

Earl Street

Earl Street serves as a secondary point of entry. In addition, Earl Street creates an edge between the Site and Northside Park. A generous pedestrian zone is provided. Large trees mark the entry to the site. A zone is provided on the northwest side for on-street parking and drop-off adjacent to the potential school.



KEY PLAN

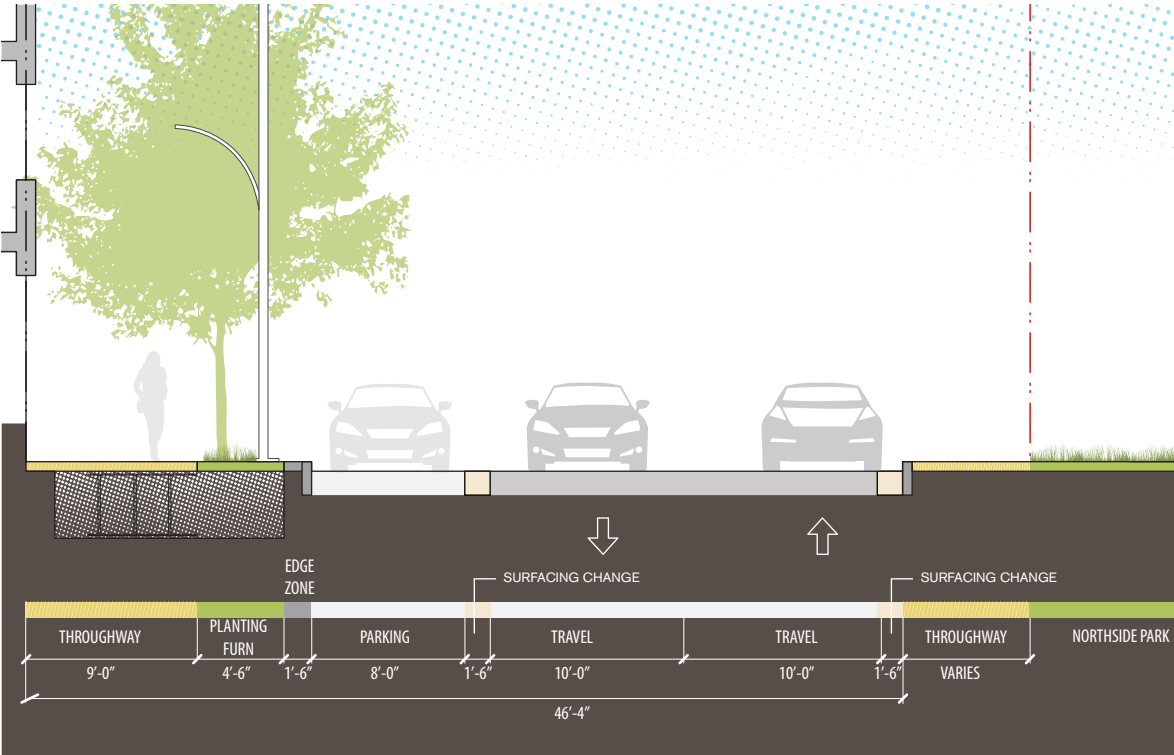
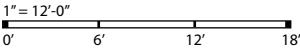


FIGURE 2.17: EARL STREET SECTION



Earl Path

Earl Path is a multi-use path along the interface with the adjacent park. The path provides pedestrian and bicycle access along the southern edge of the site from the end of Earl Street and the New Hudson Class 1 bikeway to the shoreline. The path is lined with large trees to help buffer adjacent residences from the park.



FIGURE 2.18: EARL PATH VIEW

Table 4. Earl Street Specifications

R.O.W. WIDTH: 20 FEET
BIKE FACILITIES: CLASS III (SHARROWS)

SURFACING

| | | |
|----|------------------|-----------------|
| P1 | RAISED CROSSWALK | TYPE H, I, J, K |
| P2 | FURNISHING ZONE | TYPE I, J, K |
| P3 | TRAVEL ZONE | TYPE G, H |
| P4 | THROUGHWAY ZONE | TYPE H, I, J |
| P5 | CURB ZONE | TYPE H, I, J, K |

CURBS

| | | |
|----|-----------------|--------------|
| C1 | CURB RAMP | DPW STANDARD |
| C2 | CURB EXTENSION | DPW STANDARD |
| C3 | CURB AND GUTTER | DPW STANDARD |
| C4 | GARAGE ENTRY | REFER TO X.X |

PLANTING

| | | |
|----|----------------------|-------------------|
| L1 | TREE | ENTRY STREET |
| L2 | STREETSCAPE PLANTING | UNDERSTORY TYPE C |

LIGHTING

| | | |
|-----|--------------|--------|
| LT1 | STREET LIGHT | TYPE 1 |
|-----|--------------|--------|

FURNISHING

| | |
|----|---------|
| F1 | SEATING |
|----|---------|

PARKING & LOADING

| | | |
|-----|----------------|--------------|
| PA1 | STREET PARKING | DPW STANDARD |
|-----|----------------|--------------|

Standards

2.3.27. Street Zone Dimensions Right-of-way cross-section dimensions shall be as shown in Figure 2.21.

2.3.28. Elements Elements per Figure 2.23. All elements shown shall be included. Dimensions vary.

2.3.29. Specifications Specifications shall conform to Table 4. Earl Street Specifications. See Section 2.5 for public realm elements.

2.3.30. Throughway Zone Maintain a minimum six-foot wide unobstructed throughway zone.

2.3.31. Street Trees Street trees are required and shall be spaced at maximum 30' on center.

2.3.32. Daylighting Street parking shall be inset in interstitial area, setback at least 10' from closest base of crosswalk table top.

2.3.33. Surfacing Where travel lanes exceed 10 feet wide, surfacing shall change adjacent to curb to a contrasting material, such as textured paving.

Guidelines

2.3.34. Street Trees Street trees shall be Entry Street tree type. See page 212 for species.



FIGURE 2.19: EARL STREET ENLARGED PLAN

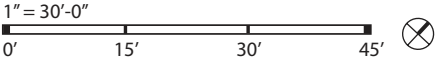


Table 5. Earl Path Specifications

R.O.W. WIDTH: XX FEET
BIKE FACILITIES: MULTI-USE TRAIL

| SURFACING | | |
|------------|----------------------|-------------------|
| P1 | MULTI-USE PATH | TYPE I, M |
| P2 | BOARDWALK | TYPE U |
| PLANTING | | |
| L1 | TREE | ENTRY STREET |
| L2 | STREETSCAPE PLANTING | UNDERSTORY TYPE C |
| LIGHTING | | |
| LT1 | PEDESTRIAN LIGHT | TYPE 2 |
| FURNISHING | | |
| F1 | SEATING | TYPE 1, 2 |



KEY PLAN

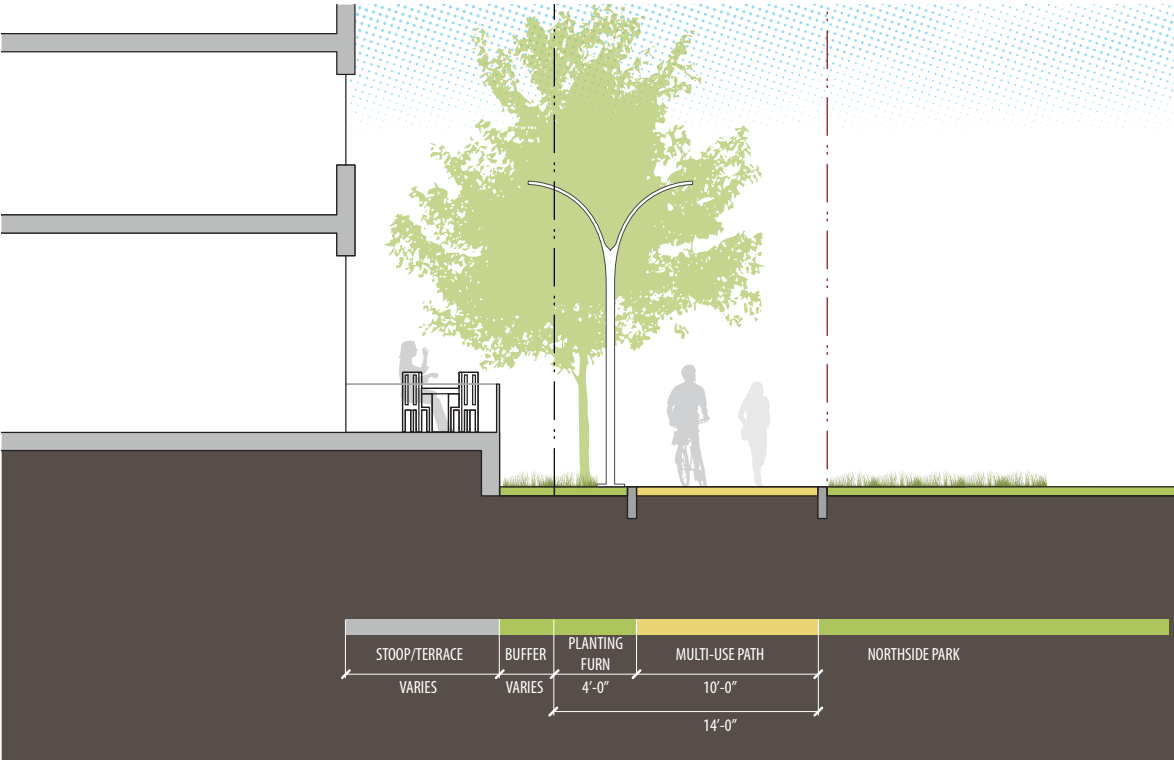
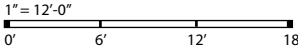


FIGURE 2.20: EARL PATH SECTION



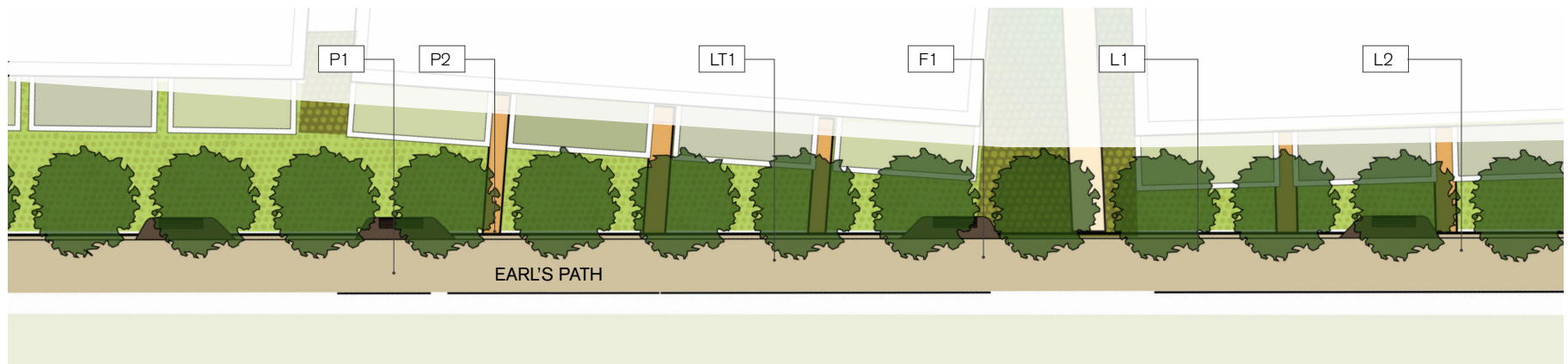
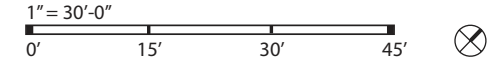


FIGURE 2.21: EARL PATH ENLARGED PLAN



Standards

2.3.35. Elements Elements per figure 2.25. All elements shown shall be included. Dimensions vary.

2.3.36. Specifications Specifications shall conform to Table 5. Earl Path Specifications. See Section 2.5 for public realm elements.

2.3.37. Tree Size Minimum tree size is 24-inch box.

Guidelines

2.3.38. Seating Seating shall be oriented toward the adjacent property, not toward residences.

2.3.39. Trees Trees shall be Entry Street tree type. See page 212 for species.

2.3.40. Pedestrian Surfacing Surfaces shall be firm, stable and slip resistant.



KEY PLAN

Shared Public Way

The Shared Public Way prioritizes pedestrians -- accommodating requirements for infrequent, low-volume vehicular access in a one way loop while maintaining flexible community use. Vehicular access is limited to slow speeds to facilitate creation of a vibrant pedestrian space. The shared public way fosters a unique identity and venue for public life in the Flats neighborhood. Planting is accommodated where possible, with an emphasis on habitat creation and stormwater treatment, reducing infrastructure required for stormwater elsewhere on site and expanding public realm amenities.



Shared Public Way

The Shared Public Way is configured to provide varied experiences, be performative, and provide places of discovery within the Flats neighborhood. At strategic moments, spaces for public gathering and signature furnishings and installations are provided. Extents of the shared way expand to create wider areas for pedestrian use and informal gathering spaces, as well as staging areas for emergency vehicles.



FIGURE 2.22: SHARED PUBLIC WAY - BEACH LANE

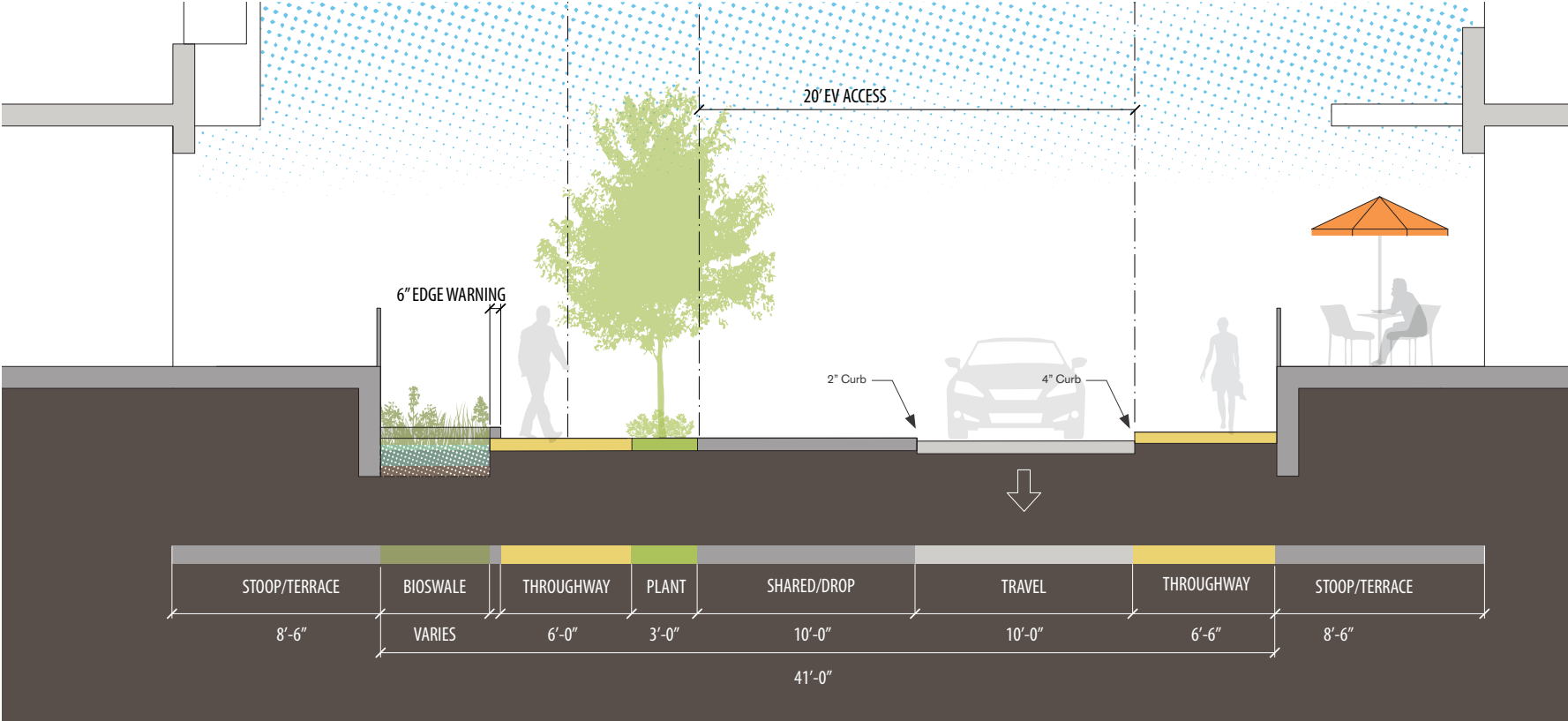
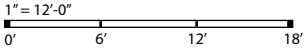


FIGURE 2.23: SHARED PUBLIC WAY SECTION AT TREE



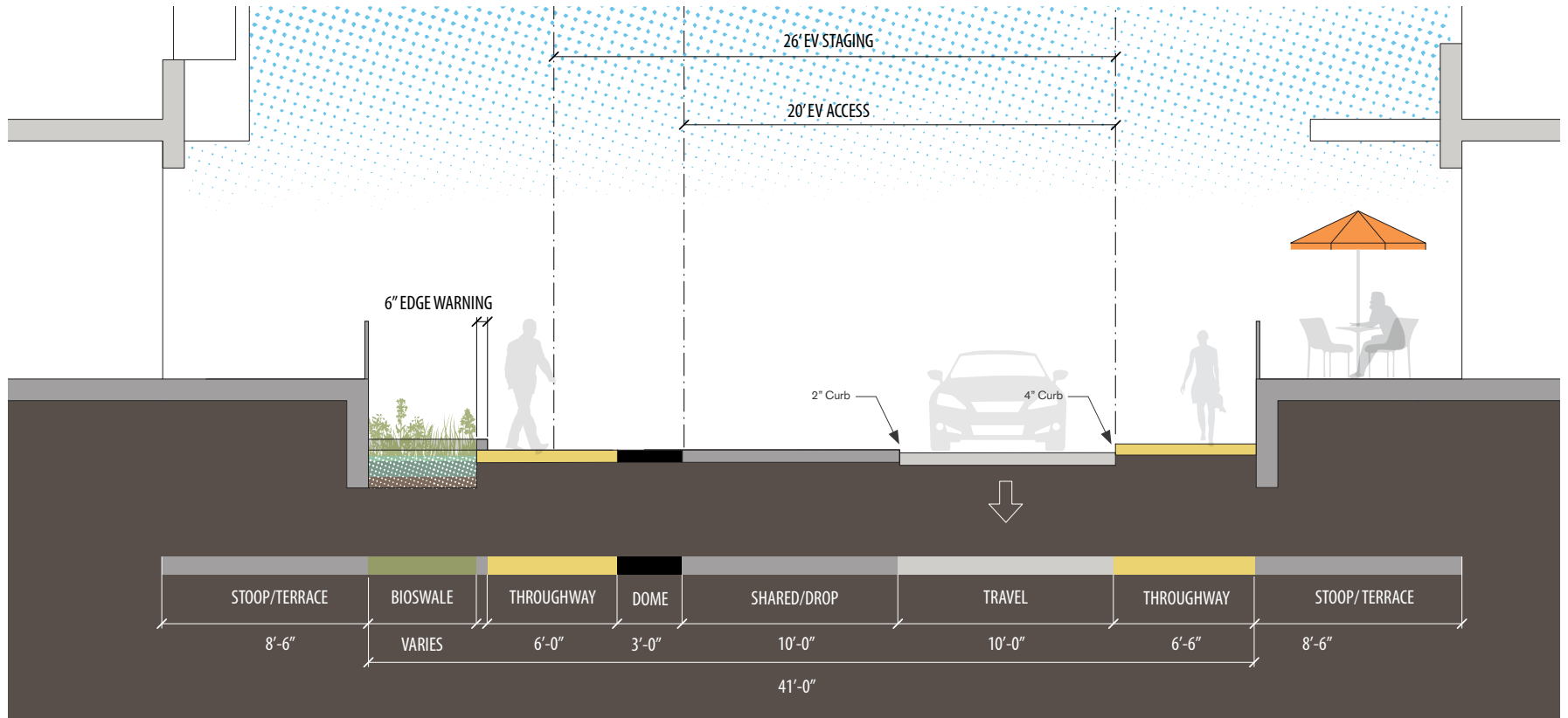


FIGURE 2.24: TYPICAL SHARED PUBLIC WAY SECTION

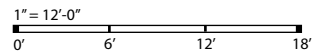


Table 6. Shared Public Way Specifications

R.O.W. WIDTH: VARIES
BIKE FACILITIES: NO

SURFACING

| | | |
|----|------------------------------------|-----------------|
| P1 | THROUGHWAY | TYPE H, I, J, K |
| P2 | INFILTRATION BOARDWALK | TYPE U |
| P3 | DETECTABLE WARNING | TYPE R |
| P4 | DETECTABLE WARNING AT PED CROSSING | TYPE R |
| P5 | SHARED SURFACE | TYPE H, I, J, K |
| P6 | PED PATHWAY | TYPE I, J, K |
| P7 | POCKET PLAZA | SEE X.X |

PLANTING

| | | |
|----|----------------------|-------------------|
| L1 | TREE | OPEN SPACE |
| L2 | BIORETENTION | UNDERSTORY TYPE F |
| L3 | TREE | LANE/LANEWAY |
| L4 | STREETSCAPE PLANTING | UNDERSTORY TYPE C |

LIGHTING

| | | |
|-----|------------------|--------|
| LT1 | PEDESTRIAN LIGHT | TYPE 2 |
|-----|------------------|--------|

PARKING & LOADING

| | | |
|-----|--------------|--|
| PA1 | LOADING ZONE | |
|-----|--------------|--|

Standards

2.3.41. Street Zone Dimensions Right-of-way cross-section dimensions shall be as shown in Figure 2.27 & Figure 2.28.

2.3.42. Elements Elements per figure 2.29, 2.30 and 2.31. All elements shown shall be included. Dimensions vary.

2.3.43. Specifications Specifications shall conform to Table 6. Shared Public Way Specifications. See Section 2.5 for public realm elements.

2.3.44. Encroachments Encroachments into pedestrian ROW shall maintain a minimum six-foot wide unobstructed throughway zone.

2.3.45. Edge Warning Provide minimum 6" high edge warning at edge of stormwater treatment area where vertical grade change exceeds 4". Use wood or pipe rail material.

2.3.46. Pocket Plazas Pocket Plazas shall be provided as shown in Figures 2.46 & 2.64. These are vehicle-free zones which shall feature special paving and site-specific furnishings. See Section 2.5 for non-exhaustive examples.

Guidelines

2.3.47. Street Trees. Street trees shall be Lane/Laneway type. See page 212 for species.

2.3.48. Visual/Tactile Cues Provide visual/tactile cues to alert people with visual impairments to the shared nature of the space, including tactile warnings and paving texture changes.

2.3.49. Vehicular Travel Zone Paving pattern and texture change shall be used to distinguish the vehicular travel zone.

2.3.50. Boardwalks Elevated boardwalks shall span over stormwater treatment facilities to provide pedestrian access.

2.3.51. Groundplane Planting Groundplane planting shall maximize habitat potential. See Sec. 2.6.

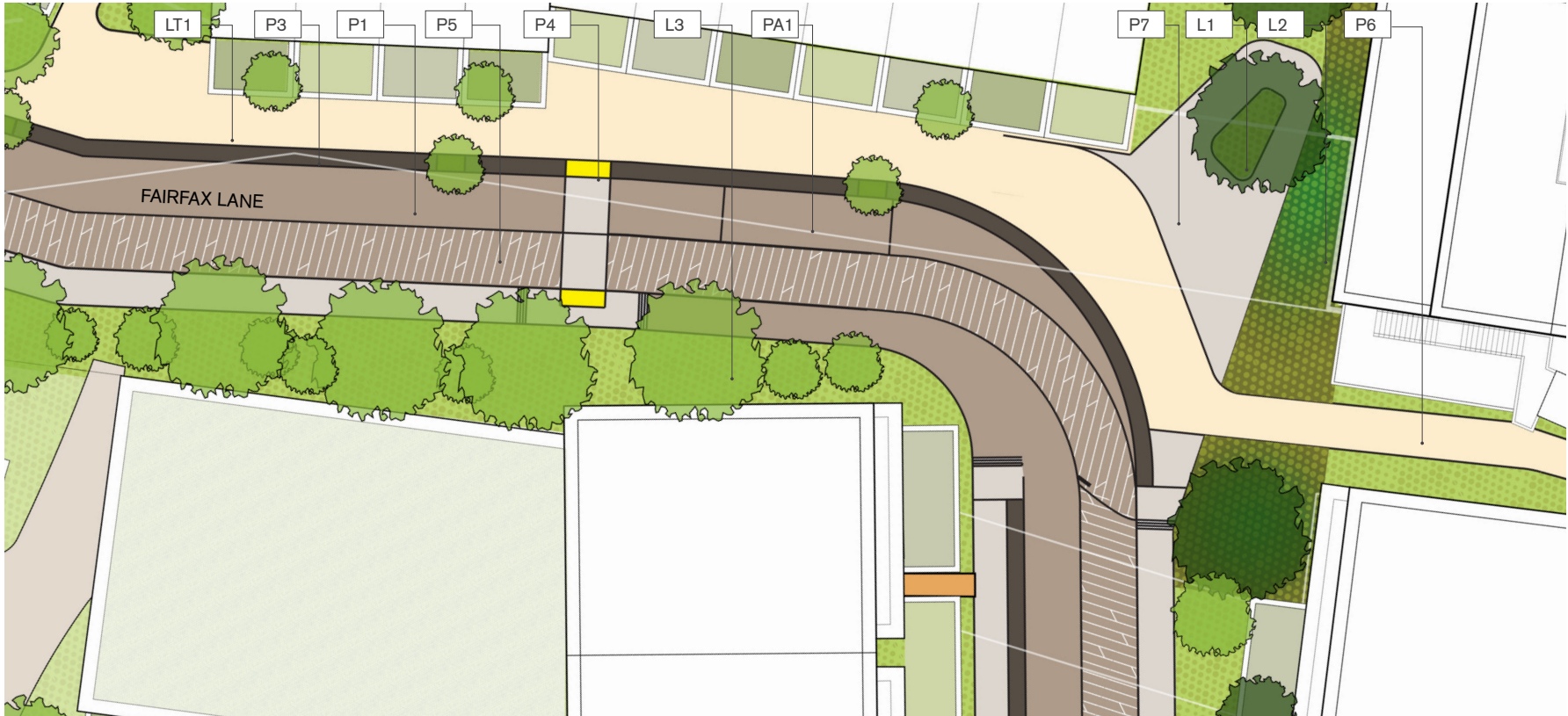
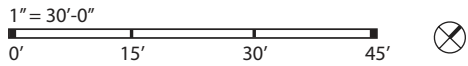


FIGURE 2.25: SHARED PUBLIC WAY - FAIRFAX LANE ENLARGED PLAN



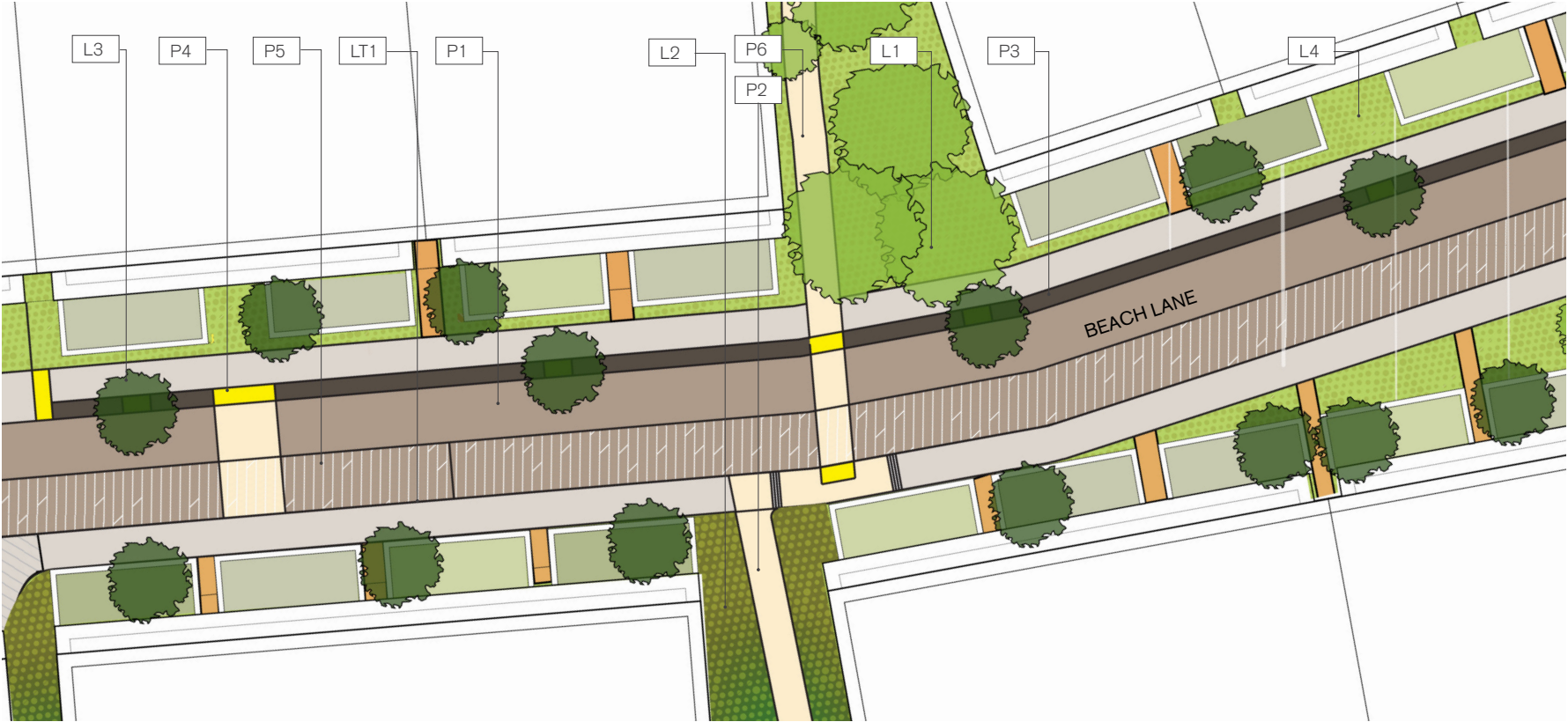
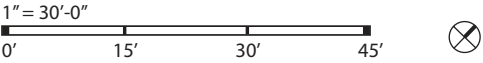


FIGURE 2.26: SHARED PUBLIC WAY - BEACH LANE ENLARGED PLAN



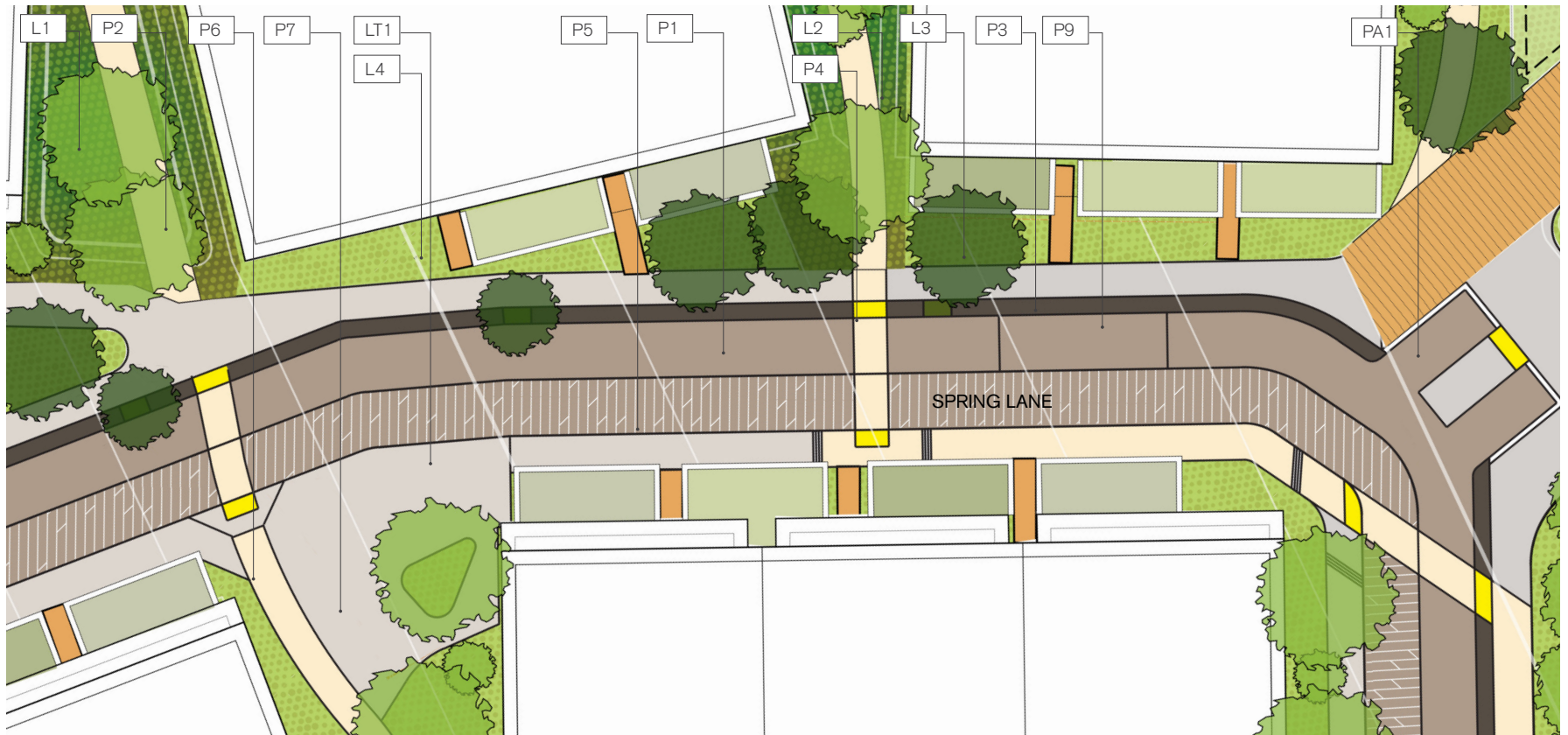
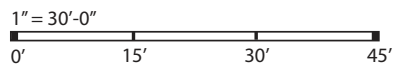


FIGURE 2.27: SHARED PUBLIC WAY - SPRING LANE ENLARGED PLAN



Laneways

The Laneways break down the scale of large blocks, providing permeability, pedestrian access, views to the bay and enhanced connectivity. The Cove Laneway provides a direct mid-block passage for pedestrians from Innes to New Hudson and the Cove Terrace. This is an active, vibrant public space with a garden like, linear park character. Material choices, including wood decking distinguish this space from a typical pedestrian sidewalk. Materials and planters are integrated into the subgrade parking structure. Planting areas may be used for stormwater management if required by the hydraulics of the phase.



FIGURE 2.28: COVE LANEWAY AXON

Cove Laneway

The Cove Laneway provides pedestrian access from Innes to New Hudson adjacent to the Cove Terrace. The Cove Laneway terminates at a raised crosswalk across New Hudson, connecting to a cantilvered viewing platform at the Cove Terrace.



FIGURE 2.29: COVE LANEWAY SECTION-TYPICAL

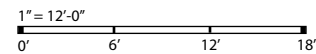


Table 7. Cove Laneway Specifications

R.O.W. WIDTH: VARIES
BIKE FACILITIES: NO

SURFACING

| | | |
|----|------------|-----------|
| P1 | THROUGHWAY | TYPE I, J |
| P2 | WOOD DECK | TYPE U |

PLANTING

| | | |
|----|----------------------|-------------------|
| L1 | FLOW-THROUGH PLANTER | UNDERSTORY TYPE F |
| L2 | TREE | LANE/LANEWAY |
| L3 | STREETSCAPE PLANTING | UNDERSTORY TYPE C |

LIGHTING

| | | |
|-----|------------------|--------|
| LT1 | PEDESTRIAN LIGHT | TYPE 2 |
|-----|------------------|--------|

FURNISHING

| | | |
|----|---------|----------|
| F1 | SEATING | TYPE1, 2 |
|----|---------|----------|

Standards

2.3.52. Elements Elements per figure 2.34. All elements shown shall be included. Dimensions vary.

2.3.53. Specifications Specifications shall conform to Table 7. Cove Laneway Specifications. See Section 2.5 for public realm elements.

2.3.54. Tree Size Minimum tree size is 24-inch box. Top of rootball shall not exceed 2' above finished grade. Accommodate soil in podia.

2.3.55. Raised Planters Raised planters shall be no greater than 18" in height to allow for incorporation of seating elements.

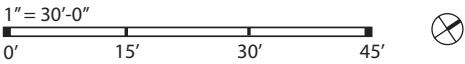
Guidelines

2.3.56. Trees Trees shall be Lane/Laneway type. See page 212 for species.

2.3.57. Trees Trees shall be planted in linear rows to frame views to the bay.



FIGURE 2.30: COVE LANEWAY ENLARGED PLAN



KEY PLAN

Hillside Laneway

As a midblock passageway spanning from Innes to New Hudson at the intersection with Spring Lane, the Hillside Laneway provides an important pedestrian connection to the Flats, the Big Green, and the Beach.



FIGURE 2.31: HILLSIDE LANEWAY AXON

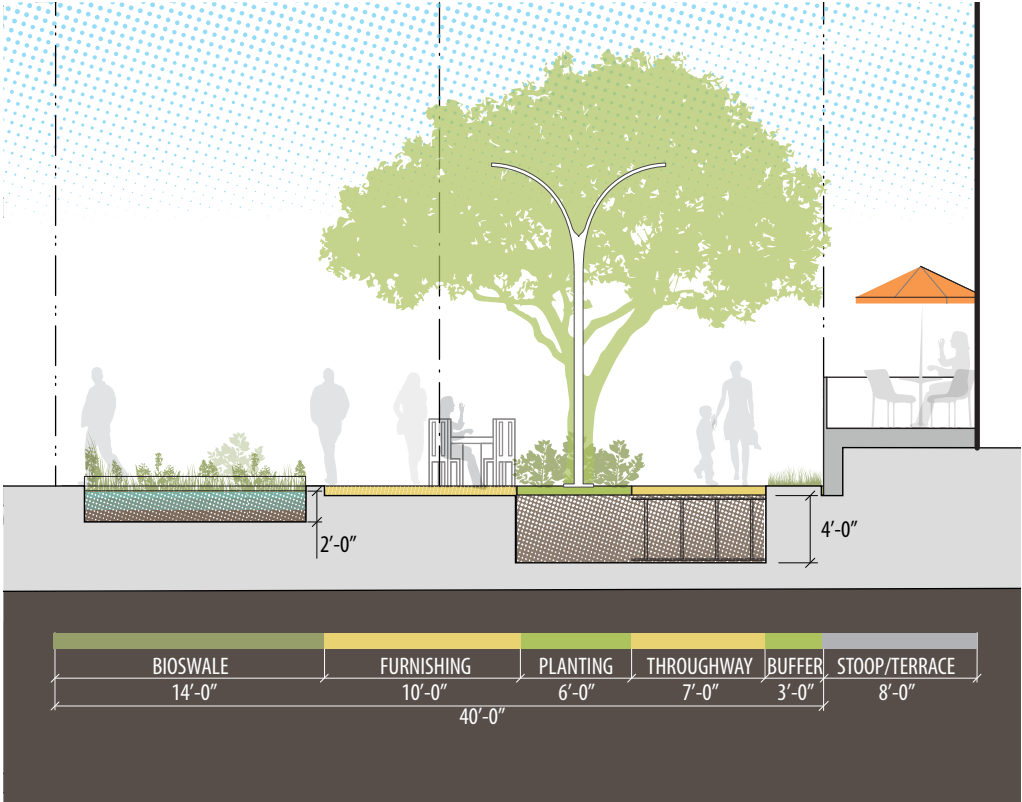


FIGURE 2.32: HILLSIDE LANEWAY SECTION-TYPICAL



Table 8. Hillside Laneway Specifications

R.O.W. WIDTH: VARIES
BIKE FACILITIES: NO

SURFACING

| | | |
|----|------------------------|-----------|
| P1 | THROUGHWAY ZONE | TYPE I, J |
| P2 | WOOD DECK | TYPE U |
| P3 | INFILTRATION BOARDWALK | TYPE U |

PLANTING

| | | |
|----|----------------------|-------------------|
| L1 | TREE | LANE/LANEWAY |
| L2 | FLOW-THROUGH PLANTER | UNDERSTORY TYPE F |

LIGHTING

| | | |
|-----|------------------|--------|
| LT1 | PEDESTRIAN LIGHT | TYPE 2 |
|-----|------------------|--------|

FURNISHING

| | | |
|----|---------------|-----------|
| F1 | SEATING | TYPE 1, 2 |
| F2 | WATER FEATURE | |

Standards

2.3.58. Elements Elements per figure 2.37. All elements shown shall be included. Dimensions vary.

2.3.59. Specifications Specifications shall conform to Table 8. Hillside Laneway Specifications. See Section 2.5 for public realm elements.

2.3.60. Tree Size Minimum tree size is 24-inch box. Top of rootball shall not exceed 2’ above finished grade. Accommodate soil in podia.

2.3.61. Raised Planters Raised planters shall be no greater than 18” in height to allow for incorporation of seating elements.

Guidelines

2.3.62. Trees Trees shall be Lane/Laneway type. See page 212 for species.

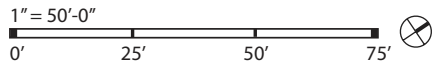
2.3.63. Trees Trees shall be planted in linear rows to frame views to the bay.

2.3.64. Stormwater Collection and Treatment Stormwater collection and treatment shall be incorporated into the laneway right of way.

2.3.65. Water if a water feature is included, nonportable water shall be used.



FIGURE 2.33: HILLSIDE LANEWAY ENLARGED PLAN



Flats Laneway

The Flats Laneway provides a midblock pedestrian connection between Spring Lane and Beach Lane. Program zones adjacent to the Flats Laneways will serve residents of the adjacent neighborhood.

Table 9. Flats Laneway Specifications

SURFACING

P1 THROUGHWAY ZONE TYPE I, J

PLANTING

| | | |
|----|----------------------|-------------------|
| L1 | TREE | LANE/LANEWAY |
| L2 | FLOW-THROUGH PLANTER | UNDERSTORY TYPE F |

LIGHTING

LT1 PEDESTRIAN LIGHT TYPE 2

FURNISHING

| | | |
|----|--------------|-----------------|
| F1 | SEATING | TYPE 1, 2 |
| F2 | POCKET PLAZA | SEE FIGURE 2.61 |

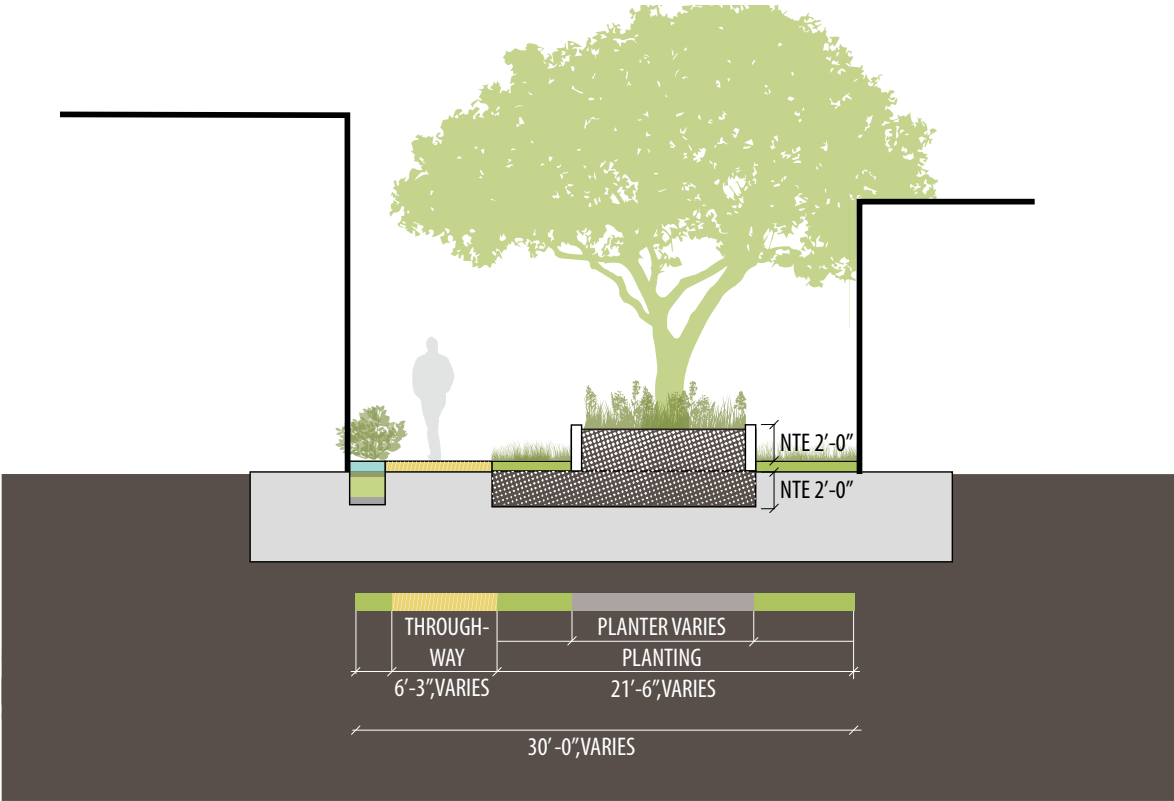
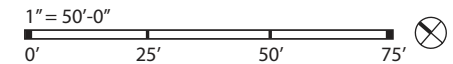


FIGURE 2.34: FLATS LANEWAY SECTION-TYPICAL





FIGURE 2.35: FLATS LANEWAY ENLARGED PLAN



Standards

2.3.66. Elements Elements per Figure 2.39. All elements shown shall be included. Dimensions vary.

2.3.67. Specifications Specifications shall conform to Table 9. Flats Laneway Specifications. See Section 2.5 for public realm elements.

2.3.68. Tree Size Minimum tree size is 24-inch box. Top of rootball shall not exceed 2' above finished grade. Accommodate soil in podia.

2.3.69. Raised Planters Raised planters shall be no greater than 24" in height to allow for incorporation of seating elements.

2.3.72. Stormwater Collection and Treatment Stormwater collection and treatment shall be incorporated into the laneway right of way.

Guidelines

2.3.70. Trees Trees shall be Lane/Laneway type. See Section 2.6 for species.

2.3.71. Trees Trees shall be planted in linear rows to frame views to the bay.



Trail Network

Part of a regional-scale network of trails, the India Basin project fills a missing link in the Bay Area system with a robust web of interwoven and diverse trails. Primary multi-use and class-I bikeway trails are designed for direct and intuitive passages through the site and to main gathering spaces and destinations. Secondary hiking trails and boardwalks meander through the open spaces for a sense of discovery and intimacy. Informal foot paths are anticipated to evolve over time. Laneways, lanes, and shared ways serve as urban trails for continuity and connectivity to the development. Connections are intended to be seamless with adjacent sites and to reinforce both the waterfront and regional trail network. This section details the design intent, standards, and guidelines for different trail types.

Maintenance Access Routes

The Big Green is composed of diverse habitats, amenities, and water infrastructure that require on-going maintenance and servicing. The maintenance and access regime prioritizes the pedestrian and habitats, and preserves the sense of place and natural character of the site as wild and rugged. Vehicular access routes should be consolidated through the park to the primary multi-use trail to reserve park space for public amenities. Dimensions for maintenance access routes are designed to be scale-appropriate to the small, intimate feel of the site. Access to the trail is provided through the market plaza and shared way. Off-shoot access routes to maintain the stormwater facilities are designed to align with the facilities and blend into the landscape.



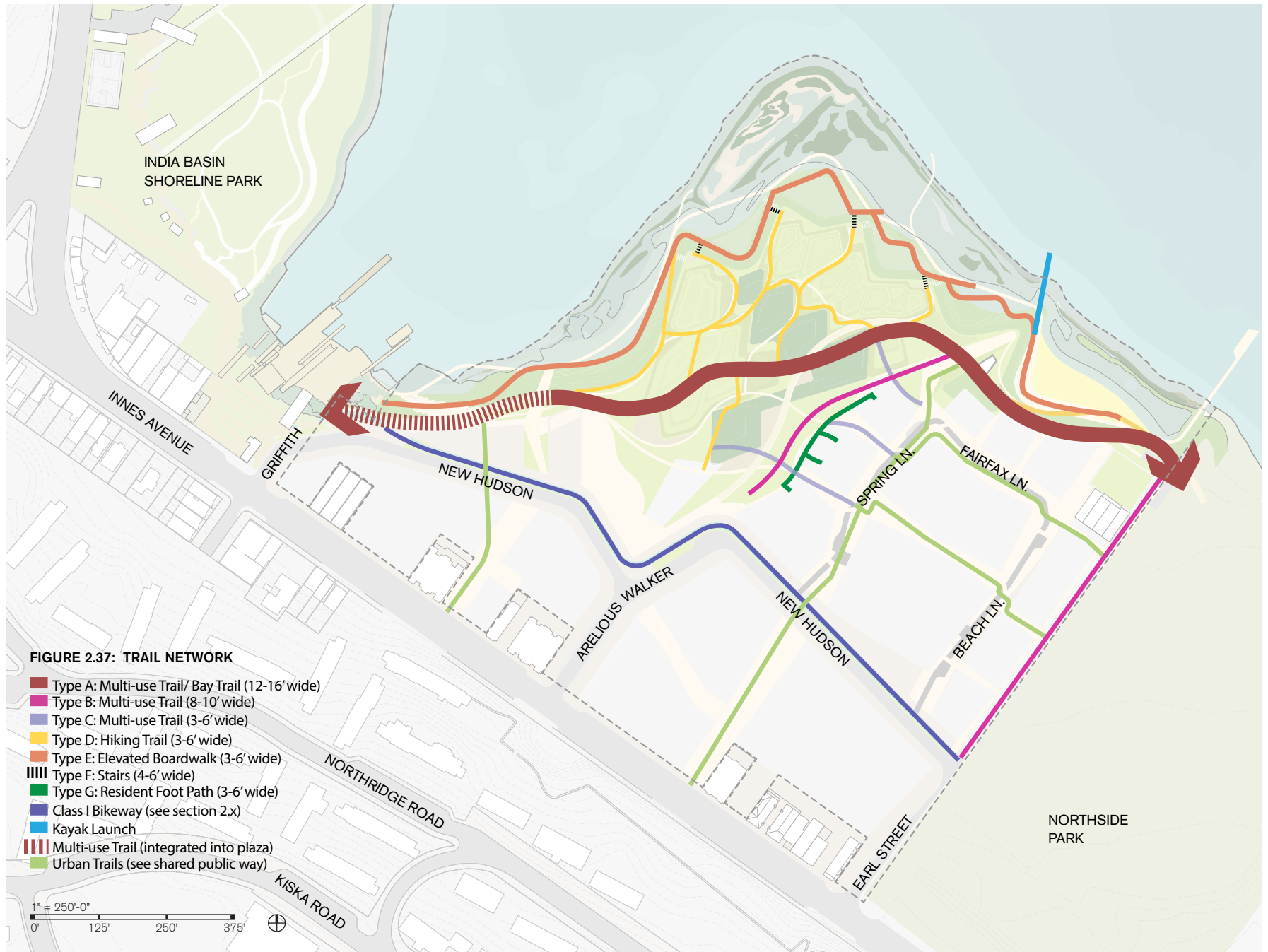
FIGURE 2.36: MAINTENANCE ACCESS ROUTES

- Park Vehicular Entry /Egress
- Main Access Path/ Bay Trail (12-14' w)
(vehicular supported paving)

1" = 500'-0"

0' 250' 500' 750'





Trail Types

The trail network provides a range of experiences for pedestrians and bicyclists accessing the site where no two trails will look and feel exactly the same. Dimensions are designed for a future intensity of use and to create variety, choice, and character. Trails vary from urban and hard to soft and intimate. Trails widen at furnishing zones and specific moments to incorporate amenities, furnishings, and varied conditions. Trails should also be aligned to accent views, create intimate gathering spaces, and call attention to unique landscapes, sculptures, or habitat conditions.

The trail types palette provides a range of trail experiences and access routes that are durable and lasting. See Figure 2.41 Trail Network for location of types.



Type A & B: Multi-Use Trail

Durable and smooth, resin pavement trail. Provides access for pedestrians and bicycles.



Type C: Multi-Use Trail

Combination of resin pavement pedestrian shoulders and smooth, durable, paved 2-way main thoroughway.



Type D: Hiking Trail

Durable, smooth materials where occurs in tidally influenced areas, can withstand tidal conditions and occasional submersion.

**Type E: Elevated Boardwalk**

Durable, wooden boardwalk elevated above adjacent grade.
6" wood curb for edge detection.
No guardrail. Adjacent grade not to exceed 30" below finish surface.
Dogs prohibited.

**Type F: Spur Trail**

Informal trail providing access at low tide to sand shoulder. Durable wood materials to endure tidal conditions and submersion. Dogs prohibited.

**Type G: Stair In Slope**

Wood and resin stair set into slope providing access from upland to shoreline trail.

**Type H: Resident Foot Path**

Cobble foot path provides access through semi-private shared backyard to residential units.
Ensure durable fill between cobbles for stable surface.

**Type I: Foot Path**

Informal dirt trail that meander throughout park. Compact and maintain where footpaths evolve.

Trail Types: Sections

The sections here detail dimensions for each trail type. See Figure 2.41: Trail Network for location of each trail type.

Multi-Use Trail A major spine through the open space, the multi-use trail connects to adjacent sites and provides direct yet meandering access for pedestrians and bicycles through the Cove Terrace, Big Green, and Beach Overlook.

Elevated Boardwalk & Trail in Slope The primary path through the shoreline, the boardwalk is situated for direct access to the tidal zone and is intended for pedestrians only. The trail is located at an elevation midway between current tidal marsh and top of bank for a unique experience in a perched habitat zone. See Chap 3 for adaptation strategies.

Hiking Trail Hiking trails meander through the Big Green providing a sense of discovery, finding, and wildness. Trails are intended to be narrow and for pedestrians and dogs.

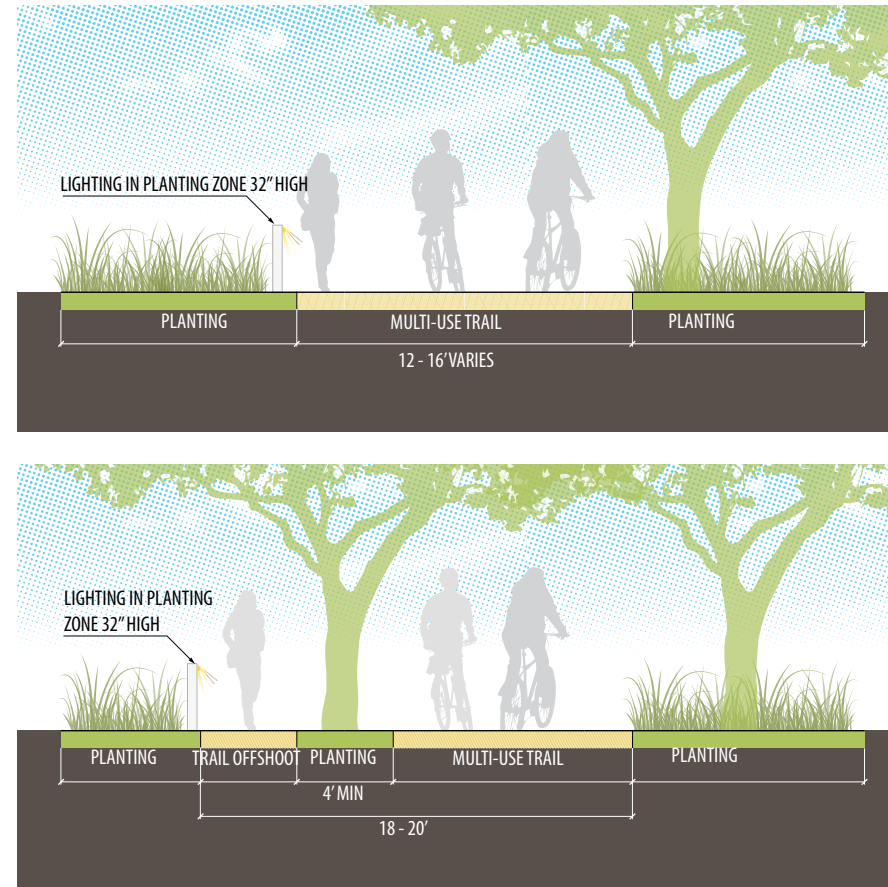


FIGURE 2.38: TRAIL SECTIONS - MULTI-USE TRAIL

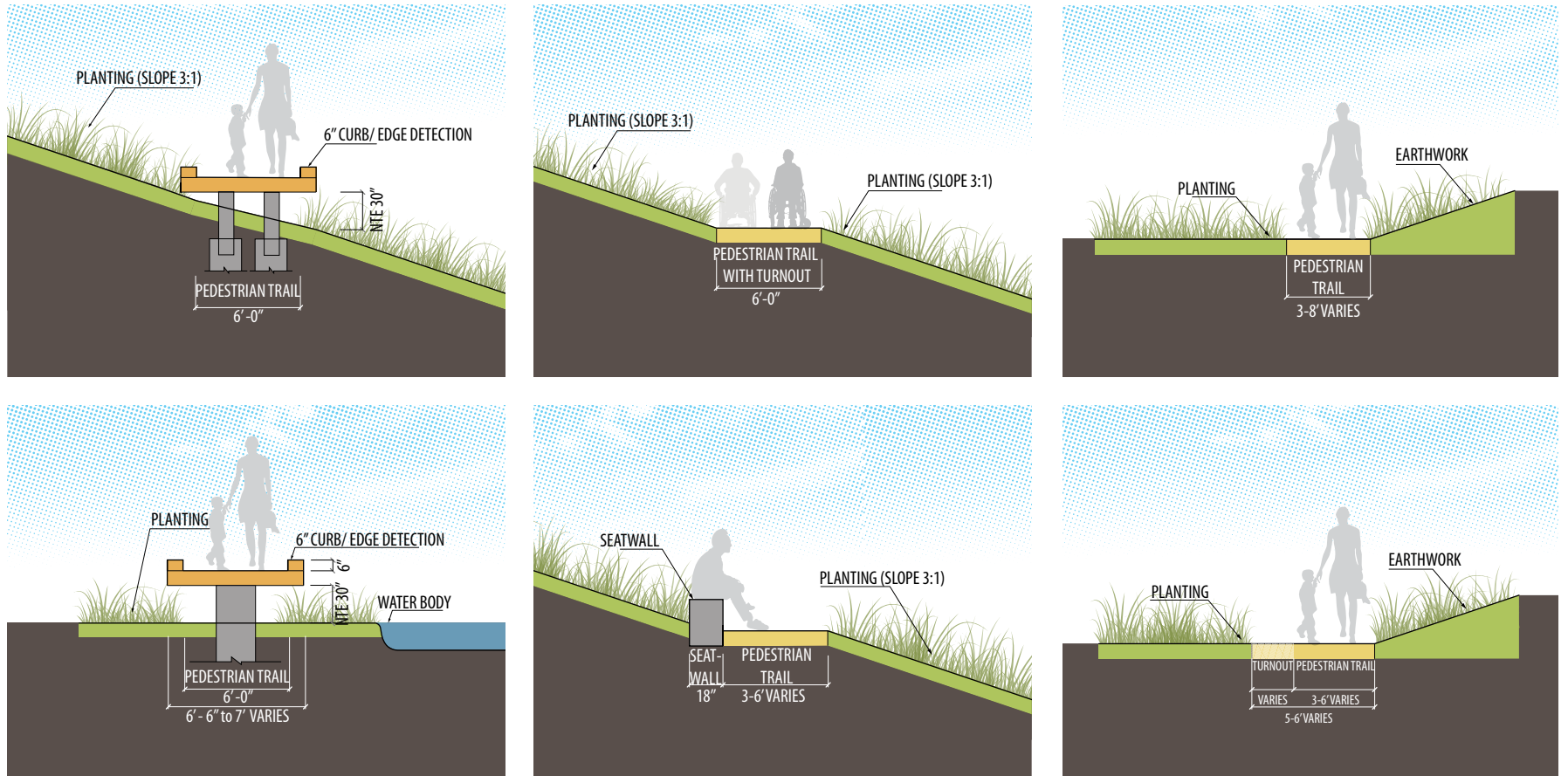
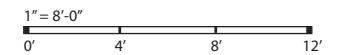


FIGURE 2.39: TRAIL SECTIONS - ELEVATED BOARDWALK, TRAIL IN SLOPE, HIKING TRAIL



Trails & Amenity Zones

Located adjacent to trails, amenity zones are located throughout the Big Green and Shoreline to accommodate furnishings and a range of elements that enhance usership and experience of the park. These include furnishings, signage, refuse receptacles, viewing areas, drinking fountains, turnouts, and picnic areas. Dimensions of the amenity zones are designed for intensity of use and to create intimate spaces for reflection, while preserving through access on adjacent trails. The amenity zones should reflect the wild character of the Big Green. See Chapter 3 for trail adaptation for sea level rise.

Standards

2.3.73. Dimensions Trail dimensions shall conform to Figure 2.41 Trail Network and Figure 2.42-2.43 Trail Sections.

2.3.74. Turnouts Where trail width is less than 5 feet, provide turnouts at least 5 feet wide every 200 feet or in conformance with current US Outdoor Recreation Access Route standards for trail passing spaces, whichever distance is shorter.

2.3.75. Clearance Vertical clearance shall be at least 10 feet high from path finished surface.



Bay Trail Rendering

2.3.76. Borders Provide either a change in elevation or a physical barrier at the edge of trails to define the edge that may include planting, a plant barrier, or a low fence. Fence shall be at least 90% transparent.

Guidelines

2.3.77. Furnishing Built-in or affixed furnishings shall be located in amenity zones only and outside of the primary trail path of travel.

2.3.78. Location Amenity zone shall be integral to pathways in design, materiality, and alignment. Locate amenity zones to maximize comfort including but not limited to wind protection and solar aspect. Place amenity zones for views of the shoreline and for viewing sculptures.

2.3.79. Amenities The following amenities shall be provided at furnishing zones: seating, refuse receptacles, signage, bicycle racks. See Section 2.5 Public Realm Elements.

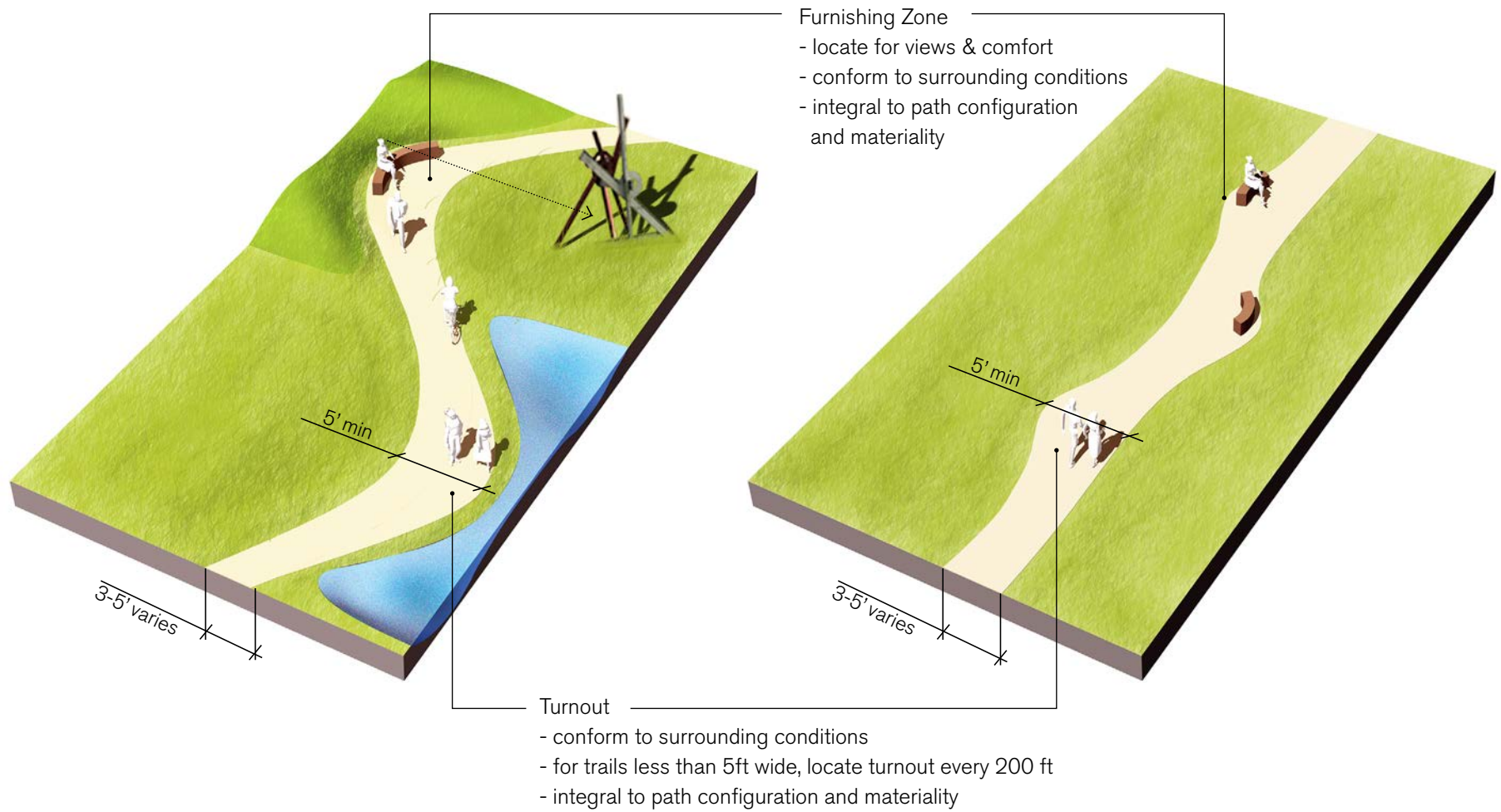


FIGURE 2.40: (LEFT) FURNISHING ZONES AT CURVE (RIGHT) FURNISHING ZONES AT STRAIGHT ALIGNMENTS

2.4 Places

As a complete neighborhood, India Basin is composed of five integrally connected places. Each place possesses a slightly different character to provide a diversity of experiences across the site.

The Hillside is urban and dense. Podia step down from Innes avenue to the rich and active New Hudson Avenue retail corridor. Landscape and laneways consists of The Hillside public realm active retail frontages and public streets, intimate courtyards, public stairs, and laneways.

The Cove, while similar to the Hillside in physical structure, opens onto the India Basin cove landscape with panoramic views to downtown San Francisco and onto the Public Market plaza. An active cove terrace fronts the Bay and connects to the adjacent proposed public park, the Big Green, and the shoreline.

The Flats are designed around a shared public way that prioritizes the pedestrian and stormwater treatment at grade. Pocket plazas, the village triangle, and courtyards are tucked into this pedestrian-oriented place.

The Big Green is a performative landscape with diverse ecologies and programs. Habitat, stormwater treatment, and earthworks are prioritized, resulting in a rich open space where urban meets the wilds. Trails meander through topography and engage with a range of program offerings and educational moments for a sense of discovery and engagement.

The Shoreline is a dynamic landscape defined by the ever-evolving Bay edge. Existing tidal marshes and naturally forming sand dunes are retained and expanded to increase habitat potential. Natural and constructed adaptation measures are constructed in the shoreline landscape for long-term resilience. And a perched sand area and deck terrace serve as a regional attraction for sunbathing, beach sports, and human powered boating.



Signature Places

Within each Place, unique signature places provide a richness of public realm offerings from wild and serene shorelines, to active and programmed recreation areas, to urban plazas and courtyards. Spaces are designed to be nuanced and instill an authentic sense of place. Modulate the scale and configuration of spaces to purpose. Their scale and configuration are designed for the specific purpose of each signature place. This section details the design intent, standards, and guidelines of each signature place. The standards and guidelines included here apply to all signature places. See Section 2.5 for Public Realm Elements.

Standards

- 2.4.1. Lighting** Lighting fixtures shall adhere to lighting standards and guidelines list in Section 2.5.
- 2.4.2. Materials** All signature places shall conform with the material palette in Section 2.5.
- 2.4.3. Bank** The bank between the tidal zone and upland areas (Big Green) shall be reshaped and graded to increase total length as compared to existing bank length. Where slopes are steeper than 3:1, use slope stabilization materials and planting. All slopes shall be at least 80% planted. See Figure 2.59 Earthwork Typologies.
- 2.4.4. Shoreline Protection** Upgrade and replace existing shoreline protection located at the toe of slope with stabilization materials and planting. Shoreline protection zone to be at least 80% planted.

Guidelines

- 2.4.5. Elements** Public realm elements shall be provided throughout the Big Green and Shoreline. See Section 2.5.
- 2.4.6. Maintenance** Standalone maintenance storage facilities shall not be located within the Big Green, Shoreline, or Shared Front Yard.
- 2.4.7. Signage** Interpretive signage shall be incorporated throughout the Big Green and Shoreline to describe the unique phenomena and infrastructure of the site that may include sea level rise, resiliency, pilot projects, stormwater and blackwater management, habitats, land morphology, soil, sculpture, history, and the tidal marsh. See Chapter 6 Signage.
- 2.4.8. Trees** Place trees to emphasize views to the shoreline, create micro-climates, and provide diverse habitats, shade, and wind mitigation.
- 2.4.9. Plants** Select a diverse plant palette appropriate to the coastal environment to maximize ecologies and habitat types. See Section 2.6 Ecology and Habitats.
- 2.4.10. Guardrails** Trails and boardwalks shall be designed to use guardrails sparingly, and only at overlooks and bridges.



Perched Beach, Boat Launch & Overlook

Located on the east shoreline, this signature place provides a unique experience with the Bay on three terraces. The lowest consists of existing tidal marsh that will be retained in place. Living shoreline strategies provide enhanced habitat. A boat launch provides water access for human powered boats. A perched sand area (the “Perched Beach”) midway up the bank provides recreational amenities at the Bay’s edge, and is designed to adapt into a tidally influenced beach with rising sea levels. At the top of bank, an upper terrace provides wind protection for the beach below, as well as concessions, rentals, and amenities to enjoy the panoramic views. Boat and bike storage is provided adjacent to the shared way public drop-off and parking. Stormwater cells treat storm water generated in the flats before outfalling the Bay.



FIGURE 2.43: BEACH, BOAT LAUNCH & OVERLOOK AXON, LOOKING WEST

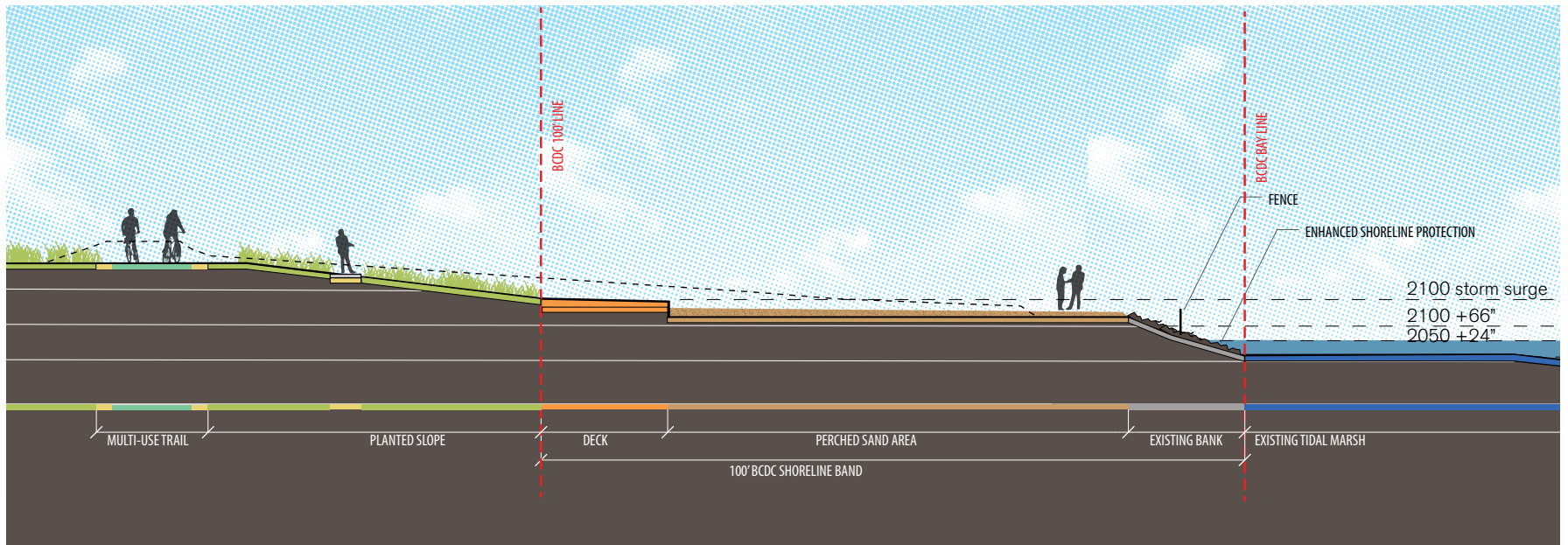


FIGURE 2.44: PERCHED BEACH

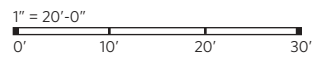


Table 10. Perched Beach, Boat Launch & Overlook Specifications

(See Section 2.5 for Public Realm Elements)

Bank Slopes: NTE 2:1

SURFACING

| | | |
|-----|--------------------|--------------------|
| P1 | TRAIL IN SLOPE | TRAIL TYPE A |
| P2 | SAND AREA | TYPE V |
| P3 | KAYAK LAUNCH | TYPE Q |
| P4 | ELEVATED BOARDWALK | TRAIL TYPE E |
| P5 | DECK | TYPE O |
| P6 | DECK | TYPE S |
| P7 | MULTI-USE TRAIL | TRAIL TYPE A, B, D |
| P8 | MULTI-USE TRAIL | TRAIL TYPE A, B, C |
| P9 | PLAZA TERRACE | TYPE I, J, N, U |
| P10 | TERRACES | TYPE I, U |

PLANTING

| | | |
|----|----------------------|-------------------|
| L1 | BANK | UNDERSTORY TYPE G |
| L2 | STORMWATER TREATMENT | UNDERSTORY TYPE F |
| L3 | TREE | OPEN SPACE TREE |
| L4 | TIDAL MARSH | SALT MARSH |
| L5 | TIDAL ZONE | ROCKY INTERTIDAL |
| L6 | YARD | UNDERSTORY TYPE B |

LIGHTING

| | | |
|-----|------------|-----------|
| LT1 | PARK LIGHT | TYPE B, C |
|-----|------------|-----------|

FURNISHING

| | | |
|----|-----------|-----------------|
| F1 | SEATING | TYPE D, E, F |
| F2 | SEATING | TYPE A, E, C, F |
| F3 | FENCING | TYPE A OR B |
| F4 | BOAT RACK | |

STRUCTURES

| | | |
|----|-------------------|--|
| S1 | BOAT STORAGE SHED | |
| S2 | CONCESSION STAND | |

Standards

2.4.11. Elements All elements shown in Figure 2.49 are required. Dimensions may vary.

2.4.12. Specifications Specifications shall conform to Table 10. Beach Specifications.

2.4.13. Screening Plants ranging in height from 36"–48" shall line the perimeter of the yard.

2.4.14. Percentage Softscape The beach area shall be at least 60% softscape.

2.4.15. Restroom The concession stand shall include at least 2 restroom stalls, 1 per gender.

2.4.16. Fence For protection of the existing tidal marsh, locate a fence mid-slope between the sand area / kayak launch and tidal marsh. No more than 12" of the top of the fence shall extend above the elevation of the sand area for an unobstructed Bay view.

2.4.17. Sand Area The perched sand area shall be located at an elevation no lower than +13 NAVD88.

Guidelines

2.4.18. Stormwater Locate at-grade stormwater treatment areas between the Bay Trail and Flats to treat stormwater generated in the flats to eliminate the need for any on-structure treatment areas. A stepped feature is recommended but not required.

2.4.19. Tidal Marsh Existing tidal marsh and dunes shall be retained in situ.

2.4.20. Trails A continuous, universally accessible shoreline trail shall connect the east shoreline with the lower beach deck.

2.4.21. Seawall A low seat wall at the landward edge of the deck shall be constructed for occasional inundation in sea level rise conditions. See Chapter 3.

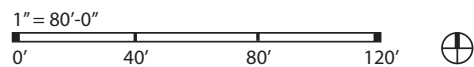
2.4.22. Outfall A stormwater outfall shall be located in the bank and incorporated into the slope terraces. See Shoreline Permits and Infrastructure Plan for sizing and location.



Perched Beach



FIGURE 2.45: BEACH & BOAT LAUNCH ENLARGEMENT PLAN



KEY PLAN



Kayak Launch



Perched Beach & Deck

East Shoreline

The East Shoreline faces the San Francisco Bay. Continual wave energy periodically inundate the existing tidal marsh and require erosion control measures to protect the shoreline. Design emphasis is focused on creating habitat, diverse ecologies, and access to the shoreline. A terrace in the bank is designed to provide space for habitat adaptation and also create a unique space between the tidal marsh and top of bank for a secluded encounter with the Bay. Seasonal wetlands are terraced into the bank as immediate mitigation and space for future adaptation of upland habitat migration. Living shoreline strategies provide enhanced habitat. Visitors can experience this dynamic landscape from top of bank, terraced boardwalk, and overlooks.



FIGURE 2.46: EAST SHORELINE AXON, LOOKING EAST

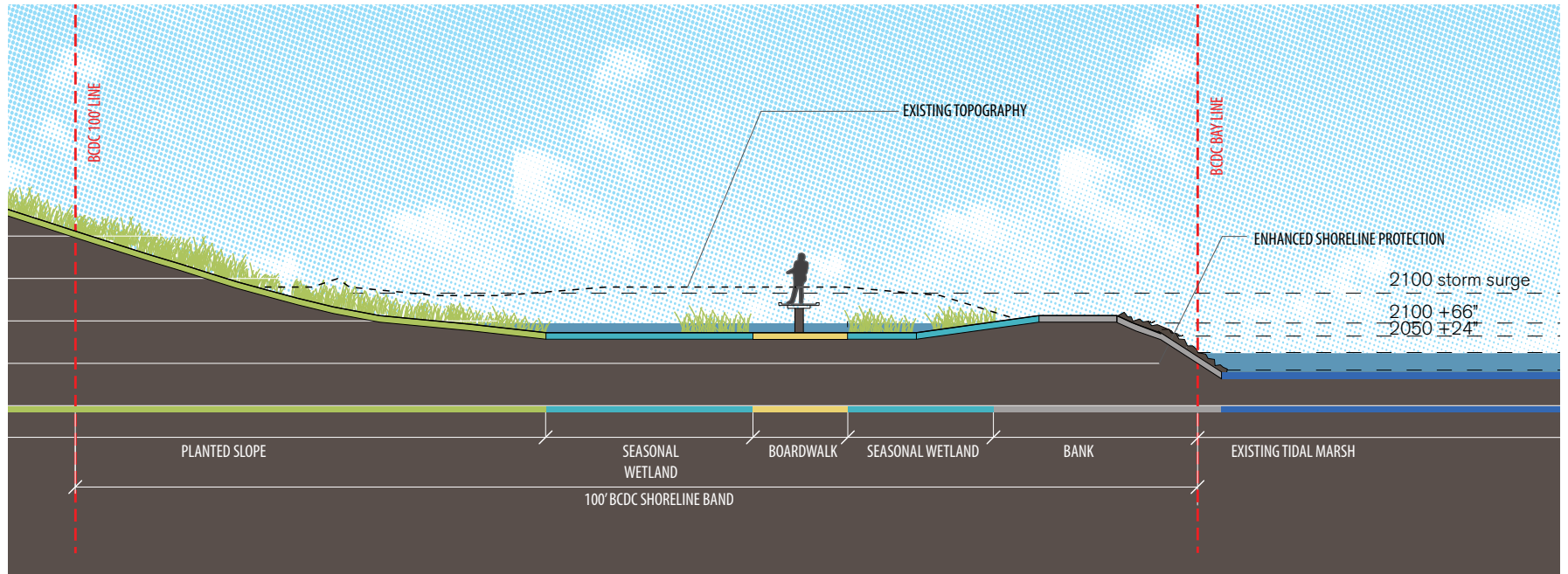
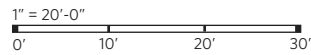


FIGURE 2.47: EAST SHORELINE SECTION



KEY PLAN

Table 11. East Shoreline Specifications

(See Section 2.5 for Public Realm Elements)

BANK SLOPES: NTE 2:1

SURFACING

| | | |
|----|--------------------|--------|
| P1 | ELEVATED BOARDWALK | TYPE U |
|----|--------------------|--------|

| | | |
|----|-----------|--------|
| P2 | OVERLOOKS | TYPE U |
|----|-----------|--------|

| | | |
|----|--------|--------------|
| P3 | STAIRS | TRAIL TYPE G |
|----|--------|--------------|

PLANTING

| | | |
|----|------------|------------------|
| L1 | TIDAL ZONE | SEASONAL WETLAND |
|----|------------|------------------|

| | | |
|----|------|-------|
| L2 | BANK | SCRUB |
|----|------|-------|

| | | |
|----|------------|------------------|
| L3 | TIDAL ZONE | FLOATING WETLAND |
|----|------------|------------------|

| | | |
|----|------------|-------------|
| L4 | TIDAL ZONE | TIDAL MARSH |
|----|------------|-------------|

| | | |
|----|------------|------------------|
| L5 | TIDAL ZONE | ROCKY INTERTIDAL |
|----|------------|------------------|

| | | |
|----|-----------|--|
| L6 | EEL GRASS | |
|----|-----------|--|

FURNISHING

| | | |
|----|---------|-----------|
| F1 | SEATING | TYPE D, E |
|----|---------|-----------|

| | | |
|----|--------------------|--|
| F2 | REFUSE RECEPTACLES | |
|----|--------------------|--|

| | | |
|----|---------|--|
| F3 | SIGNAGE | |
|----|---------|--|

STRUCTURES

| | | |
|----|----------|--|
| S1 | OVERLOOK | |
|----|----------|--|

| | | |
|----|--------------------------|--|
| S2 | SCULPTURE / INSTALLATION | |
|----|--------------------------|--|

Standards

2.4.23. Elements All elements shown in Figure 2.52 are required. Dimensions may vary.

2.4.24. Specifications Specifications shall conform to Table 11. East Shoreline Specifications.

2.4.25. Terraced At least 0.31 acres of wetlands and a boardwalk shall be located in a terrace in the bank at an elevation midway between existing tidal marsh and top of new bank, no lower than elevation +10 NAVD88. (See Section 3.8)

2.4.26. Overlooks At least 3 overlooks shall be incorporated into the boardwalk as viewing platforms. Material shall be consistent with boardwalk. Extent and footings shall not be constructed beyond the MHW line. (See Shoreline Permits)

2.4.27. Boardwalk Boardwalk shall be elevated. Finished surface shall not exceed 30" drop from adjacent grade.

2.4.28. Percentage Softscape At least 90% of the east shoreline shall be softscape.

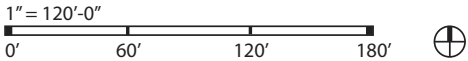
Guidelines

2.4.29. Tidal Marsh Existing tidal marsh and dunes shall be retained in situ.

2.4.30. Watershed Earthwork along the bank and Big Green shall be oriented to maximize the watershed that drains to the terraced wetlands.



FIGURE 2.48: EAST SHORELINE ENLARGEMENT PLAN





West Shoreline

West Shoreline

The West Shoreline faces the India Basin cove. Relatively protected from wave energy, this area is conducive to tidal marsh habitat. Cuts into the existing bank are created to expand Bay edge and create wetlands where feasible. Visitors can experience this serene and tranquil landscape from top of bank, terraced boardwalk, overlooks, and a spur trail to the sandy shoulder. A stormwater outfall is located to discharge high quality treated stormwater into the Bay. Brackish marsh habitats are anticipated at the edge of existing tidal wetlands.

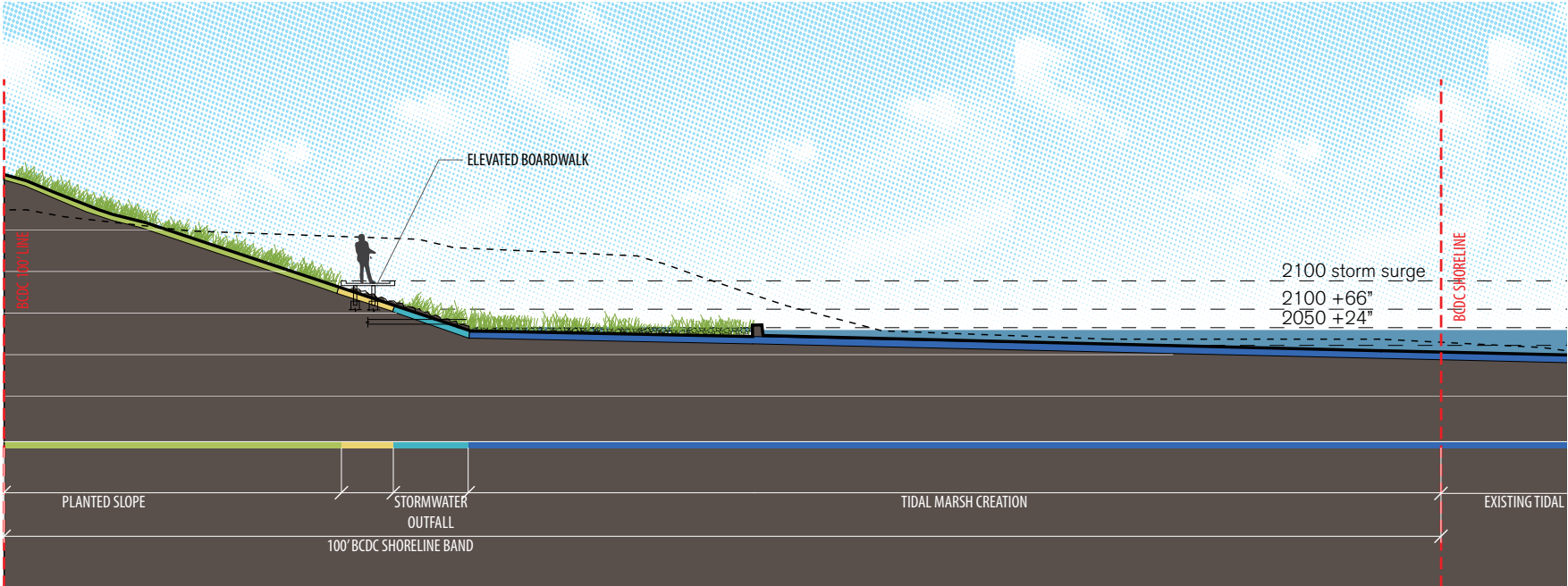


FIGURE 2.49: WEST SHORELINE SECTION



Table 12. West Shoreline Specifications
(See Section 2.5 for Public Realm Elements)

Bank Slopes: NTE 2:1

SURFACING

| | | |
|----|----------------|--------------|
| P1 | ELEVATED TRAIL | TYPE U |
| P2 | TRAIL IN SLOPE | TYPE N |
| P3 | STAIRS | TYPE D, N, U |
| P4 | OVERLOOKS | TYPE U |

PLANTING

| | | |
|----|------------|-----------------------------------|
| L1 | TIDAL ZONE | FLOATING WETLAND/SALT MARSH |
| L2 | TIDAL ZONE | UNDERSTORY TYPE G |
| L3 | TIDAL ZONE | TIDAL MARSH |
| L4 | STORMWATER | UNDERSTORY TYPE F, H |

FURNISHING

| | | |
|----|--------------------|-----------|
| F1 | SEATING | TYPE D, G |
| F2 | REFUSE RECEPTACLES | |
| F3 | SIGNAGE | |

STRUCTURES

| | | |
|----|--------------------|--------------------------|
| S1 | OVERLOOK | |
| S2 | STORMWATER OUTFALL | SEE SHORELINE PERMITS |

Standards

2.4.31. Elements All elements shown in Figure 2.54 are required. Dimensions may vary.

2.4.32. Specifications Specifications shall conform to Table 12. West Shoreline Specifications.

2.4.33. Overlooks At least 3 overlooks shall be incorporated into the boardwalk as viewing platforms. Material shall be consistent with boardwalk. Extent and footings shall not be constructed beyond the MHW line. (See Shoreline Permits)

2.4.34. Boardwalk Boardwalk shall be elevated. Finished surface shall not exceed 30" drop from adjacent grade.

2.4.35. Percentage Softscape At least 90% of the west shoreline shall be softscape.

Guidelines

2.4.36. Tidal Marsh Existing tidal marsh and dunes shall be retained in situ. See Shoreline Permits for tidal marsh creation areas.

2.4.37. Outfall A stormwater outfall shall be located in the bank and incorporated into the boardwalk structure. See Shoreline Permits and Infrastructure Plan for sizing and location.

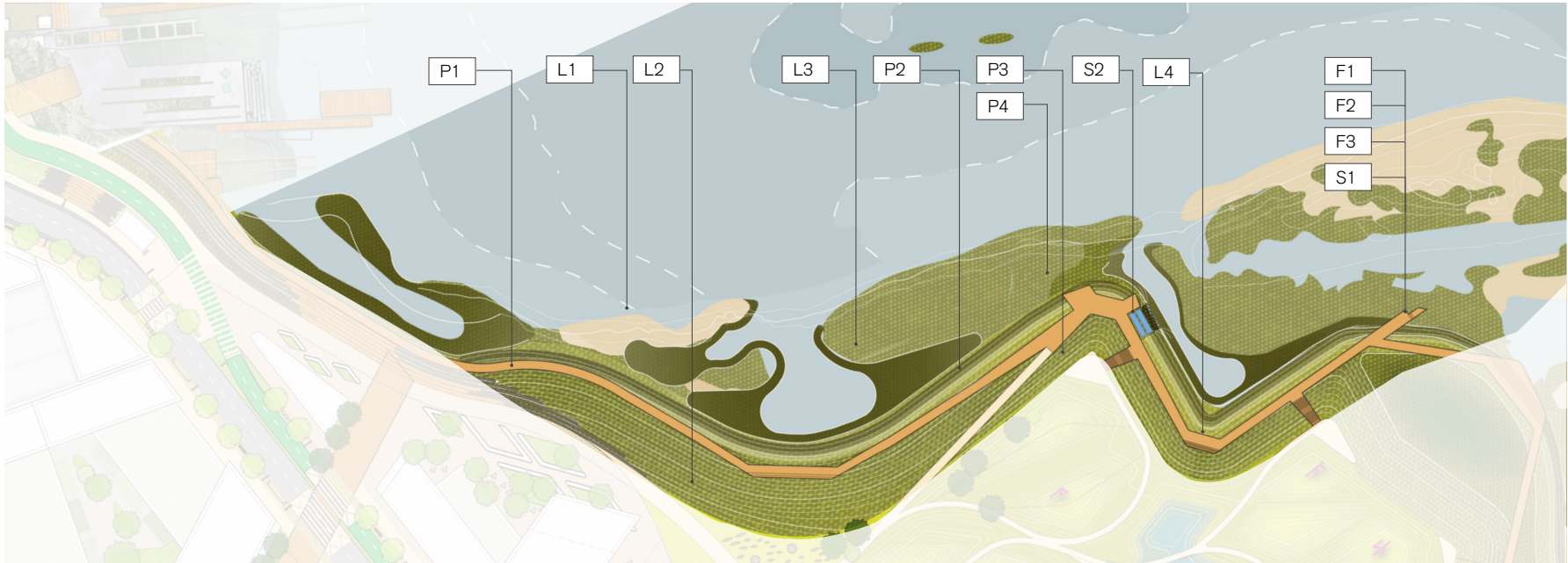
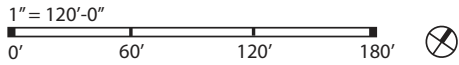


FIGURE 2.50: WEST SHORELINE ENLARGEMENT PLAN



Cove Terrace

The Cove Terrace is at the nexus of 900 Innes Park, India Basin Shoreline Park, the Public Market Plaza, the New Hudson retail corridor, and the East Shoreline. This area offers the most urban waterfront experience at the edge of the Bay, with a cantilevered platform and structured gabion terraces stepping down to the water's edge. Commercial and retail frontages spill onto an active plaza that provides seating, continuous access for pedestrians and bicycles, and views of the Cove.



FIGURE 2.51: COVER TERRACE AXON LOOKING NORTHEAST

