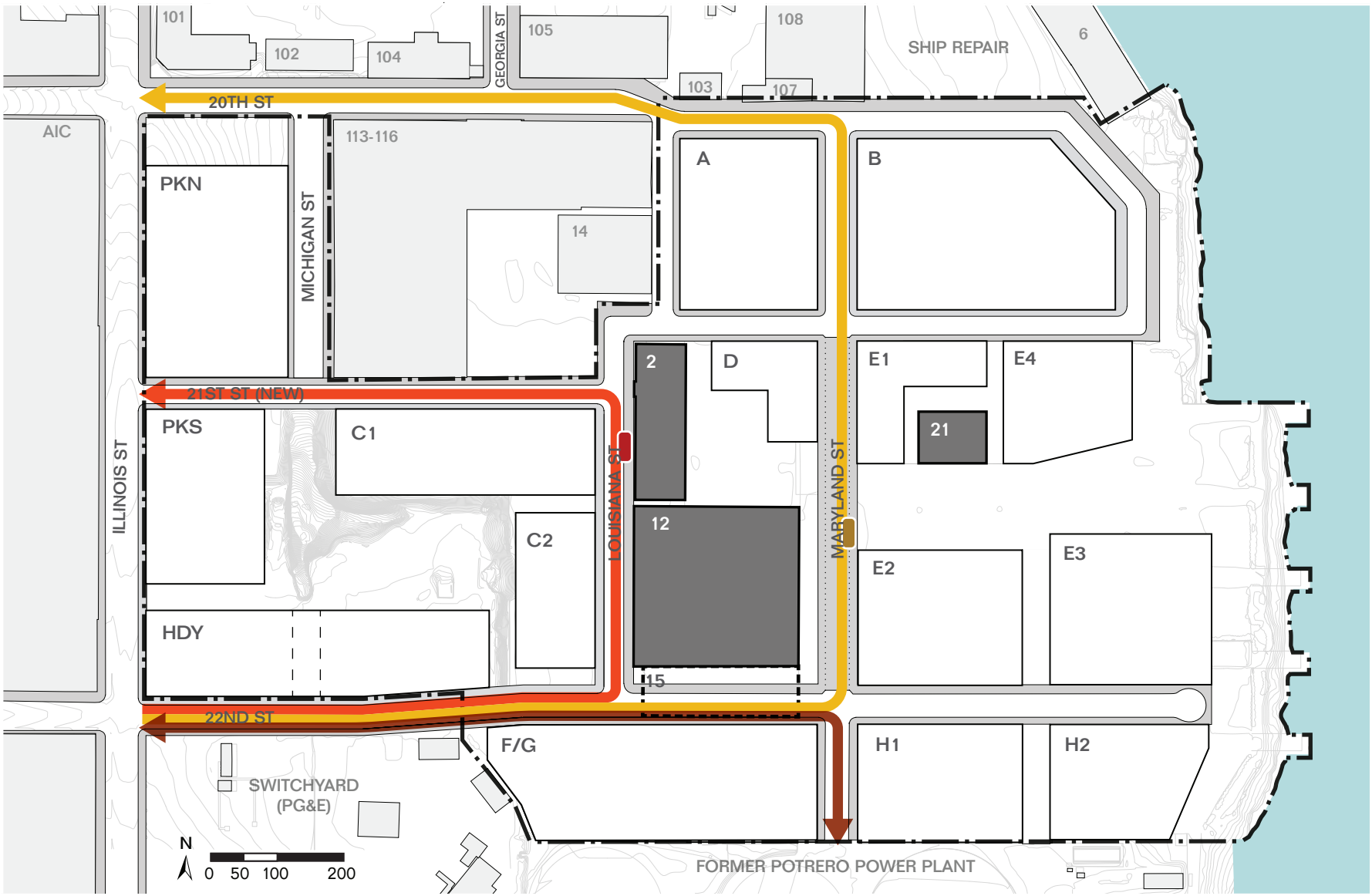


FIGURE 4.7.1: Transit Network

MUNI Bus & Commercial Shuttle Route On Site
Pier 70 TMA Shuttle Route On Site – Option 1
Pier 70 TMA Shuttle Drop-off Zone – Option 1
Pier 70 TMA Shuttle Route On Site – Option 2
Pier 70 TMA Shuttle Drop-off Zone – Option 2

4.8 STREET PLANTING

Historically, the Pier 70 Area was characterized by minimal to no vegetation. To facilitate the transition to a new neighborhood, street trees have been thoughtfully located in appropriate locations with grasses and other plantings to create landscape and greening compatible with the historic character of the district. See Section 3.13 Vegetation for more information on specific vegetation and planting types.

Spacing and arrangement should also take into consideration proximity to the Historic Core – with increased attention to demonstrating the additive nature of the trees where closest to the Historic Core.

The following standards and guidelines relate to street trees and plantings within the public ROW, and are distinct from vegetation within open spaces described within Section 3.13.

◢ Standards

S4.8.1 **STREET TREES.** Street trees within the site shall be selected for their quality of form (shape, size, and branching habits) and foliage (color and density) to be in keeping with the Project's vision of a place that simultaneously relates to the neighborhood and the site's industrial heritage. Street trees shall be designed as additions to the site after the period of historic significance.

S4.8.2 **STREET TREE AND PLANTING LOCATIONS.** Street trees and plantings within the ROW shall be required, permitted, and prohibited on streets as indicated in Figure 4.8.1.

Street trees shall not be required where mid-block passages intersect with sidewalk.

Additional street trees may be incorporated in locations not shown, including mid-block passages, as long as the location is not expressly prohibited.

S4.8.3 **PLANTING STRIP WITH LOW PLANTINGS.** Low plantings shall be permitted on all streets with the exception of the south sidewalk on 20th Street between Michigan Street and Louisiana Street (fronting Building 113-116), where they are not permitted. Planting strips shall be designed either as wild and irregular plantings, or as insertions into the streetscape with strategies such as raised or lowered beds edged by industrial materials. Planting strips with low plantings shall be a minimum of four feet in width. Where sidewalk width is less than 10 feet, three-foot wide planting strips shall be permitted. Where a courtesy strip is provided in a sidewalk less than 10 feet in width, two-foot wide planting strips shall be permitted.

S4.8.4 **PLANTING STRIP WITH STREET TREES.** To allow adequate space for healthy street tree growth, planting strips with street trees shall be a minimum of four feet in width, with the tree centered a minimum of 18 inches from the edge of the curb.

S4.8.5 **STREET TREE SPACING.** Where street trees are required, they shall be permitted to have variable spacing, in contrast with standard Better Streets Plan requirements, in order to provide compatibility with the Historic District. At required locations, the total number of street trees shall be equivalent to the number of trees spaced at 35 feet intervals.

S4.8.6 **STREET TREE SPECIES.** All trees shall meet the approved species defined by the SF Department of Public Works and Friends of the Urban Forest.

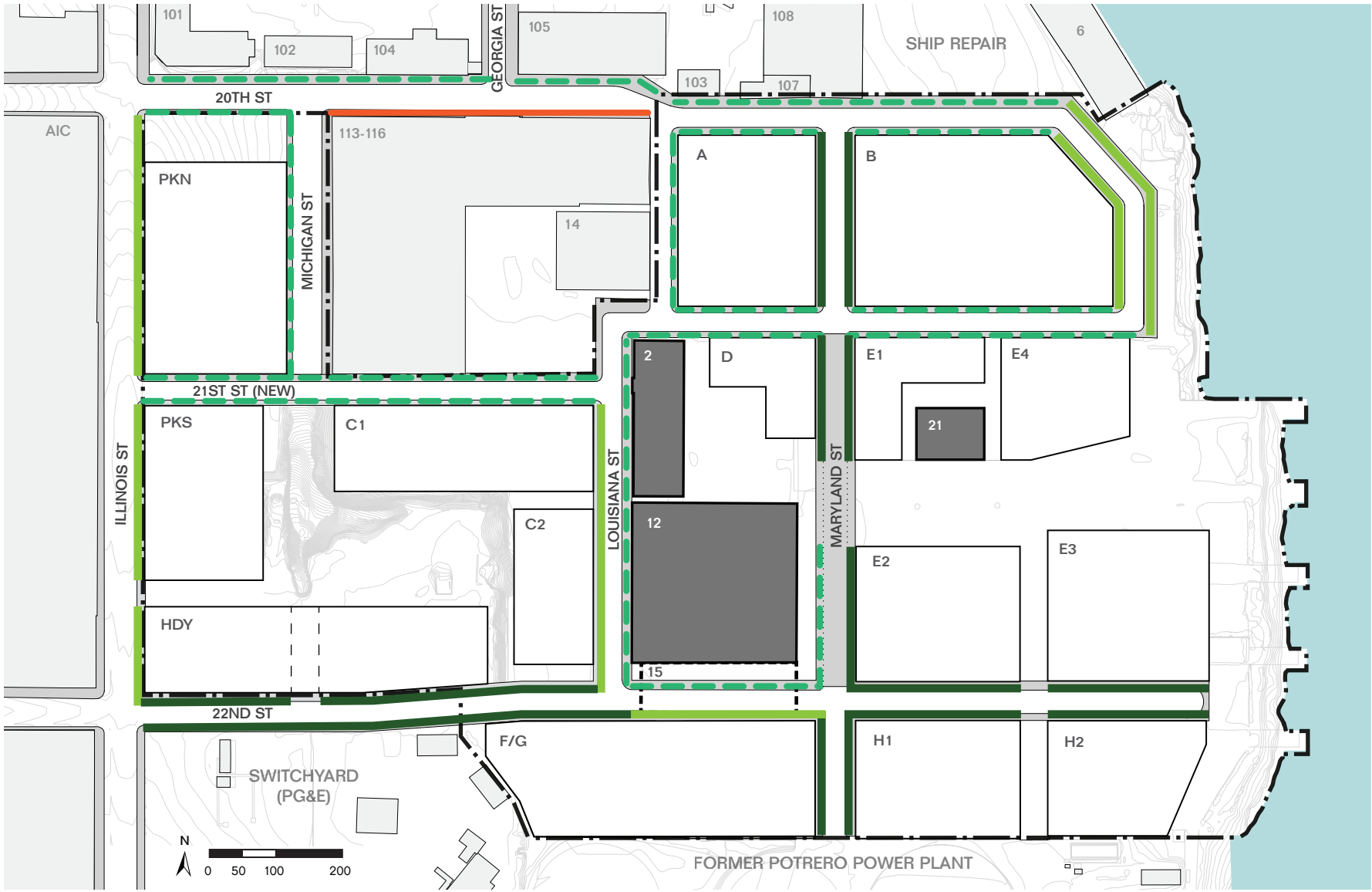


FIGURE 4.8.1: Street Trees and Planting Plan

Trees & Plantings Required
Trees & Plantings Not Permitted
Trees & Plantings Permitted
Plantings Permitted (No Trees)

Guidelines

G4.8.1 **STREET TREE SPECIES.** Street tree species that are compatible with the Project's design character as identified in Figure 4.8.2 are encouraged throughout the Project. Preferred tree species include:

- List A: Species that perform well in many locations in San Francisco.
- List B: Species that perform well in certain locations, with special considerations.
- List C: Species that need further evaluation.

G4.8.2 **PLANTING TYPE.** For Project-wide recommended planting types, refer to Section 3.13 Vegetation. Extra consideration to durability and maintenance should be given to selection of plantings in public ROW.

LIST A

- Ginkgo biloba 'Autumn Gold', 'Saratoga'
- Lagunaria patersonii
- Lophostemon confertus
- Metrosideros excelsus
- Olea europaea
- Platanus x acerifolia 'Bloodgood,' 'Yarwood,'
- Pyrus calleryana 'Aristocrat' or 'Chanticleer'
- Tristaniopsis laurina
- Ulmus parvifolia

LIST B

- Acer buergeranum
- Acer rubrum
- Gleditsia triacanthos 'Shademaster'
- Liquidambar styraciflua
- Liriodendron tulipifera
- Tilia cordata

LIST C

- Acer x freemanii
- Brachychiton populneum
- Carpinus betulus 'Fastigiata'
- Gingko biloba 'Princeton Sentry'
- Platanus x acerifolia 'Columbia'
- Quercus frainetto 'Forest Green', Italian Oak
- Quercus ilex
- Quercus suber
- Quercus phellos
- Ulmus parvifolia x carpinifolia 'Frontier'
- Ulmus wilsoniana 'Prospector'
- Ulmus japonica x wilsoniana 'Accolade'

FIGURE 4.8.2: Compatible Street Trees

CONSIDERATIONS

- Stormwater planters may be incorporated as appropriate for managing rainwater and providing additional buffer between the throughway zone and the travel lane. Stormwater planters should include climate adaptive plants that can thrive in low levels of water and grow in a filtration medium.



Freeman Maple
Acer x freemanii



London Planetree
Platanus x acerifolia



Callery Pear
Pyrus calleryana



Ginkgo
Gingko Biloba



Primrose Tree
Lagunaria patersonii



Small-Leaf Tristania
Tristaniopsis Lauria

FIGURE 4.8.3: Example Street Trees

4.9 UTILITIES

Standards

S4.9.1 **ABOVE-GRADE UTILITIES LOCATION.** All above-grade utilities within the ROW shall be located within the furnishing zone and not interfere with the clear throughway zone.

S4.9.2 **PARKING METERS AND OTHER STREET ELEMENTS.** All parking meter machines and other street elements, including pay and display machines and multi-space meters, shall be located in the furnishing zone. Street elements shall be organized and consolidated where possible.

Guidelines

G4.9.1 **LOCATION AND ACCESS.** All utilities should be placed below grade wherever feasible or clustered around driveway curb cuts. Where feasible, utilities should be grouped and allow clear access to the throughway zone adjacent to any street furnishing elements.



FIGURE 4.9.1: Utility Placement Example

4.10 PAVING MATERIALS

Standards

S4.10.1 **STREETS.** The materials used for streets shall be able to withstand extensive use, wear-and-tear, as well as load-bearing requirements for all vehicles. Street paving surfaces shall not be designed with elaborate ornamental patterns. Any patterning should be the pragmatic result of the use of unit pavers. For further information on paving materials, see Section 3.15 Materials.

S4.10.2 **TACTILE FLOOR.** Highly tactile floors shall distinguish key streets and promenades as distinctive linear corridors and paths with pavements that are pedestrian-friendly. The tactile materials shall provide a contrast to the other streets in the site and evoke the textured streets of the Historic District. For further details on tactile floor locations, see Section 3.15 Materials.

S4.10.3 **SIDEWALKS.** As the primary spaces for daily pedestrian life at the site, the materials used for sidewalks shall be able to withstand extensive use, wear-and-tear, and load-bearing requirements. The materials shall be able to provide level surfaces onto which furnishings, stages and elements can be placed. Where a sidewalk abuts a plaza, sidewalk paving materials shall be coordinated with the plaza paving to create a contiguous public space. For more information on permitted materials for plazas, refer to Section 3.15 Materials.

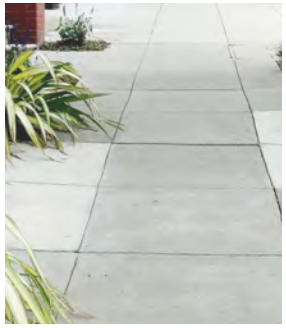
Guidelines

G4.10.1 **KEY CROSSWALKS AND SIDEWALKS.** The paving material for streets should consider using high contrast materials at key crosswalks and on sidewalks to prioritize and enrich the pedestrian experience. Materials may include stone floors composed of small paver units. Materials should be stable and slip resistant.

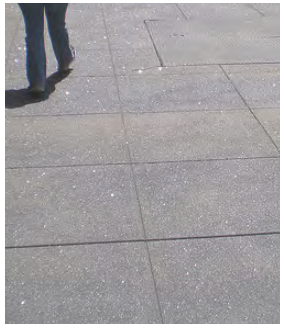
CONSIDERATIONS

- Use of light-reflective paving is encouraged to reduce the heat island effect.

SIDEWALKS

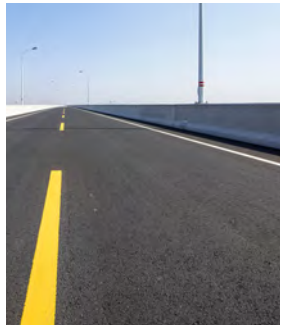


DPW Standard CIP Concrete

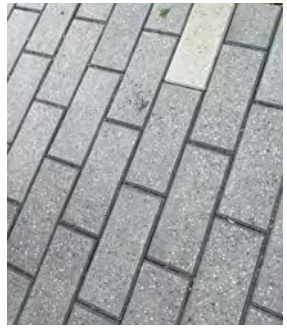


Silicon Carbide Concrete

STREETS



DPW Standard Asphalt



Concrete Unit Paver

FIGURE 4.10.1: Examples of Paving Materials

4.11 SPECIFIC STREETS DESIGN INTENT

MARYLAND STREET

Maryland Street is a vital commercial and neighborhood retail street and a key north-south connector. Maryland Street is a Raised Street between 21st Street and 22nd Street, connecting the two most active open spaces of the site — Market Square and Slipways Commons. This pedestrian-priority street is designed to accommodate closures to through traffic for community events, markets, and festivals. Special stone-floor paving across the entire right-of-way is encouraged wherever possible. Maryland Street between 21st Street and 22nd Street may additionally serve as a point of temporary loading and servicing of the Market Plaza during special events.

20TH STREET

20th Street serves as a key east-west street to bring people to the waterfront. 20th Street additionally integrates the Bay Trail as part of a regional waterfront network. For dimensional and design requirements of Bay Trail, refer to S4.5.2. The street includes on-street parking. Although a portion of this street is outside the site, it will be included as part of the off-site Project improvements.

- **ILLINOIS STREET TO GEORGIA STREET.** This segment reflects the historic character of its context while accommodating pedestrian activity, through-traffic, and trucks to service the Historic Core. It also serves as a direct bicycle connection to the Bay Trail with Class 3 Shared Lanes (Sharrows) on both sides of the street.
- **GEORGIA STREET TO THE WATERFRONT.** The key element of this segment is the Bay Trail, which enters the site through Georgia Street and runs along 20th Street to connect to the waterfront. This segment accommodates through-traffic in addition to high levels of pedestrian and bicycle activity. While trees are not permitted, planters, grasses, and shrubs are encouraged along this segment, except on the southern sidewalk along the frontage of Building 113-116.
- **ALONG THE WATERFRONT.** This segment is designed to service the park edge with designated drop-off, and accommodate a high volume of pedestrian, bicycle activity, and vehicular traffic along the waterfront. Specialty paving and/or Raised Street design is required at this street segment.

21ST STREET

21st Street primarily serves as an alley from Illinois Street to the waterfront with substantial grade change from Illinois Street to the Historic Core. Street parking is provided on one side of the street.

- **ILLINOIS STREET TO LOUISIANA STREET.** This segment provides service and access to the district parking structure(s).
- **LOUISIANA STREET TO THE WATERFRONT.** This segment services businesses and meets access needs for commercial and retail, arts and light-industrial buildings.

22ND STREET

22nd Street serves as a mixed-use and neighborhood street. In addition to street trees (except along the frontage of Building 12), 22nd Street is encouraged to provide planters, which may also help buffer pedestrians from through-traffic. The street includes on-street parking. Although a portion of this street is outside the site, it will be included as part of the off-site Project improvements.

- **ILLINOIS STREET TO LOUISIANA STREET.** A key entrance to the site and the path to the waterfront, this segment experiences a moderate grade change of 14 feet over 0.3 miles, and includes a westbound separated bicycle lane to traverse the grade change in addition to an eastbound Sharrow.
- **LOUISIANA STREET TO THE WATERFRONT.** This segment is designed to accommodate high volumes of pedestrian and bicycle activity, with reduced speed vehicular activity. The street should accommodate the structural frame of Building 15, if retained. 22nd Street terminus at the waterfront will accommodate a turn-around for passenger vehicles and a passenger drop-off zone.

LOUISIANA STREET

Louisiana Street is a service alley that connects the Historic Core and rehabilitated historic Buildings 2 and 12 within the Project site.

- **20TH STREET TO 21ST STREET.** This one-way, southbound segment performs as a service alley designed to accommodate access needs, loading activities, and heavy trucks to the Historic Core. Where Louisiana Street intersects with 21st Street, the sidewalk along the Historic Core will be designed to accommodate entry and exit of larger vehicles.
- **21ST STREET TO 22ND STREET.** This segment serves as a service street that accommodates vehicular circulation, including shuttles, and access to district parking garage(s).

MICHIGAN STREET

Michigan Street is intended to serve as a service street for Buildings 113-116 and the rear of Parcel K North. For a length of 150 feet, Michigan Street will be a public ROW. Due to the active use of loading docks and driveways to facilitate truck movement, this street may be designed for moderate to low pedestrian volumes. Although Michigan Street will not be a through street due to topography, providing a point of pedestrian access to 21st street is encouraged in order to enhance site-wide connectivity. The public ROW of Michigan Street does not include the easement of Buildings 113-116 where existing structures abut.



FIGURE 4.11.1: Illustrative Rendering of 22nd Street



FIGURE 4.11.2: Illustrative Rendering of Maryland Street



Photo Credit: Shae Rocco / Forest City

PIER 70
Building 21

5 PARKING AND LOADING

BICYCLE PARKING AND CAR-SHARE

5.1 BICYCLE PARKING 128

5.2 CAR-SHARE 131

VEHICULAR PARKING AND LOADING ACCESS

5.3 ON-STREET PARKING AND PASSENGER LOADING 132

5.4 OFF-STREET PARKING 134

5.5 LOADING AND SERVICES 138

5.6 LOADING ACCESS AND CURB CUTS 141

BICYCLE PARKING AND CAR-SHARE

5.1 BICYCLE PARKING

The Project is envisioned to provide safe, convenient and strategically located bicycle amenities for residents, workers, and visitors to promote bicycle travel and support the increasing demand for bicycle connectivity in the City. Bicycle parking is categorized as Class 1 and Class 2, defined by the San Francisco Planning Code (see Appendix A: Pier 70 Definitions)

Standards

S5.1.1 **BICYCLE PARKING CAPACITY.** Class 1 and Class 2 bicycle parking amounts shall be provided per building in accordance with the parking minimums per use as indicated in the Planning Code at the time of building permit submittal.

S5.1.2 **CLASS 1 BICYCLE PARKING LOCATION.** Class 1 bicycle parking for each new construction building shall be located on the ground level, basement levels, or above ground level of the subject building, with the following permitted conditions:

Class 1 bicycle parking for residential buildings shall be provided in each respective building. If Historic Building 2 is predominantly residential, Class 1 bicycle parking for the building may be located within a maximum distance of 250 feet from the building entrance. Class 1 bicycle parking for residential shall dedicate a minimum of five percent of bicycle parking spaces for cargo and trailer bikes.

Class 1 bicycle parking for users and visitors of office, retail, arts, and light industrial uses may be consolidated, so long as the point of access to the parking is within a maximum distance of 250 feet from building entrances.

S5.1.3 **CLASS 1 BICYCLE PARKING SIGNAGE.** Each non-residential building with Class 1 bicycle parking shall provide clear signage visible within the building lobby and at any basement parking access points, if applicable.

S5.1.4 **CLASS 2 BICYCLE PARKING LOCATION.** Class 2 bicycle parking shall be located in the public ROW, building setback zones, or public open spaces within 100 feet from the primary entrance of the building. Such spaces shall be located in areas of high visibility to prevent theft.

S5.1.5 **BICYCLE PARKING DESIGN.** Class 1 and Class 2 bicycle parking shall be consistent with the design and layout standards set forth by the Planning Code with one exception: Space efficient bicycle parking, including lift-assist double-decker racks shall be permitted and may fulfill 100 percent of Class 1 bicycle requirements. Vertical racks, which may not require lifting both bicycle wheels more than 12 inches off the ground, shall be permitted to fulfill up to 50% of required spaces.

S5.1.6 **BICYCLE SUPPORT.** Support facilities, such as showers and lockers, shall be provided in accordance with San Francisco Planning Code Section 155.4 at time of site permit submittal. Any bicycle support requirements pertaining to Buildings E4, 2, 12 or 21, shall be permitted in an adjacent building, or within C1 if built as a parking garage.

Guidelines

G5.1.1 **BICYCLE PARKING ACCESS.** Access to bicycle parking areas should be direct and clearly indicated with signage. Access ramps to bicycle parking areas are encouraged where the primary entrance of the building is below or above adjacent sidewalk grade.

G5.1.2 **BIKE-SHARE.** Bicycle sharing is encouraged and bike-share stations are recommended at Maryland Street between 21st and 22nd Street, adjacent to Parcels E1 or E2 to avoid obstructions to the open space as shown in Figure 5.1.1.

G5.1.3 **BICYCLE PARKING LIGHTING.** Bicycle parking spaces should be sufficiently lit for safety and functionality.

CONSIDERATIONS

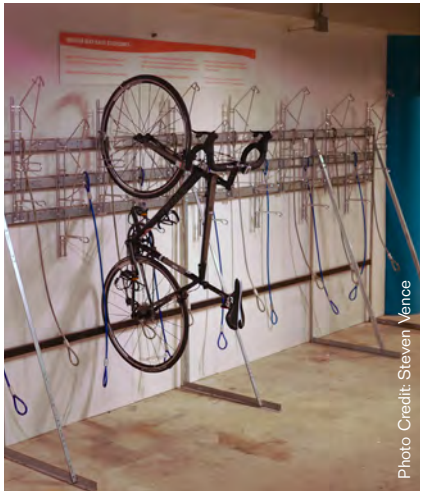
- Additional bicycle parking beyond Planning Code requirement is encouraged for commercial buildings.
- Bike share and generous Class 2 bicycle parking amenities are encouraged to be located within or near public open spaces.



FIGURE 5.1.1: Illustrative Plan of Bicycle Parking



Promote Parking within Building



Promote Consolidated and Secure Parking Space within Building



District-wide Custom Designed Bicycle Rack



Mechanical Lift-assist & U-lock Double Decker Bicycle Racks



Rack design does not allow for bicycles to be properly secured

FIGURE 5.1.2: Compliant and Noncompliant Bicycle Parking

✖ Denotes noncompliant condition

5.2 CAR-SHARE

Car-share parking will be located strategically throughout the Project in order to reduce reliance on car ownership and parking demand.

Standards

S5.2.1 **CAR-SHARE.** For newly constructed buildings, car-share parking shall comply with Planning Code Section 166.

Guidelines

G5.2.1 **ACCESS.** Car-share parking is encouraged to be located in buildings in the same areas as private car parking, with shared access, in order to minimize multiple curb cuts and points of vehicular access into buildings.

CONSIDERATIONS

- On-street car-share locations may be incorporated in certain locations to facilitate convenient access.

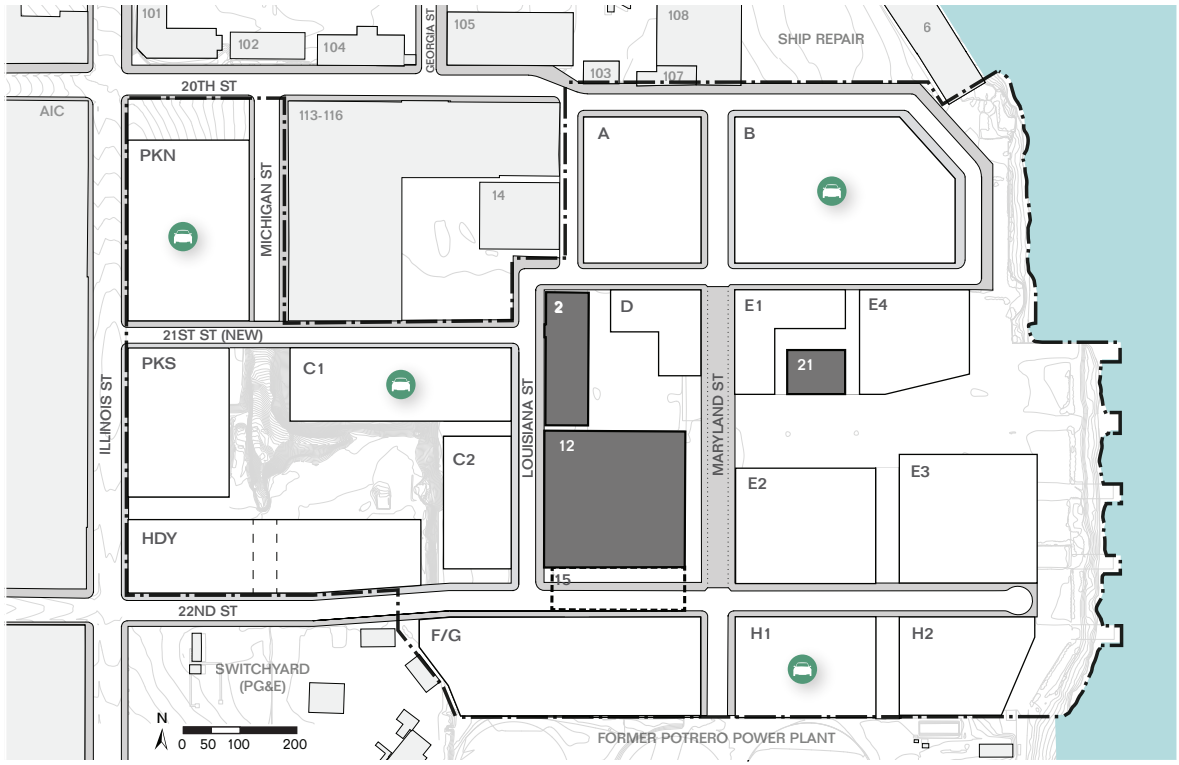


FIGURE 5.2.1: Illustrative Plan of Car-share Parking

5.3 ON-STREET PARKING AND PASSENGER LOADING

On-street parking supports retail, providing customers with easy access to stores and businesses. Additionally, on-street parking serves as a traffic calming measure and buffers pedestrians from adjacent traffic.

Americans with Disabilities Act (ADA) parking stalls ensure convenient, equal parking access for drivers and passengers with a valid disabled parking permit. Universal passenger loading zones are curbside stalls for pick-up and drop-off to provide convenient access to the site's buildings and open spaces.

Standards

S5.3.1 **ON-STREET PARKING LOCATIONS.** On-street parking shall be provided throughout the site where feasible while accommodating multi-modal circulation. Figure 5.3.1 indicates potential on-street locations.

S5.3.2 **ADA PARKING.** In accordance with ADA and California Building Code (CBC) Chapter 11B requirements (Table 11B-208.2), the Project shall provide a minimum number of ADA parking stalls as a ratio of the total quantity of on-street parking stalls. ADA parking shall be distributed throughout the site as much as possible while generally locating at the beginning of the block (to economize curb space) and where there are minimum street and sidewalk slopes. For ADA off-street parking requirements, refer to Section 5.4.

S5.3.3 **UNIVERSAL PASSENGER LOADING ZONES.** Passenger Loading Zones shall be provided in a minimum of five locations within the site. Where a passenger loading / drop-off zone is provided, it shall be universally accessible, and ADA compliant.

Guidelines

G5.3.1 **UNIVERSAL PASSENGER LOADING ZONES.** Passenger loading zones should be limited to five-minute stops per SFMTA regulations. Drivers must remain within the vehicle. Passenger loading zones should be located to provide convenient access to buildings, crosswalks for easy access across the street, and parks and open spaces.

CONSIDERATIONS

- Pathways between planting strips should be incorporated at reasonable intervals to facilitate connectivity between parking zones and sidewalk throughways.

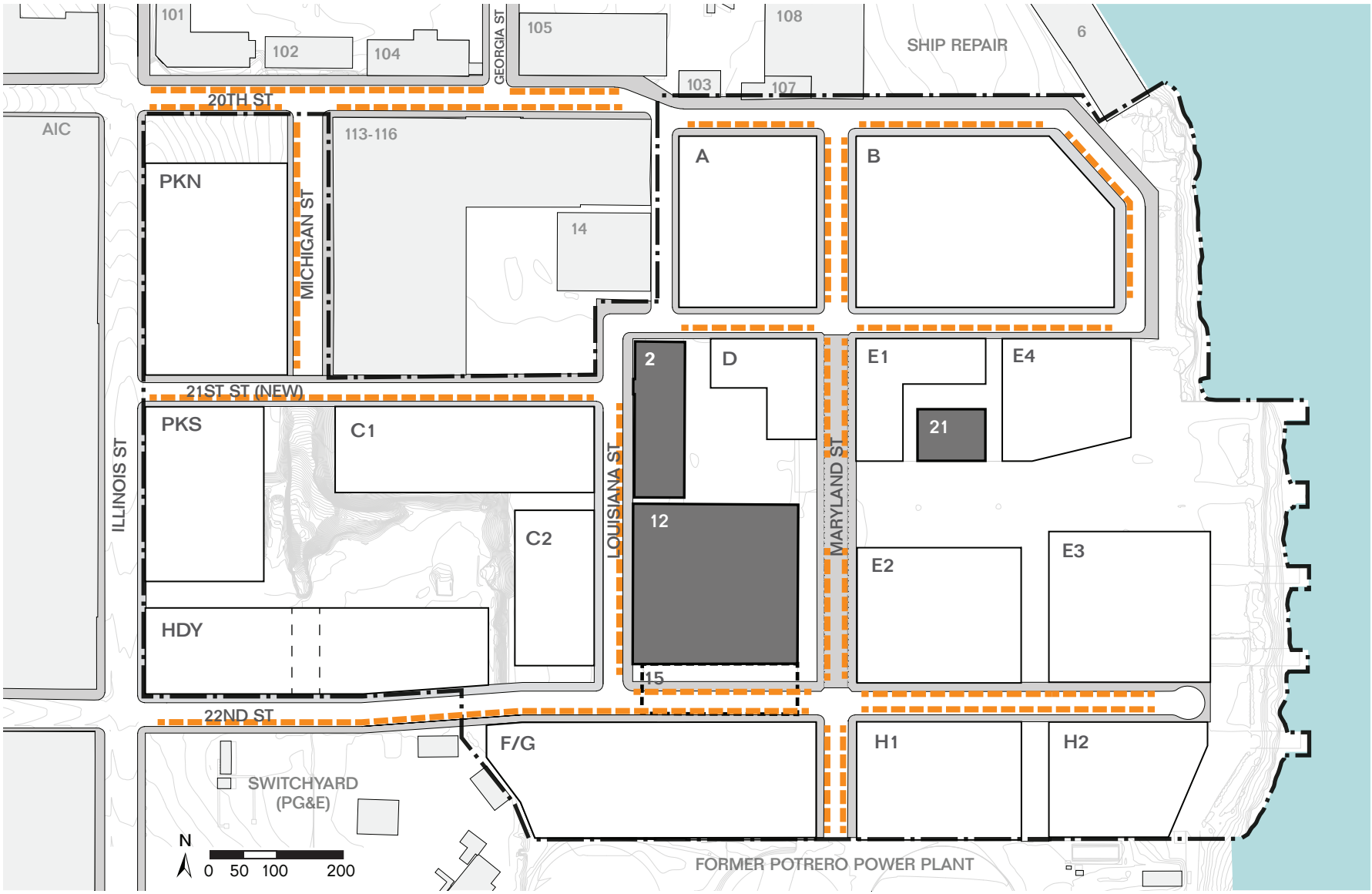


FIGURE 5.3.1: Illustrative Locations for On-street Parking

Note: Diagram shows illustrative locations of parking lanes. Some locations may eliminate on-street parking stalls in order to accommodate for SFFD or other circulation requirements.

5.4 OFF-STREET PARKING

To encourage walking within the Project, off-street parking is provided in district-serving garages near the entry to the site. Additional parking is distributed within individual buildings. Parking is addressed on a site-wide basis, with use of district garages and sharing of parking among multiple buildings.

Standards

S5.4.1 **PARKING MAXIMUMS.** Off-street parking shall not be required for any use or building. Maximum parking permitted per use is provided in Table 5.4.1. Total parking for the Project shall not exceed the maximum number of spaces studied under CEQA.

S5.4.2 **PARKING LOCATION.** Parking shall be located for each building anywhere within the site and shall not be restricted by parcel. Individual garages or buildings may have parking capacity exceeding the permitted stall count for the parcel's uses, so long as the parking maximums by use are not exceeded on a site-wide basis. Parking within residential or commercial buildings may be located either above- or below-grade in accordance with Section 6.13 Garage and Service Entry Design.

S5.4.3 **RESIDENTIAL PARKING.** Parking within residential buildings shall primarily serve residential tenants, and may be shared among multiple residential buildings.

S5.4.4 **VEHICULAR ENTRANCE.** All vehicles shall enter and exit in a forward direction.

S5.4.5 **DISTRICT PARKING GARAGE.** Shared district parking garages shall be allowed for the use of residents, visitors, and workers, and may be located at Parcels C1 and C2 as illustrated in Figure 5.4.1.

S5.4.6 **DISTRICT PARKING GARAGE ENTRANCE.** Two garage entrances shall be allowed per District Parking garage, with the maximum permitted curb cut dimensions noted in Table 5.6.1. The driveway ramp shall not exceed a 20 percent slope, and 15 percent or less is preferred. See Figure 5.6.1 and Figure 5.6.2. The distance of garage entry and exit shall be a minimum of 60 feet from an intersection (as measured from the parcel line).

S5.4.7 **ACCESSORY PARKING ACCESS.** One parking entrance/exit shall be allowed on each parcel frontage subject to permitted vehicular access as shown on Figure 5.4.2. Maximum dimensions of the entrance/exit curb cuts shall be compliant with Table 5.6.1. The distance of parking entry and exit from corner intersections shall be a minimum of 60 feet (as measured from the parcel line).

S5.4.8 **ACCESSORY PARKING DOOR.** The parking access door shall be a secure, motorized door located at the property line. The door shall remain open during times of peak parking traffic for non-residential buildings. At off-peak times, the door shall be opened via the electronic control method of access. For additional standards and guidelines, see Section 6.13 Garage and Service Entry Design.

S5.4.9 **PARKING LAYOUT.** The internal layout of off-street parking and loading spaces, driveways, aisles, and maneuvering areas shall be according to Planning Code 154, and all spaces shall be clearly marked.



FIGURE 5.4.1: Illustrative Plan of District Parking Garage and Accessory Parking

Note: Below-grade parking will be permitted consistent with CEQA analysis.

Possible location for District Parking Garage
Below-grade Parking
Podium Parking
Multi-Level Wrapped Garage

S5.4.10 **ACCESSIBLE OFF-STREET PARKING.** For each 25 off-street parking spaces provided, one such space shall be designed and designated for persons with disabilities.

S5.4.11 **DRIVEWAY ACCESS.** Driveways crossing sidewalks shall be no wider than necessary for ingress and egress, and shall be arranged, to the extent practical, so as to minimize the width and frequency of curb cuts, to maximize the number and size of on-street parking spaces available to the public, and to minimize conflicts with pedestrian and transit movements. For additional requirements on curb cuts refer to Section 5.6.

Guidelines

G5.4.1 **ACCESSORY PARKING ENTRANCE.** Where possible, parking entrances are encouraged to be located separate from the primary façade of the building or to be integrated into the architectural design to avoid negatively impacting the overall aesthetic quality of the building. See Section 6.13 Garage and Service Entry Design for more information.

TABLE 5.4.1: Maximum Parking Permitted Per Use

LAND USE	MAXIMUM PARKING PERMITTED
Residential	0.75 spaces per residential unit, calculated on an aggregate basis for all dwelling units within the site
Office, or Retail, Arts and Light Industrial	1 space per 1000 square feet of Gross Floor Area (GFA), calculated on an aggregate basis for all office/commercial uses separately from aggregate total for all retail, arts and light-industrial within the site.

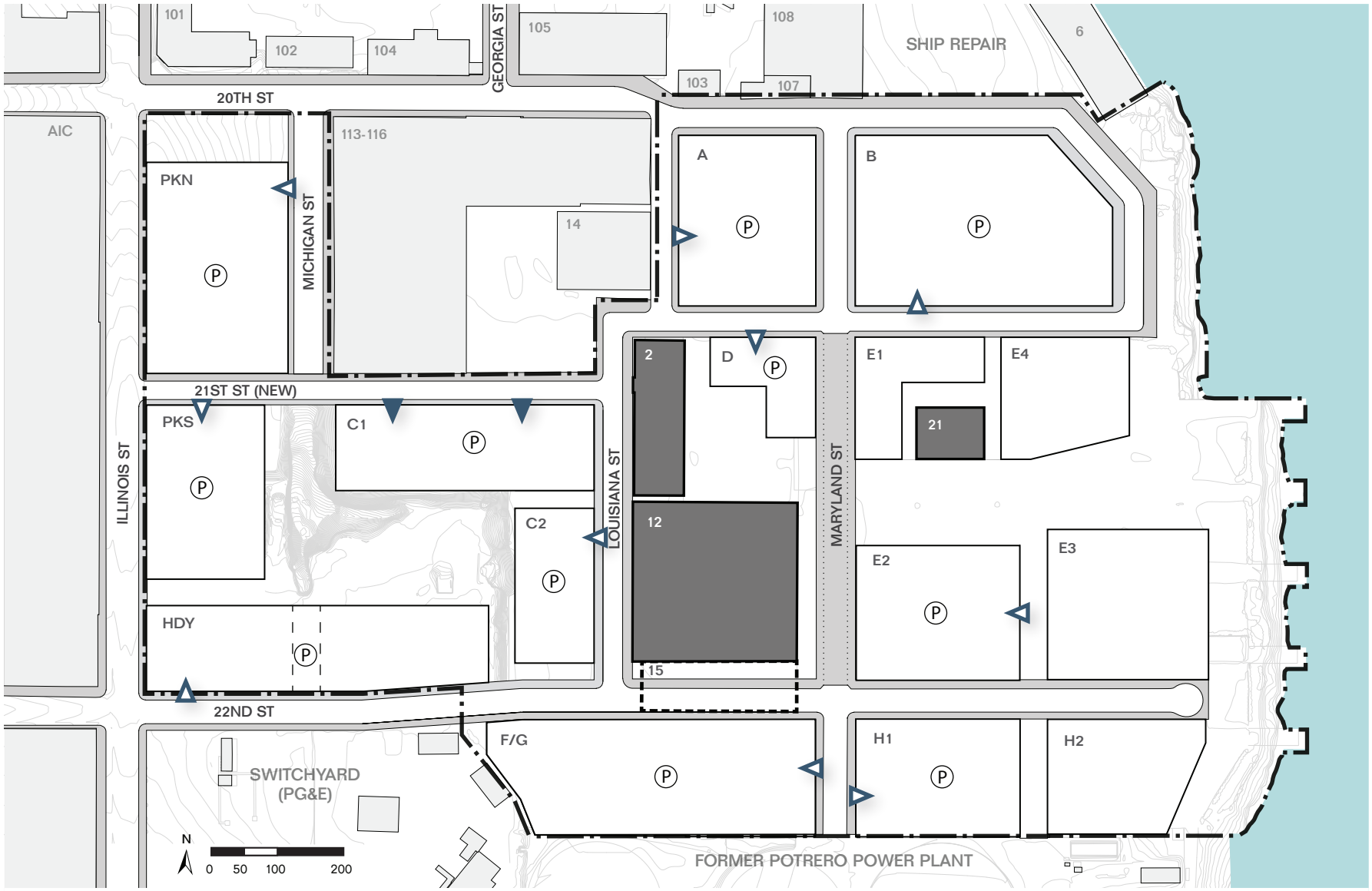


FIGURE 5.4.2: Illustrative Plan of Parking Access

5.5 LOADING AND SERVICES

Standards

S5.5.1 LOADING SPACE LOCATION IN MID-BLOCK PASSAGES. Loading spaces shall be permitted in mid-block passages on the following identified locations:

- 22nd St. West on Parcel HDY,
- 22nd St. West between Parcel F and G,
- 22nd St. East between Parcel E2 and E3,
- 22nd St. East between Parcel H1 and H2, and
- Louisiana St. South between Parcel C1 and C2.

S5.5.2 STREET PARKING. To accommodate truck-turning movements, removal of street parking shall be considered before widening the street or changing the intersection.

S5.5.3 LOADING SPACES. Loading spaces shall be provided per square foot of Gross Floor Area (GFA) and residential units as indicated in Table 5.5.1. If more than one use, other than retail, is in the same building or development parcel, or more than one type of activity is involved in the same use, the minimum loading amounts set in Table 5.5.1 shall be calculated for the various uses or activities separately, including the fraction of that use within the building or development parcel. Loading for retail uses may be served by loading provided for other predominant uses within a building, including residential, commercial/office and light industrial.

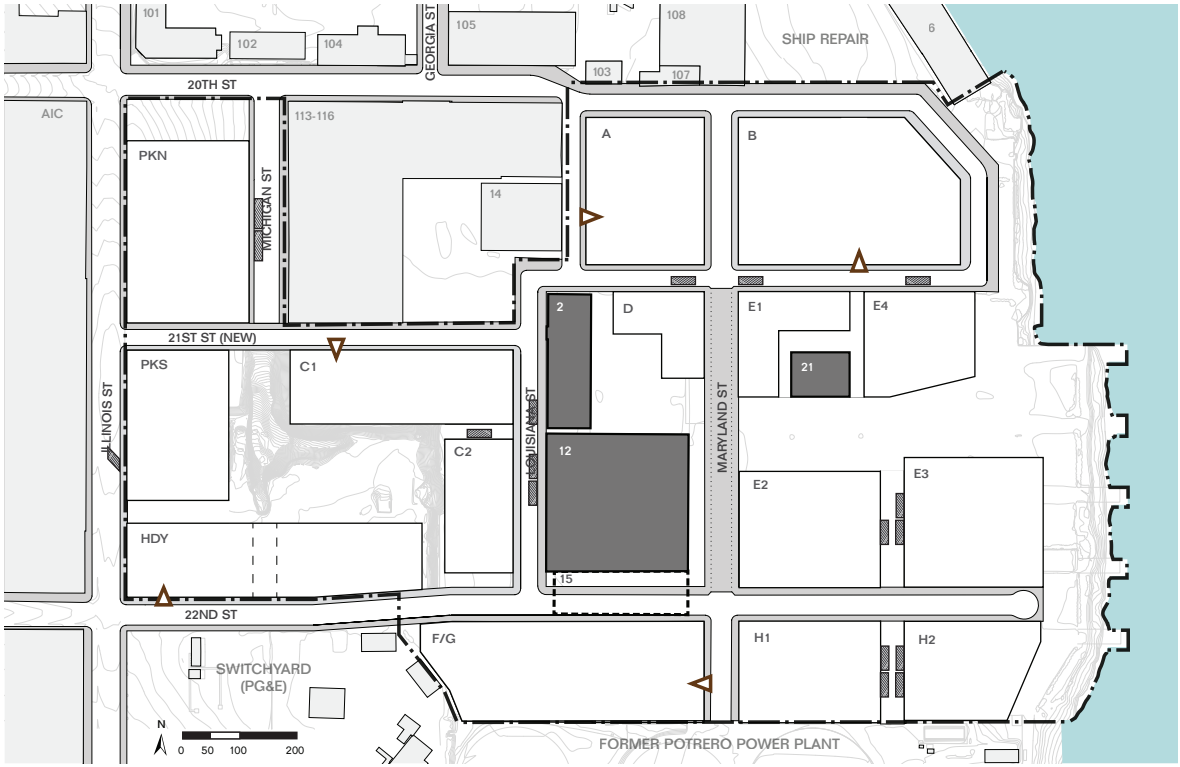


FIGURE 5.5.1: Illustrative Plan of Loading Access

Illustrative Off-Street Loading Access Points
On-street Loading

S5.5.4 **LOADING SPACE DIMENSION.** Loading spaces shall be provided to meet the minimum dimensional requirement indicated in Table 5.5.2.

S5.5.5 **HISTORIC BUILDINGS.** All loading spaces for Buildings 2, 12 and 21 may be provided on-street, and shall meet the minimum loading amounts set in Table 5.5.1.

TABLE 5.5.1: Minimum Loading Requirements

USE	RANGE	MINIMUM LOADING SPACES	LOADING SPACE TYPE
Commercial/ Office	0 – 50,000 GFA	Not required	
	50,001 - 100,000 GFA	1	On-street
	100,001 - 250,000 GFA	1	Off-street
	250,001 – 500,000 GFA	2	Off-street
	500,001 GFA and above	3	Off-street
Residential	0 – 275 units	1	On-street or Off-street
	275 units and above	2	On-street or Off-street
Retail, Arts and Light Industrial	0 – 50,000 GFA	Not required	
	50,001 - 150,000 GFA	1	On-street
	150,001 – 250,000 GFA	2	Off-street

S5.5.6 **REFUSE AND RECYCLING.** All buildings shall provide collection and loading areas for the three separate streams of recycling, composting, and landfill waste. All refuse collection shall be screened from the public ROW. Temporary placement of collection bins shall be permitted at curbside locations for pickup.

S5.5.7 **PORTE COCHERES.** Porte cocheres to accommodate passenger loading and unloading are not permitted except as part of a hotel, inn, or hostel use. A porte cochere is defined as an off-street driveway, either covered or uncovered, for the purpose of passenger loading or unloading, situated between the ground floor façade of the building and the sidewalk.

Guidelines

G5.5.1 **SHARED EGRESS.** Off-street loading entrances and exits should be combined with garage parking entries wherever reasonable and feasible along the same block frontage.

CONSIDERATIONS

- Buildings are encouraged to create direct access areas for collection of refuse bins that do not require bins to be set out on the curb. Where bins are temporary placed curbside, building management should seek to minimize the duration that the bins curbside.

TABLE 5.5.2: Minimum Required Loading Space Dimensions

LOADING SPACE	DIMENSION
On-street	Required on-street loading must be sized to accommodate vehicles up to WB-40 Minimum 40' long (equivalent to length of 2 parking stalls)
Off-street (Garage/Subterranean Level)	Minimum 12' wide, 35' long, and 14' of vertical clearance

5.6 LOADING ACCESS AND CURB CUTS

Standards

S5.6.1 **BUILDING LOADING ACCESS.** A maximum of one location of loading access, either service door or off-street bays, shall be allowed per building. Where a building faces more than one street, loading access shall be provided on 21st Street, Louisiana Street, or Michigan Street to minimize impact on 20th Street, 22nd Street, and Maryland Street between 21st and 22nd Street.

S5.6.2 **COMMERCIAL LOADING ENTRIES.** Outside of the 20th street historic core, off-street and exterior loading docks are prohibited where protected edges are indicated in Figure 5.6.3. Commercial loading entries shall be at least 60 feet from the corner of an intersection (as measured from the parcel line).

S5.6.3 **FREQUENCY OF CURB CUTS.** A maximum of one curb cut per parcel is permitted for every 200 linear feet of street frontage, with the exception of Maryland Street south of 22nd Street and District Parking Garages. See S5.4.5 and S5.4.6.

S5.6.4 **DIMENSION OF CURB CUTS.** Curb cuts for off-street parking and off-street loading areas within the site shall not exceed the maximum dimensional requirement indicated in the Table 5.6.1. Exception shall be permitted for curb cuts adjacent to the Historic Core on Louisiana Street and between C1 and C2 on Louisiana Street at 18' width or 21' including both flared sides.

S5.6.5 **CURB CUT TREATMENT.** Curb cuts shall be designed to prioritize pedestrian movement, with a continuous material treatment extending from the sidewalk or pedestrian path over the vehicular path. Perpendicular curb ramps shall have flared sides. The slope of the flared sides shall be no more than 10 percent to conform to ADA requirements. See Figure 5.6.5.

S5.6.6 **PROHIBITED CURB CUT LOCATIONS.** Curb cuts for vehicular access shall be prohibited on Maryland Street, between 21st Street and 22nd Street, and on 20th Street along the waterfront as indicated by Protected Edge in Figure 5.6.3.

TABLE 5.6.1: Maximum Curb Cut Width

TYPE	MAXIMUM DIMENSION
Individual Residential Property	7' width, or 10' including both flared sides
Parking Garage 1-way	12' width, or 15' including both flared sides
Parking Garage 2-way	22' width, or 25' including both flared sides
Single Loading	15' width, or 18' including both flared sides
Double Loading	20' width, or 23' including both flared sides
Combined Parking and Loading	27' width, or 30' including both flared sides

S5.6.7 **DRIVEWAY SLOPE.** The flat area of the driveway between the driveway ramp and the property line shall be at least eight feet in length with a three percent maximum slope, so that outbound/uphill driveway vehicles have a clear view of pedestrians prior to crossing the property line as illustrated in Figure 5.6.1.

S5.6.8 **TRANSITION STRIPS.** Transition strips shall be located before and after the driveway ramp, to avoid abrupt slope changes that can damage cars.

The transition strip at the ramp base shall be a minimum of 10 feet in length with a slope equal to half of the difference between the two slopes it transitions between as illustrated in Figure 5.6.2.

The top transition strip adjacent to the driveway entry transition strip shall be a minimum of eight feet in length with a slope equal to half of the difference between the two slopes it transitions between as illustrated in Figure 5.6.1.

For example, if the entry slope is two percent, and the driveway ramp is 12 percent, then the transition slope shall be 12 percent minus two percent divided in half, which is five percent.

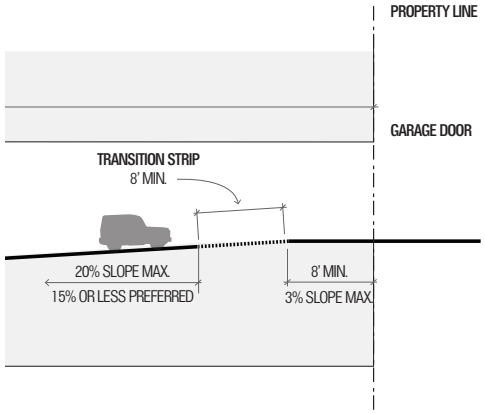


FIGURE 5.6.1: Driveway Slope and Top Transition Strip

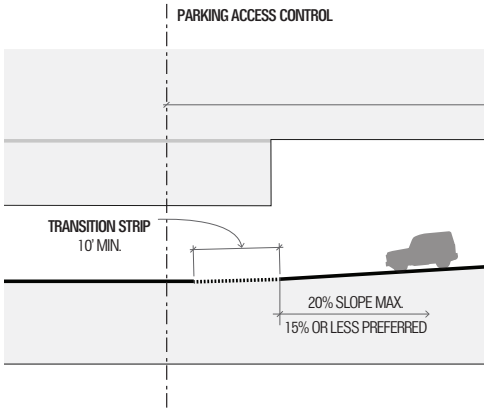


FIGURE 5.6.2: Base Transition Strip

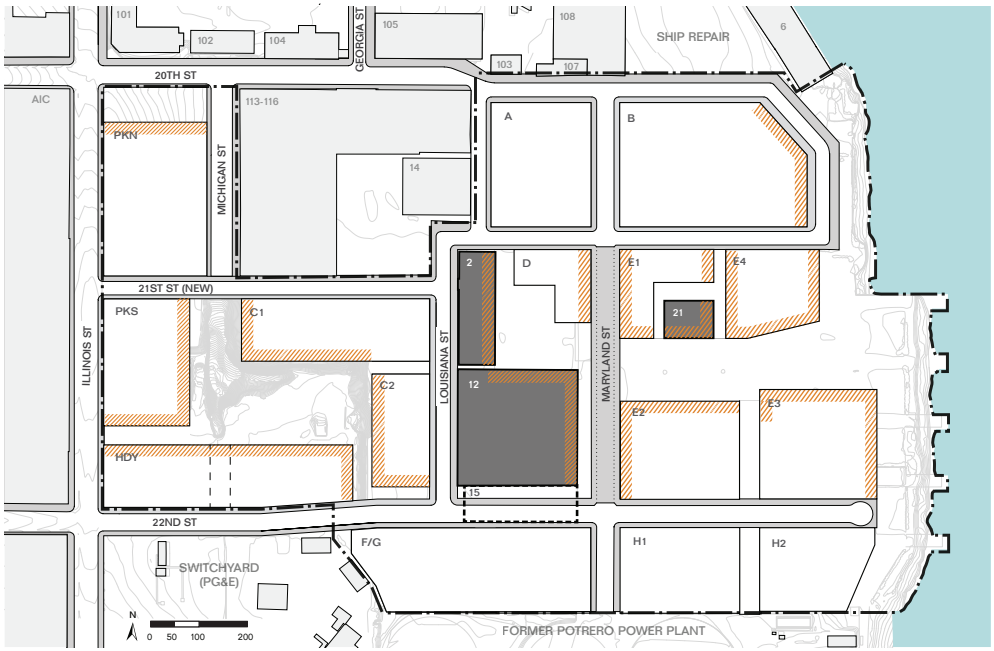


FIGURE 5.6.3: Prohibited Curb Cut Locations

Protected Edge - No Parking or Loading Access

S5.6.9 **DRIVEWAY SIGHTLINES.** To reduce the possibility of conflicts at driveways, sight triangles shall be provided at all egress points such that vision within the triangle is not obstructed, per Figure 5.6.6. These triangles shall be 10 feet wide, parallel to the street, and 10 feet wide perpendicular to the street, with a minimum vertical clearance of 14 feet. Street trees shall not be located within driveway sightlines.

This provides pedestrians walking along the face of the building and vehicles exiting the site sufficient distance to see and react to one another such that buzzers, lights, or other pedestrian warning devices are not required.

Where sidewalk width is less than 10 feet, the applicable street wall shall be setback to accommodate sightline requirements.

Guidelines

G5.6.1 **PREFERRED LOCATION OF OFF-STREET LOADING ENTRANCE.** Service and off-street loading access are encouraged to locate on 21st Street, Louisiana Street, and Michigan Street to minimize impact on 20th Street, 22nd Street, and Maryland Street between 21st Street and 22nd Street. Loading access should be located on Michigan Street for Parcel PKN.

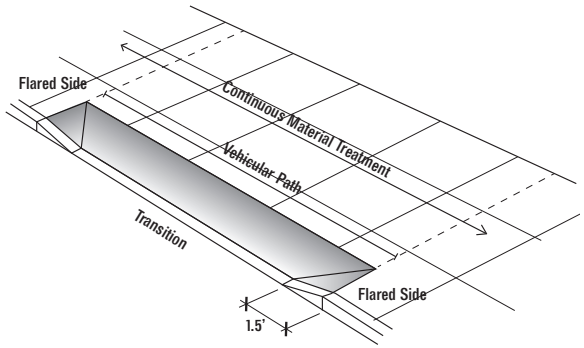


FIGURE 5.6.4: Curb Cut Treatment

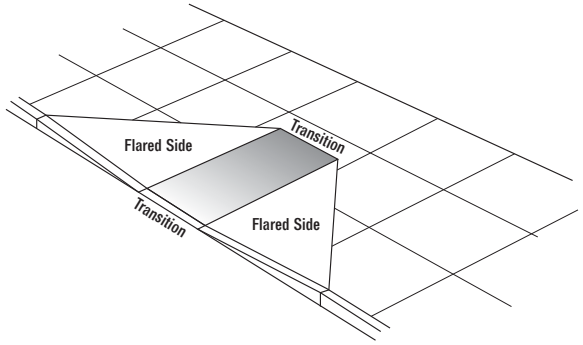


FIGURE 5.6.5: Perpendicular Curb Ramp

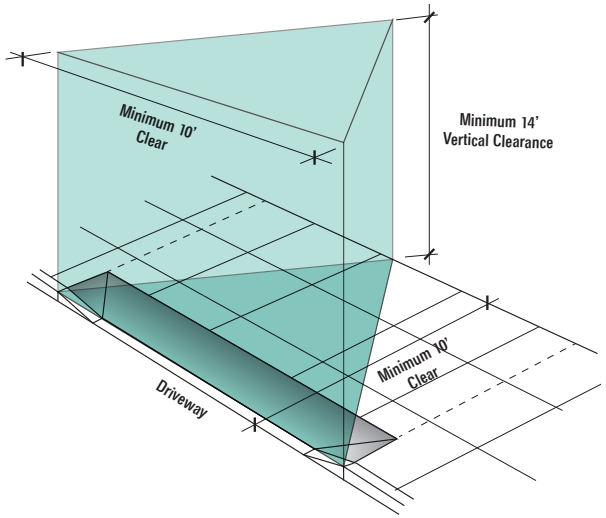


FIGURE 5.6.6: Sightlines



Photo Credit: Shae Rocco/ Forest City

PIER 70
Building 2 and Building 12

6 BUILDINGS

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OVERVIEW

6.1 ARCHITECTURAL DESIGN INTENT

The existing buildings of Pier 70 have varied history, yet they were all designed and built with industrial utility as their central purpose. They are characterized by contrasts in scale, material texture, and articulation. The fine grain, weathered materials, and varied rooflines enhance the otherwise simple volumes. These qualities can be found in few other places in San Francisco.

With the Historic District and rehabilitation of existing historic buildings as critical aspects of the building fabric, the standards and guidelines in this chapter address compatibility of development in the Project. The controls encourage architecture of its own time, with an emphasis on finer grain detailing and materiality.

Key themes in the architectural design approach include:

- **PEDESTRIAN-ORIENTED.** Successful buildings are designed for people. The treatment of the first 15 to 30 feet along the height of a building face shapes the experience of the street and the public realm through transparency, canopies, clear entries, distinct storefronts, and an overall human scale and rhythm.
- **CONTRASTS OF SCALE.** Large-scale ship-building infrastructure and buildings at Pier 70 put industry and craftsmanship on display through dramatic shifts in scale. New construction should be expressive in the small-scale details contrasted with the overall volume, creating legibility in the assembly of the parts at different scales.
- **RHYTHM AND REPETITION.** Taking cues from the contributing resources on site, new construction within the Project should employ innovative methods to suggest horizontality, directionality, and expression through repetition of architectural elements.
- **LAYERING AND DEPTH.** Layering and depth enhance the contrast between light and shadow of buildings. These qualities can be achieved through shading elements, expressed structure, rain-screens, and detailed articulation. Shading devices can also provide climate-responsive or performative layers.
- **FINE GRAIN AND TACTILITY.** The materials, construction, and longevity of existing buildings on the site create a collection of rich textures. Contemporary materials and their articulation should provide human scale amidst large buildings.



Pedestrian-Oriented



Contrasts of Scale



Rhythm and Repetition



Layering and Depth



Fine Grain and Tactility

FIGURE 6.1.1: Examples of Architectural Intent

6.2 OVERVIEW OF MASSING AND ARCHITECTURE

To ensure high quality architecture, variety, human scale, and an overall attention to craft and materiality, building design in the Project is regulated by a matrix of requirements.

Project-wide standards apply to all new construction and are tailored in response to the exceptional character and demands of the Pier 70 Area.

Location-specific requirements call for increased investment and creativity in the architecture of the building envelope at key locations to ensure continued attention to design and materiality that is fundamental to the Historic District. These requirements, in combination with the Cultural Resources and Project-Wide standards, apply based on adjacency to cultural resources and the waterfront, degree of visibility in the public realm, and length of building façade.

Figure 6.2.1 maps the requirements by parcel and building frontage, as described in Table 6.2.1: Architectural Requirements Matrix. The chapter includes controls for:

- Buildable Zones and Maximum Building Heights (Section 6.3 – Section 6.4)
- Historic District and Cultural Resources (Section 6.5 – 6.6)
- Project-Wide Massing and Architecture (Section 6.7 – Section 6.14)
- Location-Specific Massing and Architecture (Section 6.15 – Section 6.19)



FIGURE 6.2.1: Architectural Requirements Summary

TABLE 6.2.1: Architectural Requirements Matrix

	6.3-6.4, 6.7-6.14 PROJECT-WIDE STANDARDS	HISTORIC DISTRICT & CULTURAL RESOURCES	6.15–6.19 LOCATION-SPECIFIC STANDARDS							
			6.15 ADJACENT TO CULTURAL RESOURCES							
Parcel		6.6 Rehabilitation of Historic Buildings	New Construction Setback for View	Dimensional Height Reference	Relation to Adjacent Resources	6.16 Bird-Safe Controls[2]	6.17 Mid-Block Passage Connectors	6.18 Long Façades in Key Locations-Primary	6.18 Long Façades in Key Locations-Secondary	6.19 Waterfront Façades
A	All		W[1]	N, W					E, W	
B	All			N	NE	NE, E			N, W	NE, E
C1	All			N		W, S[1]		S	N	
C2	All			E[1], S		W[1]			E	
D	All				S, W					
E1	All				E[1], S					
E2	All				W			N, S	W	
E3	All					N, E		N, S		E
E4	All				W[1]	E, S				E
F/G	All				N		N, S	N	S	
H1/H2	All					E	N, S	N	S	E
HDY	All				N[1]	N[1]	N, S	N, S		
PKN	All				N, E				E, W	
PKS	All				E	E			W	
2		All								
12		All								
21		All								

Note: Table indicates building façades subject to various controls noted in separate sections of this chapter.

[1] Partial façade subject to requirements (as shown in Figure 6.2.1)

[2] Façades subject to location-based controls. Feature-based controls also apply.

6.3 BUILDABLE ZONES

The following controls establish permitted new construction zones within the site.

Standards

S6.3.1 **NEW CONSTRUCTION ZONES.** Above-grade new construction within the Project shall be limited to the allowable new construction zones as shown in Figure 6.3.1. Within the indicated new construction zones, parcels may be subdivided as necessary.

S6.3.2 **BUFFER ZONES AND EASEMENTS.** Dense clusters of buildings characterize the Historic District. New construction shall be permitted adjacent to historic buildings with the minimum distances of separation identified in Figure 6.3.2 to respect the integrity of historic buildings. Substantive additions to historic buildings shall not be permitted. New construction shall maintain a minimum distance from the peak of the remnant of Irish Hill as shown in Figure 6.3.2.

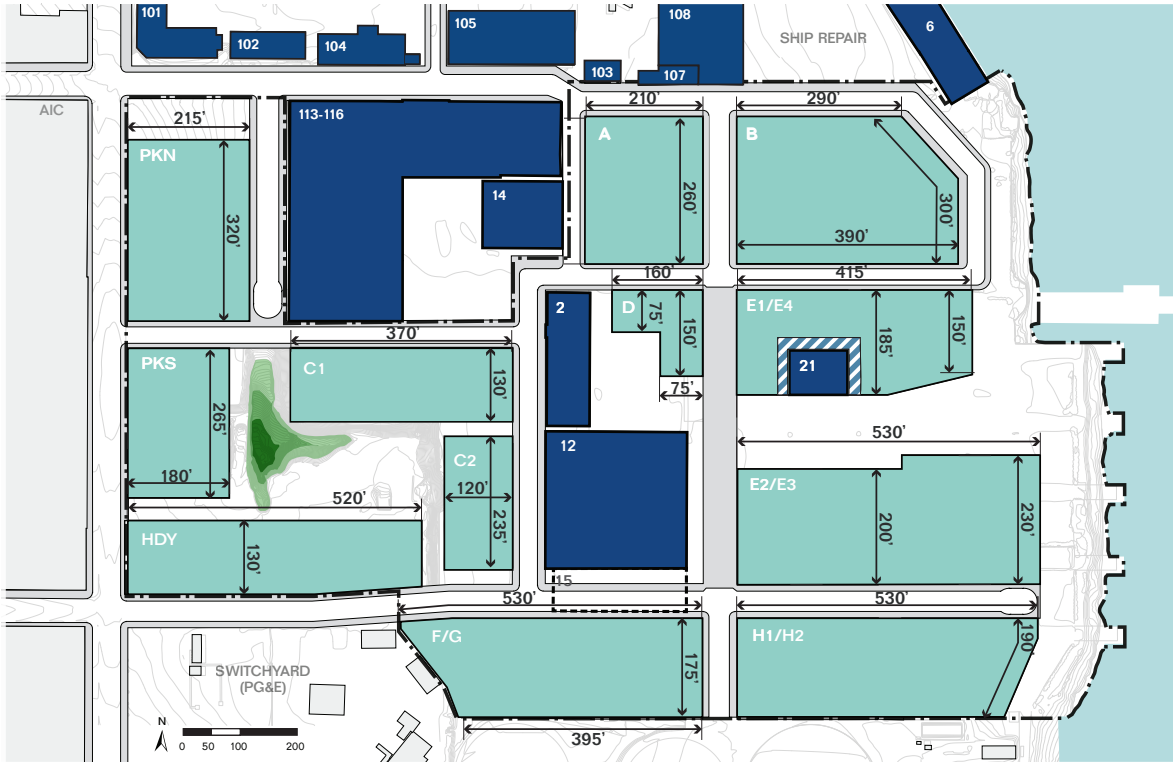


FIGURE 6.3.1: Allowable New Construction Zones

Note: All dimensions are rounded and approximate.

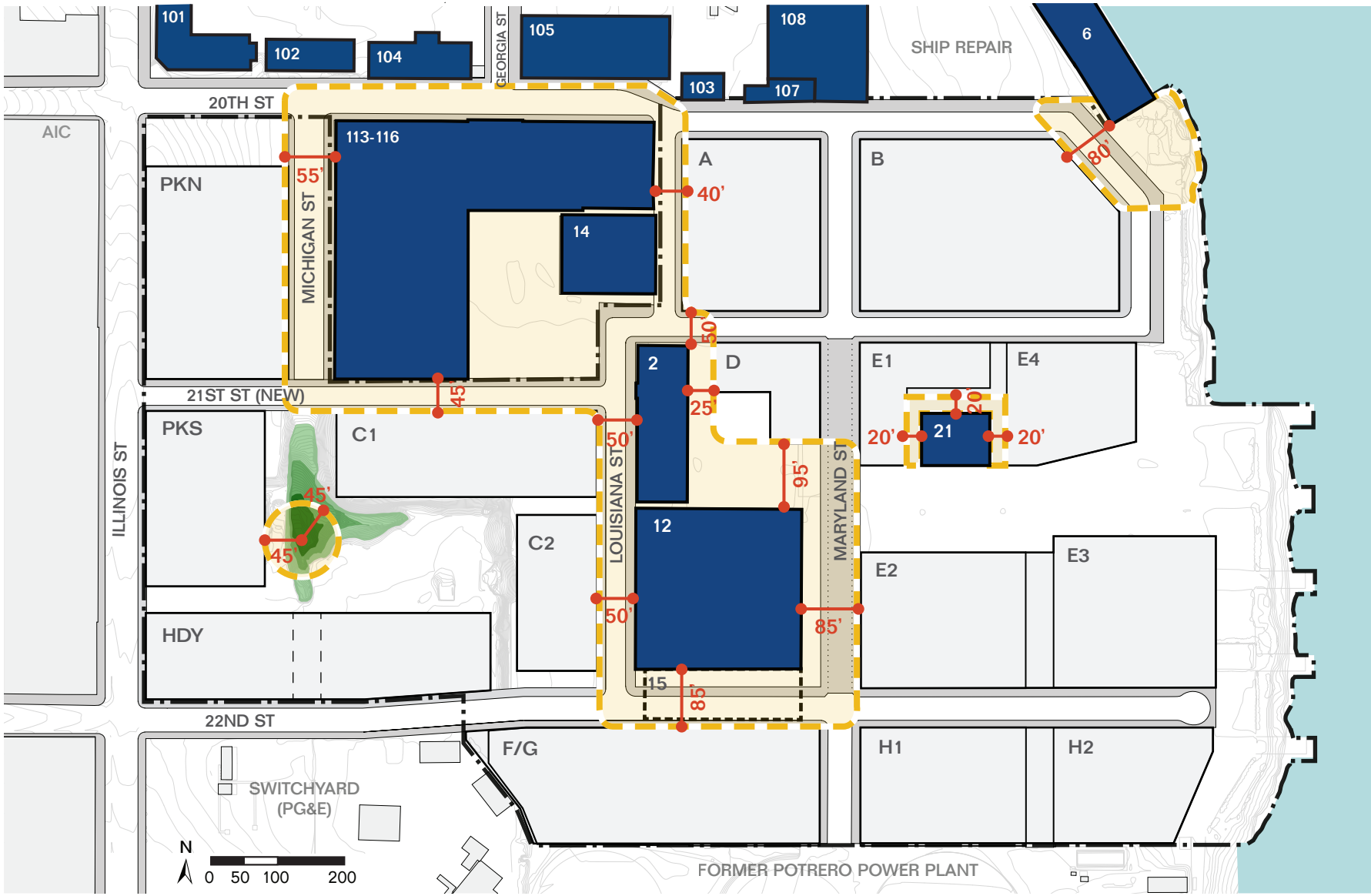


FIGURE 6.3.2: New Construction Buffers

Note: Construction buffer at Michigan Street to be measured from the façade of Building 113, excluding any additions.

- Pier 70 Area Historic Buildings
- Irish Hill Remnant
- New Construction Buffer Zones
- Minimum Distances of Buffer Zones (XX')
- Pier 70 Project Site
- *Potential Retained Building 15 Structural Frame*

6.4 MAXIMUM BUILDING HEIGHT

In addition to the varied heights of the existing historic buildings, the following controls for new construction create complementary juxtapositions of scale to relate to the historic character of the site.

Standards

S6.4.1 **BUILDING HEIGHT MAXIMUM.** Building height per parcel shall not exceed the maximum height set forth in the Planning Code, and shall be further limited by the heights shown in Figure 6.4.2. See S6.4.4 for a list of building features that may be exempted from measurement of building height.

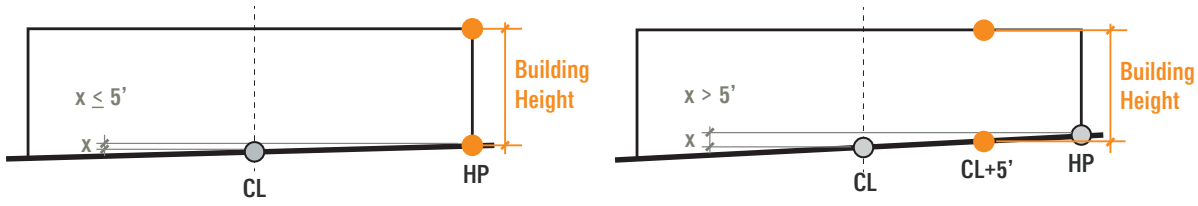
S6.4.2 **MAXIMUM STORIES.** Residential buildings shall be no more than eight stories above grade and commercial buildings shall be no more than six stories above grade, measured from the base point described in S6.4.3. Given maximum height permitted on parcels PKN, PKS, HDY and the north leg of E1 (Figure 6.4.2), residential buildings on these parcels, or portions of parcels, shall be no more than six stories above grade.

S6.4.3 **METHOD OF HEIGHT MEASUREMENT.** For the purposes of the height limits herein and as established in the Planning Code, measurement at grade shall be taken from:

- The highest point of grade at the finished street edge adjacent to the building or five feet above the grade at the centerline of subject building façade, whichever is less. The measurement at grade shall not exceed a five-foot deviation from the height of the subject façade centerline. See Figure 6.4.1.
- Where the lot has frontage on two or more streets, the owner may choose the street or streets from which the measurement of height is to be taken, within the scope of the rules stated above. Mid-block passages shall not be considered as streets for this purpose.

At the building roofline, measurement of height shall be as described below:

- The highest point on the finished roof in the case of a flat roof.
- The average height of the rise in the case of a pitched or stepped roof, or similarly sculptured roof form.
- The highest point of any feature not exempted from the height measurement by S6.4.4.



If the difference between High Point (HP) and Center Line (CL) is equal to or less than five feet

If the difference between High Point (HP) and Center Line (CL) is more than five feet

FIGURE 6.4.1: Height Measurement



FIGURE 6.4.2: Building Height Maximum

S6.4.4 **EXEMPTIONS FROM HEIGHT MEASUREMENT.** The following elements shall be exempt from height measurement, without regard to their horizontal area (unless otherwise noted), provided the limitations indicated for each are observed:

- Elevator, stair and mechanical penthouses, fire towers, skylights, and dormer windows. This exemption shall be limited to the top 10 feet of such features where the height limit is 65 feet or less, and the top 20 feet of such features where the height limit is more than 65 feet. However, for elevator penthouses, the exemption shall be limited to the top 20 feet and limited to the footprint of the elevator shaft, regardless of the height limit of the building.
- Railings, parapets, and catwalks, with a maximum height of four feet.
- Open railings, catwalks, and fire escapes required by law, wherever situated.
- Public rooftop structures up to 20 feet above the roof level to accommodate recreation equipment and viewing pavilions.
- Unenclosed seating areas limited to tables, chairs and benches, and related windscreens, lattices and sunshades with a maximum height of 10 feet.
- Landscaping, with a maximum height of four feet for all features other than plant materials.
- Flagpoles and flags, and weathervanes.
- Radio and television antennae where permitted as accessory uses and towers and antennae for transmission, reception, or relay of radio, television or other electronic signals, where permitted as principal or conditional uses, subject to the limitations in the definition for Wireless Facilities in Planning Code Section 102 and the Zoning Control Table for the district in which the Lot is located and limitations imposed by the Planning Commission.
- Warning and navigation signals and beacons, light standards and similar devices, not including any sign regulated by Planning Code.
- Public monuments owned by government agencies.
- Cranes, scaffolding and batch plants erected temporarily at active construction sites.
- Sustainable building features.
- Ornamental and symbolic features of public and religious buildings and structures, including towers, spires, and domes, where such features are not used for human occupancy.

The following elements shall be exempt from height measurement subject to compliance with S6.11.1:

- Mechanical equipment and appurtenances necessary to the operation or maintenance of the building or structure itself, including chimneys, ventilators, plumbing vent stacks, cooling towers, water tanks, panels or components contributing to environmental sustainability and window-washing equipment, together with visual screening for any such features. This exemption shall be limited to the top 10 feet of such features where the height limit is 65 feet or less, and the top 20 feet of such features where the height limit is more than 65 feet.
- Rooftop enclosures and screening for features listed above that add additional building volume, provided that the added volume is compliant with S6.11.1 and does not exceed 20 feet in height.
- Enclosed utility sheds of not more than 100 square feet, exclusively for the storage of landscaping and gardening equipment for adjacent rooftop landscaping, with a maximum height of 8 feet above the otherwise applicable height limit.

HISTORIC DISTRICT AND CULTURAL RESOURCES

6.5 HISTORIC DISTRICT OVERVIEW

During WWII, Pier 70 supported more than 18,500 workers per day. As a place of industry, the Historic District is notable for the events, work processes, and architectural styles represented within its 66 acres, as shown in Figure 6.5.1 through Figure 6.5.4.

The standards and guidelines for existing cultural resources address rehabilitation of historic buildings within the site. Development will return the site to Pier 70's historic level of density. Buildings 2, 12, and 21 will be rehabilitated in accordance with Secretary of the Interior's Standards for Rehabilitation and the following standards and guidelines. Tax credit requirements must govern if there are any conflicts.

Additional requirements to promote compatibility with the Historic District, such as vegetation and street tree locations, signage and historic interpretation, and use of public art are included in the chapters on those topics (for example, Section 3.2 Historic Landscape, Section 4.8 Street Planting, Section 7.7 Building Signage, and Section 7.8 Public Art).



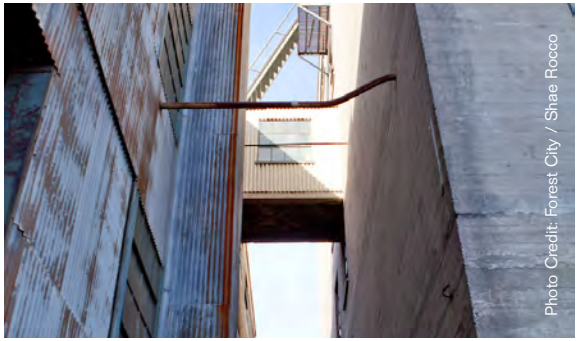
Ship Repair Activities



Minimal Planted Vegetation



Variation in Materials



Variation in Scale



Dense Urban Industrial Character

FIGURE 6.5.1: UIW Historic District Nomination Features

UNION IRON WORKS HISTORIC DISTRICT

As described in Section 1.3 Planning Context and shown in Figure 1.3.3, the Historic District contains key cultural resources and features that are the focus for rehabilitation. The character defining features of the Historic District are:

- Waterfront location/shoreline;
- Minimal planted vegetation;
- Open areas that are either paved with asphalt or covered with gravel;
- Streets that are improved without curbs and gutters, except for 20th Street, which has granite curbs;
- Dense urban industrial character;
- Variation in materials, styles, rooflines, and window types;
- Variation in height and scale, with resources that range from one to six stories (80 feet) in height, some with large footprints of 60,000 to 100,000 square feet;
- Certain groupings of buildings, such as the entry promenade along 20th Street and the Building 12 complex;
- Features such as cranes;
- Ship repair activities; and
- Yard layout and plan.



Double Gable Roof at Building 21



Aiken Roof at Building 12



Flat Roof at Building 2



Composite Rooflines at Historic Core

FIGURE 6.5.2: Pier 70 Rooflines



Brick at Building 104



Corrugated Metal at Building 12



Wood Siding at Noonan Building



Concrete Formwork at Building 2

FIGURE 6.5.3: Pier 70 Cladding



Building 21 (101' X 75')



Building 12 (248' X 242')



Building 101 (140' X 50')



Building 6 (512' X 72')



Building 2 (236' X 76')



Building 113 (492' X 175')

FIGURE 6.5.4: Pier 70 Scale

6.6 REHABILITATION OF HISTORIC BUILDINGS

Standards

S6.6.1 **HISTORIC BUILDINGS.** Rehabilitation of the following buildings, identified in Figure 6.6.1, shall be performed in accordance with the Secretary of the Interior's Standards for Rehabilitation.

- Building 2 Warehouse No. 2;
- Building 12 Plate Shop No. 2; and
- Building 21 Substation No. 5 (relocated).

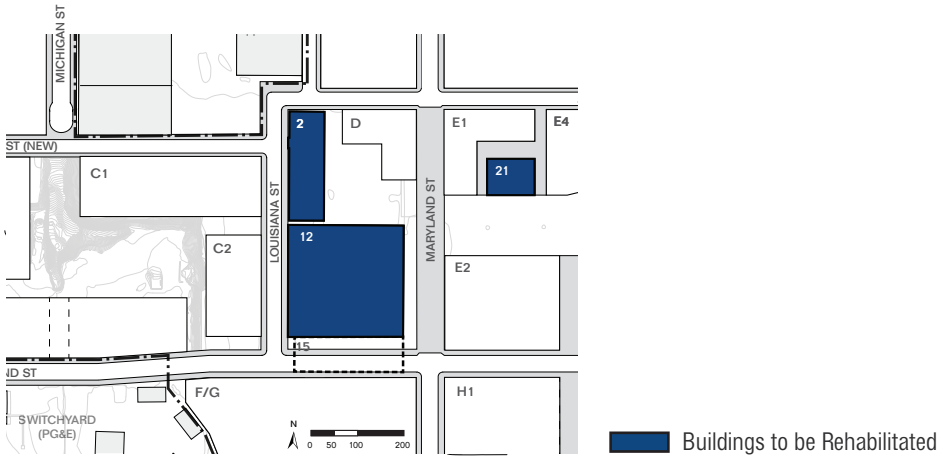


FIGURE 6.6.1: Pier 70 Project Buildings to be Rehabilitated – Plan



Building 21



Building 12



Building 2

FIGURE 6.6.2: Pier 70 Project Historic Buildings to be Rehabilitated

6.7 STREETWALL

A strong building streetwall within the Project supports a consistent urban fabric, relates to the pattern of the historic buildings, and defines views through the site and to the water. The continuity of the streetwall, particularly at the ground floor, creates an engaged street and cohesive neighborhood rather than a collection of set back and inaccessible buildings.

Standards

S6.7.1 **STREETWALL.** All new construction buildings shall hold a consistent streetwall for a minimum of one story in height, and a minimum of 80 percent of the façade length, with minor variations permitted for the remaining 20 percent length of the façade per S6.7.2.

To avoid empty or buffer spaces separating the building from the street, large un-programmed recesses or otherwise non-occupiable open spaces, arcades, and open perimeter colonnades are not permitted.

New construction buildings may set the streetwall up to three feet back from the property line to create an expanded frontage zone.

Streetwall controls shall apply to all façades facing public streets. Façades facing public open spaces designated in the D4D (see Figure 3.4.1) shall be exempt from the streetwall requirements.

S6.7.2 **STREETWALL EXCEPTIONS: MINOR VARIATIONS.** Exceptions to the streetwall as described herein shall cumulatively not exceed 20 percent of the block frontage. Exceptions shall be permitted for recessed entries, pedestrian connections between or through buildings, retail, service, and arts spaces with direct access from the sidewalk, or to incorporate transformers or other utility requirements. Building setbacks for open spaces shall be permitted if designed as a usable open space and include an active use and a minimum of one entry adjacent to the open space.

All exceptions shall have a minimum width of five feet along the streetwall frontage and shall be no more than 10 feet in depth, with the exception of mid-block passages.

Where a mid-block passage is proposed, the width of the passage may be exempted from the streetwall control.

S6.7.3 **CORNERS.** Ground floor corner setbacks shall not be permitted beyond the maximum three-foot setback described in S6.7.1.

Corner controls shall apply to all corners at the intersection of two public streets. Corners facing public open spaces designated in the D4D shall be exempt from the requirement.

Ground floor setback at parcels B and H2 facing the waterfront shall be exempt from this requirement.

Setbacks provided to manage grade changes at the site shall be exempt from this requirement.

S6.7.4 **SOUTHERN BOUNDARY CONDITIONS.** If F/G and H1/H2 are designed with a lot-line condition, the southern façades shall not be required to comply with project-wide massing and architecture controls (Sections 6.7-6.14) or long façade requirements (Section 6.18).



Limited Street Planting Enhances Pedestrian Experience
Heath Ceramics, San Francisco, CA



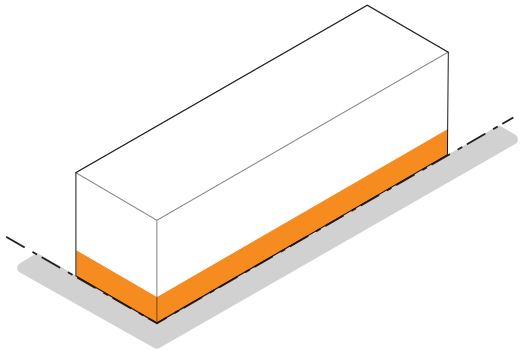
Wide Setback with Plantings Create Barriers
Mission Bay, San Francisco, CA

FIGURE 6.7.1: Examples of Planted Setbacks

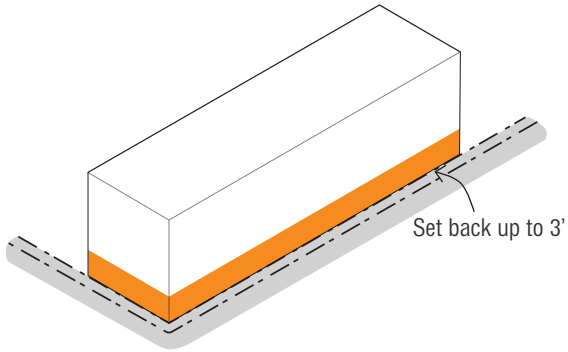
✖ Denotes noncompliant condition

Design requirements for parcels F/G and H1/H2 shall be contingent on a mutual agreement of a future condition with the owner of the former Potrero Power Plant site. Southern façades of parcels F/G and H1/H2 shall comply with long façade requirements (Section 6.18) contingent on the provision of a mutual 15-foot setback agreed to by the adjacent Potrero Power Plant property owner, or a public ROW provided immediately south of the Project site.

Given the challenging topography within and adjacent to parcel F/G, F/G may be exempt from setback requirements, if not feasible to make a through connection between the Pier 70 site and the former Potrero Power Plant site.



Building shall hold consistent streetwall



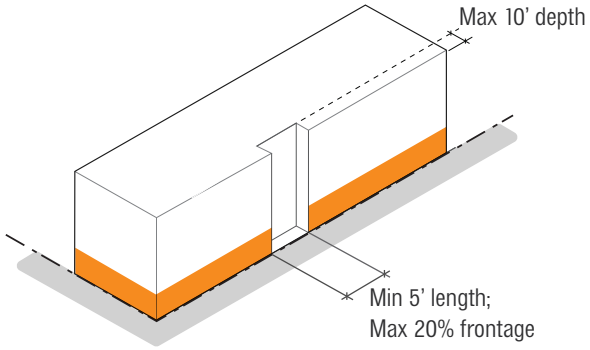
New construction buildings may be set back up to 3 feet from the property line to create a widened sidewalk and expanded frontage zone

FIGURE 6.7.2: Streetwall Options

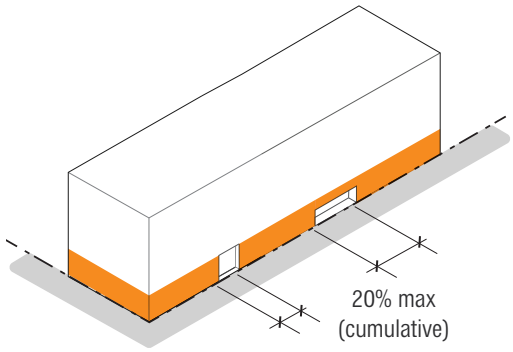
Guidelines

G6.7.1 **SETBACKS.** Where introduced, streetwall setbacks should relate to the pedestrian scale and serve to expand the public realm of the sidewalk. Setback landscape areas should be limited to two feet in width.

G6.7.2 **CORNERS.** Corner controls (S6.7.3) are additionally encouraged to apply to building corners at the intersection of public streets and vehicular mid-block passages.



Streetwall exception may not be more than 10 feet in depth and may not exceed 20 percent of the block frontage, cumulatively



Recessed entries, and/or programmed retail spaces along the sidewalk shall be permitted on the streetwall, and may not exceed 20 percent of the block frontage, cumulatively

FIGURE 6.7.3: Streetwall Exceptions

6.8 BUILDING BASE AND GROUND FLOOR

A true urban streetscape is created in large part by the design of the ground floor. The Project's standards and guidelines are designed to prevent monotonous ground floor façades, opaque walls, and inaccessible zones. The ground floor should be human scaled, employ a regular rhythm, and provide ample transparency and variation to pedestrians.

Standards

S6.8.1 **DEFINED BASE.** All new construction buildings shall have a defined base zone, scaled and proportioned to the street environment. The base may be differentiated by horizontal or vertical shifts, varied rhythms, horizontal elements, material differentiation, and/or difference in architectural treatment. The base shall be a minimum of one story and maximum of three stories in height.

To establish a pedestrian-focused environment and engaging street frontage, the ground floor or base zone of all new construction buildings shall have a differentiated architectural expression from the upper floors. This may include, but is not limited to, increased transparency, projections denoting entries, shifts in color, material and scale of modulation, and increased material depth and texture of façade elements.

The ground floor or base zone expression need not be 100 percent of the ground floor façade area; interplay and integration of the ground floor and the overall building architecture is encouraged while maintaining a visible distinction.

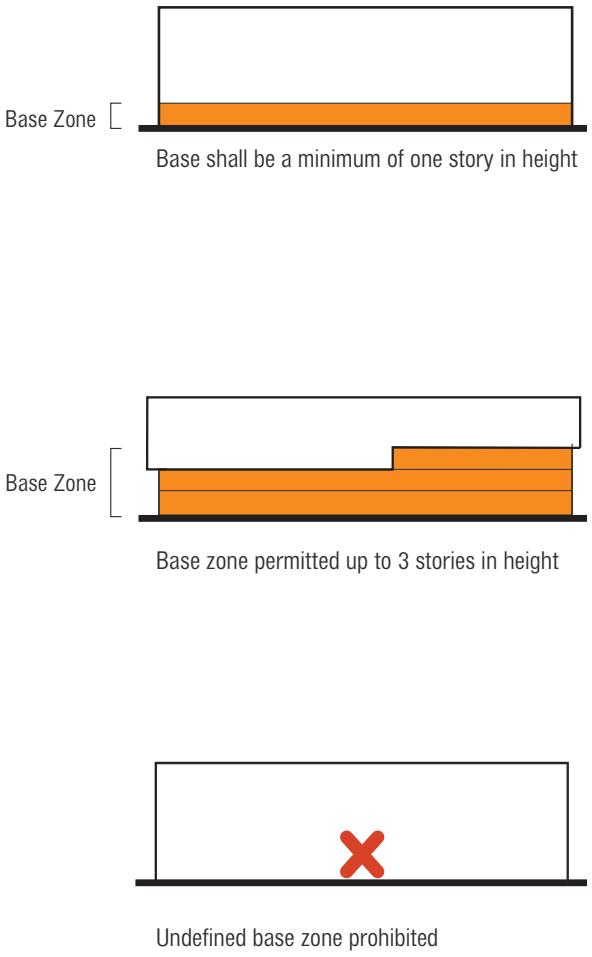


FIGURE 6.8.1: Defined Base Zone

✕ Denotes noncompliant condition



Architectural Bay Features at Base
The Beacon, San Francisco, CA



Base up to Maximum of 3 Floors Allowed
Montreal, Canada

FIGURE 6.8.2: Examples of a Defined Base

S6.8.2 **GROUND FLOOR TRANSPARENCY.** The ground floor façade shall have a minimum of 60 percent transparency applicable to all non-residential uses, excluding frontage dedicated to parking and loading access, building egress, and mechanical and core systems. Transparent areas shall have a maximum sill height of three feet from sidewalk grade. See Section 5.5 Loading and Services for standards on loading and service entries.

In order to comply, the majority of glazed areas shall be unobstructed by solid window coverings or other features that impede visibility from the public realm into the interior of the ground floor of the building. Minimal window signs, textures, patterns, or other features used for display and communication shall be permitted.

Darkly tinted or highly mirrored glass is prohibited on the ground floor.

See S6.12.4 for transparency requirements for ground floor residential units.

S6.8.3 **GROUND FLOOR HEIGHT.** New construction buildings shall have a minimum ground floor height of 15 feet, measured floor-to-floor. Parcels PKN, PKS, and HDY shall be permitted to have a reduced ground floor height of 14 feet floor-to-floor where necessary.

S6.8.4 **GROUND FLOOR MODULATION.** New construction buildings on 20th Street, 22nd Street, and Maryland Street shall modulate ground floor façades with vertical façade articulation at maximum 30-foot intervals on center. Articulation may be achieved through expressed bay structure or division of ground floor piers, window patterns, or other integral elements to relate to the human scale.

S6.8.5 **GROUND FLOOR HORIZONTAL ELEMENT.** The ground floor for new construction buildings on 20th Street, 22nd Street, and Maryland Street shall have a horizontal element that articulates the pedestrian scale for the frontages along public ROWs and open spaces, except on mid-block passages. Such elements shall span a minimum of 20 percent of linear frontage along a building. Horizontal elements may include canopies, marquees, prominent eaves, projections, massing differentiation, and/or architectural features. See also Section 4.3 Pedestrian Network.

S6.8.6 **GROUND FLOOR COMMERCIAL-OFFICE FRONTAGE.** The interior area within four feet from the surface of the window glass between a height of four and eight feet above sidewalk level shall be at least 75 percent open to perpendicular view. See Figure 6.8.4 for an illustration of the required visibility zone. No partitions above three feet shall be located within four feet of the window. See also G2.2.1 Ground Floor Office Frontages for guidelines on uses.



Ground Floor Transparency and Expression
Funf Hofe, Munich, Germany



Pedestrian Scale and Horizontal Projection
Malmo Live, Sweden



Pedestrian Scale and Ground Floor Transparency
Chantal Guillon, San Francisco, CA



Pedestrian Scale Modulation, and Ground Floor Transparency
Monsieur Benjamin, San Francisco, CA

FIGURE 6.8.3: Examples of Ground Floors

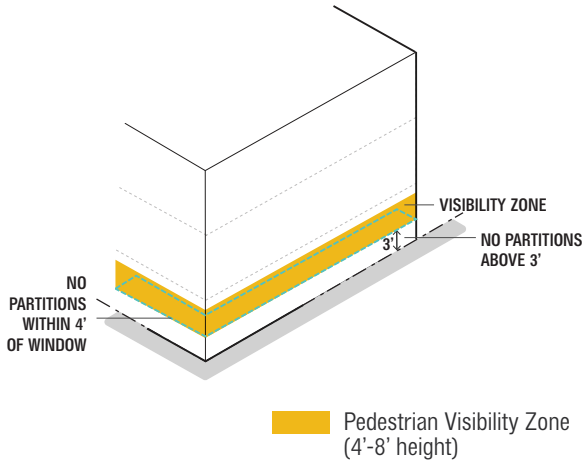


FIGURE 6.8.4: Ground Floor Visibility Zone

S6.8.7 **GROUND FLOOR ENTRIES.** To create engagement and foot traffic between the ground floor of the buildings and the street, each building frontage as indicated in Figure 6.8.5 shall provide at least one entry for each façade less than 250 feet in length, two entries for each façade 250-450 feet in length, and three entries for each façade greater than 450 feet in length, along a public ROW or waterfront open space. As service streets, 21st Street, Michigan Street, and Louisiana Street north of 21st Street are excluded from the above minimum entries requirements, except for C1 along 21st Street. While Figure 6.8.5 illustrates minimum number of entries required, building frontages are encouraged to provide additional entries. Each retail use shall be required to provide a minimum of one entry along a street or open space.

The primary entry for each building shall be from a public street. Primary building entries are not permitted to be located on park facing frontages. The primary building entry shall be the most prominent feature on the ground floor. See Figure 6.8.6.

Qualifying entries shall include building access or access to ground floor commercial, residential or retail tenant spaces. Parking entries, storage, exit stairs, and building service access are excluded.

Primary building entries within new construction buildings shall meet the sidewalk at grade or be accessed by the use of ramps.

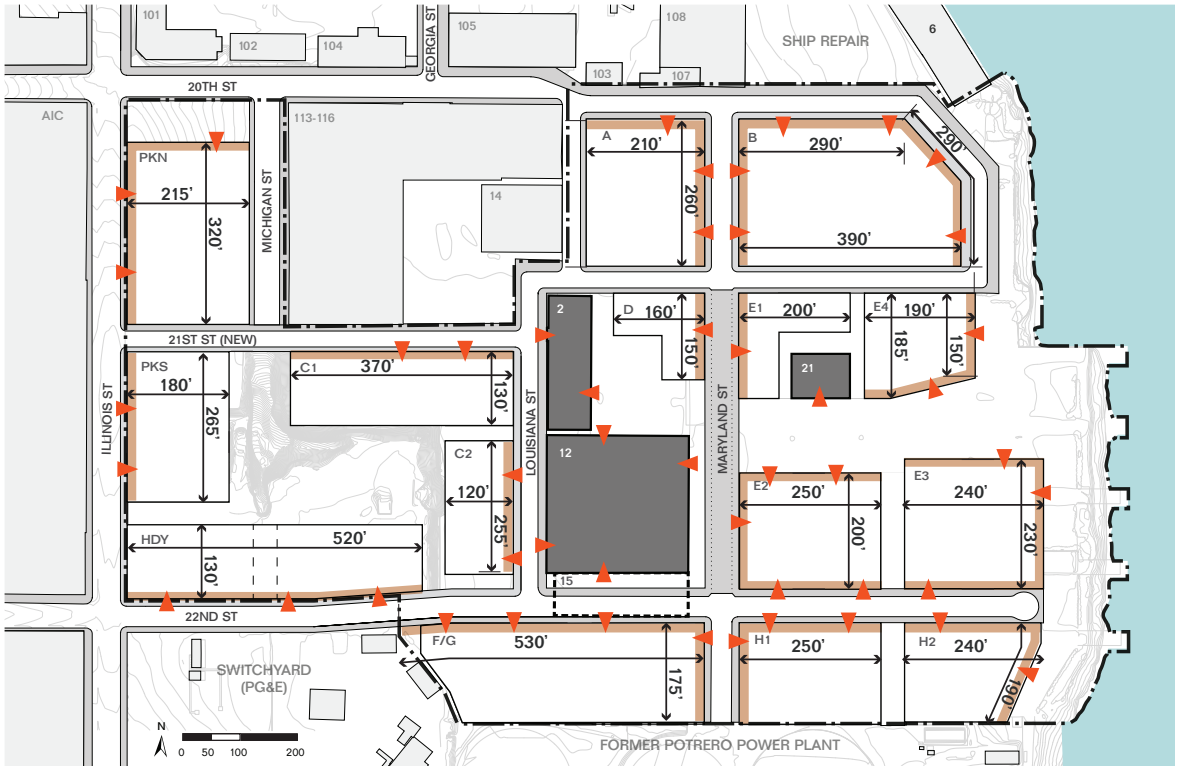


FIGURE 6.8.5: Illustrative Plan of Building Entries from Public Right of Way

Frontage with Required Building Entries

Illustrative of Minimum Building Entries



FIGURE 6.8.6: Examples of Prominent Entries

S6.8.8 **GROUND FLOOR STOREFRONTS.** For new construction, temporary frontages in the form of murals or other artwork, are allowed as placeholders during construction to allow for tenants to customize the design of the ground floor façades and entries. Restrictions should be added for the allowable timeframe before compliance is met.

Guidelines

G6.8.1 **GROUND FLOOR STOREFRONTS.** Storefront façades are encouraged to open up to the pedestrian public realm through the use of large movable openings such as pivot, sliding, or roll-up windows and doors. Ground floor commercial frontages are encouraged to make visible social or common uses listed in G2.2.1.

G6.8.2 **ENTRY DESIGN.** The entry design should incorporate two or more of the following methods:

- Change in wall/window plane in relation to the primary building façade
- Use of accentuating light and color
- A projecting element above
- A change in material or detailing
- Recessed doors or cased openings

G6.8.3 **COMMERCIAL LOBBIES AND ENTRYWAYS.** Primary commercial entryways and lobbies should be visually active through both programming and materials. Active shared uses or public art should have a high degree of transparency to the exterior. The entry should maximize natural light and be clearly visible from the street and include signage.

CONSIDERATIONS

- To promote engagement between ground floor uses and the street, use of translucent glass is discouraged.
- Design should encourage a flexible ground floor façade and signage approach that can be reconfigured to serve various functions and individual customization by each vendor or tenant. Use of high-quality, wear-resistant contrasting materials and colors within ground floor storefronts is encouraged to provide visual variety along a block.
- The main entries for commercial buildings from open spaces, streets, and parking areas are encouraged to lead to a single consolidated lobby to promote larger shared spaces where feasible.
- Lobbies are encouraged to be public and/or programmed spaces.



Transparency and Signage
Blu Dot, San Francisco, CA



Awning and Signage
MoAD, San Francisco, CA



Inactive, Disconnected from Sidewalk and Street
Old Navy HQ, San Francisco, CA

FIGURE 6.8.7: Examples of Compliant and Noncompliant Entries

✖ Denotes noncompliant condition

6.9 FAÇADE DESIGN

The following standards and guidelines guide the design for any new construction façade within the Project. Additional location-specific requirements for buildings adjacent to cultural resources, key façades greater than 200 feet, and waterfront façades are outlined in Sections 6.15, 6.18 and 6.19, respectively.

Standards

S6.9.1 **NO REPLICATION OF HISTORIC BUILDINGS.** New construction shall not replicate or mimic historic buildings. False historicism is not permitted.

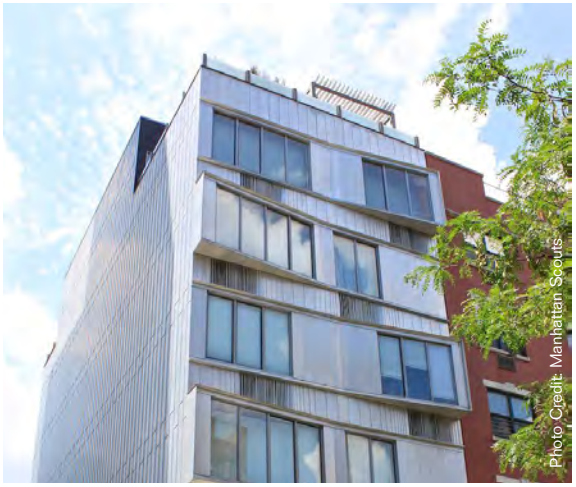
S6.9.2 **BUILDING VARIETY.** To maintain the historic architectural variety that has existed at Pier 70, all new individual buildings within the Project shall vary from their adjacent building in at least two of the following ways: building massing, materials, glazing pattern and proportion, integral color (paint color differences do not qualify), architectural detail, articulation, or roofline modulation. Buildings with mid-block passage connectors are considered one building.

S6.9.3 **FAÇADE ARTICULATION.** Material selection and application shall reflect but not replicate the scale, pattern and rhythm of adjacent contributing resources' exterior materials. Material selection shall not establish a false sense of historic development. See Table 6.18.6 for more detail on preferred materials and G.6.9.1 for more information on historic rhythms and patterns.

S6.9.4 **FAÇADE RHYTHM.** All new construction buildings with façade lengths greater than 200 feet along a side shall use vertical façade articulation at maximum 30-foot intervals on center to create a finer grain façade. Articulation may be achieved through expressed bay structure, fenestration, articulation, or material differentiation. The vertical rhythm shall be perceptible from the street.

S6.9.5 **FAÇADE DEPTH.** A selection of architectural details, such as vertical and horizontal recesses and projections, changes in height, floor levels, roof forms, shading devices, and window reveals shall be used to create shadows and texture across the building façade with a minimum depth of six inches.

S6.9.6 **BLANK WALLS.** Blank building walls greater than 50 feet in length without fenestration or architectural articulation along 22nd Street, Maryland Street, and 20th Street shall be prohibited. Ground floor and upper floor blank walls shall be articulated and/or incorporate artistic treatments.

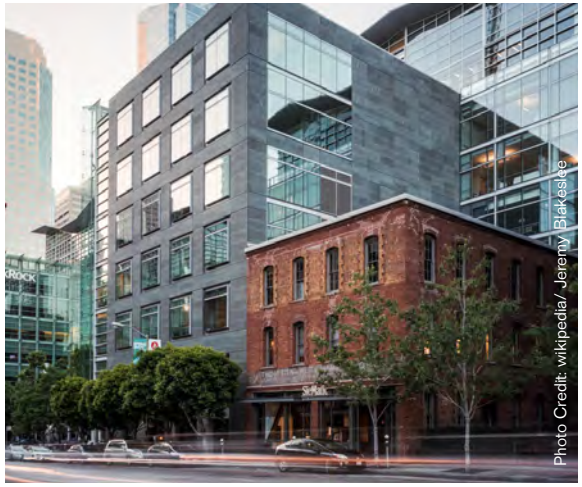


Façade Depth
Switch Building, New York, NY



Façade Rhythm
19 E Houston, New York, NY

FIGURE 6.9.1: Building Articulation and Variety



Building Variety: Material & Integral Color
Foundry Square, San Francisco, CA

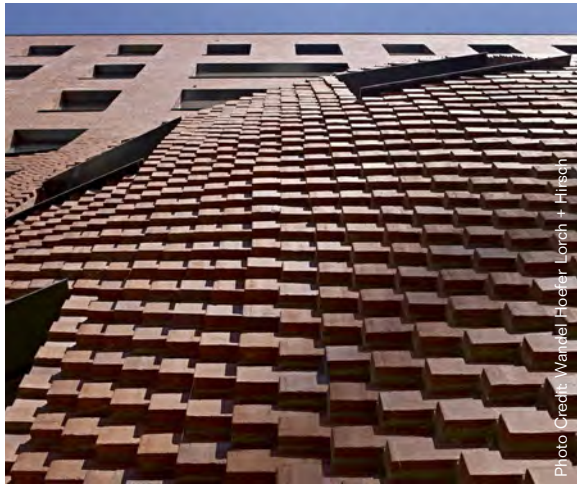


Vertical Louvers Create a Patterned Façade
UCL Cancer Institute, London, England

FIGURE 6.9.2: Building Façade Pattern and Materiality

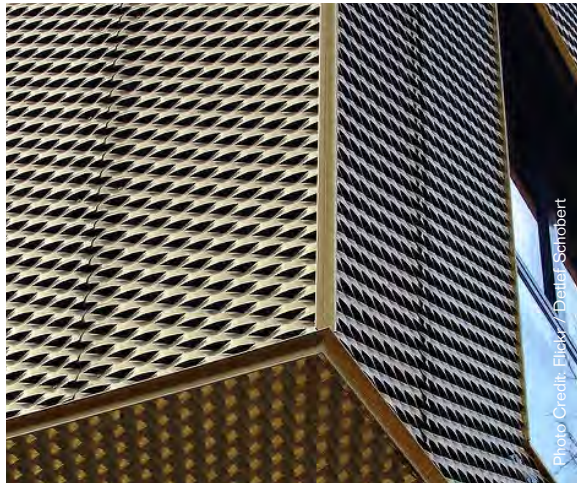


Material Depths Create Shadows and Texture on Façade
Raif Dinckok Yalova Cultural Center, Merkez, Turkey



Brick Façade Creates Large Textured Plane with Fine Grain
Ecumenical Forum HafenCity, Hamburg, Germany

FIGURE 6.9.3: Material Grain



Material Depths Creates Shadows and Texture on Façade
Bali, Indonesia



Repetition of Vertical Elements Creates Façade Depth & Rhythm
Le Albere, Trento, Italy

Guidelines

G6.9.1 **HISTORIC RHYTHMS AND PATTERNS.** New construction buildings should incorporate, through contemporary interpretation, one or more of the following features drawn from Pier 70's historic character:

- Horizontal Banding;
- Shifted Patterns/Glazing;
- Articulated Rooflines;
- Repetitive Patterns (e.g. Building 12 roofline; or Building 113 windows);
- Gridded Windows; and
- Weathered Materials.

G6.9.2 **MATERIAL AND COLOR PALETTE.** Material and color palette are encouraged to draw from the site's historic texture and utilize the recommended material palette provided (Figure 6.9.5). Materials that are intended to patina or weather are encouraged.

CONSIDERATIONS

- Pier 70 historic buildings include large and long façades comprised of small units, such as brick and corrugated metal. New construction is encouraged to draw on this material grain and technique, but not necessarily the specific materials used.



Gridded Windows



Horizontal Banding



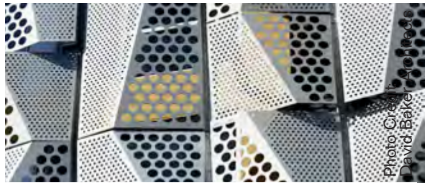
Articulated Roofline



Repetitive Pattern

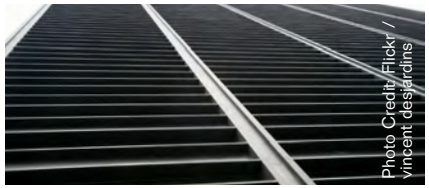
FIGURE 6.9.4: Pier 70 Historic Rhythms and Pattern


Metal Panels


Perforated Mesh


Corrugated Metal


Painted Corrugated Metal


Structural Steel Elements


Metal Screen


Slate Tiles


Terracotta


Concrete (Cast in Place)

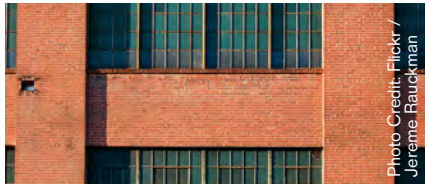

Concrete (Pre-cast)


Cement Board


Weathered Metal


Wood Veneer

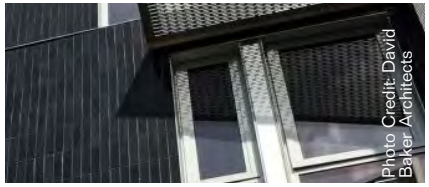

Concrete (Board Form)


Brick Masonry


Glass


Wood Siding


Wood Slats


Ceramic Tiles


Precast Brick Panels

FIGURE 6.9.5: Recommended Material Palette

6.10 PROJECTIONS

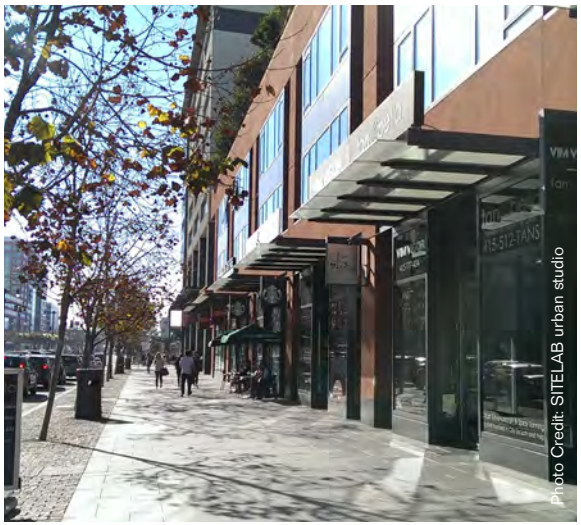
Standards

S6.10.1 GROUND FLOOR NON-OCCUPIABLE PROJECTIONS. Non-occupiable building elements such as cornices, architectural fins, louvers, rain screens, brise soleil, and decorative elements may extend up to one foot into the ROW, provided a minimum clearance of 7.5 feet is provided from sidewalk grade, and compliance with San Francisco Building Code is met.

Additionally, non-occupiable ground floor horizontal elements such as marquees, awnings, and canopies may extend up to two feet from the curb edge, provided a minimum clearance of ten feet is provided from sidewalk grade.

To create features that relate to a pedestrian scale, no single horizontal projection, including canopies and marquees, shall be continuous for more than 33 percent of the frontage length, in order to create a pedestrian scale and rhythm. See Section 7.7 Building Signage for further detail on building signage projections.

S6.10.2 UPPER LEVEL NON-OCCUPIABLE PROJECTIONS. Horizontal elements above the ground floor, such as cornices and other decorative elements shall follow the Planning Code, with a maximum projection of three feet and maximum height of 2.5 feet. Vertical elements, such as louvers, architectural fins, and brise soleils may extend up to two feet from the property line.



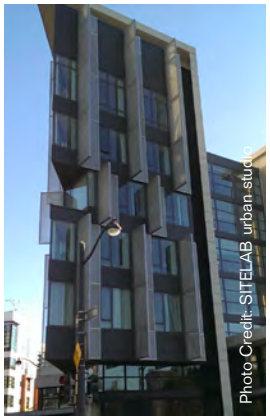
Human Scale
The Beacon, San Francisco, CA



Multiple Scales of Awnings and Signage
New York Times Building, New York, NY



Awning Design
Seattle, WA



Vertical Fins
Mercy Housing,
San Francisco, CA



Continuous Awning
Adobe Systems, San Francisco, CA

FIGURE 6.10.1: Examples of Compliant and Noncompliant Ground and Upper Floor Projections

✖ Denotes noncompliant condition

S6.10.3 **OCCUPIABLE PROJECTIONS.** Occupiable projections are permitted in compliance with the Planning Code. To relate to the industrial character of the site and contemporary construction, aggregated occupiable projections shall additionally be permitted, as shown in Figure 6.10.3.

Area of aggregated projections shall not exceed that which would be permitted under the existing bay window and occupiable projection standard in the Planning Code. Aggregated occupiable projections shall be further limited to a maximum of 60 percent of the length of the building façade, a maximum of 33 percent of the overall building façade area and a maximum extension beyond the property line of four feet subject to compliance with Building Code requirements for projections.

Multiple distributed projections or a single aggregate projection shall both be permitted. Bay windows may be square, angled, curved, or wrap around a building as a corner treatment.



FIGURE 6.10.2: Occupiable Projections per Planning Code

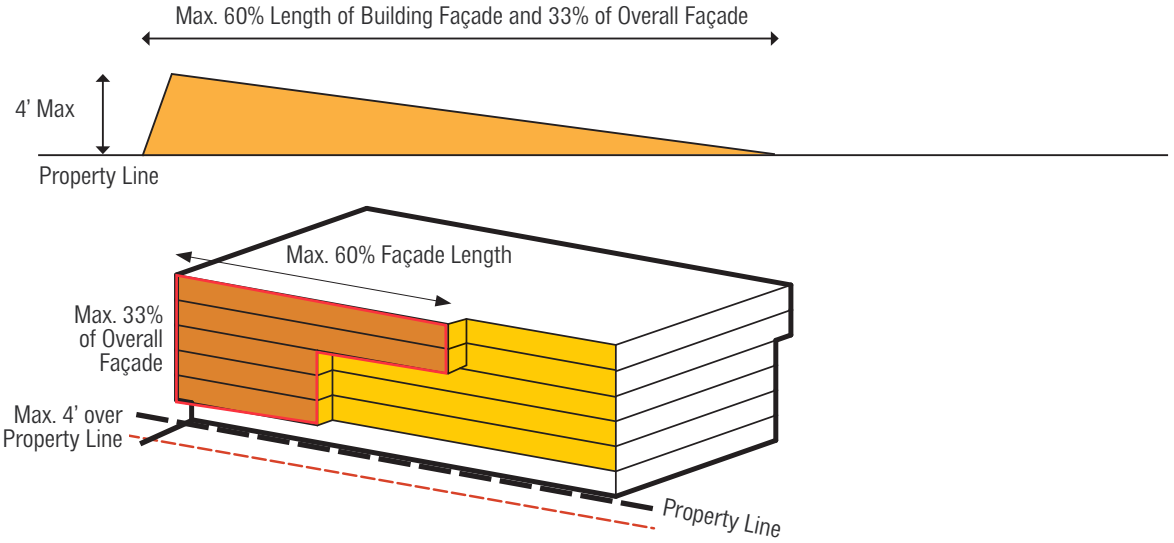
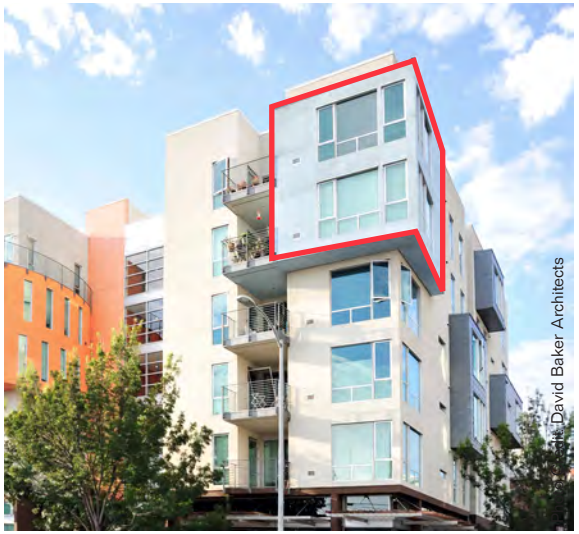


FIGURE 6.10.3: Aggregated Occupiable Projections



Corner Projection
200 Second Street, Oakland, CA



Curved and Wrap-Around Projection
200 Second Street, Oakland, CA



Projection Area Equivalent to Area of San Francisco Bay Window Standard
388 Fulton, San Francisco, CA



Projection Area Equivalent to Area of San Francisco Bay Window Standard
Richardson Apartments, San Francisco, CA

FIGURE 6.10.4: Examples of Aggregated Projection Areas

6.11 ROOFS

Standards

S6.11.1 **MECHANICAL SCREENING.** For all new construction, rooftop equipment shall step-back at a minimum ratio of 1.2 feet in a horizontal dimension, from the exterior building wall facing a public ROW, for every foot above the maximum height limit of the building, and shall be screened with architectural or landscaped materials harmonious with the building's material, color, and scale. The screen shall be at least equal in height to the mechanical elements that it screens. See Figure 6.11.1.

S6.11.2 **ROOFLINE.** Direct replication of the particular geometries of the rooflines of historic buildings 12, 21, and 113-116 is not permitted in order to avoid false historicism. For historic building locations, see Figure 6.15.1.

S6.11.3 **BETTER ROOF REQUIREMENTS.** Roof design for new buildings shall comply with Better Roof Requirements in San Francisco Environment Code.

Guidelines

G6.11.1 **ROOFTOP SUSTAINABILITY STRATEGIES.** Roofs are encouraged to provide usable open space and/or sustainable design strategies to reduce carbon emissions and mitigate the urban heat island effect. Specific rooftop strategies include living roofs, rainwater harvesting, or renewable energy capture (solar photovoltaic, solar water heating). Refer to Section 6.14 and the Pier 70 SUD Sustainability Plan.

CONSIDERATIONS

- Roofs are encouraged to incorporate roofline modulation strategies as detailed in S6.18.7.

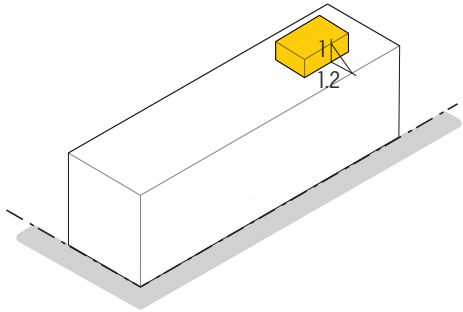


FIGURE 6.11.1: Mechanical Screening Height



Setback Mechanical Screening
Gates Foundation, Seattle, WA



Flush Mesh Screen
664 Collins St, Melbourne, Australia

FIGURE 6.11.2: Examples of Mechanical Screening

6.12 RESIDENTIAL BUILDING ELEMENTS AND OPEN SPACE

Standards

S6.12.1 **RESIDENTIAL USABLE OPEN SPACE.** On each residential parcel, new construction buildings shall provide a minimum quantity of usable open space equivalent to 40 square feet per dwelling unit. Usable open space may be in the form of common courtyards, terraces, rooftop spaces, winter gardens, private balconies, stoops, or other facilities, which would be accessible to building occupants. Common terraces and courtyards shall maintain a minimum width of 20 feet. Private balconies and stoops shall be a minimum of five feet wide, or 36 square feet in area (excluding steps), to be counted as residential open space.

S6.12.2 **REAR YARD REQUIREMENTS.** Lots within the Project shall not be required to comply with the rear yard requirements set in Planning Code Section 134.

S6.12.3 **DWELLING UNIT EXPOSURE.** All new construction units shall face onto a public or private ROW, or onto an open area, as defined below:

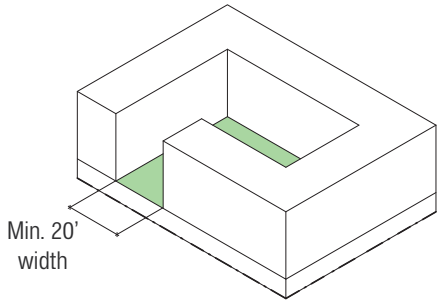
- A public street, public alley, or mid-block passage (public or private) at least 20 feet in width.
- An open area (whether an inner courtyard or a space between separate buildings on the same lot) which is unobstructed (except for obstructions permitted in Planning Code Section 136) and is no less than 25 feet in every horizontal dimension for the floor at which the dwelling unit in question is located and the floor immediately above it.
- The qualifying open area for dwelling unit exposure may include rooftops of adjacent buildings within the Project. The open area may be situated within the same parcel containing the dwelling units subject to the requirement or may be located on an abutting parcel within the site, provided that under either scenario, they meet the dwelling unit controls represented herein.
- Irish Hill, as a landscape feature, shall be a permitted obstruction.
- Historic Building 2, if rehabilitated with residential uses, shall not be required to comply with the dwelling unit exposure standards listed above.

S6.12.4 **RESIDENTIAL GROUND FLOOR TRANSPARENCY.** Ground floor residential lobbies and amenities shall have a minimum of 50 percent transparency in order to enliven the visual interface with the sidewalk. Ground floor units shall have a minimum of 25 percent transparency while allowing for window coverings and elements to maintain privacy for units.

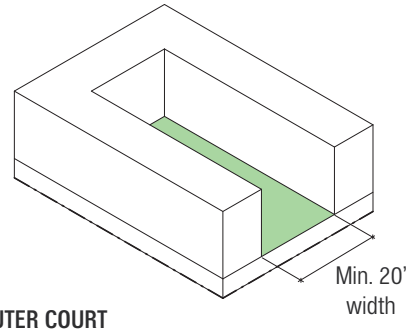
Guidelines

G6.12.1 **RESIDENTIAL ENTRY DESIGN.** Changes in material, awnings, and stoops are encouraged to create residential ground floor rhythm. Residential stoops are permitted on park facing frontages to provide transition between the public parks and private residences. Lobby entrance areas should maximize transparency to interior common spaces or interior open spaces.

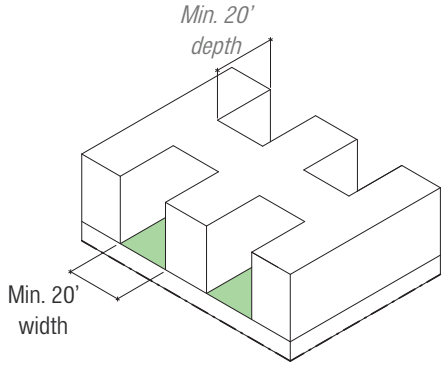
G6.12.2 **COURTYARD BRIDGES.** Bridges connecting building circulation across internal or external courtyards are encouraged to be open air or at least 80 percent transparent.



INNER COURT WITH OPENING



SINGLE OUTER COURT



MULTIPLE OUTER COURTS

FIGURE 6.12.1: Examples of Residential External Courtyards

CONSIDERATIONS

- While interior courtyards are permitted, perimeter courtyards are encouraged to create breaks in the façade wall, connect visually to public spaces, and provide increased opportunities for sunlight and dwelling unit exposure. If a building is incorporating a courtyard or terrace that extends to the building perimeter, the opening is encouraged to be a minimum of 30 feet wide and a minimum of 20 feet deep, per Figure 6.12.1.
- Where incorporated, the goal of residential stoops is to balance transparency and street animation with privacy for units. Stoops with stairs that run perpendicular to the sidewalk are encouraged. Stoops are encouraged to be combined with horizontal overhangs above the entryway.
- In addition to S6.9.3, S6.9.4, and S6.9.5, consider vertically modulating residential building façades to express individual units.
- Entries to ground floor units should be a maximum of five feet above the grade of the adjacent sidewalk.
- If subgrade entries are provided to handle topography at certain locations, the unit should be no greater than four feet below grade, with planters and steps placed strategically to prevent direct viewing into sub-grade windows, while allowing upward views from, and natural light into, the unit.
- Consider natural light and sightlines from the sidewalk to create an inviting building entry.
- Make individual unit entryways no less than five feet wide at the building face. Grouped entryways should be at least ten feet wide. The scale of building entries should be articulated and proportional to the number of units served.
- Avoid recessed entries that are either too narrow or too deep. Entries that are too shallow and/or narrow fail to provide adequate public/private transition space and a gracious sense of arrival, and may be perceived as unsafe.
- Separate primary residential entrances from parking entrances by at least ten feet.

6.13 GARAGE AND SERVICE ENTRY DESIGN

Standards

S6.13.1 DISTRICT PARKING GARAGE TREATMENT. District parking garages shall comply with the applicable standards and guidelines in Sections 6.7 through 6.11. District parking garage frontages over 200 feet long and located in key façade locations (see Figure 6.18.1) shall meet the minimum requirements specified in S6.18.3.



Architectural Treatment
Mission Bay Parking Garage, San Francisco, CA



Parking Garage with Horizontal Screening and Retail at Ground Floor
Santa Monica Parking Garage, Santa Monica, CA



Retail Wrapped Parking
200 Second Street, Oakland, CA



Parking Garage with Living Wall
Mexico City, Mexico

FIGURE 6.13.1: Examples of Commercial and Residential Garages

S6.13.2 **ACCESSORY PARKING TREATMENT.** Any above ground accessory parking shall be wrapped by non-parking uses permitted by Table 2.1.1, with a minimum depth of 25 feet, for all façades, subject to compliance with Fire Code and emergency access. All frontages of C1 and C2, if built as district parking garages, and the southern frontages of parcels F/G, H1, and H2 shall be exempt from this requirement. See Section 2.2 for ground floor use requirements for C1.

Parking basements that are exposed due to grading conditions are exempt for the first four feet of height above adjacent sidewalk grade.

Basement parking may be exposed due to grading conditions. Such exposed frontages shall be architecturally consistent with, or complementary to, the overall façade design or adjacent public realm design.

All exposed basements (including those exempt up to four feet in height) that are not wrapped by non-parking uses shall be screened by architectural design elements, vegetation, or integrated with topographic grade changes.

Guidelines

G6.13.1 **GARAGE SCREENS AND FAÇADES.** Garage entries shall be screened and designed in a manner harmonious with the building's overall composition and materiality.



Integrated into Streetwall
Strata Apartments, San Francisco, CA



Consolidated Vehicular Access, Parking and Loading
MB360, San Francisco, CA



Commercial Loading in Building
560 Mission Street, San Francisco, CA

FIGURE 6.13.2: Example of Service Entry Designs

6.14 SUSTAINABILITY STRATEGIES

A primary goal of the Project design is to incorporate sustainable design principles that provide the greatest efficiency and suite of benefits to users.

Daylighting strategies provide many benefits to users, including increased productivity, comfort, and mental and visual stimulation. Historic buildings within the site are typically well-lit through abundant horizontal ribbons of windows and the use of skylights.

Sustainability strategies noted herein and throughout the D4D focus on building design and site planning. For a full description of strategies and approach to sustainability, refer to the Pier 70 SUD Sustainability Plan.



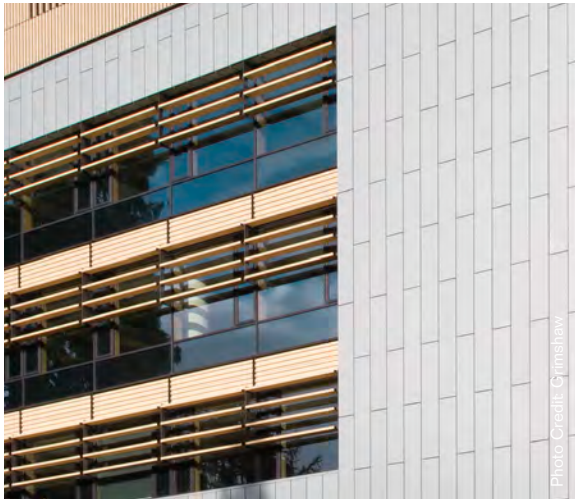
Daylighting and Shared Spaces within an Enclosed Atrium
650 Townsend, San Francisco, CA



Daylight within Shared Spaces
Southhampton University Offices, Southhampton, UK



Residential Unit Sunshades
Richardson Apartments, San Francisco, CA



Louvers Responsive to Orientation
Southhampton University Offices, Southhampton, UK

FIGURE 6.14.1: Examples of Daylighting and Sustainability Strategies

CONSIDERATIONS

- Photovoltaics (PVs) should be strategically placed to maximize energy harnessing and prevent excessive heat gain.
- Green roofs are encouraged to capture and store rainwater.
- Buildings should maximize potential for daylighting of interior spaces. This can be achieved through setbacks that allow light to penetrate deeper into the building and/or the introduction of atria or courtyards to reduce floorplate depth.
- Window fenestration should respond to orientation and should minimize glare within interior environments. Windows are encouraged to increase the depth and material richness of a façade, improve interior environments, and reduce maintenance and air conditioning costs due to reduced heat gain. Shading devices such as louvers and daylight redirection devices such as light shelves may be used in combination with windows to serve the above-listed functions.
- Easily accessible shading and localized controls should be provided to minimize glare. Provide daylighting controls wherever there is direct sunlight and occupancy sensors for efficiency. Comply with applicable green building codes at the time of building permits. Where possible, make efforts to improve on minimum code requirements for building energy and water use performance.
- Use of natural ventilation and mixed-mode ventilation is encouraged, where feasible.
- In compliance with the City's Non-Potable Water Ordinance, the Project should consider one of two options for a non-potable water (NPW) system. While option 1 entails parcel-by-parcel graywater collection for non-potable reuse in buildings, option 2 provide an on-site district-scale Water Treatment and Recycling System (WTRS), which would treat blackwater at a plant located on-site to be reused for a non-potable use within the project. Both options would reduce demand for uses such as toilet flushing, irrigation, heating and cooling, in addition to reducing the amount of wastewater conveyance and treatment downstream.

6.15 ADJACENCY TO CULTURAL RESOURCES

New buildings, in accordance with the infill guidelines in the Port's Preferred Master Plan and S6.9.3, will reference Pier 70's cultural resources through a range of strategies that are in keeping with the inherent qualities of the site, and respect the primary character-defining features, key moments, and unique views. The architectural strategies apply at three different levels:

- **SETBACK FOR VIEW OF BUILDING 113.** New construction at Parcel A will set back on the western frontage to allow for heightened distinction in the view of the historic Building 113 from 20th Street East.
- **DIMENSIONAL HEIGHT REFERENCE.** Specific new façades relate to the heights of adjacent historic buildings through volumetric shifts or façade treatments at specific heights.
- **RELATED TREATMENT TO ADJACENT RESOURCES.** Specific new façades will relate to adjacent resources through fine grain details and material treatment, such as aligning key building edges or incorporating related articulation strategies.

Table 6.15.1 indicates façades subject to cultural resources standards and guidelines.

STANDARDS

S6.15.1 **LOCATIONS AND VIEWS.** Key locations shall respond to related resource(s) and key views shall preserve sightlines and visual corridors to cultural resources, as shown in Figure 6.15.1.

S6.15.2 **SETBACK AND MASSING STANDARDS FOR BUILDING A.** Massing shall setback at the north-west corner of Building A and shall meet the following requirements:

- Setback shall be at the height of Building 113 (60 feet);
- At minimum, the setback shall span at least 50 percent of length of the west façade of Building A;
- The setback shall be a minimum of 15 feet from the corner, as measured horizontally, and diagonally at a 45 degree angle from the north and west façades.
- The setback shall maintain a minimum area of 2,000 square feet per floor.

See Table 6.15.2 and Figure 6.15.3: Illustrative Building Setback Options.

TABLE 6.15.1: Key Locations and Related Resource(s)

LOCATION	FAÇADE	RESOURCE
A	West and North	Building 113
B	North and Northeast	Building 113, Building 6
C1	North	Building 116
C2	East (partial) and South	Building 12
D	South and West	Building 2, Building 12
E1	South and East (partial)	Building 21
E2	West	Building 12
E4	West (partial)	Building 21
F / G	North	Building 12
PKN	East and North	Buildings 113-116
PKS	East	Irish Hill Remnant
HDY	North (partial)	Irish Hill Remnant

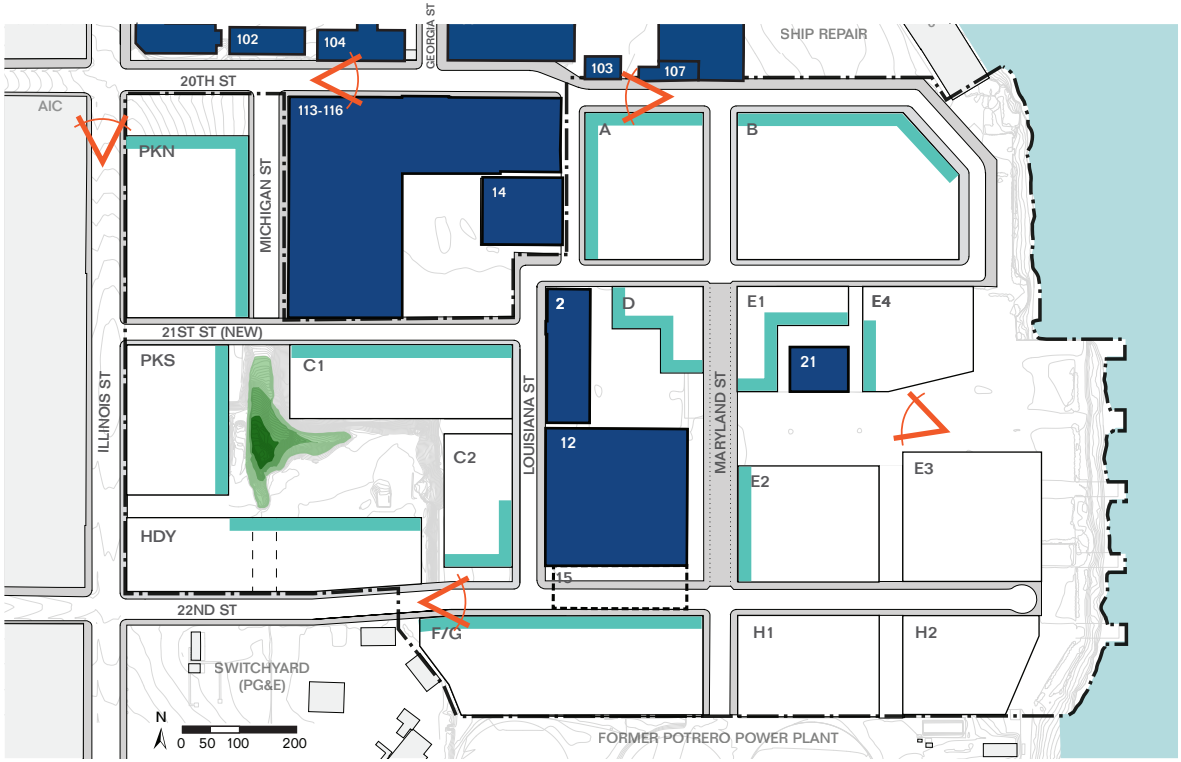


FIGURE 6.15.1: Façades Subject to Cultural Resources Standards and Guidelines

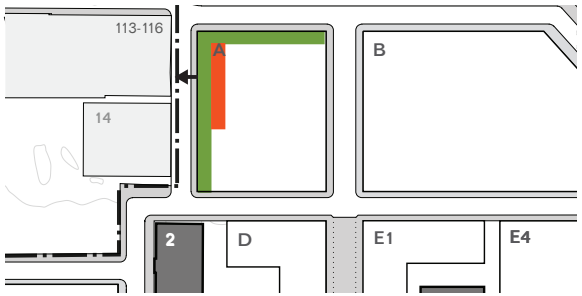


FIGURE 6.15.2: Setback for Views at Building A

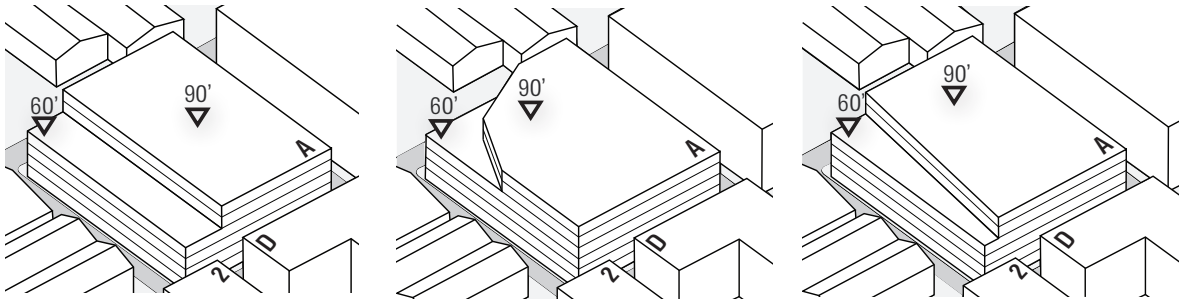


FIGURE 6.15.3: Illustrative Building Setback Options

S6.15.3 HEIGHT REFERENCES OF HISTORIC BUILDINGS. In locations indicated on Table 6.15.2, façades of new construction buildings across the street from or adjacent to specified contributing resources shall distinctly reference the height of the adjacent historic building. Such height references may be within a five-foot range from the height of the adjacent historic building in order to align with floor levels of new buildings.

S6.15.4 DIMENSIONAL QUALITY. Height reference shall have a dimensional quality, such as a visible projection or recess from the vertical façade plane casting a shadow line, using one of the following strategies:

- Distinct fenestration line;
- Massing setback (see Table 6.18.3);
- Volumetric shift (see Table 6.18.4); or
- Façade material or color change paired with dimensional aspect (see Table 6.18.5).

TABLE 6.15.2: Height Reference Locations

PARCEL	FAÇADE	BUILDING NUMBER / HEIGHT
A	West	Building 113 / 60' height
	North	Building 113 / 35' base Building 113 / 60' height
B	North	Building 113 / 60' height
C1	North	Building 116 / 57' height
C2	East (partial)/ South	Building 12 / 60' height

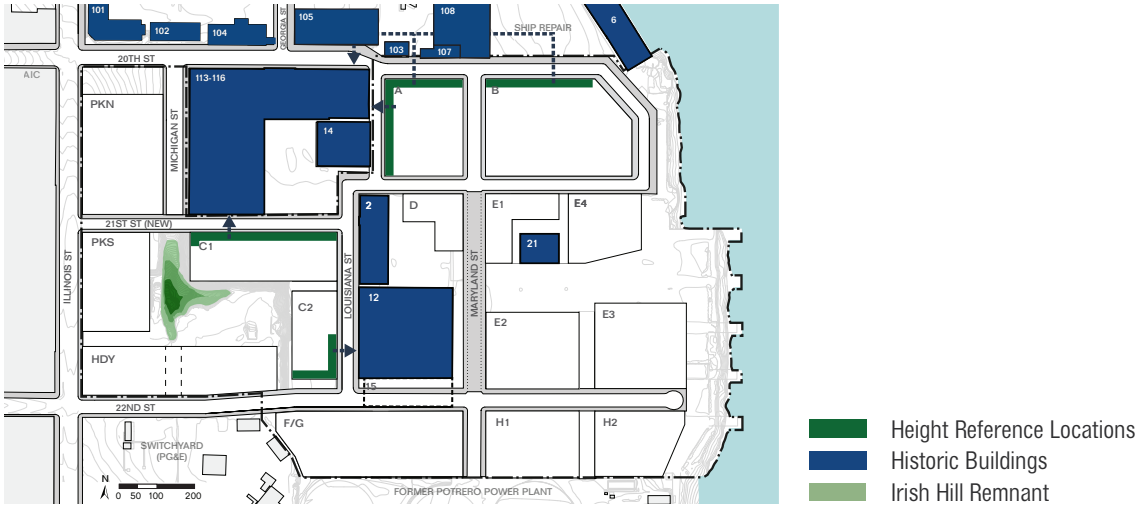
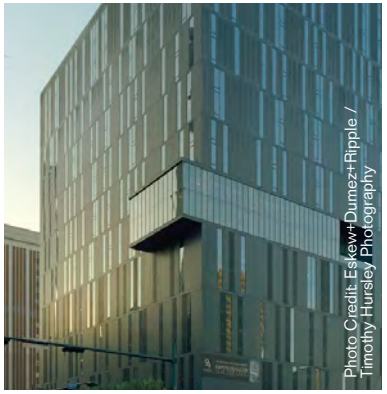


FIGURE 6.15.4: Height Reference Locations



Massing Setback
Terrence Donnelly Health Sciences Complex, Toronto, Canada



Volumetric Shift
930 Poydras Residential Tower, New Orleans, LA



Material Change
UC Berkeley Commons, Berkeley, CA

FIGURE 6.15.5: Dimensional Quality

S6.15.5 **RELATED TREATMENT TO ADJACENT RESOURCES.** In locations shown in Figure 6.15.6 and indicated in Table 6.15.3, new construction shall incorporate elements that relate to the adjacent resource while keeping with contemporary construction.

Related treatment may highlight the following from the adjacent resource:

- Reflect height datum;
- Bay rhythm/vertical modulation;
- Glazing proportions and/or pattern;
- Horizontal banding;
- Material grain; or
- Alignments with key edges, datums, or openings.

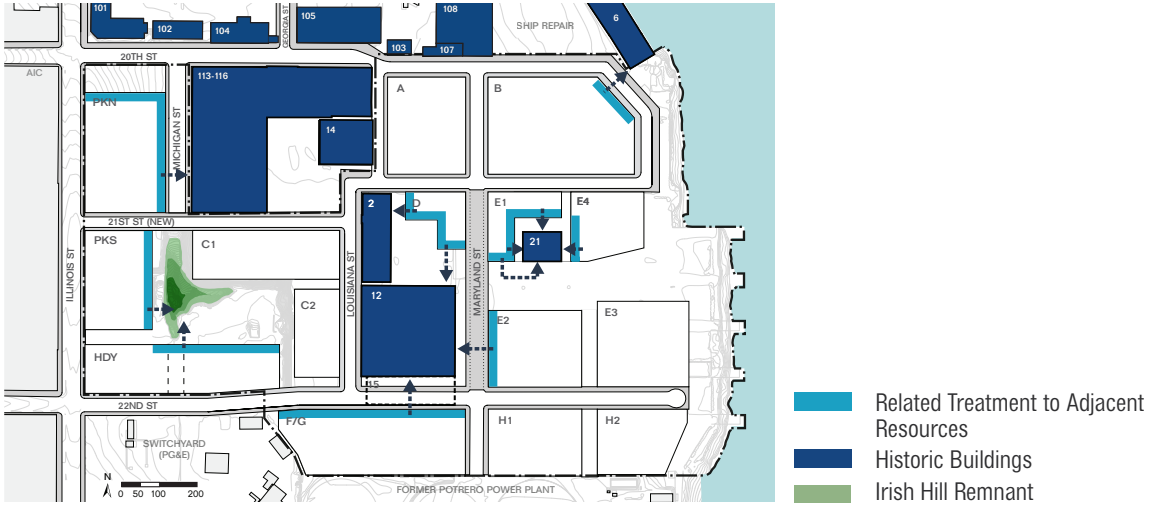


FIGURE 6.15.6: Related Treatment to Adjacent Resources

TABLE 6.15.3: Related Treatment to Adjacent Resources

PARCEL	FAÇADE	BUILDING
B	Northeast	Building 6
D	West and South	Buildings 2 and 12
E1	East (partial) and South	Building 21
E4	West (partial)	Building 21
E2	West	Building 12
F/G	North	Building 12 or Building 15 structural frame
PKN	East and North	Buildings 113-116
PKS	East	Irish Hill Remnant
HDY	North (partial)	Irish Hill Remnant



Bay Rhythm and Vertical Modulation
Maccallen Building, Boston, MA



Alignment with Key Datum
25 Bond Street, New York, NY



Material Grain
Art Stable, Seattle, WA

FIGURE 6.15.7: Historic References

S6.15.6 **LIMITED FAÇADE MATERIALS.** The following materials shall be limited on façades adjacent to cultural resources, as defined in Figure 6.15.6, and prohibited on the north and west façades of Parcel A and on the north façade of Parcel C1.

- Bamboo wood;
- Wood resin panels or high-density engineered wood panels;
- Smooth, flat glass curtain wall;
- Coarse-sand finished stucco;
- Highly reflective glazing and materials.

Building façades finished entirely with continuous stucco, not including fenestration, are not permitted. Stucco shall be used in combination with other permitted building materials only.

Limited façade materials are permitted to be used only as tertiary or accent elements, and not the primary or secondary material of any façade.

S6.15.7 **PROHIBITED FAÇADE MATERIALS.** The following materials are prohibited on all façades adjacent to cultural resources, as defined in Figure 6.15.6.

- Vinyl planks and siding;
- Non-commercial and non-industrial façade materials, such as vinyl, artificial stone, and fiberglass.

Additionally, the materials listed in S6.15.6 are prohibited on the north and west façades of Parcel A and on the north façade of Parcel C1.

Guidelines

G6.15.1 **IRISH HILL.** At least one view of the remnant of Irish Hill should be preserved for new construction buildings on Parcels PKS and HDY. Building designs should relate and orient to and around the remnant through massing and modulation strategies.

G6.15.2 **MATERIALITY.** Due to their location adjacent to cultural resources, buildings on Parcels D and E1 should incorporate at least one materiality strategy (as defined in S6.18.8) for a minimum of 20 percent of each building's overall façades.

6.16 BIRD-SAFE CONTROLS

The purpose of this section is to establish Bird-Safe Standards for new building construction and replacement façades to reduce bird mortality from circumstances that are known to pose a high risk to birds and are considered to be "bird hazards."

Standards

S6.16.1 BIRD-SAFE GLAZING TREATMENT. Bird-safe glazing treatment shall include fritting, netting, permanent stencils, frosted glass, exterior screens, physical grids placed on the exterior of glazing or UV patterns visible to birds. To qualify as bird-safe glazing treatment vertical elements of window patterns shall be at least 1/4 inch wide at a maximum spacing of four inches or horizontal elements at least 1/8 inch wide at a maximum spacing of two inches. For further details, see Standards for Bird-Safe Buildings document issued by the San Francisco Planning Department.

S6.16.2 FEATURE-RELATED STANDARDS. Feature-related standards shall apply to any features listed herein that occur within the first 60 feet of a building, measured from grade: free-standing glass walls, wind barriers, skywalks, balconies, and greenhouses on rooftops that have unbroken glazed segments 24 square feet and larger in size. Such building elements shall treat 100 percent of the glazing with bird-safe glazing treatment.

S6.16.3 LOCATION-RELATED STANDARDS. Location-related standards shall apply to the first 60 feet, measured from grade, of façades fronting Irish Hill Playground and within 300 feet of the Bay facing the water, as indicated in Figure 6.16.1. Such locations shall treat a minimum of 90 percent of the glazing in the subject area with bird-safe glazing treatment. Subject façades shall also minimize lighting. Lighting shall be shielded, no uplighting shall be used, and event searchlights shall be prohibited immediately adjacent to subject façades.

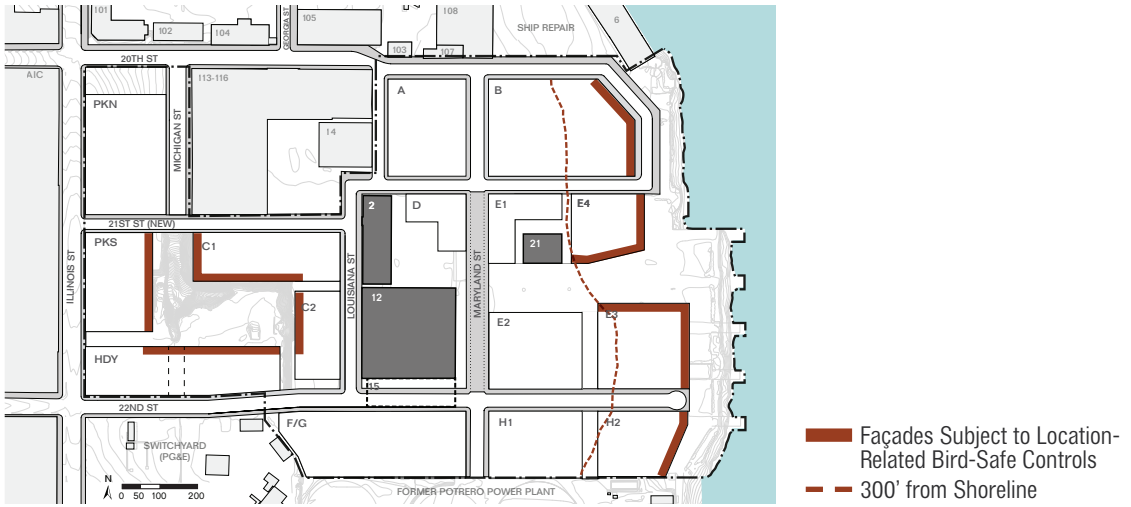


FIGURE 6.16.1: Bird-Safe Controls

S6.16.4 EXCEPTION FOR HISTORIC BUILDINGS. Existing features of historic buildings shall not be subject to Bird-Safe Controls specified herein. Treatment of replacement glass façades for Buildings 2, 12, and 21 shall conform to Secretary of Interior Standards for Rehabilitation of Historic Properties. If any replacement or new materials should trigger feature-related standards, bird-safe glazing treatment shall utilize methods that do not conflict with the preservation and expression of the historic structure.

CONSIDERATIONS

- Reversible treatment methods such as netting, glass films, grates, and screens are recommended. Netting or any other method demonstrated to protect historic buildings from pest species that meets the specifications for Bird-Safe glazing treatment stated above also may be used to fulfill the requirement.

6.17 MID-BLOCK PASSAGE CONNECTORS

Some mid-block passages within the Project permit building massing at upper levels to span across the width of a mid-block passage. These mid-block passage connectors are subject to the following standards and guidelines. See Section 4.4 Mid-Block Passages for more information on the location and dimensions of mid-block passages. Mid-block passages provided for any non-required locations within development parcels shall not be subject to the controls in this section.

◢ Standards

S6.17.1 **CONNECTOR DESIGN.** Built elements above mid-block passages (connectors) shall be designed to be visually distinct from the adjoining building(s) they connect, as seen from any given street frontage, to provide visual relief in the architecture and massing.

Passages must be well-lit and have clear signage and wayfinding. Built elements over passages shall incorporate design features such as accent lighting, material differentiation, and opportunities for artwork.

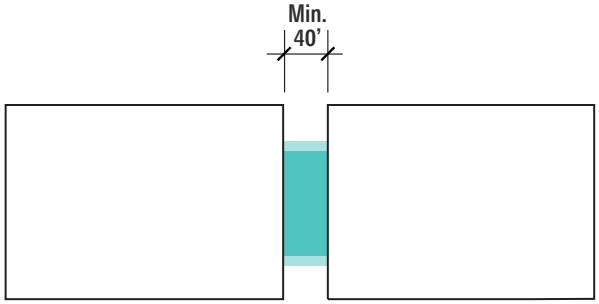
S6.17.2 **CONNECTORS LOCATIONS.** Building connectors in required mid-block passage locations are permitted only for commercial buildings. Building connectors above required mid-block passages are permitted in the following locations, as shown on Figure 4.4.1:

- Between Illinois Street and Maryland Street, South of 22nd Street (PG&E and F/G);
- Between 22nd Street and Irish Hill Playground (HDY); and
- Between Maryland and the Waterfront, South of 22nd Street (H1/H2).

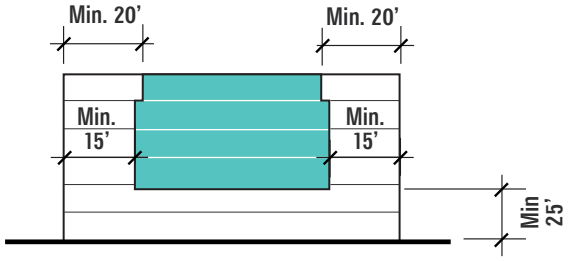
S6.17.3 **CONNECTOR DIMENSIONS.** A connection between buildings can be expressed either as a distinct element inset between adjacent structures or a horizontal element that sits atop the adjacent structures, as perceived from a given street frontage.

All floors of building connections above mid-block passages shall comply with the dimensions described in either S6.17.4 or S6.17.5 in order to differentiate the connector from the adjacent buildings and present a well-designed, distinct architectural moment. Mid-block passages with connectors above must be at least 40 percent open to the sky and have a minimum 40-foot passage width.

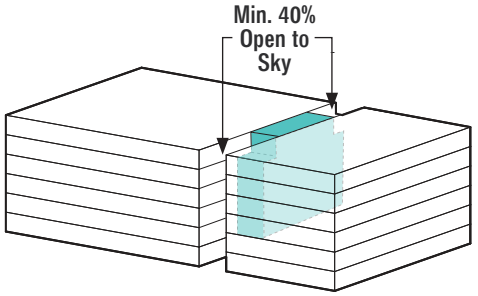
S6.17.4 **INSET BUILDING CONNECTOR.** An inset building connector bridging two buildings shall have a minimum 25-foot clearance between the ground and the connector above, measured vertically from grade to soffit directly below the face of the connector at street side of the passage. The inset shall maintain a minimum of 15-foot offset in plan from the façade perpendicular to the mid-block passage for all connector floors. At the top floor, the inset shall maintain a minimum of an additional five-foot offset, so as to be out of view from the street. See Figure 6.17.1.

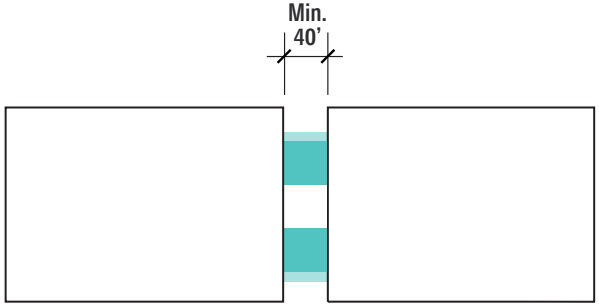


Centered Inset Building Connector - Plan

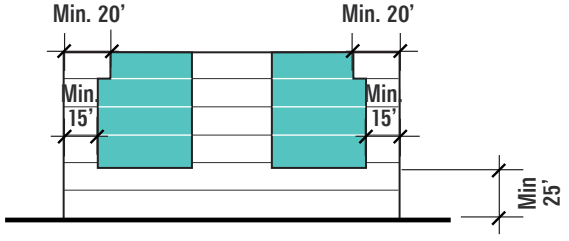


Centered Inset Building Connector - Section





Open to Sky Inset Building Connector - Plan



Open to Sky Inset Building Connector - Section

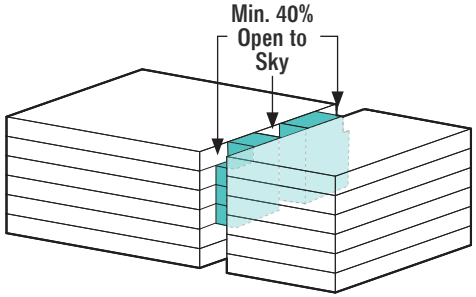


FIGURE 6.17.1: Illustrative Inset Building Connectors

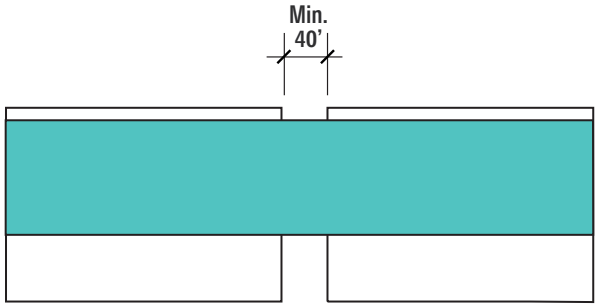
S6.17.5 **HORIZONTAL BUILDING CONNECTOR.** A horizontal building connector shall maintain a minimum 40-foot clearance between the ground and the connector above, measured vertically from grade to soffit directly below the face of the connector at street side of the passage, and a minimum five-foot offset in plan between the horizontal connector and the base volume of the building.

The elongated horizontal proportion shall apply a façade treatment that differentiates the horizontal volume from the other volumes of the building. See Figure 6.17.2.

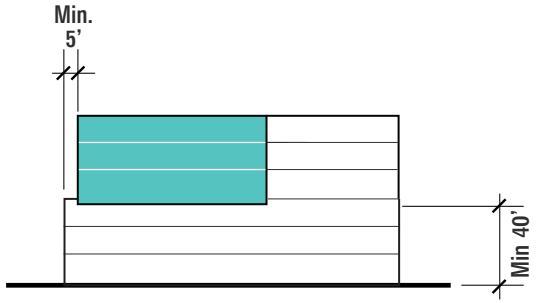
Guidelines

G6.17.1 **CONNECTOR TRANSPARENCY.** Building connectors may not be built with blank frontages along public ROWs, and should be, at minimum, 50 percent transparent along a public ROW.

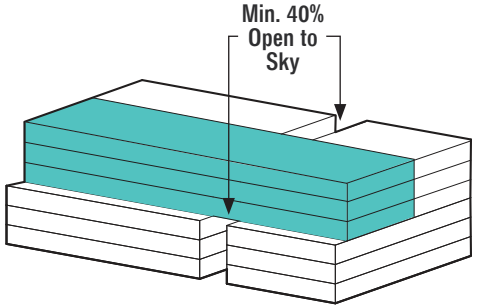
G6.17.2 **CONNECTOR DESIGN.** Connectors should be designed with attention to all surfaces, including the soffit or "façade" created overhead.

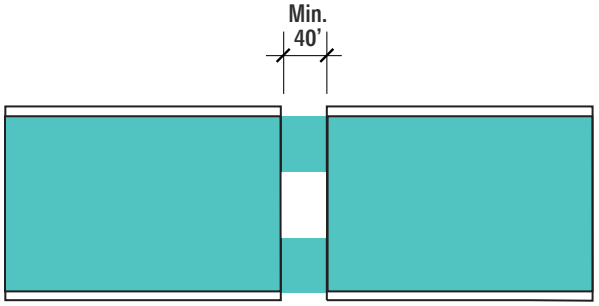


Partial Floorplate Horizontal Building Connector - Plan

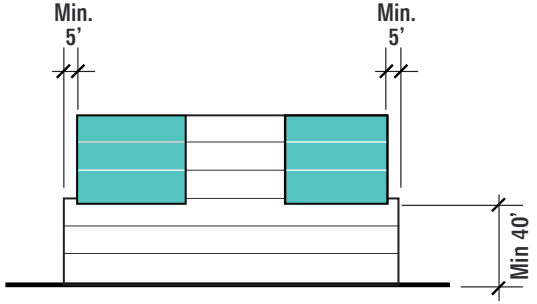


Partial Floorplate Horizontal Building Connector - Section





Horizontal Building Connector with Central Opening to Sky - Plan



Horizontal Building Connector with Central Opening to Sky - Section

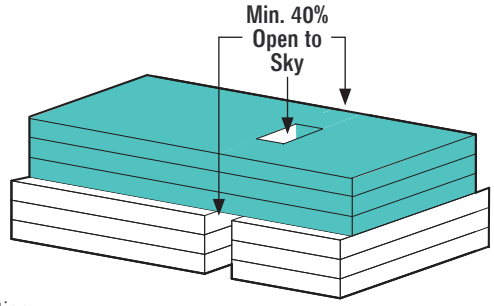
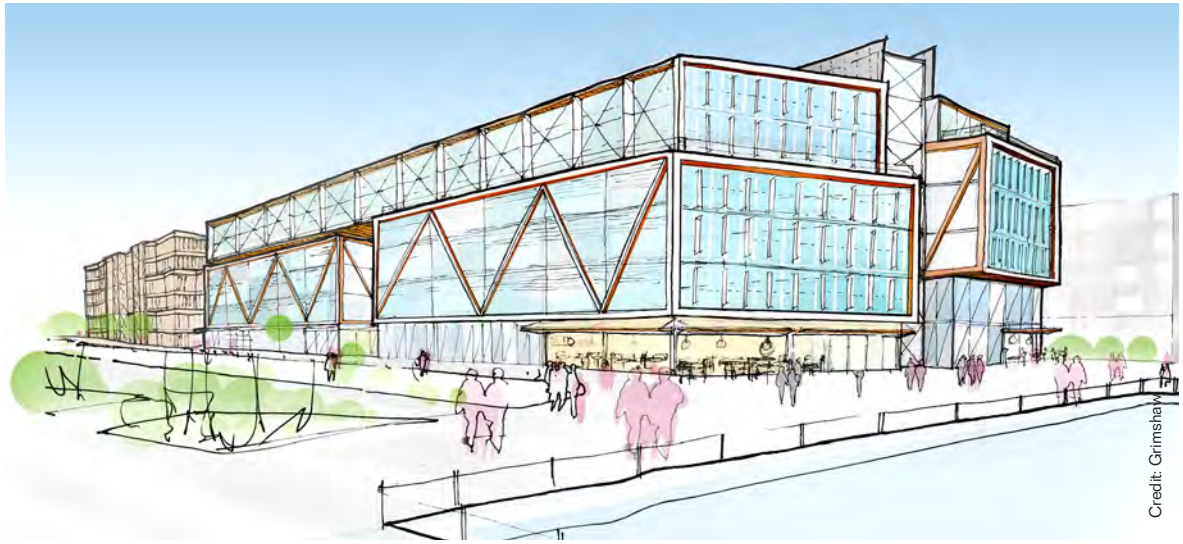


FIGURE 6.17.2: Illustrative Horizontal Building Connectors



Illustrative Inset Building Connector



Illustrative Horizontal Building Connector

FIGURE 6.17.3: Mid-Block Passage Connectors – Inset and Horizontal

CONSIDERATIONS

- To encourage more activity and foot traffic in passages, mid-block passages are encouraged to contain at least one direct connection to the building's lobby.

6.18 LONG FAÇADES IN KEY LOCATIONS

The site is uniquely suited to large footprint buildings and great contrasts of scale. All new façades must meet Project-Wide Standards (Section 6.7 - Section 6.14). In addition, new buildings are subject to further architectural requirements if they are located within a designated key location per Figure 6.18.1 and have a façade length greater than 200 feet.

Key locations are categorized as “Primary” and “Secondary.” Primary façades are those visible new façades greater than 200 feet in length located on 22nd Street or along a public open space.

Secondary façades are new façades over 200 feet located on Illinois Street, Louisiana Street, Maryland Street, Michigan Street, the southern boundary, and the north façade of Parcel B.

As shown in Figure 6.18.2, long façades are further classified by two length categories: façades ranging from 200 to 350 feet in length and façades greater than 350 feet in length.

Cultural resource adjacency standards (Section 6.15) may also be counted as qualifying strategies (as defined in S6.18.6-S6.18.9) to satisfy the minimum requirements set forth for long façades in key locations, provided that they meet the definitions for both. For example, if a subject façade incorporates an upper level setback to relate to historic resources, the façade may also meet the requirements for a massing strategy.

Southern façades of parcels F/G and H1/H2 will be required to comply with long façade requirements set forth in this section contingent on the provision of a mutual 15-foot setback agreed to by the adjacent Potrero Power Plant property owner (see S6.7.4).

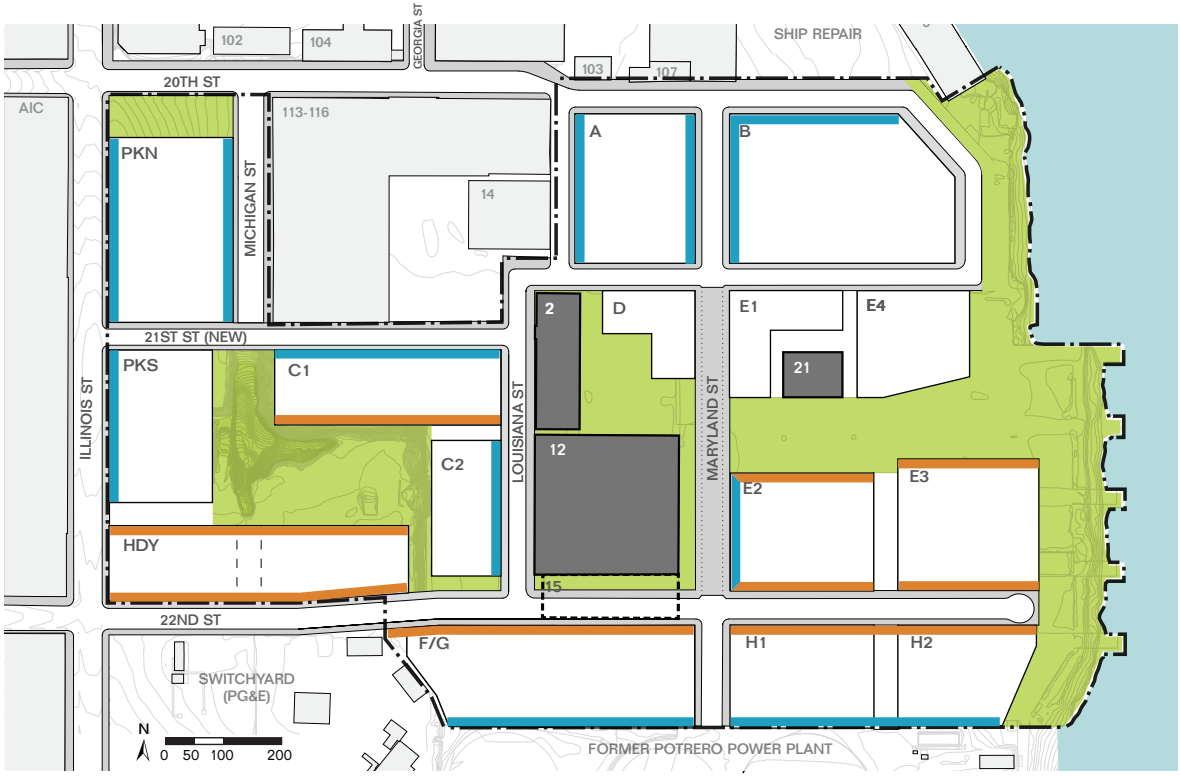


FIGURE 6.18.1: Key Façade Locations

As part of the plan review process, the application must outline how the design of designated long façades meets the additional architectural requirements set forth in this section. See Appendix B for example evaluations and a guide for submittal for future users of this document.

MEASURING KEY FAÇADE LENGTH.

Façade lengths are measured as the maximum plan length along one side of a building, from building profile edge to building profile edge, parallel to the street or property line. The façade length does not include cornices, projections, recesses, or façade planes not parallel with the primary frontage, as shown in Figure 6.18.3.

Façades that do not meet both the threshold for length and location, such as those that are in a key façade location per Figure 6.18.1 but less than 200 feet, are not subject to Section 6.18. For example, if Parcels F and G were constructed as two individual buildings instead of one longer building, F may be a 280-foot long building, required to include four qualifying strategies (as defined in S6.18.6–S6.18.9), and G may be a 170-foot long building, which would not be subject to Section 6.18 requirements.



FIGURE 6.18.2: Key Façades – Example Lengths

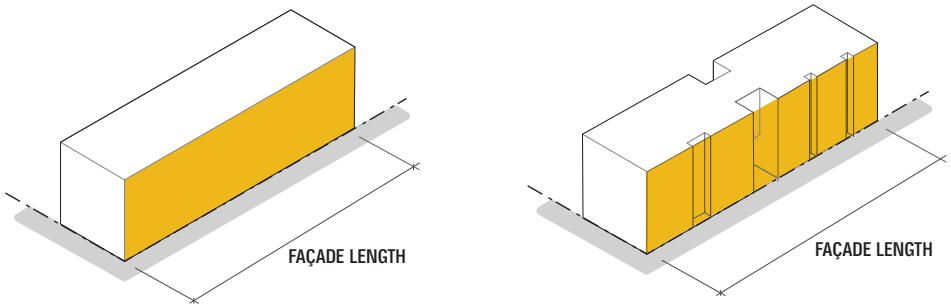


FIGURE 6.18.3: Defining Façade Lengths

Standards

S6.18.1 **KEY FAÇADES 200 – 350 FEET IN LENGTH.** A key façade that is 200 to 350 feet in length (up to but not including 350 feet) shall apply a minimum amount of qualifying strategies to meet the requirement of four total credits.

- Primary Façades: A prerequisite of two massing and/or modulation credits and one materiality credit.
- Secondary Façades: A prerequisite of one massing or modulation credit, and one materiality credit.

S6.18.2 **KEY FAÇADES 350 FEET OR MORE IN LENGTH.** A key façade that is 350 feet or more in length shall apply a minimum amount of qualifying strategies to meet the requirement of six total credits.

- Primary Façades: A prerequisite of two massing and/or modulation credits and one materiality credit.
- Secondary Façades: A prerequisite of one massing or modulation credit, and one materiality credit.

S6.18.3 **DISTRICT GARAGES 200 FEET OR MORE IN LENGTH.** District parking garage façades over 200 feet long and located in key façade locations shall meet a minimum of four total massing, modulation, and/or materiality credits with no prerequisites.

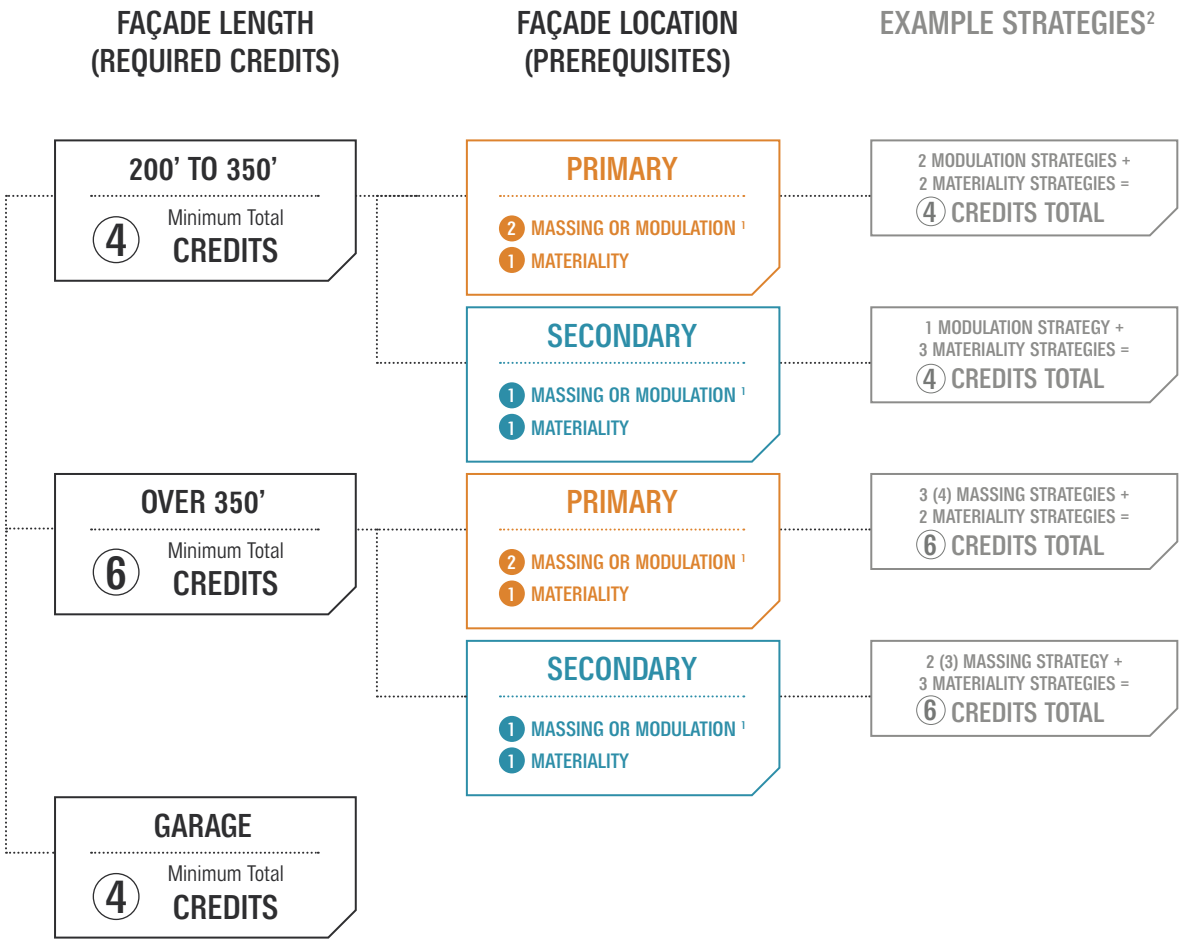
S6.18.4 **CALCULATING CREDITS.** Each qualifying strategy shall be equivalent to one credit. Any qualifying massing or modulation strategy above the prerequisite amount will be counted as two credits. Maximum credits allotted to each strategy in Table 6.18.1 do not account for the double-counting described above. For example, if a secondary façade earns 2 qualifying "Multiple Façade Systems" credits, the first credit would count toward the pre-requisite, and the second credit could count as two credits for a total of three credits.

S6.18.5 **LONG FAÇADE DESIGN SUBMITTAL.** Each long façade shall be required to submit a completed architectural requirements checklist along with relevant documentation to the Planning Department prior to building approvals. See Table 6.18.1 for the requirements checklist and Appendix B for sample completed checklists and required documentation.

TERMS & DEFINITIONS

The following definitions are provided for clarification for the requirements specified in this section:

- **CATEGORIES.** Categories are the highest level grouping of moves, indicating massing, modulation, materiality, or creative design (See S6.18.6, S6.18.7, S6.18.8, and S6.18.9).
- **STRATEGIES.** Strategies are subgroups within categories describing specific architectural approaches. Table 6.18.1 lists the qualifying strategies within each category.
- **CREDITS.** Credits are the accounting system for qualifying strategies. While some strategies have a cap of number of credits, other strategies may garner more than one credit. See S6.18.4 Calculating Credits for additional information.
- **PREREQUISITES.** Prerequisites are minimum credits required in each category for a long façade depending on its length and location. Each long façade must meet the minimum number of total required credits including prerequisites.



[1] Any qualifying massing or modulation strategy above the prerequisite amount will be counted as two credits.

[2] Numbers shown in parentheses denote total number of credits after double counting massing and modulation strategies beyond prerequisite amounts.

FIGURE 6.18.4: Key Long Façades – Architectural Requirements

QUALIFYING CATEGORIES

The standards set forth a series of options or strategies to meet the minimum architectural requirements per Figure 6.18.4. Requirements may be fulfilled by combining different approaches, the details of which are defined as Qualifying Strategies in S6.18.6 through S6.18.9.

The goal of this system of controls is to avoid a "one-size-fits-all" quantitative approach. Instead, it provides flexibility, promotes creativity, encourages thoughtful and contextual design, and incentivizes investment in quality materials and façade treatment at key locations. Strategies should be employed holistically with a goal of integration of multiple strategies to avoid a patchwork effect wherein multiple strategies appear independently.

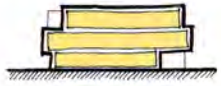
The massing and architectural requirements for Long Façades in Key Locations are classified in four categories: Massing; Modulation; Materiality; and Creative Design.

LARGE ARCHITECTURAL SCALE STRATEGY ⟷ FINE GRAIN ARCHITECTURAL STRATEGY



MASSING

Massing strategies are large, urban-scale setbacks, projections, and interventions that are ten feet or more in depth. Massing strategies activate public space, respond to historic context, offer improved views and sun exposure, and provide massing variation along the length of the façade.



MODULATION

Modulation strategies are occupiable façade designs that are generally less than ten feet in depth. Modulation strategies involve creating volumetric shifts that result in proportional parts—or "modules"— in an architectural façade. Unlike massing strategies, modulation strategies involve smaller scale shifts in the building envelope as opposed to larger projections, setbacks, or cuts in the façade. These strategies may be rhythmic or asymmetric.

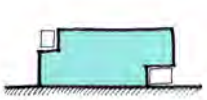


MATERIALITY

Material strategies are non-occupiable features and treatments within the thickness of a façade plane–typically systematic expressions of material construction, material craft, or material pattern. Materiality strategies incentivize use of preferred materials, treatments, and assembly methods. Material applications are encouraged to relate to massing or modulation strategies to create an integrated façade system.

CREATIVE DESIGN

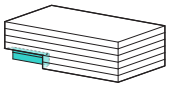
In addition to the identified qualifying strategies, long façades may earn a Creative Design credit for design solutions that significantly improve the pedestrian experience along a long façade.



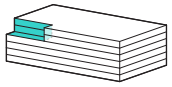
MASSING

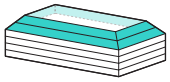
Setbacks

Base Setback

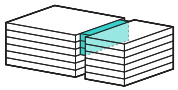


Upper Level Setbacks

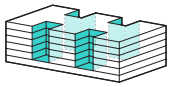


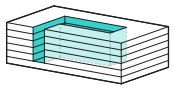


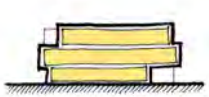
Building Over Mid-Block Passages



External Courtyards

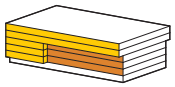


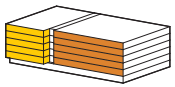




MODULATION

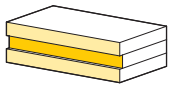
Multiple Façade Systems



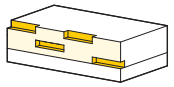


Volumetric Façade Articulation

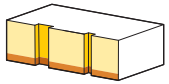
Horizontal Shift



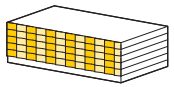
Subtraction/ Addition



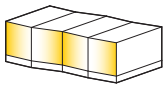
Vertical Shift



Bays



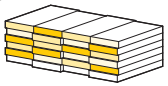
Push/ Pull



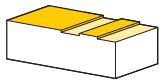
Balconies

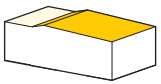


Array



Roofline Modulation







MATERIALITY

Preferred Façade Materials



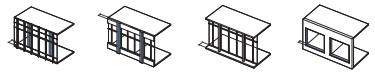
Wood Siding | Glass | Corrugated Metal | Concrete | Slate Tiles | Precast Brick Panels | Metal Panels

Material Treatment

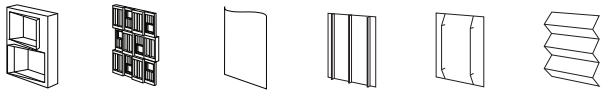
Weathered, Sandblasted, Scored | Patterned, Printed, Laminated | Brushed, Scored, Woven | Intumescent Coating, Extruded, Sandblasting | Polishing, Enamelled, Plated | Painted, Printed

Façade Depth

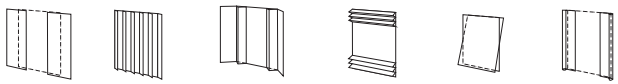
Building Structure Articulation



Change In Plane



Shading



CREATIVE DESIGN

Exemplary Design

Craft, Pattern Assembly | Manipulation of Scale | Dynamic and Performative | Externalized and Public

FIGURE 6.18.5: Summary of Façade Design Strategies by Category

TABLE 6.18.1: Key Long Façades – Architectural Requirements Checklist

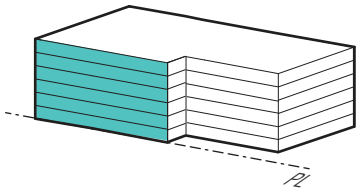
		FAÇADE LENGTH AND LOCATION TYPE				
		200 TO 350 FEET		350+ FEET		GARAGE
	MAX. CREDITS	PRIMARY	SECONDARY	PRIMARY	SECONDARY	
QUALIFYING CREDITS: MASSING AND MODULATION (1 credit each, worth 2 credits for every additional beyond prerequisite amount)						
Prerequisite minimum combination of massing OR modulation strategies		(2)	(1)	(2)	(1)	(0)
MASSING						
Setbacks	2					
Building Over Mid-Block Passages	Unlimited					
External Courtyards	Unlimited					
MODULATION						
Multiple Façade Systems	2					
Volumetric Façade Articulation	Unlimited					
Roofline Modulation	1					
QUALIFYING CREDITS: MATERIALITY (1 credit each, 1 credit for every additional beyond prerequisite amount)						
Prerequisite minimum materiality strategy		(1)	(1)	(1)	(1)	(0)
Preferred Materials	2					
Material Treatment	Unlimited					
Façade Depth	Unlimited					
Shading	Unlimited					
QUALIFYING CREDITS: CREATIVE DESIGN (1 CREDIT)	1					
TOTAL CREDITS REQUIRED		(4)	(4)	(6)	(6)	(4)
TOTAL CREDITS PROVIDED						
Does this project meet minimum requirements? (Y/N)						

HOW TO MEASURE

The standards for each long façade design require quantification of each strategy in order to qualify for required credits. The following section describes key measurement terms and concepts for consistency in method of measurement.

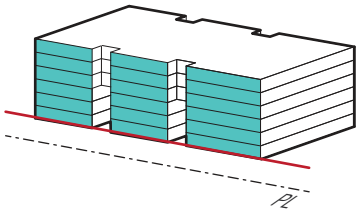
- A qualifying massing or roofline modulation strategy is measured by dividing the qualifying numerator (length) by the baseline denominator (length).
- Modulation (except roofline modulation) and materiality strategies are measured by dividing the qualifying numerator (area) by the baseline denominator (area).
- All façades are permitted to include the cumulative area of all features within a given qualifying strategy to calculate the number of credits achieved; however multiple strategies within a given category (e.g. massing) may not be combined to reach the minimum required credit. See Section B.1 for example illustrations on cumulative measurement.

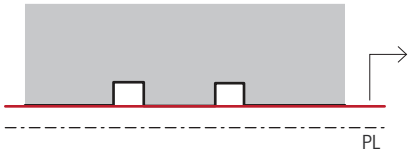
Table 6.18.2 describes the method of measurement for Massing, Modulation and Materiality. See Appendix B for example measurements and additional clarifications.





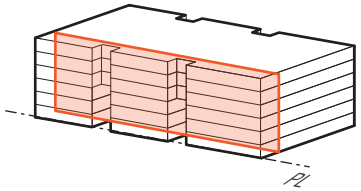
Plane of Measure: Default at Property Line (PL)





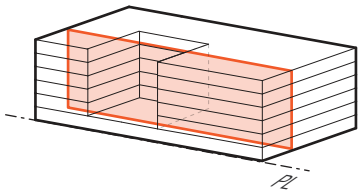
Plane of Measure: Exception for Setback Buildings

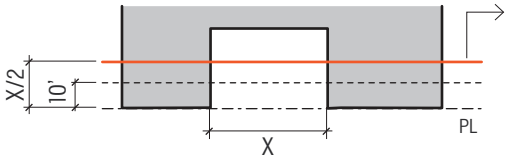
FIGURE 6.18.6: Plane of Measure





Limit of Measure: Default at 10 feet depth from Plane of Measure





Limit of Measure: Exception for Wide Courtyards

FIGURE 6.18.7: Limit of Measure

- **PLANE OF MEASURE.** Each long façade has its own Plane of Measure, from which the depth of all strategies will be measured. The Plane of Measure may be at the property line of a building if the majority of the long façade aligns with the property line, or at the primary façade plane if the majority of the long façade is set back from the property line. See Figure 6.18.6.

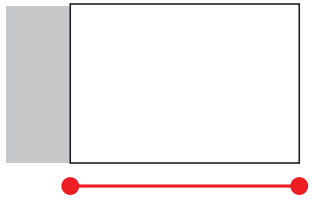
- **LIMIT OF MEASURE.** The Limit of Measure is parallel to the Plane of Measure and defines the depth within which surfaces may contribute towards a qualifying credit. The Limit of Measure is set at a depth of 10 feet for all long façades, with the following exception permitted for long façades with courtyards: if a long façade has a courtyard wider than 20 feet in width, the Limit of Measure may be set at a distance equivalent to half of the width of the courtyard. See Figure 6.18.7.

- **BASELINE DENOMINATOR (LENGTH).** Each long façade must establish its denominator against which qualifying strategies will be measured. For massing and roofline modulation strategies, the denominator shall be the total length of the façade, as measured from building profile edge to building profile edge. This length must include any portions with passages with connectors above, but may exclude open-air passages that bisect the building. See Figure 6.18.8.

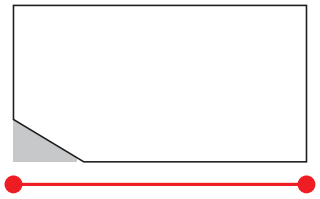
- **BASELINE DENOMINATOR (AREA).** For modulation (except roofline modulation) and materiality strategies, the denominator shall be the area of the building profile. This area may exclude mechanical equipment, penthouses, and areas of any passages that bisect the building. See Figure 6.18.9.

- **QUALIFYING NUMERATOR (LENGTH).** Each architectural strategy shall be measured cumulatively to calculate the qualifying numerator. Massing and roofline modulation strategies are intended to enhance the experience of a long façade along its length, and are thus measured in linear feet. The numerator shall be the length of the portion of the façade that meets the minimum required dimensions noted in Table 6.18.3 and Table 6.18.4. For examples of measuring qualifying numerators, see Appendix B.

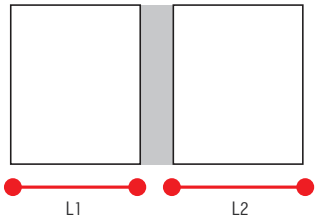
- **QUALIFYING NUMERATOR (AREA).** Modulation (except roofline modulation) and materiality strategies are measured in surface area in order to incentivize depth and visual interest. The numerator is measured as the cumulative surface area as a result of "unfolding" the façade plane and including all exposed contributing surfaces of all architectural elements (including rooftop or mechanical screening features), up to the Limit of Measure. Qualifying contributing surfaces exclude external corners of a façade and roof surfaces. Ground floor treatment areas may be included in the qualifying numerator for multiple façade systems and materiality strategies, but must be excluded for volumetric façade articulation strategies. The numerator shall be the area of the portion of the façade that meets the minimum required dimensions noted in Table 6.18.4 and Table 6.18.5. For examples of measuring qualifying numerators, see Appendix B.



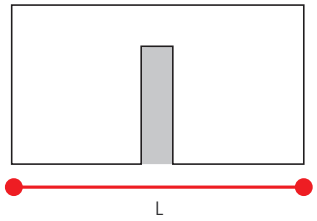
Plan – Exclude through passages



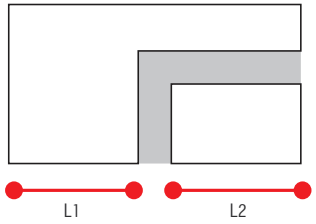
Plan – Include length of setback areas



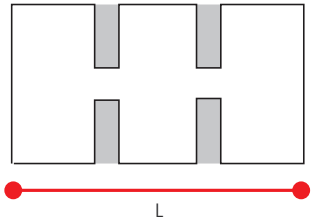
Plan – Exclude through passages



Plan – Include length of connectors

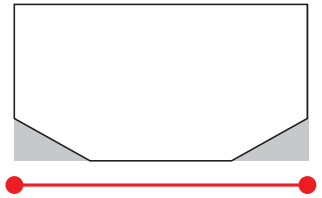


Plan – Exclude through passages

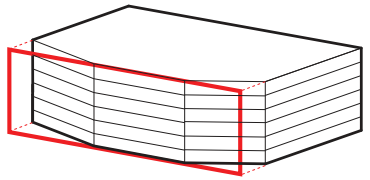


Plan – Include length of connectors

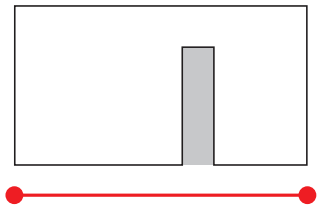
FIGURE 6.18.8: Baseline Denominator (Length)



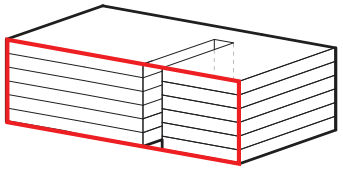
Plan – Include angled portions of façade



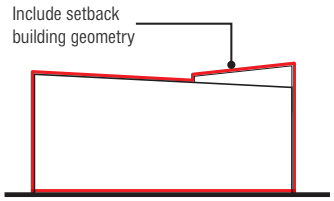
Axon – Include angled portions of façade



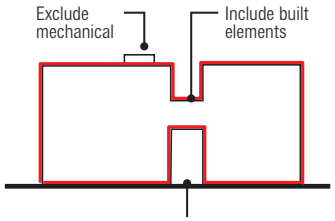
Plan – Exclude surfaces perpendicular to façade plane



Axon – Exclude surfaces perpendicular to façade plane



Elevation



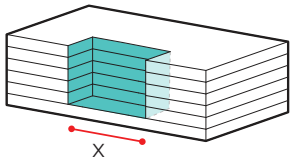
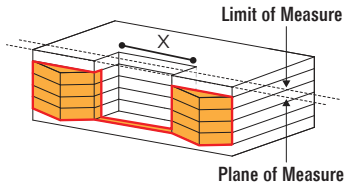
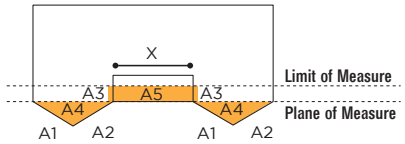
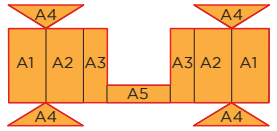
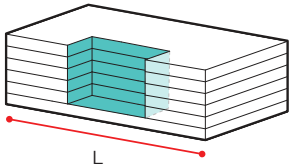
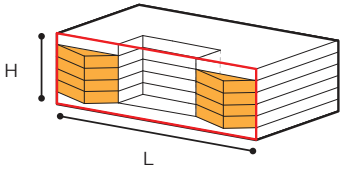
Elevation

FIGURE 6.18.9: Baseline Denominator (Area)

MEASUREMENT OVERVIEW

Table 6.18.2 summarizes the overarching principles and dimensional criteria for measuring qualifying strategies by each category. See Appendix B for further details on measuring qualifying numerators.

TABLE 6.18.2: Measurement Summary

	MASSING	MODULATION	MATERIALITY
Typical Depth	X≥10'	9"≤X<10'	Within façade
Occupiable	Occupiable		Non Occupiable
Calculation Method	Qualifying numerator divided by the Baseline denominator		
Unit of Measurement	Length (Linear Feet)	Area (Square Feet)	
Qualifying Numerator	 Length of elevation where strategy is applied (X)	  Plan  Unfolded Elevation All surfaces where the strategy is applied in elevation and depth up to the Limit of Measure.	
Baseline Denominator	 Length of building profile (L)	 Area of building profile (H*L)	
Glazing	Included	Included	Excluded

STRATEGY REQUIREMENTS BY CATEGORY

The following pages describe the intent and required dimensions of each qualifying strategy within the categories of massing, modulation, materiality and creative design. This section also establishes the maximum number of credits that may be awarded to any given strategy.

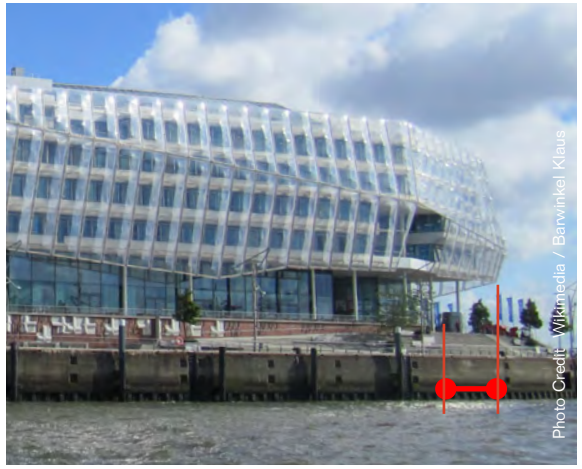
MASSING STRATEGIES

Qualifying massing strategies are:

- **BASE AND UPPER LEVEL SETBACKS.** A successful base setback expands the public realm adjacent to the project or serves as an extension of active interior use of the building. All base setbacks must relate to a publicly accessible programmed space. Upper level projections add visual variety to the building façade and subdivide the building volume as experienced from the street.

- **MID-BLOCK PASSAGES.** Mid-block passages are pedestrian or vehicular paths that may have a building connector on upper levels. They subdivide a long building façade and create an additional option for circulation.

- **EXTERNAL COURTYARDS.** External courtyards create open spaces that meet the public realm. They serve to subdivide and provide variety along a long building façade.



Base Setback with Active Programming
Unilever HQ, Hamburg, Germany



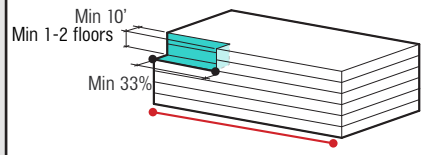
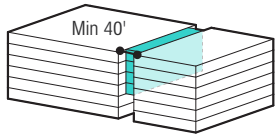
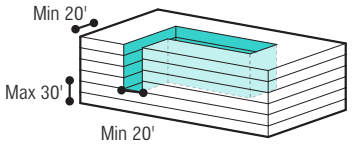
Mid-Block Passage/ Façade Subdivision
Darling Quarter, Sydney, Australia

FIGURE 6.18.10: Examples of Massing Strategies

Standards

S6.18.6 **MASSING: QUALIFYING STRATEGIES.** To qualify for a massing credit, a façade shall comply with the minimum dimensions outlined in Table 6.18.3.

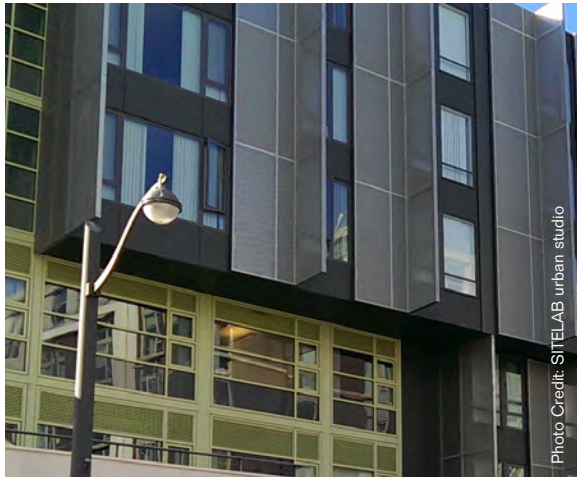
TABLE 6.18.3: Qualifying Massing Strategies Overview

	MIN. DIMENSIONS	QUALIFYING EXAMPLE	CALCULATION METHOD	% MIN. REQUIRED	MAX. CREDITS	RELATED STANDARDS
Setbacks	10' depth (D) 2 Story H. for Commercial 1 Story H. for Residential		Qualifying Numerator (Length) ÷ Baseline Denominator (Length)	33% Length	2	Section 6.8 Streetwall S6.7.1
Building Over Mid-Block Passages	40' width (W) Setback controls per Section 6.17		Minimum Width of Strategy (LF)	-	Unlimited	Section 4.4 Section 6.17
External Courtyards	20' W. 20' D. Max. 30' H. from ground		Minimum Dimensions of Strategy (LF)	-	Unlimited	Section 6.12 Residential Usable Open Space

MODULATION STRATEGIES

Qualifying modulation strategies are:

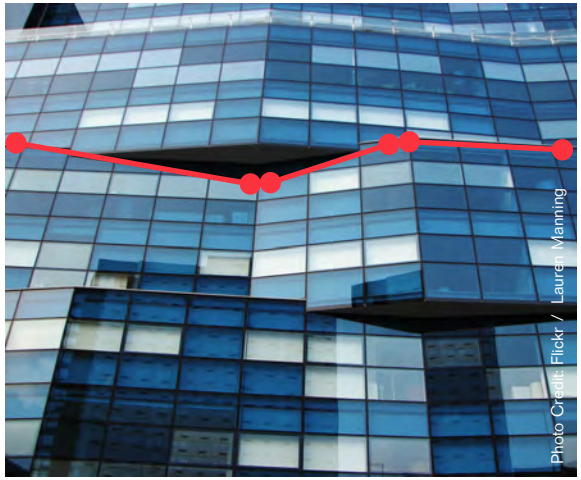
- **MULTIPLE FAÇADE SYSTEMS.** Multiple façade systems describes a façade differentiated into at least two distinctly expressed volumes. This differentiation entails contrasting materials, articulation, or fenestration pattern aligned with a volumetric shift. The volumetric façade shift may include changes in the façade plane through reveals, facets and shifts. Paint or coatings do not qualify as contributing to multiple façade systems.
- **VOLUMETRIC FAÇADE ARTICULATION.** Volumetric façade articulation is a variation in the façade plane through modulation of the building envelope or occupiable space. The application of volumetric façade articulation includes, but is not limited to, the following: horizontal shifts; vertical shifts; faceting; subtraction; shifted modules; bay or sawtooth windows; and balconies.
- **ROOFLINE MODULATION.** Roofline modulation is variation or change in roof configuration of an occupiable interior space. Examples include sloped roofs, expressed skylights, and monitors or sawtooth roofs.



Multiple Façade Systems
1180 Fourth Street, San Francisco, CA



Multiple Façade Systems
School of Pharmacy, University of Connecticut, CT



Volumetric Façade Articulation
Chelsea Modern Residences, New York, NY



Roofline Modulation
ICA, Boston, MA

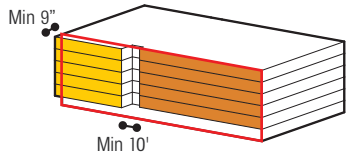
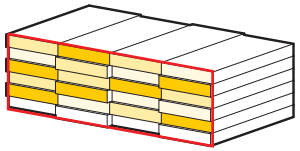
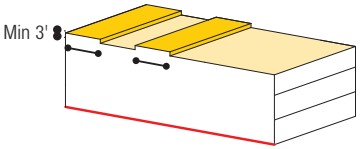
FIGURE 6.18.11: Examples of Modulation Strategies

Standards

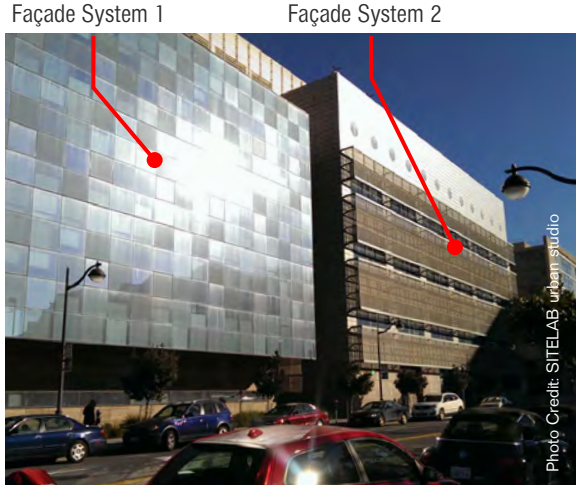
S6.18.7 **MODULATION: QUALIFYING STRATEGIES.** To qualify for a modulation credit, a façade shall comply with minimum dimensions outlined in Table 6.18.4, with the following additional considerations. Some strategies are limited to a maximum number of credits as outlined.

Multiple Façade Systems: For façades with two façade systems, no single façade system shall apply to less than 20 percent of the façade to qualify. For façades with three or more façade systems, at least two façade systems must be a minimum of 20 percent of the façade to qualify. Portions of the façade that do not meet the minimum 20 percent, such as narrow breaks or recesses may not contribute to this strategy. To qualify for this strategy, each façade system must vary from the other through a change in plane with a minimum of nine inches in depth, and 10 feet in length.

TABLE 6.18.4: Qualifying Modulation Strategies Overview

	MIN. DIMENSIONS	QUALIFYING EXAMPLE	CALCULATION METHOD	% MIN. REQUIRED	MAX. CREDITS	RELATED STANDARDS
Multiple Façade Systems	Change in Plane: 9" D. 10' W. Separation		Qualifying Numerator (Area) ÷ Baseline Denominator (Area)	20% Area	2	-
Volumetric Façade Articulation	Min. 9" D. 15'-35' W. (Comm) 10'-30' W. (Resi) 1-Story H.		Qualifying Numerator (Area) ÷ Baseline Denominator (Area)	33% Area	Unlimited	Streetwall S6.7.1, Occupiable Projections S6.10.3
Roofline Modulation	3' H.		Qualifying Numerator (Length) ÷ Baseline Denominator (Length)	20% Length	1	-

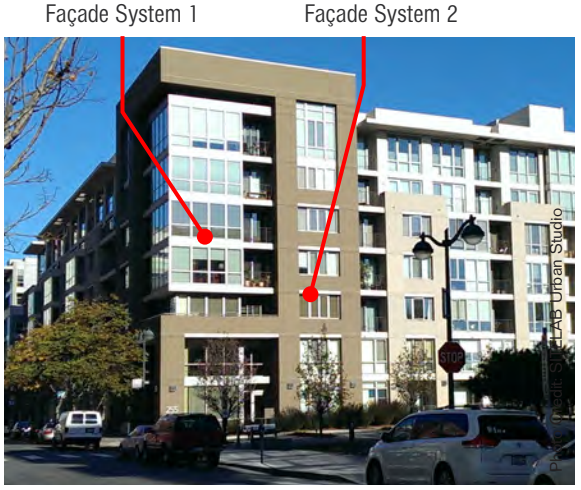
MULTIPLE FAÇADE SYSTEMS



Smith Cardiovascular Research Building, San Francisco, CA



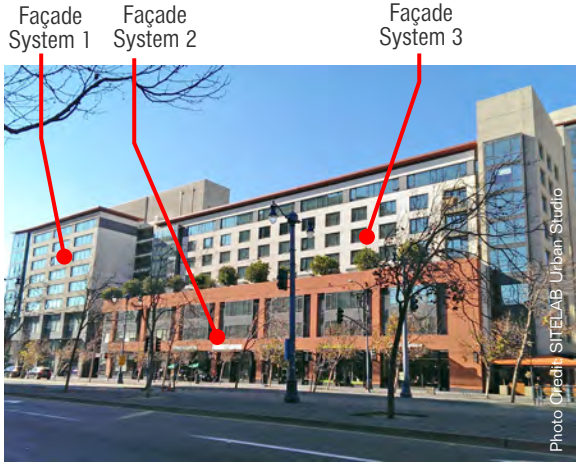
The Yards, Washington, D.C.



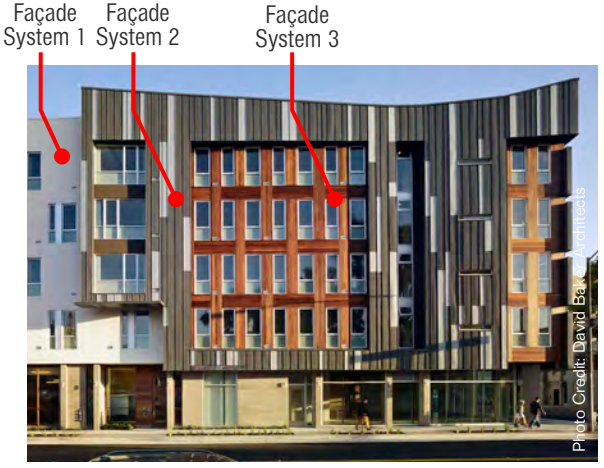
255 Berry, San Francisco, CA



Richardson Apartments, San Francisco, CA



The Beacon, San Francisco, CA

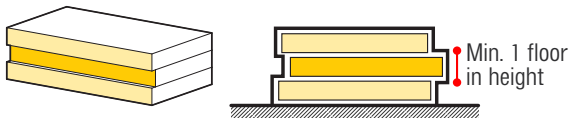


Richardson Apartments, San Francisco, CA

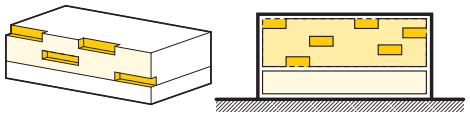
FIGURE 6.18.12: Examples of Multiple Façade Systems

VOLUMETRIC FAÇADE ARTICULATION

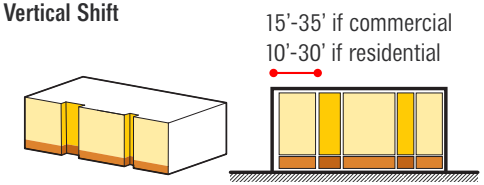
Horizontal Shift



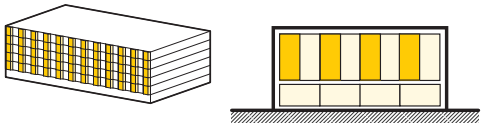
Subtraction/ Addition



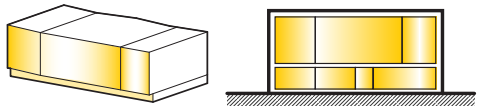
Vertical Shift



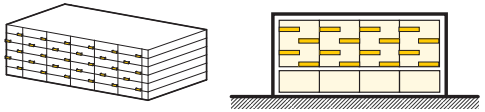
Bay Windows



Push/ Pull/ Faceted



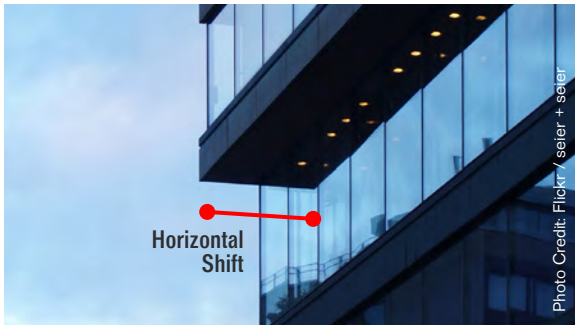
Balconies



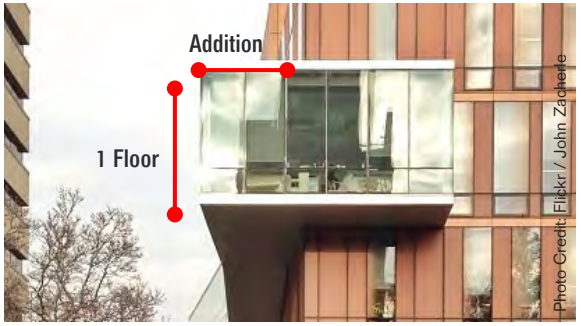
Modules



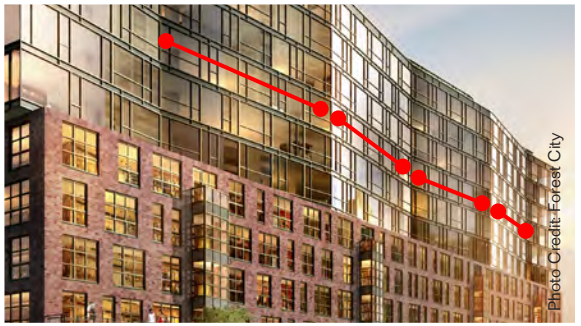
FIGURE 6.18.13: Selected Volumetric Façade Articulation Strategies



Horizontal Shift
Kulturehuset, Stockholm, Sweden



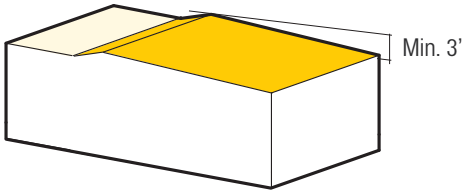
Addition
Diana Center, Boston, MA

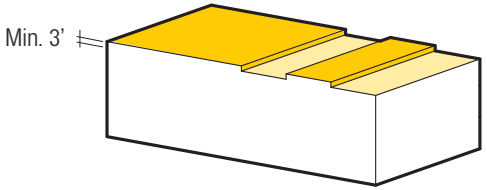


Faceted
Arris, Washington, D.C.

FIGURE 6.18.14: Examples of Volumetric Façade Articulation Strategies

ROOFLINE MODULATION







Roofline
The Yards, Parcel 0, Washington, D.C.



Roofline
Columbia Park, San Francisco, California

FIGURE 6.18.15: Examples of Roofline Modulation Strategies

MATERIALITY STRATEGIES

Qualifying materiality strategies are:

- **PREFERRED MATERIALS.** Preferred façade materials have been selected to enhance building quality and durability, and relate to the historic character of the site. Materials that will age well, express their construction, and have an inherent tactility and visual depth are preferred. This does not prohibit the use of other allowable materials, but encourages the use of preferred materials on long façades.
- **MATERIAL TREATMENT.** Material treatment promotes craft and texture that relate to the human scale and the tradition of industrial craft at the site. This strategy applies to the use of treated metal, concrete, stone, glass, composites, and wood materials in order achieve a visible level of texture, formwork, color, and/or relief.
- **FAÇADE DEPTH.** Façade depth creates visual interest through designs that manipulate the façade plane, fenestration, and/or structural systems to create shadows and variation without changing the building's occupiable area.
- **SHADING.** Shading strategies provide an additional layer of expression external to the façade plane. Additive elements such as louvers, brise soleil, architectural fins, and façade framing devices create a rhythm or pattern on the façade plane through physical features and their changing shadows.

Standards

S6.18.8 **MATERIALITY: QUALIFYING STRATEGIES.** To qualify for a materiality credit, a façade shall comply with minimum dimensions outlined in Table 6.18.5. Some strategies are limited to a maximum number of credits as outlined.

Strategies are permitted to fulfill multiple qualifying material strategies in one feature or element. For example, a shading system that utilizes a preferred material can fulfill two qualifying material strategies through shading and preferred materials.

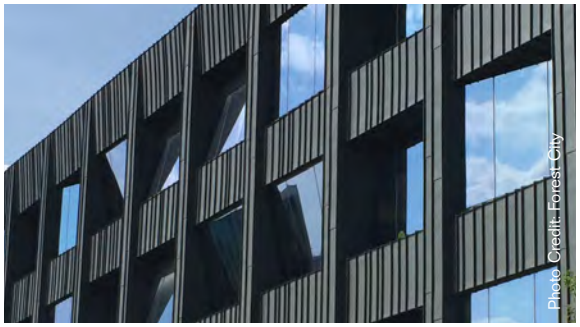
Guidelines

G6.18.1 **MATERIALITY: SCALE.** Panelized systems should be scaled to relate to the human scale, and expanses of large panels should be avoided in favor of a finer grain of panels with articulated seams and reveals.

G6.18.2 **MATERIAL TREATMENT.** If treated glass, composites or plastics are used, a minimum of 20 percent of the surface behind the treated material should be revealed through perforation or other methods.

CONSIDERATIONS

- Where metal panels are used as finish materials, use of pigmented or treated metals, and interesting assembly of metal panels with attention to scale and pattern, is encouraged in order to create visual interest. Busy façade systems that utilize several contrasting materials are discouraged.



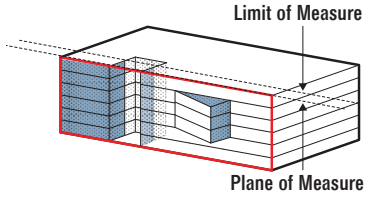
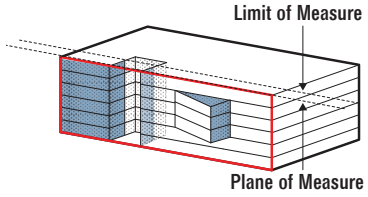
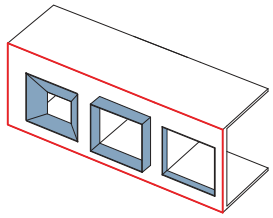
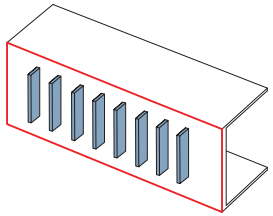
Pigmented Metal Panels
Navy Yard, Philadelphia, PA



Scale and Assembly of Metal Panels
Education Center, Neckarsulm, Germany

FIGURE 6.18.16: Examples of Panelized Systems

TABLE 6.18.5: Qualifying Materiality Strategies Overview

	MIN. DIMENSIONS	QUALIFYING EXAMPLE	CALCULATION METHOD	% MIN. REQUIRED	MAX. CREDITS	RELATED STANDARDS
Preferred Materials	-		■ Qualifying Numerator (Area) ÷ □ Baseline Denominator (Area)	20% Area	2	-
Material Treatment	-		■ Qualifying Numerator (Area) ÷ □ Baseline Denominator (Area)	20% Area	Unlimited	-
Façade Depth	6" Depth		■ Qualifying Numerator (Area) ÷ □ Baseline Denominator (Area)	20% Area	Unlimited	-
Shading	6" Depth		■ Qualifying Numerator (Area)* ÷ □ Baseline Denominator (Area) * Includes all exposed exterior surfaces	20% Area	Unlimited	-

PREFERRED MATERIALS

TABLE 6.18.6: Preferred Materials

METALS	CONCRETE	STONE	EARTHEN	WOOD
Materials that cast shadows, have visual depth, seams, and articulated reveals.	Materials that have texture and articulation	Materials that have texture and articulation	Materials that have an inherent texture, with extruded, cast, or fired materials	Materials that accentuate the human scale, with preference for façades or rain screen panels, louver systems, or accent elements
Examples Include: Weathered or Rusted Steel (treated) Articulated Metal Panels such as standing seam (SSM), shingle, flat panel Copper	Examples Include: Precast with Texture Board-Formed Expressed Joints/ Formwork Bush-Hammered Etched Chiseled	Examples Include: Marble (excluding polished marble) Slate Basalt Sandstone	Examples Include: Terracotta Ceramics Brick	Examples Include: True wood Timber hardwood, Engineered wood products


Fiber - Cement Panels


Brick



Terra Cotta


Wood Louvers

FIGURE 6.18.17: Examples of Preferred Materials

MATERIAL TREATMENT AND APPLICATION OF CRAFT

TABLE 6.18.7: Material Treatment and Application of Craft

METALS	CONCRETE	STONE	GLASS, COMPOSITES, PLASTICS*	WOOD
Metal products that achieve material texture or relief	Concrete construction that expresses joints, cast-in texture, or formwork	Stone materials that give relief and tactility.	Glass, composites or plastics that are textured. Extruded forms are considered acceptable material treatment.	Wood products that add texture and tactility, as well as human scale
Examples Include: Weathering, Burnishing, Sandblasting, Brushing Grinding, Extruding, Weaving, Acid etching, Water jet or laser cutting, Embossing, Perforating, Forming, Hammering	Examples Include: Board-formed concrete Bush hammering Etching Chiselling	Examples Include: Chiseled Bush-hammered	Examples Include: Cast Etched Carved Printed	Examples Include: Grooved Milled Water-jet Laser cut

*Though glass and plastics alone are not "preferred materials," certain treatments of glass and plastics qualify as "material treatments."


Metal - Perforated


Bush Hammered Concrete


Concrete - Formed


Glass - Fritted

FIGURE 6.18.18: Examples of Material Treatment



Inset Windows Create Depth
UC Berkeley Commons, Berkeley, CA



Vertical Shading Elements
Asakusa Cultural Center, Japan



Increased Depth
Lincoln Center, New York, NY

FIGURE 6.18.19: Examples of Façade Depth Strategies



Vertical Blade Louvers
Federal Building, San Francisco, CA

FIGURE 6.18.20: Examples of Shading Strategies

CREATIVE DESIGN CREDIT

In addition to the listed qualifying strategies, a long façade may qualify for a Creative Design credit for the use of unconventional or creative design solutions that contribute significantly to improvement of the pedestrian experience along a long façade. Creative design strategies are not measured against a quantifiable threshold or performance metric, but rather the positive impact of a design strategy, and will be subject to reviewer discretion.

Examples include, but are not limited to:

- Craft, Pattern, and Assembly
    - Interesting pattern or arrangement of façade elements
    - Layered façade system
    - Expression of structure
- Manipulation of Scale
    - Craft and façade articulation
    - Roofline modulation
    - Corner articulation or emphasis
- Dynamic and Performative
    - Operable or adaptable system
    - Interactive or climate-responsive system
- Externalized and Public Functions
    - Occupiable void and massing extrusions
    - Visible or accessible circulation and programmed areas

Standards

S6.18.9 **CREATIVE DESIGN STRATEGY.** To qualify for a creative design credit, a façade shall demonstrate outstanding attention to assembly, craft, articulation, depth, or permeability of the façade that creates visual interest or increases pedestrian engagement through one of the following methods:

- Employ a strategy not identified in S6.18.6, S6.18.7, and S6.18.8.
- Demonstrate exemplary performance in any of the identified qualifying strategies.

Creative design shall be limited to a maximum of one credit per façade.



Green Wall System
One Central Park, Sydney, Australia



Assembly: Layered Façade
Harpa, Reykjavik, Iceland

FIGURE 6.18.21: Examples of Creative Design Strategies



Dynamic Façade System: Operable System
143 Funf Hofe, Munich, Germany



Public Engagement: Performance Area
SFJAZZ, San Francisco



Craft: Art as Façade
The Pearl, Dogpatch, San Francisco



Performative: Green Roof with Public Access
California Academy of Sciences, San Francisco

6.19 WATERFRONT FAÇADES

Since waterfront buildings complement a key public resource and frame the pedestrian experience at the shoreline, additional architectural requirements apply to façades facing the Bay (see Figure 6.2.1 for the location of Waterfront Façades). In addition to the project-wide standards and ground floor priority frontages, the waterfront façade standards serve to reinforce the following waterfront-specific goals:

- Strengthen the public nature of the waterfront park through adjacent ground floor treatments and uses;
- Provide views of the Bay from the buildings;
- Maximize sunlight on adjacent open spaces;
- Promote pedestrian scale on the ground floor of the waterfront; and
- Emphasize an industrial building scale that relates to the site's shipyard history and character.

Required massing strategies are specific to each waterfront façade and draw on the qualifying strategies outlined in Section 6.18.

Waterfront façades shall be required to submit a completed architectural checklist (Table 6.18.1), along with relevant documentation to the Planning Department for approvals. See Appendix B for samples of required documentation.

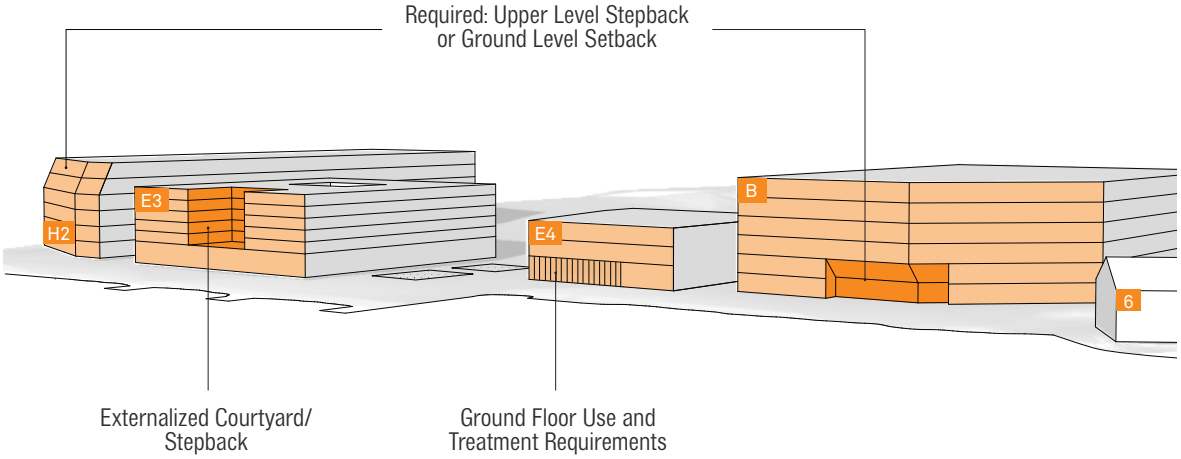


FIGURE 6.19.1 Illustrative Massing Sample

*Note: Modulation and/or materiality strategies required on all waterfront façades

Standards

S6.19.1 **ALL WATERFRONT FAÇADES: MODULATION AND MATERIALITY.** Waterfront façades of parcels B, H2, E3, and E4 shall apply the following minimum modulation and/or materiality strategies in addition to the parcel specific additional requirements identified in S6.19.2-S6.19.4:

- The waterfront façade of buildings on parcels B, H2, and E3, shall apply at minimum two modulation or materiality strategies in any combination.
- The waterfront façade of a building on parcel E4 shall apply at minimum two materiality strategies.

Metrics for qualifying strategies are described in Section 6.18. Requirements for material selection, as noted in Section 6.9, also apply for waterfront façades.



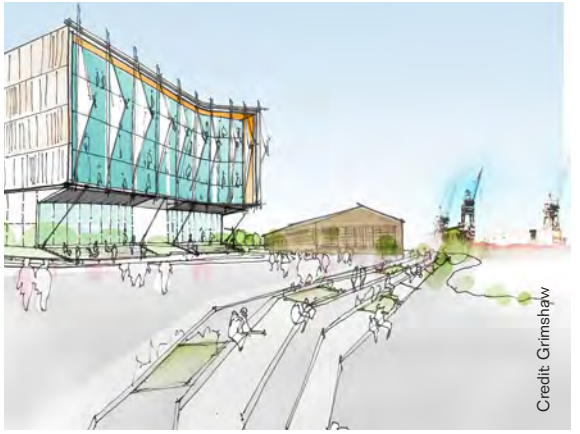
Façade Subdivision / Setback Plane: Building B from the Waterfront



Upper Level Setback: Building B from the Waterfront



Upper Level Setback: Building H2 from the Waterfront



Ground Floor Setback and Active Programming: Building B from the Waterfront

FIGURE 6.19.2: Illustrative Waterfront Massing Strategies



Ground Floor Setback with Public Programming
Unilever HQ, Hamburg, Germany



Fenestration Strategies Frame Waterfront Views
The Navy Yard, Philadelphia, PA



Massing Moves Relate to Waterfront
Opera House, Copenhagen, Denmark



Stepped Volumes at Waterfront
Institute of Contemporary Art, Boston, MA

FIGURE 6.19.3: Waterfront Modulation and Materiality Strategies

S6.19.2 **WATERFRONT REQUIREMENTS PARCELS B AND H2.** Notwithstanding Section 6.7, the waterfront façades of buildings on parcels B and H2 shall require a ground floor setback or an upper level setback that spans in aggregate a minimum of 33 percent of the linear frontage along the waterfront.

Ground floor setbacks shall extend at least 20 feet in height and recess for a minimum depth of 10 feet to increase visual depth, and promote public use and permeability on the ground floor. An active public-serving use or entrance, such as a gallery or restaurant, shall accompany the setback. See selected examples shown in Figure 6.19.4 and Figure 6.19.5.

Upper level setbacks shall begin no higher than 70 feet and recess for a minimum depth of 15 feet to reduce the apparent bulk of the building on the waterfront. Measurements for upper level setbacks should follow Section 6.4. Parapets and railings are permitted and are exempt from height measurement. See Figure 6.19.4 for the required setback area, based on sightlines from the waterfront park at a distance of 50 feet from the building frontage. Figure 6.19.8 and Figure 6.19.9 provide examples.

External courtyards, as defined in Section 6.12, qualify as upper level setbacks if the minimum dimension requirements listed herein are fulfilled.

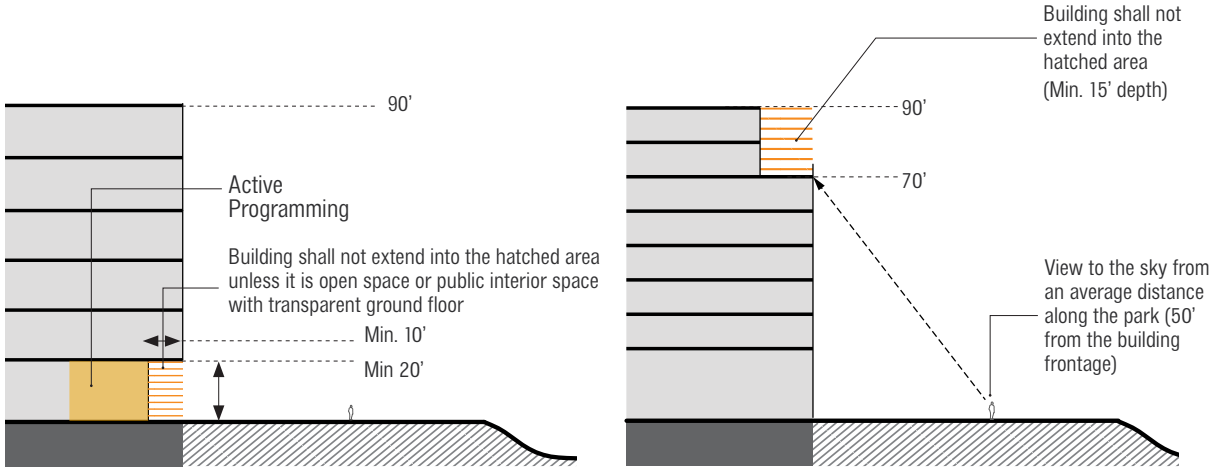


FIGURE 6.19.4: Ground Floor and Upper Level Setback Requirements

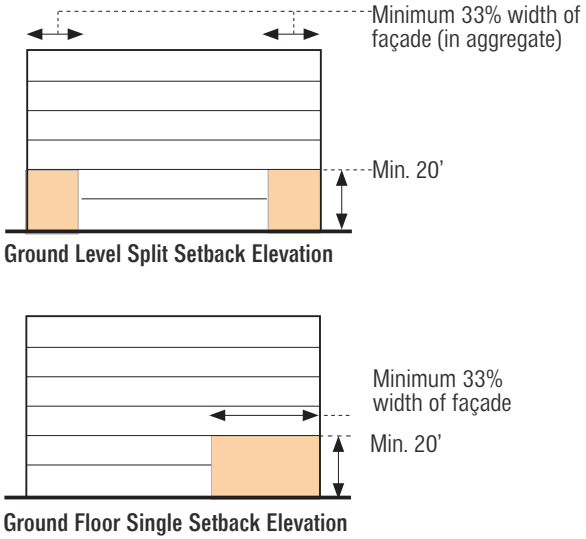


FIGURE 6.19.5: Ground Floor Massing Strategies for Buildings B and H2



Base Setback / Ground Floor Permeability
Meridian Building, Wellington, New Zealand

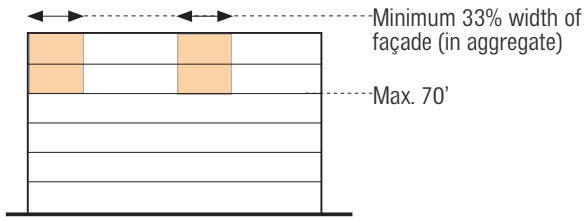


Slanted Base Setback
Waterfront Residences, Stavanger, Norway

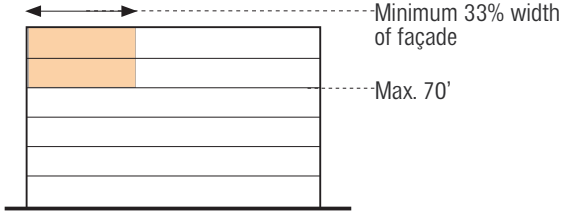
FIGURE 6.19.6: Examples of Permitted Massing Strategies – Ground Floor Setback



FIGURE 6.19.7: Example Rendering of Ground Floor Setback at B



Upper Level Split Setback Elevation



Upper Level Single Setback Elevation

FIGURE 6.19.8: Upper Floor Massing Strategies for Buildings B and H2



Upper Level Setback
Yerba Buena Lofts, San Francisco, CA



Upper Level Setback
The Beacon, San Francisco, CA

FIGURE 6.19.9: Examples of Permitted Massing Strategies – Upper Level Setback

S6.19.3 **WATERFRONT REQUIREMENTS PARCEL E3.** The waterfront façade of parcel E3 shall require an outer court or upper level setback beginning at a maximum height of 20 feet, as shown in Figure 6.19.10. Outer courts shall span in aggregate for a minimum of 33 percent of the area of the projected building façade and recess a minimum of ten feet in depth in order to divide the building volume as viewed from the waterfront park. Setbacks and courtyards are encouraged to be located in a manner that maximizes sunlight to the Slipways Commons or the waterfront park.

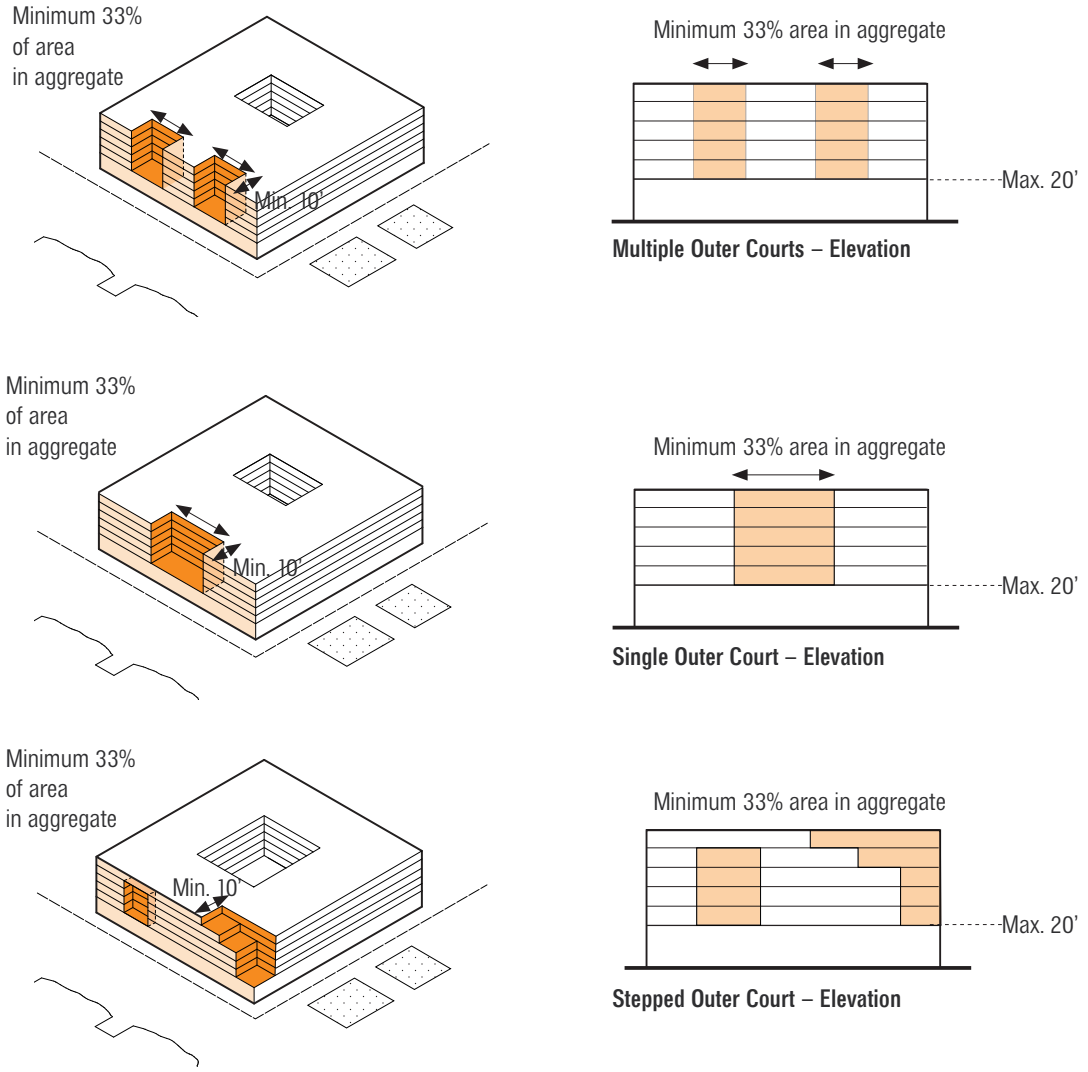


FIGURE 6.19.10: Massing Strategies for Building E3

S6.19.4 **WATERFRONT REQUIREMENTS PARCEL E4.** The ground floor height shall be a minimum of 20 feet. Refer to Section 2.2 Ground Floor Uses for more detail on priority retail frontage requirements for parcel E4. See Figure 6.19.11.



FIGURE 6.19.11: Ground Floor Height for Parcel E4

Guidelines

G6.19.1 **PERMEABILITY AT E4.** At minimum, 25 percent of the ground floor linear frontages of E4 facing the waterfront (east façade) and Slipways park (south façade) are encouraged to open to the exterior through use of sliding doors, roll-up doors and other similar architectural features.



Pivoting Wall Panels
Storefront for Art and Architecture, New York, NY



Garage Door Retail Spaces
Blue Bottle Coffee, San Francisco, CA



Fold-up Door
Wyckoff Exchange, Brooklyn, NY

FIGURE 6.19.12 Examples of Openings to the Exterior



DOGPATCH SKETCHES
by Wendy MacNaughton

Photo Credit: Rose City

7 LIGHTING, SIGNAGE & ART

LIGHTING

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SIGNAGE AND WAYFINDING

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PUBLIC ART

7.8 PUBLIC ART 236

LIGHTING

7.1 GENERAL LIGHTING

The approach to lighting, signage, and art is intended to develop cohesion between the Pier 70 Project and the surrounding neighborhood.

The general lighting strategy for the Project is to create a vibrant and aesthetically pleasing experience that enables visitors to safely and easily navigate all streets and pathways as well as enjoy public spaces at varying hours of day, while creating a strong visual character.

Lighting design for the Project prioritizes safety, comfort, mood, and historic character with a hierarchy of lighting types and levels that are integrated with streets, open spaces, and buildings.

Standards

S7.1.1 **LIGHTING CHARACTER.** All lighting fixtures at the site shall avoid elaborate or ornamental forms and detailing. The site shall provide a collection of fixtures at varying scales that support nighttime programmatic needs.

S7.1.2 **CONCEALED LIGHTING AND ELECTRICAL ELEMENTS.** Exposed lighting and electrical elements such as wires, conduit, junction boxes, transformers, ballasts, switches, and panel boxes are not permitted.

S7.1.3 **LIGHTING LOCATION.** Lighting shall be designed to illuminate the roadway and sidewalks while minimizing light trespass and sky-glow.

Lighting adjacent to the waterfront shall be designed to face towards the land and constructed with durable, weatherproof materials to withstand water and wind conditions at the shoreline.

Public art, historic artifacts, and key event locations shall be illuminated.

S7.1.4 **SIZE, HEIGHT, AND PLACEMENT.** The size, height, placement, and frequency of light fixtures shall relate to and prioritize pedestrians and cyclists on streets and passageways.

S7.1.5 **LIGHTING LEVELS.** Lighting shall be provided at the lowest levels that are in accordance with the Illumination Engineering Society of North America (IESNA) lighting guidelines and applicable codes.

S7.1.6 **LIGHT POLLUTION.** Light levels shall limit night sky pollution while providing safe lighting levels. All luminaires shall have a cutoff control to direct the angle of the site lighting. All lighting shall be shielded to prevent glare, particularly toward residential units. Lighting with substantially low level luminous qualities, such as string lights, is not required to be shielded.

To the extent that these standards conflict with San Francisco Public Utilities Commission (SFPUC) lighting requirements for SFPUC-owned street lights, SFPUC requirements shall govern.

High-pressure sodium lights and “Glowtop” luminaires shall not be permitted.

Guidelines

G7.1.1 **SUPPLEMENTAL CONDUITS AND OUTLETS.** Power sources and conduits should be embedded into pathways to support temporary lighting fixtures, internet, audio/ visual, and other installations.

G7.1.2 **LIGHT POLLUTION.** All interior luminaires should be angled to intersect opaque building interior surfaces and not exit out through the window.

CONSIDERATIONS

- Light fixtures should be selected for their ability to facilitate outdoor programming and events.
- Lighting embedded within paving surfaces is discouraged, particularly adjacent to the waterfront, due to maintenance conditions and environmental factors such as water and wind.
- In order to relate to the material character of the historic buildings, materials should not appear overly formal or polished. Examples of recommended lighting typologies are shown in Figure 7.1.4.

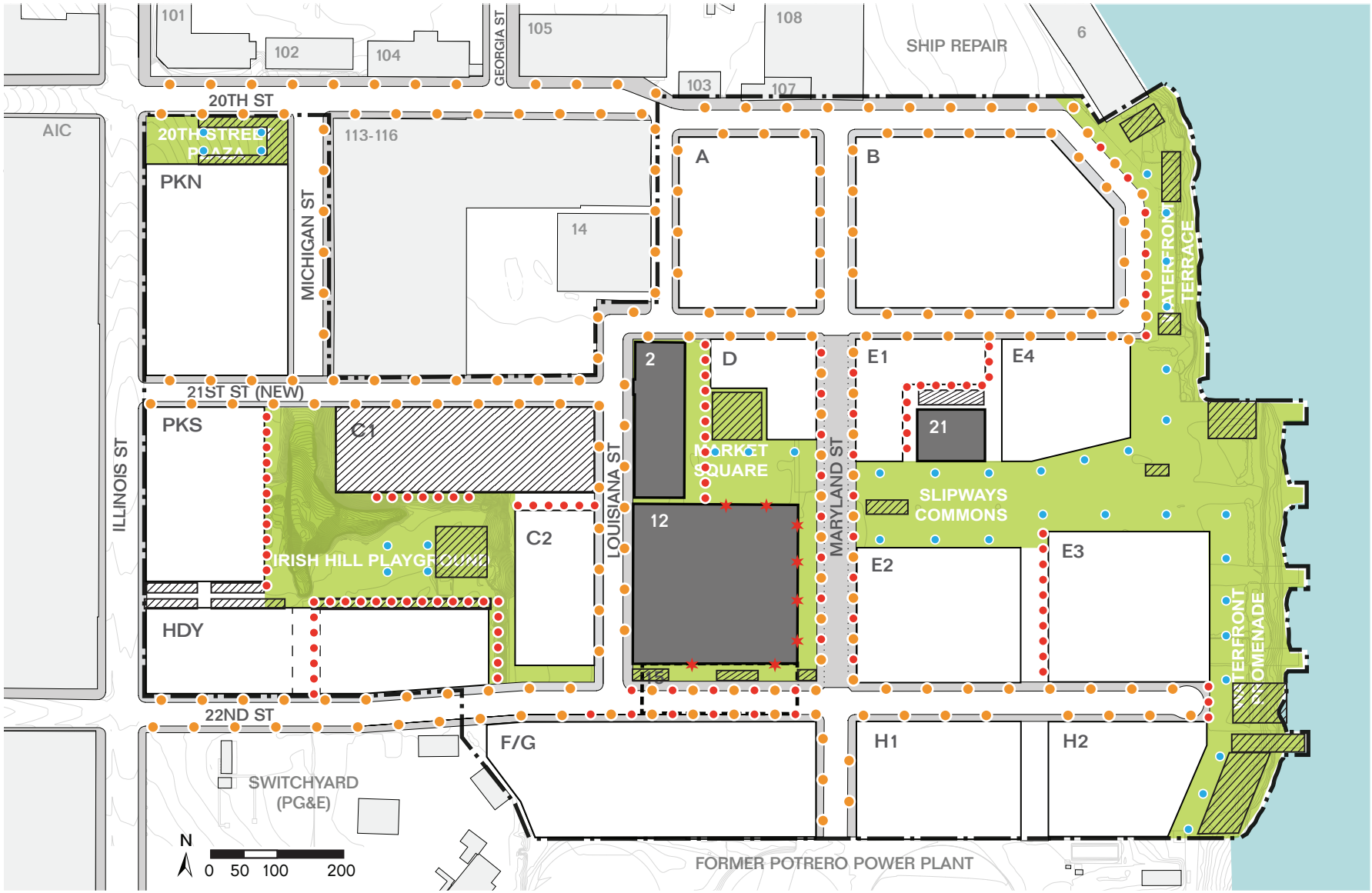


FIGURE 7.1.1: Illustrative Lighting Plan



Compatible Fixtures



Simple Pole Design



Attractive Form



Faux Historic Lighting

FIGURE 7.1.2: Examples of Compliant and Noncompliant Lighting

✖ Denotes noncompliant example

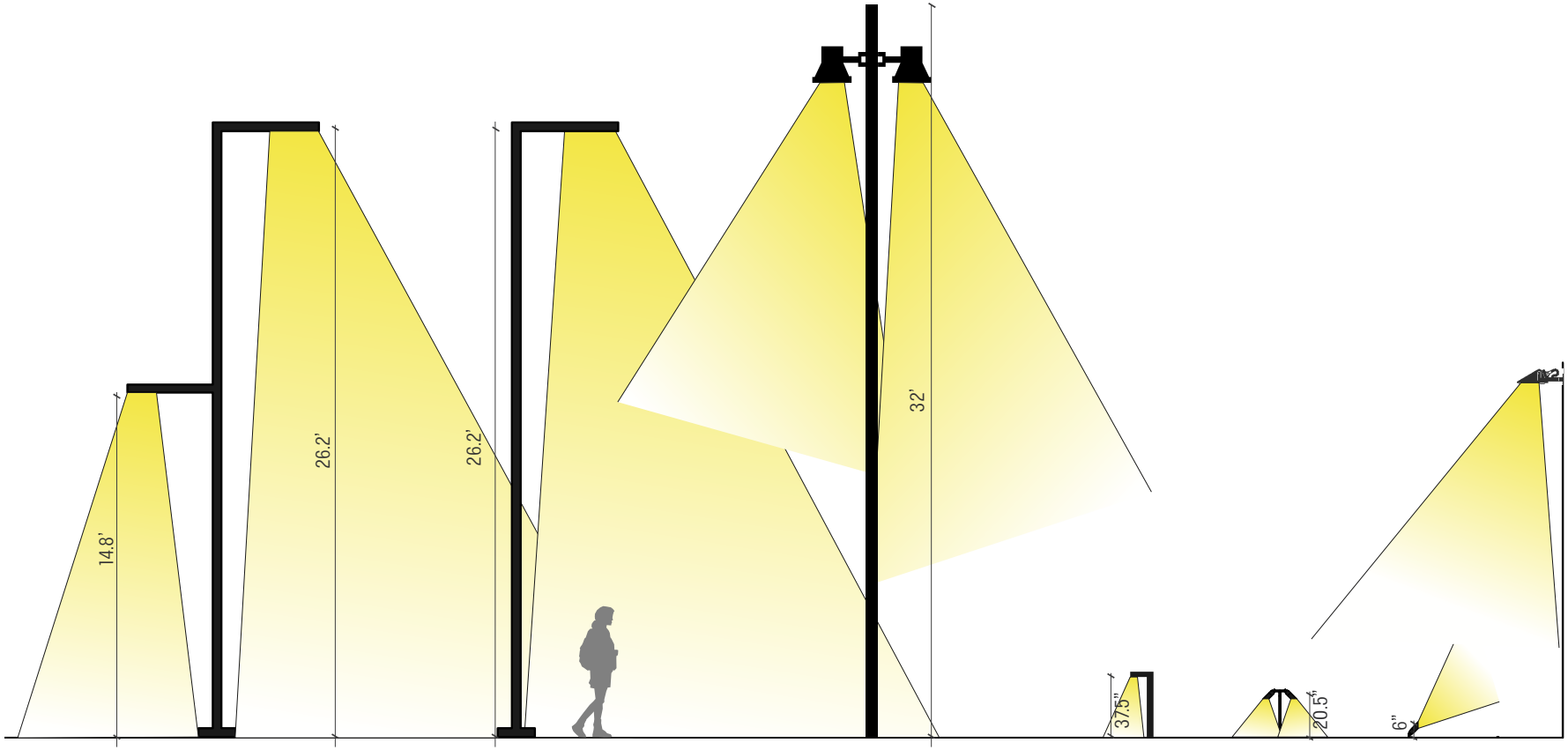


FIGURE 7.1.3: Illustrative Lighting Fixture Dimensions



ROADWAY + SIDEWALK
Manufacturer: Hess
Product: Linea 800 LED

WATERFRONT AND PLAZA
Manufacturer: iGuzzini
Product: MultiWoody Pole Mounted

BOLLARD
Manufacturer: Hess
Product: Linea S

ACCENT
Manufacturer: Winona
Product: Havasu

PLANTING
Manufacturer: iGuizzini
Product: Woody

WALL MOUNTED LAMP
Manufacturer: Hess
Product: Novara ML

FIGURE 7.1.4: Examples of Recommended Lighting Technologies

*Note: Design and fixtures shown are conceptual and further analysis is necessary to identify appropriate locations, fixture types, and wattages in order to provide safe lighting levels while minimizing light pollution at the waterfront.

7.2 STREET LIGHTING

Standards

S7.2.1 **STREET LIGHTING TYPOLOGY.** Street lights shall be consistent with SFPUC guidelines with the exception of fixture design. Street lighting will reflect the contextual character and type of use at its particular location, including roadway fixtures, pedestrian fixtures, and lighted bollards.

S7.2.2 **STREET LIGHTING LOCATION.** All street light poles shall be located in the furnishings zone. Refer to Chapter 4 Streets and Streetscape to coordinate street lighting location with other street elements such as planting, furnishing, and utilities.

Guidelines

G7.2.1 **ELECTRICAL CONDUITS.** Sidewalks should have trenches for electrical conduits.

CONSIDERATIONS

- Street light levels should be sufficient to ensure pedestrian, cyclist, and vehicular safety as well as create a comfortable setting for residences and businesses.
- Use of high-efficiency lighting with advanced controls is encouraged.
- Mid-block passages should incorporate distributed lighting fixtures to provide a safe, well-lit and welcoming experience.

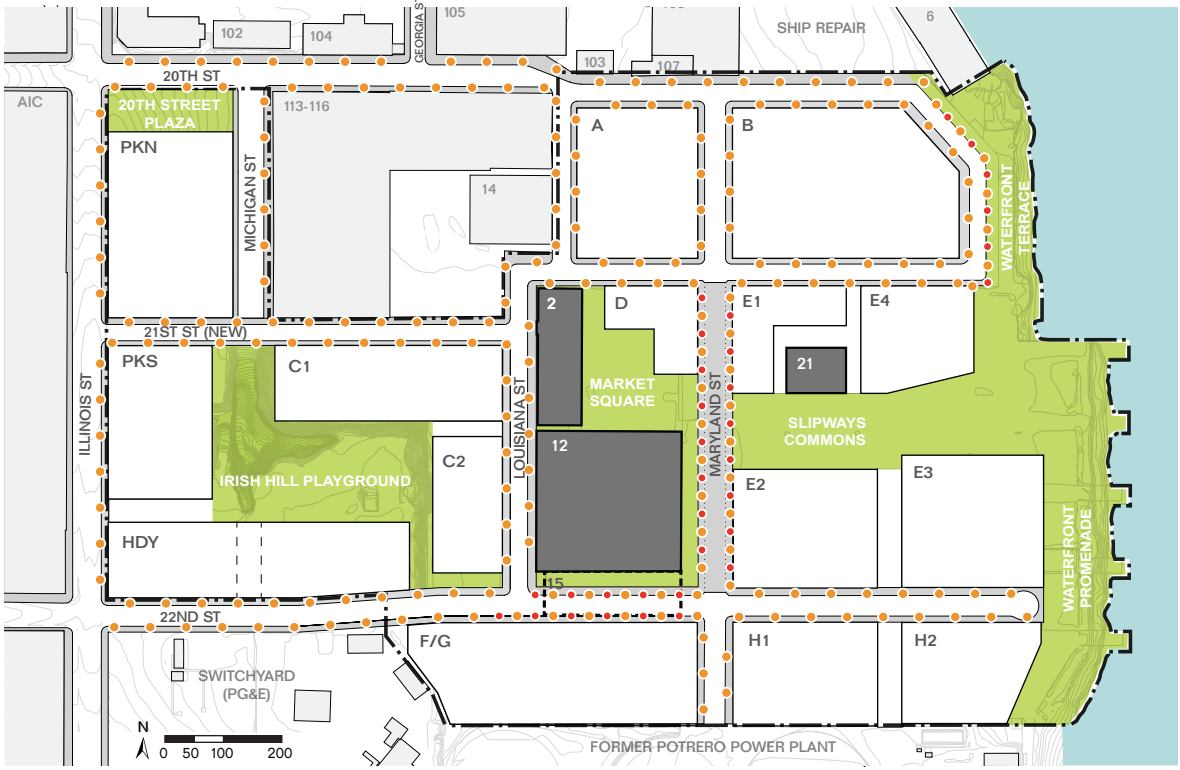


FIGURE 7.2.1: Illustrative Street Lighting Plan

7.3 OPEN SPACE LIGHTING

Standards

S7.3.1 **PROHIBITED LIGHTING.** Flood lights, vehicular-rated pole lights and vehicular-rated bollard lights shall be prohibited.

Guidelines

G7.3.1 **ACCENT LIGHTING.** Accent lighting at focal points, viewpoints, art installations, and viewing pavilions is encouraged. Accent lighting should incorporate opportunities for art, public art, technology, and collaborative interventions such as light sculptures, light etching, illuminated art signage, and projection/ film.

G7.3.2 **MOOD LIGHTING.** Where feasible, mood lighting for trees, paths, passageways, gathering areas and open spaces is encouraged. Mood lighting should provide indirect illumination.

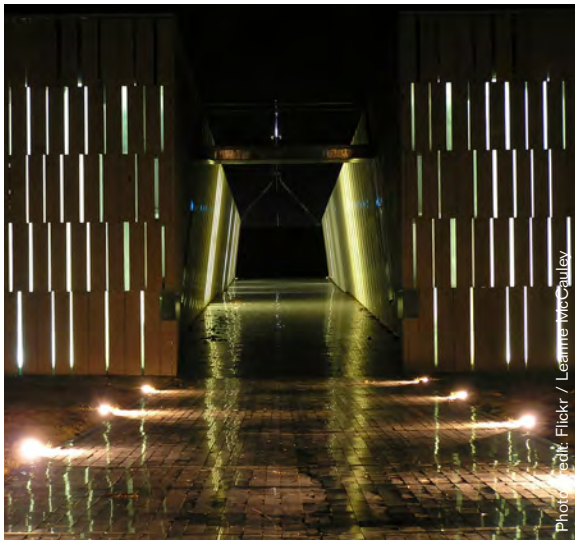
G7.3.3 **ENERGY EFFICIENCY.** Accent or mood lighting is encouraged to be energy efficient.

CONSIDERATIONS

- Small, distributed, low-wattage hanging lamp or chain mood lighting such as string lights are encouraged where possible.
- Exterior lighting elements in event spaces should consider placement of 20 amp receptacles for potential event lighting fixtures.
- Public open spaces, which anticipate events, should consider inclusion of 100-200 amp power receptacles to service various locations during events.



Accent Lighting



Accent Lighting



Mood Lighting



Hanging Lighting

FIGURE 7.3.1: Open Space Lighting Examples

7.4 BUILDING LIGHTING

Standards

S7.4.1 **ENERGY CONSUMPTION.** Smart lighting technology shall be incorporated, such as those with automated controls that adjust based on occupancy or daylight availability, or use motion sensors. High-efficiency technology such as LED lighting with advanced controls, shall be utilized to minimize energy consumption.

S7.4.2 **PROHIBITED LIGHTING.** Building lighting that blinks or flashes shall not be permitted.

S7.4.3 **BUILDING ENTRANCES AND GROUND LEVEL.** Lighting at building entrances and ground level shall be provided for security.

Guidelines

G7.4.1 **ACCENT LIGHTING.** Accent lighting at focal points, art installations, building façades and historic assets is encouraged. Accent lighting should incorporate opportunities for art and technology.

G7.4.2 **ENERGY EFFICIENCY.** Accent lighting is encouraged to be energy efficient.

G7.4.3 **GLARE REDUCTION.** Lighting should not illuminate or produce glare on adjacent properties.

G7.4.4 **BUILDING 15 STRUCTURAL FRAME.** Building 15 lighting should be subtle and used to display key features.

CONSIDERATIONS

- Building lighting should highlight significant architectural features, signs, entrances, walkways, or display windows.
- Building lighting should be integrated with the design of the building. Lighting of building walls, roofs, and other surfaces should be studied for glare.
- Small, distributed, low-wattage hanging lamp or chain mood lighting such as string lights are encouraged for patio lighting where possible.
- Building 12 should include building-mounted lamps to highlight its façades, subject to historic review.



Storefront Accent Lighting



Entrance Lighting

FIGURE 7.4.1: Building Lighting Examples

SIGNAGE AND WAYFINDING

7.5 GENERAL SIGNAGE

Signage is an important tool to ensure an engaging and legible neighborhood, as well as provide insight into the Historic District's past. The standards and guidelines for signage at the site reflect the creative character of the surrounding neighborhood and express the individual identities of the spaces and tenants. Signage should also be seen as a creative element, with opportunities for art and community collaboration. Standards and guidelines listed below pertain to general signage and wayfinding elements in the public realm.

Standards

S7.5.1 **SIGNAGE DESIGN.** Except for permanent street and wayfinding signage, additional signage and interpretive elements shall be designed to relate to both the Pier 70 Area and the neighborhood. This shall be through general consistency with Pier 70 Area signage programs while maintaining enough variation to avoid creating a singular identity for the Pier 70 Project separate from the Historic District and the neighborhood. Signage design, location and dimension shall be compliant with the Pier 70 SUD Signage Master Plan and consistent with the Historic District.

S7.5.2 **CONCEALED ELECTRICAL SIGNAGE ELEMENTS.** All electrical signage elements such as wires, exposed conduit, junction boxes, transformers, ballasts, switches, and panel boxes shall be concealed from view.

S7.5.3 **PROHIBITED SIGNAGE.** Wind signs, revolving signs, reflecting signs, blinking or flashing signs, and balloon and inflated signs shall not be permitted.

S7.5.4 **PORTABLE SIGNAGE.** Portable signs, such as sandwich boards and valet parking signs, are permitted and limited to one per business. All portable signage shall be located within frontage or furnishing zones on sidewalks, or within open spaces fronting the businesses.

Guidelines

G7.5.1 **SIGNAGE ORIENTATION.** Signage should be primarily oriented toward the pedestrian realm and guide people to the waterfront.

G7.5.2 **ALLOWABLE SIGNAGE MATERIAL.** Allowable signage materials include, but are not limited to: ceramic, fiberglass, glass, metal, paint, stone, and wood.

CONSIDERATIONS

- Signage should be appropriate to the buildings and open spaces; designed to relate to use, composition, scale, and architecture. Signage should be considered an important architectural or artistic feature within the overall building and open space design.



Permanent Wayfinding Signage



Temporary Signage



Temporary Signage

FIGURE 7.5.1: Signage Types

7.6 WAYFINDING SIGNAGE

Consistent design and organization of wayfinding signage provides important visual or tactile cues to help people make route decisions, highlight shortest paths to nearest transit options, and locate nearby destinations. An interpretive signage program educates visitors on the history and significance of a particular feature or point of interest.

Standards

S7.6.1 **PERMANENT WAYFINDING SIGNAGE DESIGN.** Street and Wayfinding signage shall be consistent with the Pier 70 Signage Master Plan.

Signage within 100 feet of Mean High Water shall be consistent with Bay Conservation and Development Commission (BCDC) approved signage graphics. See BCDC Shoreline Signs: Public Access Signage Guidelines for guidance on the design and installation of signs used at public access areas that are part of development projects along the San Francisco Bay shoreline.

S7.6.2 **PUBLIC FACILITIES AND OPEN SPACE SIGNAGE.** Wayfinding signage shall be installed for interior public facilities, rooftop open spaces and facilities, ADA access routes, alternative access routes, bicycle facilities, the waterfront and waterfront access, and the Bay Trail. Bay Trail signage shall be consistent with the San Francisco Bay Trail Design Guidelines and Toolkit.

S7.6.3 **ROOFTOP PUBLIC OPEN SPACE SIGNAGE.** Access to elevated public open spaces shall have two locations of signage, one of which shall be within five feet of the building entrance, clearly visible from the street or an adjoining public space.

S7.6.4 **IRISH HILL PLAYGROUND SIGNAGE.** Access to the Irish Hill Playground shall have two locations of signage at or clearly visible from Illinois and/or 22nd Streets.

S7.6.5 **HISTORIC INTERPRETIVE SIGNAGE.** Interpretive signage shall be located at key points of interest. Signage for Buildings 2, 12 and 21 shall be in keeping with the unique character of each historic building and shall be coordinated with the Pier 70 Signage Master Plan.

Guidelines

G7.6.1 **PARKING WAYFINDING.** Wayfinding signage for vehicular and bicycle parking access should be visible from a public street.



Directional Signage



Wayfinding Signage



Temporary Wayfinding Signage



Historic Interpretive Signage

FIGURE 7.6.1: Wayfinding Signage Examples

7.7 BUILDING SIGNAGE

Exterior building signage within the Project is encouraged to be varied and distinct to support overall variety in the neighborhood.

Standards

S7.7.1 **COMMERCIAL SIGNAGE.** All building signage shall be allowed with a minimum clearance of 10 feet from grade. The maximum height of a sign affixed to a building shall be the eave line of the building to which it is affixed.

In mixed-use buildings, the signage shall not extend above or below the level of the signed use. For example, in a building where the ground floor is retail with office use above, the retail signage may not extend above the floor of the second level.

S7.7.2 **HISTORIC SIGNAGE.** Signage on, near, or for historic buildings shall be minimal and prioritize the preeminence of the building itself over signage, and signage shall appear secondary to building features.

S7.7.3 **SIGNAGE DESIGN.** Signage shall be contemporary yet compatible with the industrial character of the Pier 70 Area. See Chapter 6 for further information on district character defining features and recommended materials for new construction.

S7.7.4 **IDENTIFYING SIGNS.** Identifying signs shall be limited to one per parcel (can be freestanding up to 15 feet in height or projecting signs on first-story level).

S7.7.5 **WALL SIGNS.** The area of all wall signs shall not exceed one square foot for each one linear foot of street frontage occupied by the business measured along the wall to which the signs are attached, or 50 square feet for each street frontage, whichever is greater. In no case shall the wall sign or combination of wall signs cover more than 75 percent of the surface of any wall, excluding openings. Walls signs shall be permitted up to 15 feet in height.

S7.7.6 **WINDOW SIGNS.** Opaque window signs shall occupy a maximum of 30 percent of the storefront area.

S7.7.7 **SIGNS ON AWNINGS.** Any signage on awnings shall not exceed total 20 square feet.

S7.7.8 **SIGNS ATTACHED TO BUILDINGS.** No sign attached to a building shall extend or be located above the roofline of the building to which it is attached. Such signs may contain letters, numbers, a logo, service mark, and/or trademark and may be non-illuminated or indirectly illuminated.

S7.7.9 **FREESTANDING SIGNS.** The maximum height for freestanding signs shall be 40 feet.

S7.7.10 **PROJECTING SIGNS.** Projecting signs shall be allowed with a minimum clearance of 10 feet from grade, with a maximum of three feet projecting depth from the building surface.

S7.7.11 **STOREFRONT AND RETAIL SIGNAGE.** No more than two signs per single-tenant building shall be permitted. If a single-tenant building has a frontage on more than one street, an additional sign beyond the two allowed on the main frontage shall be permitted on each additional street frontage.

Guidelines

G7.7.1 **PREFERRED SIGNAGE TYPES.** Preferred sign types include small blade signs, chalkboards, split-flap displays, window signs, projections, wall murals, and wall signs.

G7.7.2 **PROJECTING SIGNAGE.** Projecting and three-dimensional signs are encouraged to relate to pedestrian scale and enrich the public realm.

CONSIDERATIONS

- Signage for active industrial, arts, and retail uses is encouraged to take cues from the Dogpatch neighborhood and the Historic District in order to support the creative and post-industrial character of the area.
- Commercial signage that is temporary, changeable, and creative is preferred and encouraged. Such signage should be created through collaboration with local designers, fabricators, tenants or neighborhood stakeholders.









FIGURE 7.7.1: Building Signage Examples

7.8 PUBLIC ART

Pier 70 Area has long been a site of industry and exchange. As part of the larger San Francisco Bay waterfront, it functions as a connector that links old and new, natural and man-made, and the physical with the poetic. Within this context, the Project serves as a rich resource and a site for art and cultural expression.

The open space design for the Project integrates opportunities for public art, both permanent and temporary, as well as for the installation of large-scale "artifacts" or large-scale "found" elements from the Pier 70 Area or other appropriate industrial waterfront features that might showcase the impressive history of the site as a place of industrial and maritime production. Art is also encouraged as part of the architectural design in the form of interior and exterior installations.

Types of art and artifacts may include, but are not limited to:

- Large-scale sculpture;
- Small-scale sculpture and installations;
- Industrial artifacts;
- Sculptural façade and building treatments;
- Murals and graphic projects;
- Hanging sculpture;
- Environmental art and demonstration pieces related to sun, wind, water, and ecology;
- Sidewalk art and pavement painting, imprinting, engraving;
- Video or light-based art installations;
- Viewing Pavilions; and
- Interactive art for public engagement.

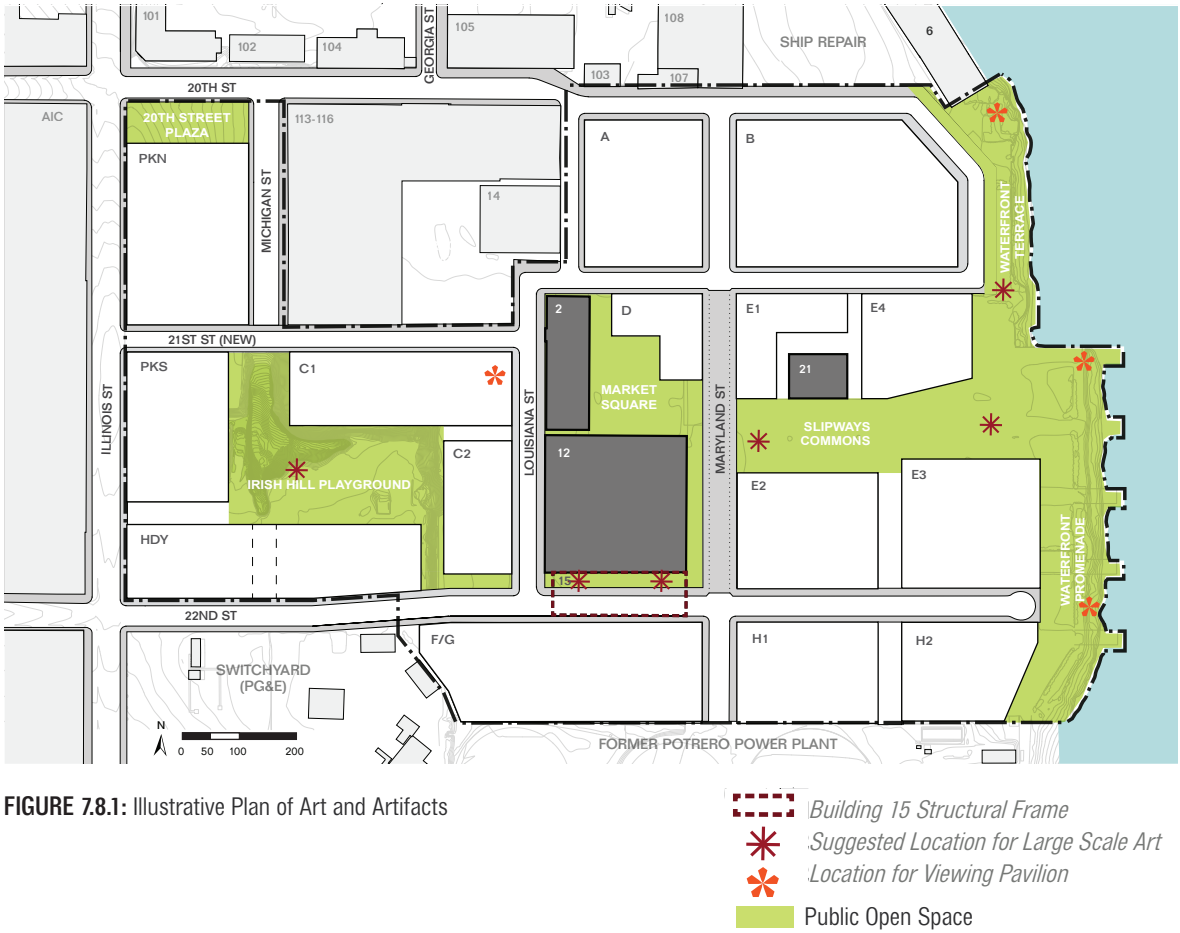


FIGURE 7.8.1: Illustrative Plan of Art and Artifacts

Guidelines

G7.8.1 **PUBLIC ART INSTALLATION PLACEMENT.** Public art installations should be integrated into the design of the public realm and may be located within usable public open spaces, pedestrian passages, and within the furnishing zone of public streets, where they do not interfere with pedestrian circulation. Murals may not be placed on surfaces of historic buildings.

G7.8.2 **HISTORIC CHARACTER.** Where appropriate, public art should reference Pier 70's industrial past but not mimic or replicate it. Contemporary materials may be used.

The public art program should incorporate use of large-scale features to evoke industrial heritage.

G7.8.3 **INTERACTIVE ART.** Public art installations should prioritize interaction and engagement with pedestrians and appeal to a range of ages.

CONSIDERATIONS

- The overall program for art and artifacts at the site should be flexible to accommodate temporary installations, commissioned works, or found elements. Whether temporary or permanent, works of art should help concentrate, intensify, and/or recount experiences of the site.
- Where possible, building surfaces are encouraged to provide opportunities for public art that are compatible with the industrial character of Pier 70. Public art integrated with buildings may be temporary or permanent. Murals may not placed on historic building surfaces.



Large-Scale Corten Steel Sculpture



Assembled Artifact



Steel Inlays



Interactive Sculptures

FIGURE 7.8.2: Types of Art and Artifacts



Photo Credit: Shae Rocco/ Forest City

PIER 70
Urban Air Market

APPENDIX A
PIER 70 DEFINITIONS

ACCESSORY USE

An accessory use is a related minor use that is either (a) necessary to the operation or enjoyment of a lawful principal use or (b) appropriate, incidental, and subordinate to any such use.

ACTIVE USE

A building use that does not, by definition, require a non-transparent street façade.

AMERICANS WITH DISABILITIES ACT (ADA)

Legislation passed in 1990 that prohibits discrimination against people with disabilities. Under this Act, all buildings, streets, and open spaces must be designed to be accessible to people with disabilities.

ART AND ARTIFACTS

Art and Artifacts includes permanent and temporary installations, commissioned works, or found elements. New art may use contemporary materials and shall compliment Pier 70's industrial past, without mimicking or replicating it. Types of art and artifacts may include, but are not limited to: Large-scale Sculpture; Small-scale Sculpture and Installations; Industrial Artifacts; Sculptural Façade and Building Treatments; Murals, Graffiti and Graphic Projects; Hanging Sculpture; Environmental Art and Demonstration Pieces related to Sun, Wind, Water, Ecology; Sidewalk Art and Pavement Painting, Imprinting, Engraving, Video or Light-Based Art Installations; Interactive Art for Public Engagement.

ARTS AND ENTERTAINMENT

Retail, arts, and entertainment uses and spaces that include live performances, evening-oriented entertainment activities, display of motion pictures or television, exhibitions, productions, or non-accredited visual, performance, sound arts, and crafts school.

Uses may include commercial arts-related business service uses including recording and editing services, special effects production, fashion and photo stylists, printing, and rental companies. Spaces may include studios, workshops, archives, and theaters, but excludes adult entertainment or any establishment where liquor is customarily served during performances.

ARTICULATION

Minor variations in the massing, setback, height, fenestration, or entrances to a building, which express a change across the elevation or façades of a building. Articulation may be expressed, among other things, as bay windows, porches, building modules, entrances, or eaves.

AWNING

A light roof-like structure, supported entirely by the exterior wall of a building, consisting of a movable frame covered with approved cloth, plastic or metal, extending over doors and windows, with the purpose of providing protection from sun and rain and embellishment of the façade.

BLOCK

An area of land bounded by public or private right-of-way and/or park.

BICYCLE PARKING, CLASS 1

Spaces in secure, weather-protected facilities intended for use as long-term, overnight, and work-day bicycle storage by dwelling unit residents, non-residential occupants, and employees.

BICYCLE PARKING, CLASS 2

Spaces located in a publicly-accessible, highly visible location intended for transient or short-term use by visitors, guests, and patrons to the building or use.

BUILDING ENVELOPE

The exterior dimensions—dictating the maximum dimensions of width, depth, height, and bulk—within which a building may be built on a given site.

CANOPY

A light roof-like structure, supported by the exterior of a building consisting of a fixed or frame covered with approved cloth, plastic, glass or metal, with the purpose of providing protection from sun and rain and embellishment of the façade.

CAR-SHARE

A car-share service is where members rent cars for short periods of time, often by the hour. They provide an alternative to private vehicle ownership, and are attractive to occasional access drivers. A car-share service maintains its vehicle fleet and provides automobile insurance for its members when using a car-share vehicle.

CORNER

Corners are defined as the first 75 feet from the intersection along the primary frontage of a building and the first 50 feet from the intersection on any other frontage.

CRANEWAY

Existing concrete structures that project out into Bay on the 28-Acre Site shoreline.

CULTURAL RESOURCES (CONTRIBUTING HISTORIC RESOURCES)

Cultural resources encompass archaeological, natural, and built environment resources, including but not limited to buildings, structures, objects, districts, and sites. Qualifying cultural resources are designated by local, state, and national registries, such as the National Register of Historic Places.

CURB-CUT

A break in the street curb to provide vehicular access from the street surface to private or public property across a continuous sidewalk.

DESIGN FOR DEVELOPMENT

A document that establishes conceptual standards and guidelines for land use, urban form, streets and public spaces in the Project Area.

DESIGN GUIDELINES

Subjective design recommendations that set forth design intent, design expectations, and encouraged or discouraged features. See D4D Document Guide for detailed definition.

DESIGN STANDARDS

Mandatory and measurable design specifications applicable to all new construction. See D4D Document Guide for detailed definition.

ENCROACHMENT

A portion of a building that projects into the public right-of-way.

FAÇADE

Any vertical exterior face or wall of a building that is adjacent to or fronts on a street, public or semi-private right-of-way or open space.

FENESTRATION

The arrangement of windows and openings on the exterior of the building.

FLEXIBLE LAND USE PROGRAM

Like many locations in San Francisco designated as mixed use, the Pier 70 SUD provides a flexible land use program, under which certain parcels could be developed primarily for either commercial-office or residential uses.

FLOORPLATE

The area of a given floor, as bounded by the exterior walls of the floor.

FREESTANDING SIGN

A sign that is in no part supported by a building.

FRONTAGE

The frontage of a building is defined as the vertical exterior face or wall of a building and its linear extent that is adjacent to or fronts on a street, right-of-way, or open space.

GROSS FLOOR AREA

The sum of the gross areas of the several floors of a building or buildings, measured from the exterior faces of exterior walls or from the centerlines of walls separating two buildings. Where columns are outside and separated from an exterior wall (curtain wall) that encloses the building space or are otherwise so arranged that the curtain wall is clearly separate from the structural members, the exterior face of the curtain wall shall be the line of measurement, and the area of the columns themselves at each floor shall also be counted.

Except as specifically excluded in this definition, "Gross Floor Area" shall include, but not be limited to, the following:

- Basement and cellar space, including tenants' storage areas and all other spaces except that used only for storage or services necessary to the operation or maintenance of the building itself;
- Elevator shafts, stairwells, exit enclosures, and smoke-proof enclosures at each floor;
- Floor space in penthouses except as specifically excluded in this definition;
- Attic space (whether or not a floor has been laid) capable of being made into habitable space;
- Floor space in balconies or mezzanines in the interior of the building;
- Floor space in open or roofed porches, arcades, or exterior balconies, if such porch, arcade, or balcony is located above the ground floor or first floor of occupancy above basement or garage and is used as the primary access to the interior space it serves;
- Floor space in accessory buildings;
- Any floor area dedicated to accessory or non-accessory parking, except for bicycle parking, required off-street loading, and accessory parking as specified in the following section; and
- Any other floor space not specifically excluded in this definition.

"Gross Floor Area" shall not include the following:

- Basement and cellar space used only for storage or services necessary to the operation or maintenance of the building itself;
- Attic space not capable of being made into habitable space;
- Elevator or stair penthouses, accessory water tanks or cooling towers, and other mechanical equipment, appurtenances, and areas necessary to the operation or maintenance of the building itself, if located at the top of the building or separated therefrom only by other space not included in the gross floor area;
- Mechanical equipment, appurtenances, and areas necessary to the operation or maintenance of the building itself (A) if located at an intermediate story of the building and forming a complete floor level; or (B) if located on a number of intermediate stories occupying less than a full floor level, provided that the mechanical equipment, appurtenances, and areas are permanently separated from occupied floor areas and in aggregate area do not exceed the area of an average floor;
- Outside stairs to the first floor of occupancy at the face of the building which the stairs serve, or fire escapes;
- Floor space dedicated to car-share parking;
- Floor space dedicated to parking that does not exceed the amount principally permitted as accessory, and is located underground;
- Bicycle parking that meets the standards of Sections 155.1 through 155.4 of the Planning Code and associated bicycle maintenance area;
- Arcades, plazas, walkways, porches, breezeways, porticos and similar features (whether roofed or not), at or near street level, accessible to the general public and not substantially enclosed by exterior walls; and accessways to public transit lines, if open for use by the general public; all

exclusive of areas devoted to sales, service, display, and other activities other than movement of persons;

- Balconies, porches, roof decks, terraces, courts and similar features, except those used for primary access as described above, provided that:
- If more than 70 percent of the perimeter of such an area is enclosed, either by building walls (exclusive of a railing or parapet not more than three feet eight inches high) or by such walls and interior lot lines, and the clear space is less than 15 feet in either dimension, the area shall not be excluded from Gross Floor Area unless it is fully open to the sky (except for roof eaves, cornices, or belt courses that project not more than two feet from the face of the building wall).
- If more than 70 percent of the perimeter of such an area is enclosed, either by building walls (exclusive of a railing or parapet not more than three feet eight inches high), or by such walls and interior lot lines, and the clear space is 15 feet or more in both dimensions: (i) The area shall be excluded from Gross Floor Area if it is fully open to the sky (except for roof eaves, cornices, or belt courses that project no more than two feet from the face of the building wall); and (ii) The area may have roofed areas along its perimeter which are also excluded from Gross Floor Area if the minimum clear open space between any such roof and the opposite wall or roof (whichever is closer) is maintained at 15 feet (with the above exceptions) and the roofed area does not exceed 10 feet in depth; (iii) In addition, when the clear open area exceeds 625 square feet, a canopy, gazebo, or similar roofed structure without walls may cover up to 10 percent of such open space without being counted as gross floor area.
- If, however, 70 percent or less of the perimeter of such an area is enclosed by building walls (exclusive of a railing or parapet not more than three feet eight inches high) or by such walls and interior lot lines, and the open side or sides face on a yard, street or court whose dimensions satisfy the requirements of this D4D and all other applicable codes for instances in which required windows face upon such yard, street, or court, the area may be roofed to the extent permitted by such codes in instances in which required windows are involved.
- On lower, nonresidential floors, elevator shafts and other life-support systems serving exclusively the residential uses on the upper floors of a building;
- Ground floor area devoted to building or pedestrian circulation and building service;
- Space devoted to personal services, restaurants, and retail sales of goods intended to meet the convenience shopping and service needs of downtown workers and residents, not to exceed 5,000 occupied square feet per use and, in total, not to exceed 75 percent of the area of the ground floor of the building plus the ground level, on-site open space;
- An interior space provided as an open space feature;
- Floor area devoted to child care facilities, provided that:
- Allowable indoor space is no less than 3,000 square feet and no more than 6,000 square feet, and
- The facilities are made available rent free, and
- Adequate outdoor space is provided adjacent, or easily accessible, to the facility. Spaces such as atriums, rooftops, or public parks may be used if they meet licensing requirements for child care facilities, and
- The space is used for child care for the life of the building as long as there is a demonstrated need. No change in use shall occur without a finding by the Planning Commission that there is a lack of need for child care and that the space will be used for a facility dealing with cultural, educational, recreational, religious, or social service facilities (described in bullet below);
- Floor area devoted to cultural, educational, recreational, religious, or social service facilities available to the general public at no cost or at a fee covering actual operating expenses, provided that such facilities are:
- Owned and operated by a nonprofit corporation or institution; or
- Are made available rent free for occupancy only by nonprofit corporations or institutions for such functions; and
- Space devoted to personal services, eating and drinking uses, or retail sales of goods and that is located on the same level as a rooftop park and directly accessible thereto by a direct publicly-accessible pedestrian connection.

HISTORIC DISTRICT (UNION IRON WORKS HISTORIC DISTRICT)

The Union Iron Works (UIW) Historic District, which includes 66 acres at Pier 70, was listed on the National Register of Historic Places in 2014 as an area of maritime, architectural, and industrial significance. The National Register of Historic Places is the official list of the Nation's historic places worthy of preservation.

IDENTIFYING SIGN

A sign for a use listed in this D4D, which serves to tell only the name, address and lawful use of the premises upon which the sign is located, or to which it is affixed. A bulletin board of a public, charitable or religious institution, used to display announcements relative to meetings to be held on the premises, shall be deemed an identifying sign. With respect to establishments containing five or more stores, identifying signs shall include signs which tell the name of and/or describe aspects of the operation of the establishment or center.

INDUSTRIAL/PRODUCTION, DISTRIBUTION, REPAIR (PDR)

Uses including, but not limited to, industrial uses such as fabrication, repair and manufacturing, animal hospital and services, automotive services, arts activities, business services, catering services, trade offices and shops, and wholesale sales.

INFILL DEVELOPMENT

Infill development is a strategy that is used to repurpose sites within an existing neighborhood. This may include new construction on vacant lots, rezoning underdeveloped areas for new purposes, or modifying existing structures so they can serve a new purpose.

INSTITUTIONS

Uses that include Child Care Facility, Community Facility, Private Community Facility, Job Training, Medical Cannabis Dispensary, Philanthropic Admin Services, Religious Institution, Social Service or Philanthropic Facility, Post-Secondary Educational Institution, Public Facility, School, and Trade School. Residential Care Facility, for the purposes of the Pier 70 SUD, is considered a Residential use and is not included in Institutional uses as defined herein. Hospital or Medical Centers are excluded from Institutional uses within the Pier 70 Project.

MASSING

Large, urban-scale setbacks, projections, and interventions that are ten feet or more in depth.

MATERIALITY

Non-occupiable features and treatments within the thickness of a façade plane.

MODULATION

Occupiable façade strategies that are generally less than ten feet and more than nine inches in depth.

NOT PERMITTED USE (NP)

Listed uses that are not permitted and excluded uses in Pier 70-MU.

NON- OCCUPIABLE PROJECTION

Extension beyond the property line that is purely architectural and does not increase the gross floor area of the building, such as cornices, fins, and louvers.

OCCUPIABLE PROJECTION

Extension above ground floor beyond the property line that is enclosed and designed for human occupancy.

OFFICE

Space that is primarily suitable for persons or entities that perform non-retail sales and services including, but not limited to: professional, banking, insurance, management, consulting, technical, sales, design, and medical clinic or other outpatient health-care service. Excludes businesses characterized by the physical transfer of tangible goods to customers on premises, such as wholesale shipping, receiving, storage, and design showrooms.

PARCEL

An area of land bounded by public rights-of-way, parks, or private rights-of-way designated alpha-numerically as developable portions of land. Used as a unit for assessment.

PARKING

A use which provides parking in a garage or combination garage that accommodates for private vehicles, trucks, vans, bicycles and/or motorcycles for residents and visitors of residents, employees, clients, operators in the vicinity, and for off-street car-share parking spaces. District garages may also be open to the general public with restrictions on time or day.

PEDESTRIAN-ORIENTED

Design of buildings with the pedestrian in mind. Pedestrian-oriented buildings include ground floor transparency, canopies, clear entries, distinct storefronts, and an overall human scale and rhythm.

PERMITTED USE

Permitted uses are listed uses that are allowed as of right and do not require discretionary action for establishment of the land use.

PRIORITY RETAIL

Areas designated as Priority Retail ensure space for neighborhood serving retail, amenities, and professional services, arts, and manufacturing, building frontages in key areas.

PROJECTION

A part of a building surface that extends outwards from the primary façade plane. Projections may include balconies, bay windows and other architectural features. Projections may extend into the building setback or the public right-of-way.

PROMENADE

A paved public pedestrian or bike lane, along the Pier 70 waterfront.

PUBLIC OPEN SPACE

Open space including parks and plazas that are accessible to the public at all times of day.

RESIDENTIAL USE

Uses that provide housing for San Francisco residents, rather than visitors. Uses include Dwelling Units, Group Housing, Senior Housing, or similar. Residential Care Facilities are also included under Residential Uses.

RETAIL AND SERVICES

Uses that provide goods and/or services to the business community and/or the general public, typically in small quantities or services directly to the ultimate consumer or end user.

Retail uses include gift store, jewelry store, trade shop, liquor store, groceries and specialty groceries, and eating and drinking uses (bars, liquor stores, restaurants, limited-restaurants, take-out food, and mobile food facilities).

Commercial services uses include light manufacturing, wholesale sales, administrative services, animal boarding and hospital, fringe financial services, massage establishment, non-auto sales, pharmacy, gym, health services, professional services, instructional services.

RIGHT-OF-WAY (ROW)

The public right-of-way (ROW) is the space of the public street bounded by the adjacent building property lines.

SETBACK (OR SETBACK ZONE)

Open space provided between the property line and the primary built structure creating an expanded area along the sidewalk providing a transition between the street and private uses on the property. Setbacks may be required to be dedicated for public use or remain as private space between the public right-of-way and the building mass.

SIGHTLINES

View corridors to a specific site asset (example: historic building, waterfront).

SIGN

Any structure, part thereof, or device or inscription which is located upon, attached to, or painted, projected or represented on any land or right-of-way, or on the outside of any building or structure including an awning, canopy, marquee or similar appendage, or affixed to the glass on the outside or inside of a window so as to be seen from the outside of the building, and which displays or includes any numeral, letter, word, model, banner, emblem, insignia, symbol, device, light, trademark, or other representation used as, or in the nature of, an announcement, advertisement, attention-arrester, direction, warning, or designation by or of any person, firm, group, organization, place, commodity, product, service, business, profession, enterprise or industry.

SIGN ATTACHED TO A BUILDING

A sign that is supported, in whole or in part, by a building.

SOFFIT

A visible underside of projecting architectural elements including but not limited to building connector, roof, balcony, staircase, overhang, canopy, ceiling, bay window, and arch.

SPECIAL USE DISTRICT (SUD)

An area designated with a specific set of zoning controls adopted as part of the San Francisco Planning Code.

STEPBACK

The required or actual distance between the vertical edges of a building above a specified height, or between the vertical edge of a building and the property line above a specific height.

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 façade of a retail space between the street grade and the ceiling of the first floor.

STREETWALL

A continuous façade of a building and/or buildings along a street frontage.

TIDELANDS TRUST

The public trust for commerce, navigation and fisheries, whereby title to tidelands and lands under navigable waters are held in trust for the benefit of the people of California, as amended.

TRANSPARENCY

The condition in which glass, glazing, window, or other building feature that allows visibility into the building interior. Does not include heavily tinted or highly mirrored glass.

USE

A use is a specified purpose for which a parcel or property is used, occupied and maintained or leased. Uses within Pier 70-MU are categorized either as Permitted, Permitted with Exceptions, or Not Permitted as defined in Chapter 2. Uses apply to all floors, including mezzanines and ground floors, unless otherwise noted.

WALL SIGN

A sign painted directly on the wall or placed flat against a building wall with its copy parallel to the wall to which it is attached and not protruding more than the thickness of the sign cabinet.

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PIER 70
Building 113

APPENDIX B
LONG FAÇADES: QUALIFYING STRATEGIES REFERENCE

B.1 CLARIFICATIONS B2

SAMPLE STRATEGY EVALUATIONS

B.2 MASSING STRATEGIES B4

B.3 MODULATION STRATEGIES B7

B.4 MATERIALITY STRATEGIES B10

EXAMPLE FAÇADE EVALUATIONS

B.5 PRIMARY RESIDENTIAL FAÇADE EVALUATION B13

B.6 SECONDARY COMMERCIAL FAÇADE EVALUATION B18

B.1 CLARIFICATIONS

The following set of clarifications in Appendix B provide supplemental information to assist with evaluation process of Long Façades at Key Locations laid out in Section 6.18.

CUMULATIVE MEASUREMENT: OVERVIEW

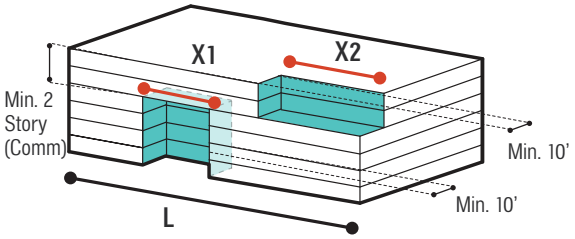
Different approaches applied within a given strategy can count cumulatively towards a credit. Different approaches across multiple strategies or categories do not count toward the same credit. Refer to the Terms & Definitions, and How to Measure sections in Section 6.18.

= Massing strategy
= Modulation strategy
= Materiality strategy

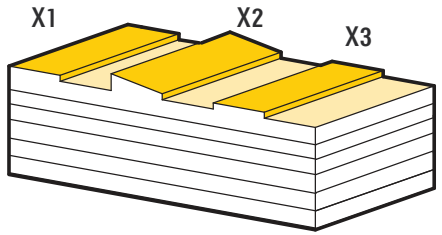
Note: Turquoise, yellow and blue diagrams respectively denote Massing, Modulation, and Materiality strategies throughout this section.

Compliant: Cumulative Measurement within the Same Strategy

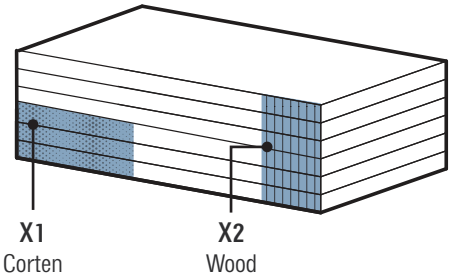
Base and Upper Level Setbacks can be counted cumulatively (X1+ X2 +...)



Roofline Modulation can be counted cumulatively (X1 +X2 +X3 +...)

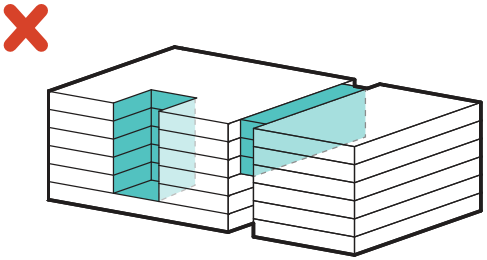


Different Preferred Materials can be counted cumulatively (X1 + X2 +...)

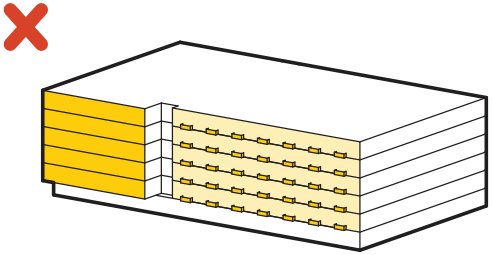


Non-Compliant: Cumulative Measurement Across Multiple Strategies

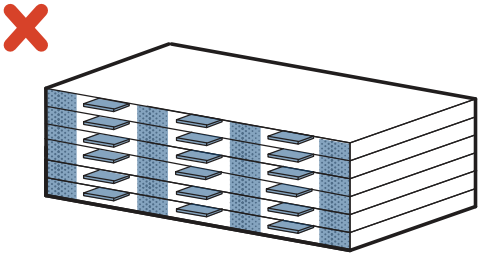
External Courtyard and Mid-Block Passages are separate massing strategies and cannot be counted toward the same credit



Multiple Façade Systems and Balconies must be separately measured towards different credits



Preferred Materials and Shading must be separately measured towards different credits



CUMULATIVE MEASUREMENT: EXCEPTION

A continuous modulation strategy that exceeds 10 feet in depth can be counted toward a modulation credit; it cannot be counted cumulatively as a massing credit.

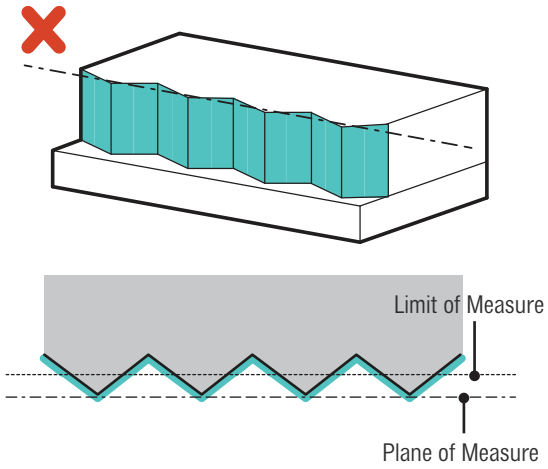
METHOD OF MEASUREMENT FOR GLAZING

Area of glazing applied on façade should be included for calculating the numerator of qualifying massing and modulation strategies.

For materiality category, area of glazing should generally be excluded from the numerator calculation unless it qualifies for "material treatment" (see Section 6.18).

Non-Compliant: Cumulative Measurement Across Massing and Modulation

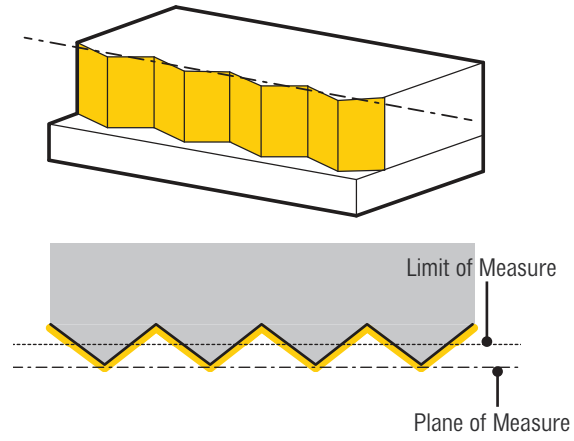
An architectural strategy that can be considered under both Massing and Modulation categories, cannot be counted cumulatively for a credit under Massing.





Compliant: Cumulative Measurement Across Massing and Modulation

An architectural strategy that can be considered under both Massing and Modulation categories, can only receive credit under Modulation.





SAMPLE STRATEGY EVALUATIONS

B.2 MASSING STRATEGIES

A long façade may receive multiple massing credits as long as each strategy fulfills the requirement set in Section 6.18.

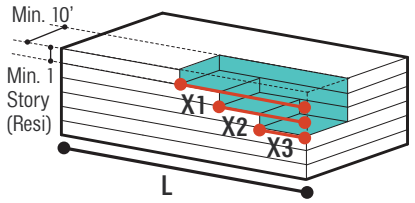
SETBACK

Setbacks must meet criteria outlined in Section 6.18 to qualify. Section 6.8 as well as standard S6.7.1 provide additional clarifications about allowable setback dimensions, locations and programming.

Qualifying setbacks that meet the minimum required dimensions are permitted to be screened for sun and wind exposure.

Terraced

Where applied strategy meets minimum depth and height requirement, all portions can be aggregated.

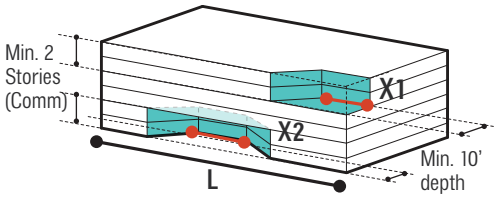


In this example:		CREDITS ACHIEVED:
(X1+X2+X3)÷L ≥ 66%	→	2*



Variable Depth Setback

Applied strategy only counted where minimum depth and height dimensions are met.

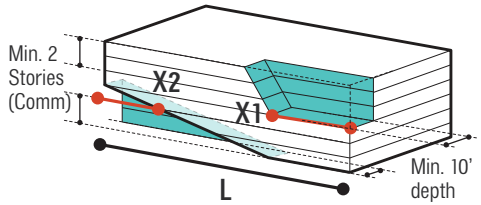


In this example:		CREDITS ACHIEVED:
(X1+X2)÷L ≥ 33%	→	1



Variable Height Setback

Applied strategy only counted where minimum depth and height dimensions met.



In this example:		CREDITS ACHIEVED:
(X1+X2)÷L ≥ 67%	→	2*



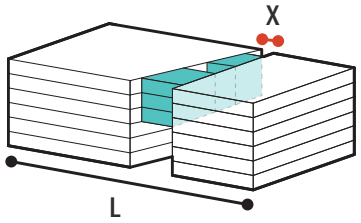
* Note: Setback is limited to a maximum 2 credits.

BUILDING OVER MID-BLOCK PASSAGE

Sections 4.4 and 6.17 define dimensional requirements of mid-block passages and building connectors. Additional clarifications regarding qualifying building over mid-block passage strategies are outlined in Section 6.18.

Variable Width Passage with Building Connector

Passages of variable width must be a minimum of 40 feet at the point of narrowest width.

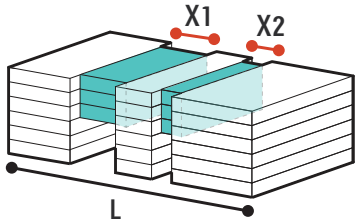


In this example:	→	CREDITS ACHIEVED:
X ≥ 40'		1



Multiple Passages with Building Connectors

In buildings with multiple connectors, each individual connector/ passage must be at least 40 feet wide to earn a credit. A single connector with increased width cannot get an additional credit.



In this example:	→	CREDITS ACHIEVED:
X1 ≥ 40' & X2 ≥ 40'		2

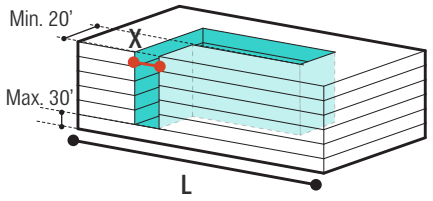


EXTERNAL COURTYARDS

Courtyards must meet criteria outlined in Section 6.18 to qualify. Section 6.12 Residential Building Elements and Open Space further clarifies requirements of usable open space. Each individual courtyard must be a minimum of 20 feet in width, 20 feet in depth, and at maximum 30 feet in height from adjacent grade. Wider courtyards do not receive additional credit.

- 1 courtyard 20' wide = 1 credit
- 1 courtyard 40' wide = 1 credit
- 2 courtyards, each 20' wide = 2 credits

Single Courtyard

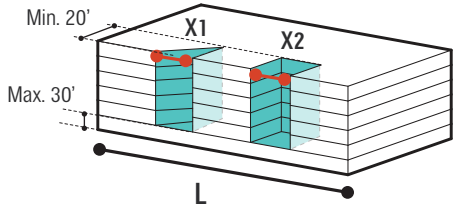


In this example:		CREDITS ACHIEVED:
X ≥ 20'	→	1



Multiple Courtyards and Variable Width

Multiple courtyards may earn multiple credits so long as each courtyard is a minimum of 20 feet in width at the plane of measure.

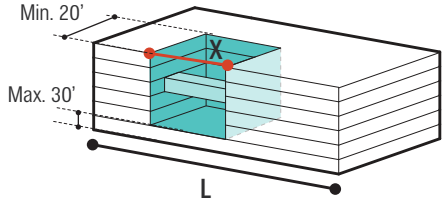


In this example:		CREDITS ACHIEVED:
X1 ≥ 20' & X2 ≥ 20'	→	2



Bridge Connector Over Courtyard

Bridges are permitted as obstructions over a courtyard, however massing of the bridge must read as secondary to the primary façade and the opening.



In this example:		CREDITS ACHIEVED:
X ≥ 20'	→	1



B.3 MODULATION STRATEGIES

MULTIPLE FAÇADE SYSTEMS

Each façade system needs to be a minimum of 20 percent of the building profile area (denoted as A in following diagrams).

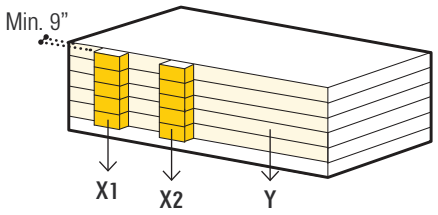
- 2 façade systems (20%, 80%)= 1 credit
- 2 façade systems (40%, 60%)= 1 credit

For buildings with 3 or more façade systems, at least 2 façade systems must be a minimum of 20 percent of the building profile area (denoted as A in following diagrams).

- 3 façade systems (20%, 40%, 40%)= 2 credits
- 3 façade systems (40%, 40%, 10%, 10%)= 2 credits

Ground floor articulation can be considered one of the façade systems for multiple façade systems.

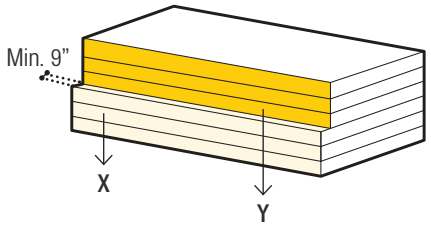
Two Façade Systems



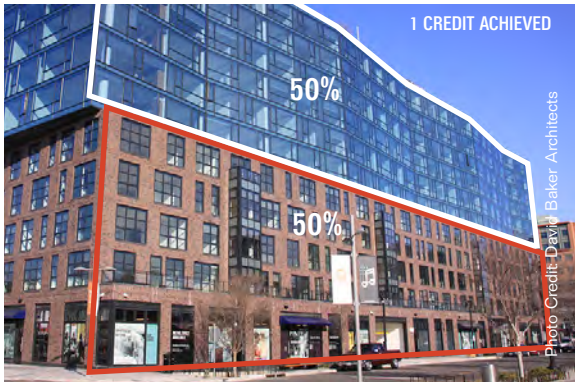
In this example:
(X1+X2)÷A ≥ 20% & Y÷A ≥ 20% → **CREDITS ACHIEVED: 1**



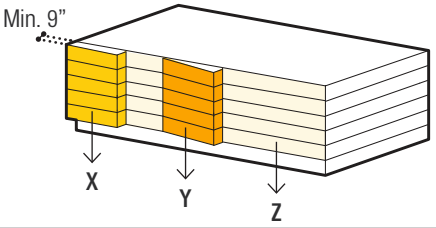
Two Façade Systems



In this example:
X÷A ≥ 20% & Y÷A ≥ 20% → **CREDITS ACHIEVED: 1**



Three Façade Systems



In this example:
X÷A ≥ 20% & Y÷A ≥ 20% & Z÷A ≥ 20% → **CREDITS ACHIEVED: 2***

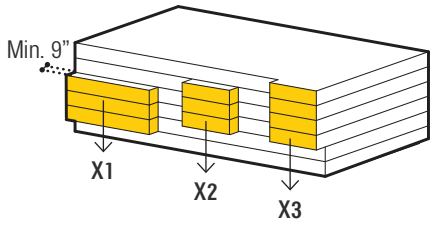


* Note: Multiple Façade System is limited to a maximum 2 credits.

VOLUMETRIC FAÇADE ARTICULATION

The following rule applies in addition to the controls specified in Section 6.18: area of ground floor modulation must be excluded for measurement of Volumetric Façade Articulation.

Projections

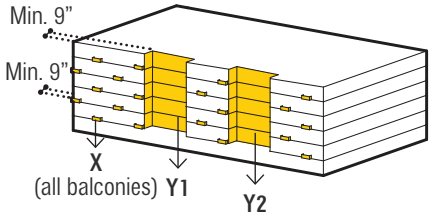


In this example:
(X1+X2+X3)÷A ≥ 33%

→ **CREDITS ACHIEVED:** 1



Balconies and Recesses

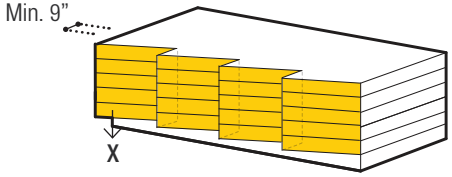


In this example:
(X+Y1+Y2)÷A ≥ 33%

→ **CREDITS ACHIEVED:** 1



Bay Projections



In this example:
X÷A ≥ 66%

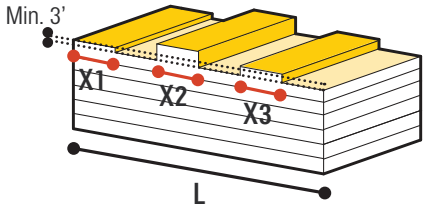
→ **CREDITS ACHIEVED:** 2



ROOFLINE MODULATION

Requires a change of height in the last occupiable floor. Roofline modulation does not include changes in height of external screening.

Stepped Roof

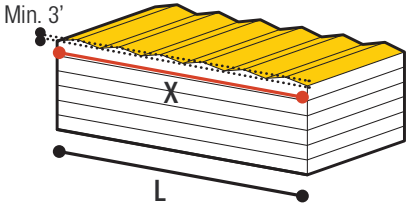


In this example:
(X1+X2+X3)÷L ≥ 33%

→ **CREDITS ACHIEVED:** 1*



Sloped/Undulating Roof



In this example:
X÷L = 100%

→ **CREDITS ACHIEVED:** 1*



* Note: Roofline Modulation is limited to a maximum 1 credit.

B.4 MATERIALITY STRATEGIES

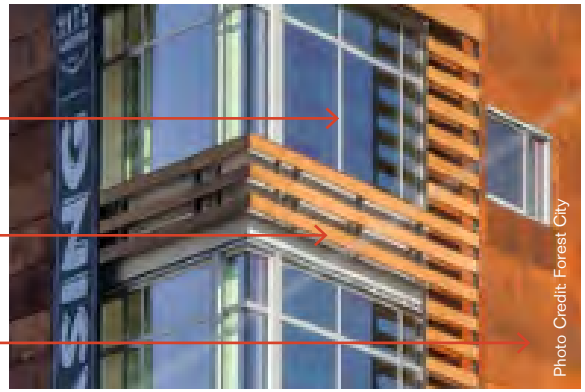
PREFERRED MATERIALS

Window mullions cannot be included in calculation of preferred materials aggregate. Building signage, storefront signs, canopies, and balcony railings can contribute towards preferred materials usage.

MATERIALITY TREATMENT

Materials from the preferred materials list that also have a treatment applied to them can qualify for 2 separate credits (1 Preferred Material, and 1 Material Treatment).

Preferred Materials & Material Treatment – Applicable Surfaces



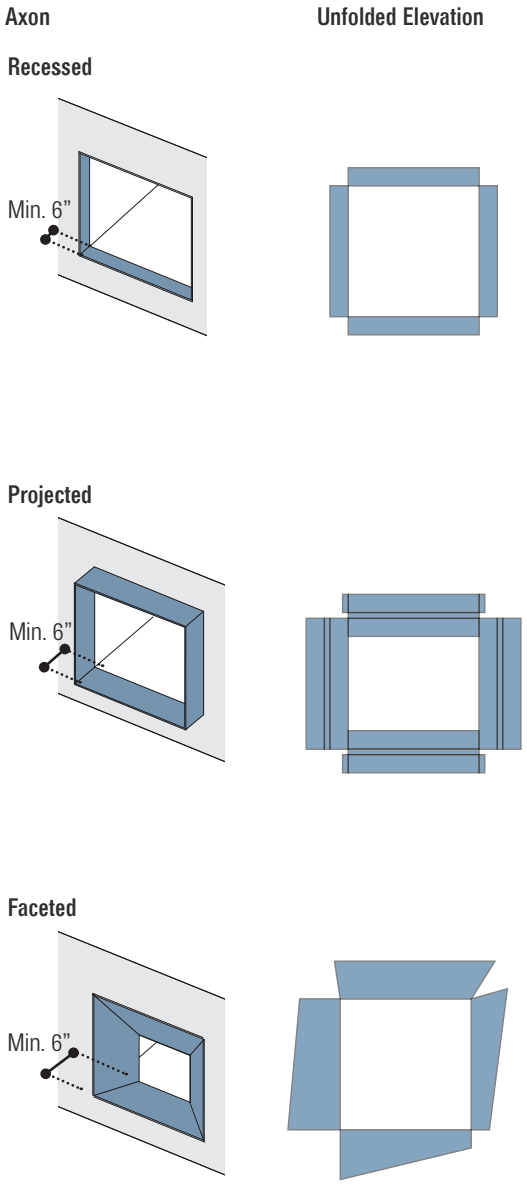




* Note: Preferred Materials is limited to a maximum 2 credits.

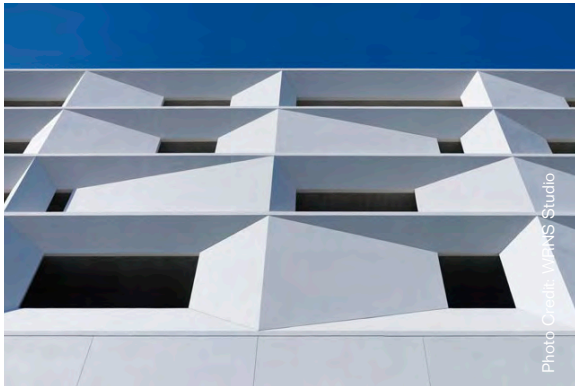
FAÇADE DEPTH

Façade depth strategies are within the thickness of a façade and do not include occupiable strategies such as bay windows. Example strategies include inset/punched, or projected windows, or faceted paneling as shown below.







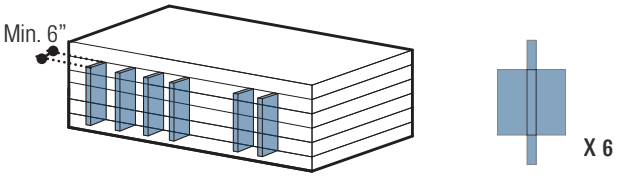


SHADING

Shading elements are external to the façade plane, and include strategies such as louvers, fins, screening features, framed shading devices, and brise soleils. All exposed surfaces of a shading element that are a minimum of 6 inches in depth must be included.

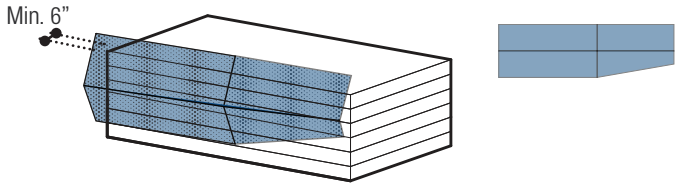
Axon **Unfolded Elevation**

Louvers



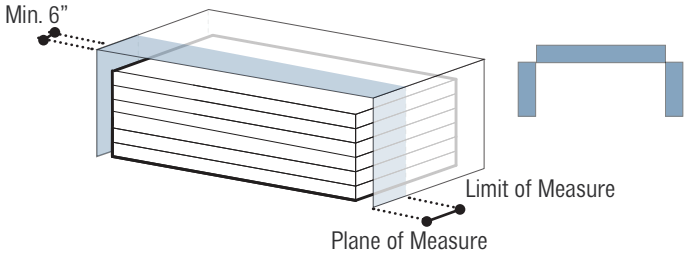


Faceted Panels





Frame





EXAMPLE FAÇADE EVALUATIONS

GUIDE FOR SUBMITTAL

The following sample façade evaluations serve as a guide for submittal for future users of this document. Long façade designs within the Project will be required to submit the documentation shown in Sections B.5 and B.6 to the Planning Department for approvals. Note the documentation must include façade renders or illustrations, drawings with noted qualifying strategies, summary tables with breakdown of qualifying strategies, photos of selected building materials, and other relevant details to demonstrate compliance.

B.5 PRIMARY RESIDENTIAL FAÇADE (2175 MARKET STREET)

As a primary façade at 220 feet in length, the Market Street façade of 2175 Market Street would be required to earn at least four credits; including prerequisites of two qualifying massing or modulation strategies and one qualifying materiality strategy.



FIGURE B.5.1: Primary Façade of 2175 Market Street

TABLE B.5.1: 2175 Market Street – Qualifying Massing Strategies

QUALIFYING STRATEGY: MASSING	MIN.	MAX. CREDITS	% ACHIEVED	CREDITS ACHIEVED	NOTES
Setback	Min. 33%	2	-	-	
Building Over Mid-Block Passages	-	Unlimited	-	-	
External Courtyards	Min. 20' W. Min. 20' D. Max. 30' H. from Ground	Unlimited	-	-	
			TOTAL MASSING STRATEGIES	**-**	



FIGURE B.5.2: 2175 Market Street – Elevation

TABLE B.5.2: 2175 Market Street – Qualifying Modulation Strategies

QUALIFYING STRATEGY: MODULATION	% MIN. AREA	MAX. CREDITS	% ACHIEVED	CREDITS ACHIEVED	NOTES
Multiple Façade Systems	20% / 20%	2	29% / 59%	1	Façade system 1 – Bays/Glazing Façade system 2 – Wood/Glazing
Volumetric Façade Articulation	33%	Unlimited	54%	1	Recessed and Projected Area over 9" (Including Bay windows)
Roofline Modulation	20% (LF); 3' H.	1	21% (LF); 5'6" H.	1 (2)	Angled roof at the corner (44'-8"L. by 5'-6" H.)
			TOTAL MODULATION STRATEGIES	**3 (4)**	

Note: Numbers in parentheses indicate total number of credits achieved after double counting modulation strategies beyond the prerequisite amounts.

Multiple Façade Systems



- Façade System 1 8,921 SF/ 59%
- Façade System 2 4,302 SF/ 29% (> 20%)
- Façade System 3 2,276 SF/ 15% (< 20%)

Note: Includes area recessed or projected up to the limit of measure (10' depth)

Volumetric Façade Articulation



- Projected Area (Bay Windows & sides): 2,767 SF/ 18%
- Recessed Area 5,406 SF/ 36%

Total Volumetric Façade Articulation 8,173 SF/ 54%

Note: Includes area recessed or projected up to limit of measure (10' depth)

FIGURE B.5.3: 2175 Market Street – Modulation Strategies Diagrams

TABLE B.5.3: 2175 Market Street – Qualifying Materiality Strategies

QUALIFYING STRATEGY: MATERIALITY	% MIN. AREA	MAX. CREDITS	% ACHIEVED	CREDITS ACHIEVED	NOTES
Preferred Materials	20%	2	**43%**	**2**	See Figure B.5.4
Material Treatment	20%	Unlimited	**27%**	**1**	Includes all materials listed in Figure B.5.4 except wood siding.
Façade Depth	20%	Unlimited	13%	-	See Figure B.5.4
Shading	20%	Unlimited	11%	-	Includes sun screen area noted in Figure B.5.4.
			TOTAL MATERIALITY STRATEGIES	**3**	

Preferred Materials



Alum. Panel with Corten Finish*	1,382 SF/ 9%
Wood Siding	2,450 SF/ 16%
Bay Window Corten Fascia*	858 SF/ 6%
Sun Screen (Perforated Metal)*	1,644 SF/ 11%
Juliet Balcony (Perforated Metal)*	90 SF/ 0.6%
Aggregate Total Area	6,424 SF/ 43%

Façade Depth



Bay Window Corten Fascia	858 SF/ 6%
Recessed Area	1,048 SF/ 7%
Aggregate Total Area	1,906 SF/ 13%

*Note: Corten finish meets 2 strategies – Preferred Materials & Material Treatment

FIGURE B.5.4: 2175 Market Street – Materiality Strategies Diagrams

TABLE B.5.4: 2175 Market Street – Long Façade Requirements Checklist

		FAÇADE LENGTH AND LOCATION TYPE				
		200 TO 350 FEET		350+ FEET		GARAGE
	MAX. CREDITS	PRIMARY	SECONDARY	PRIMARY	SECONDARY	
QUALIFYING CREDITS: MASSING AND MODULATION (1 credit each, worth 2 credits for every additional beyond pre-requisite amount)						
Prerequisite minimum combination of massing OR modulation strategies		2	1	2	1	0
MASSING						
Setback	Unlimited	-				
Building Over Mid-Block Passages	Unlimited	-				
External Courtyards	Unlimited	-				
MODULATION						
Multiple Façade Systems	2	**1**				
Volumetric Façade Articulation	Unlimited	**1**				
Roofline Modulation	1	**1 (2)**				
QUALIFYING CREDITS: MATERIALITY (1 credit each, 1 credit for every additional beyond pre-requisite amount)						
Prerequisite minimum materiality strategy		1	1	1	1	0
Preferred Materials	2	**2**				
Materiality Treatment	Unlimited	**1**				
Façade Depth	Unlimited	-				
Shading	Unlimited	-				
QUALIFYING CREDITS: CREATIVE DESIGN (1 CREDIT)	1	-				
TOTAL CREDITS REQUIRED		4	4	6	6	4
TOTAL CREDITS PROVIDED		**7**				
Does this project meet minimum requirements? (Y/N)		**Y**				

Note: Numbers in parentheses indicate total number of credits achieved after double counting modulation strategies over the pre-requisite amounts.

B.6 SECONDARY COMMERCIAL FAÇADE (MISSION HALL)

Given its location along 4th Street, Mission Hall's west façade is considered a secondary façade for the purposes of this analysis. As a secondary façade that is 225 feet in length, it must earn at least four credits: including prerequisites of at least one qualifying massing or modulation strategy, and one qualifying materiality strategy.



FIGURE B.6.1: Secondary Façade of Mission Hall

TABLE B.6.1: Mission Hall – Qualifying Massing Strategies

QUALIFYING STRATEGY: MASSING	MIN.	MAX. CREDITS	% ACHIEVED	CREDITS ACHIEVED	NOTES
Setback	Min. 33%	2	100%	1	Per S6.7.1, large unprogrammed recesses, arcades and open perimeter colonnades will not be permitted within the Pier 70 Project. However, the setback at Mission Hall is awarded one credit for the purposes of illustration given its compliance with the dimensional criteria.
Building Over Mid-Block Passages	-	Unlimited	-	-	-
External Courtyards	Min. 20' W. Min. 20' D. Max. 30' H. from Ground	Unlimited	-	-	-
			TOTAL MASSING STRATEGIES	1	

Massing Setback

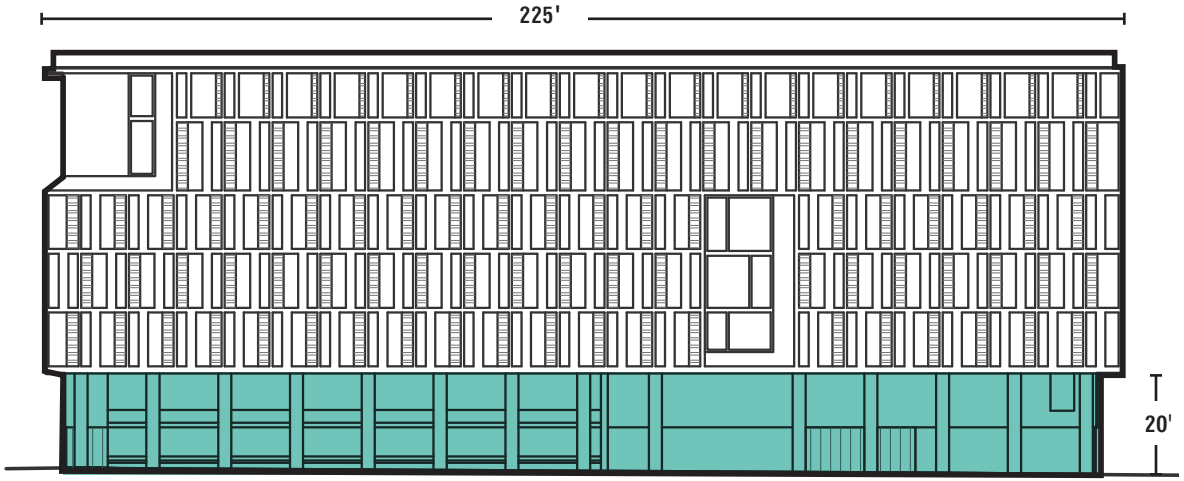




FIGURE B.6.2: Mission Hall – Elevation

TABLE B.6.2: Mission Hall – Qualifying Modulation Strategies

QUALIFYING STRATEGY: MODULATION	% MIN. AREA	MAX. CREDITS	% ACHIEVED	CREDITS ACHIEVED	NOTES
Multiple Façade Systems	20% / 20%	2	10% / 67%	-	Façade system 1 – Concrete Panels Façade system 2 – Glazing
Volumetric Façade Articulation	33%	Unlimited	6%	-	Recessed and Projected Area over 9" (Including Bay windows)
Roofline Modulation	20% (LF)	1	-	-	-
			TOTAL MODULATION STRATEGIES	-	

Multiple Façade Systems

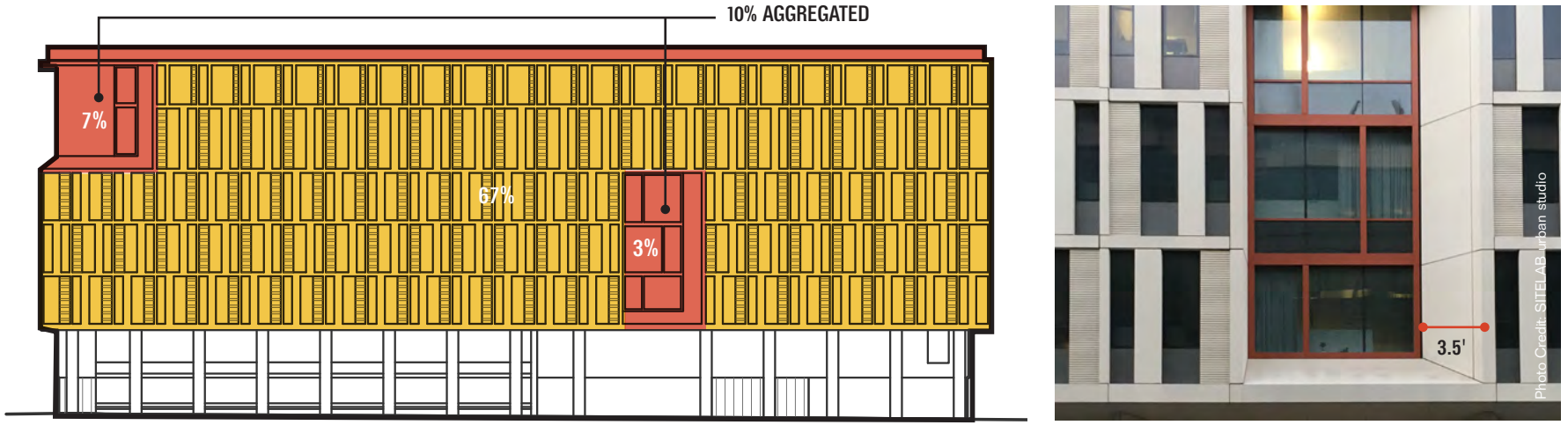
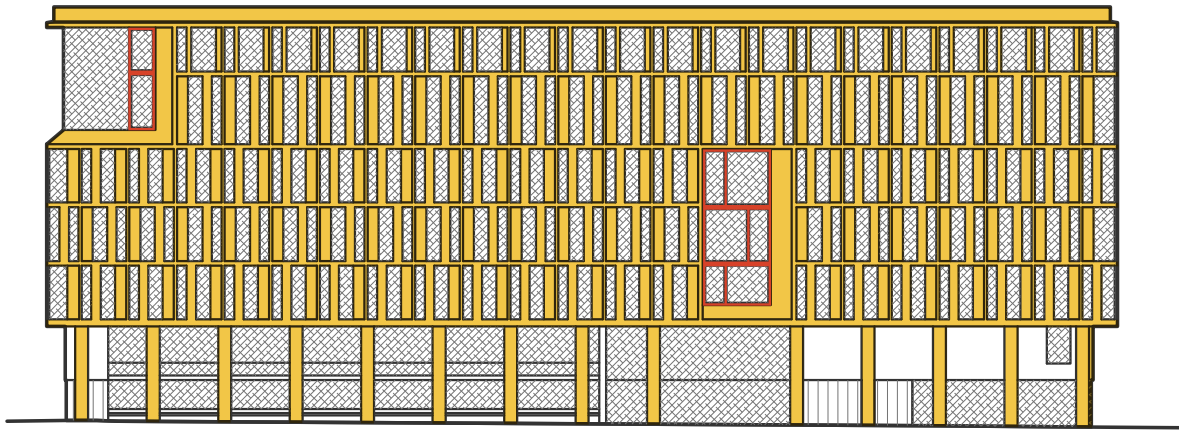


FIGURE B.6.3: Mission Hall – Modulation Strategies Diagrams

TABLE B.6.3: Mission Hall – Qualifying Materiality Strategies

QUALIFYING STRATEGY: MATERIALITY	% MIN. AREA	MAX. CREDITS	% ACHIEVED	CREDITS ACHIEVED	NOTES
Preferred Materials	20%	2	**83%**	**2**	Materials included up to the limit of measure (10' depth)
Material Treatment	20%	Unlimited	13%	-	*Textured GFRC only
Façade Depth	20%	Unlimited	**40%**	**2**	Includes soffit of ground floor setback up to the limit of measure (10' depth)
Shading	20%	Unlimited	11%	-	-
			TOTAL MATERIALITY STRATEGIES	**4**	

Preferred Materials





1. Typical GFRC	11,816 SF/ 61%
2. Smooth GFRC	1,671 SF/ 9%
3. Textured GFRC*	2,446 SF/ 13%
Aggregate Total	16,535 SF / 83%

Note: Includes area recessed or projected up to the limit of measure (10' depth)

FIGURE B.6.4: Mission Hall – Materiality Strategies Diagrams

TABLE B.6.4: Mission Hall – Long Façade Requirements Checklist

		FAÇADE LENGTH AND LOCATION TYPE				
		200 TO 350 FEET		350+ FEET		GARAGE
	MAX. CREDITS	PRIMARY	SECONDARY	PRIMARY	SECONDARY	
QUALIFYING CREDITS: MASSING AND MODULATION (1 credit each, worth 2 credits for every additional beyond pre-requisite amount)						
Prerequisite minimum combination of massing OR modulation strategies		(2)	(1)	(2)	(1)	(0)
MASSING						
Setback	Unlimited		1			
Building Over Mid-Block Passages	Unlimited		-			
External Courtyards	Unlimited		-			
MODULATION						
Multiple Façade Systems	2		-			
Volumetric Façade Articulation	Unlimited		-			
Roofline Modulation	1		-			
QUALIFYING CREDITS: MATERIALITY (1 credit each, 1 credit for every additional beyond pre-requisite amount)						
Prerequisite minimum materiality strategy		(1)	(1)	(1)	(1)	(0)
Preferred Materials	2		2			
Materiality Treatment	Unlimited		-			
Façade Depth	Unlimited		2			
Shading	Unlimited		-			
QUALIFYING CREDITS: CREATIVE DESIGN (1 CREDIT)	1		-			
TOTAL CREDITS REQUIRED		(4)	(4)	(6)	(6)	(4)
TOTAL CREDITS PROVIDED			5			
Does this project meet minimum requirements? (Y/N)			Y			

Note: The ground floor setback at Mission Hall is not compliant with the D4D (S6.7.1 prohibits large unprogrammed setbacks), and would thus not be permitted within the Pier 70 Project. However, for the purposes of illustration, the setback is considered as a qualifying massing strategy, given its compliance with the dimensional criteria for setbacks.

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Photo Credit: Shae Rocco/ Forest City