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Port of Everett

# Waterfront Place Central Urban Design Elements

October 2015









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The clock tower-- based on the historic Dey Time Register-- greets visitors as a focal point for the 13th Street gateway (cover). The farmers markets will add to the festive atmosphere of the Champfer Woonerf (opposite). Illustrations by Stephanie Bower.

## Waterfront Place Central Vision

Envisioned as an authentic neighborhood district, Waterfront Place Central draws its inspiration from its working waterfront history. Natural materials and simple building forms are hallmarks of this type of industrial pragmatism. The design review process intends to elevate the level of design throughout the district by emphasizing the usage of universally recognized design principles and encouraging an eclectic and lively mix of buildings and public spaces.

### Intent

This manual supplements the *Port of Everett Waterfront Place Implementation Strategy*, which is available from the Port of Everett main office. The *Urban Design Elements* elaborate on the standards for quality and aesthetics desired at Waterfront Place Central.

### Users

This manual is intended to be used by Waterfront Place developers, both public and private, as a resource for design aesthetics, products, and inspiration.

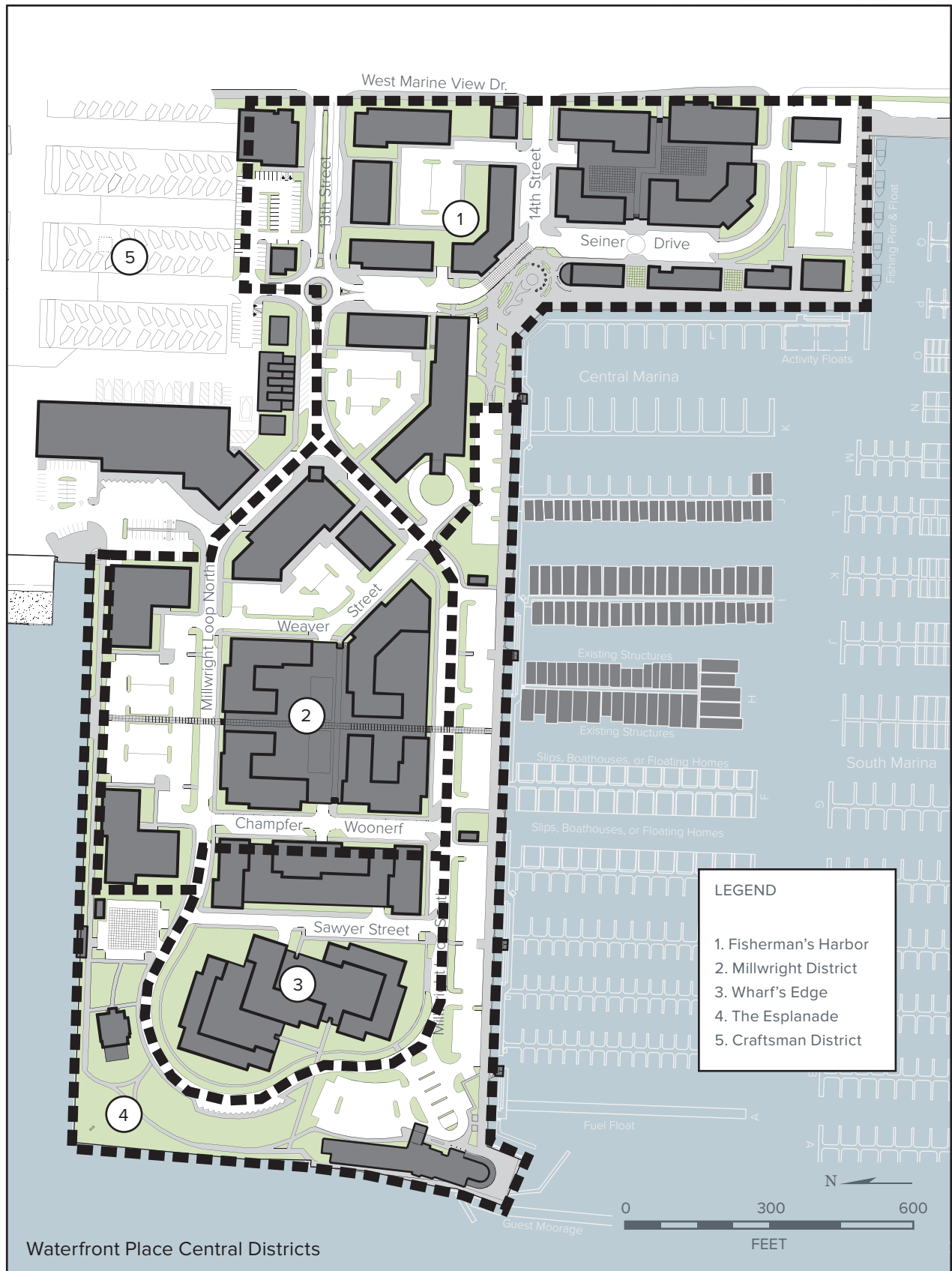


"The Catch" being readied for canning. Port of Everett.



Fisherman's Tribute Plaza. Cascade Design Collaborative.





## Fisherman's Harbor

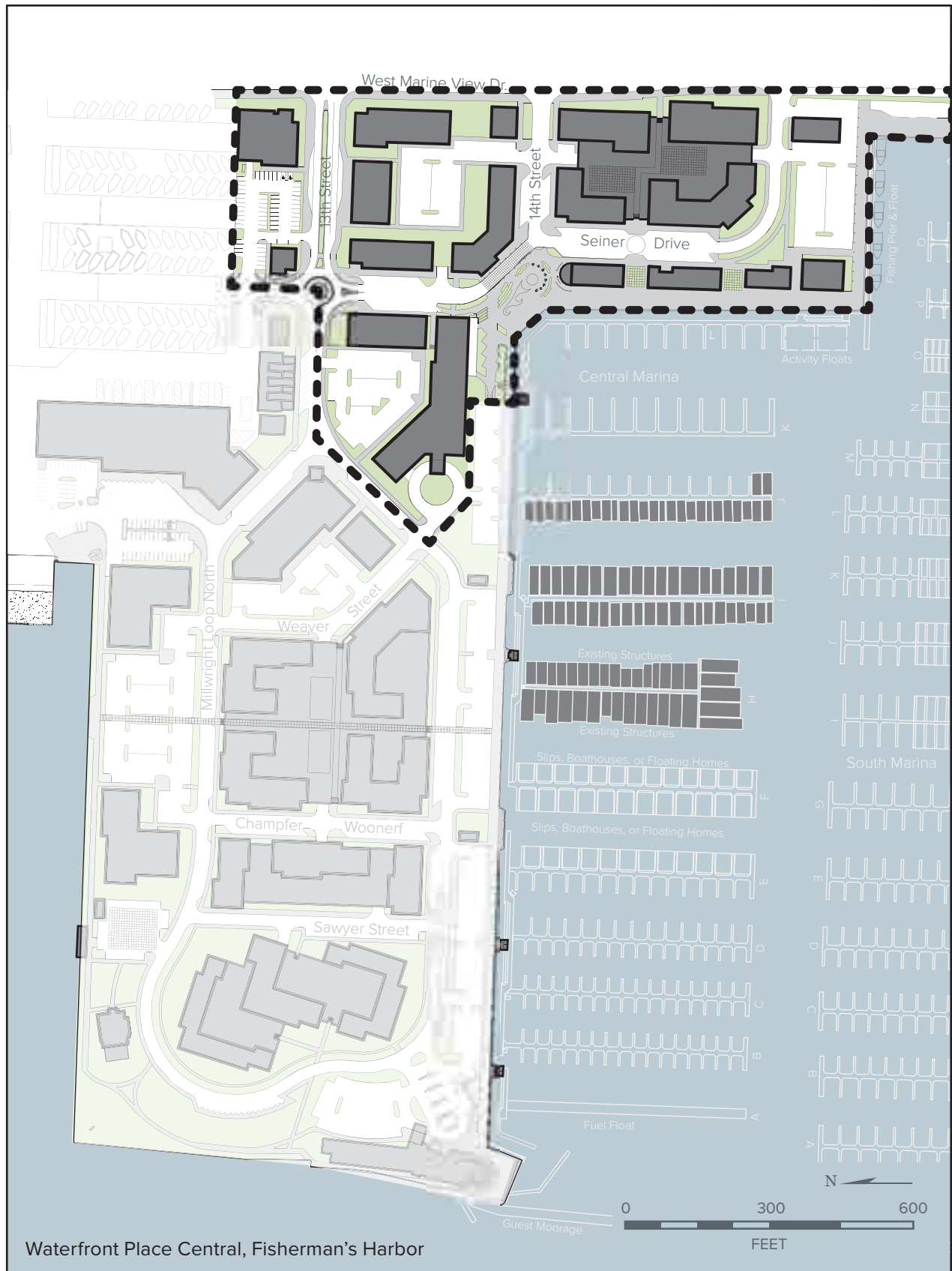
Inviting visitors to Waterfront Place Central, Fisherman's Harbor draws its design influence from the Port of Everett's enduring fishing industry. The design elements use traditional forms and materials to emphasize the presence of and access to the inner workings of the fishing community and industrial waterfront. This gateway area draws commercial and retail oriented activity to the harbor's edge.

### Inspiration

1. Waterside cafés add ambiance.
2. Natural materials like corrugated steel reflect the industrial heritage of the site.
3. Repurposed nautical trinkets reinforce the district theme.
4. Seiner fishing boats use the site to unload their catch.
5. Historic fish processing industry had provided income for decades.
6. Fishing tools-- like crab pots-- may inspire forms.
7. Natural materials like wood decking and simple forms recall local ships and boats.







## Millwright District

As the business center of Waterfront Place Central, the Millwright District recalls Everett's days as a prosperous mill town. Timber, sawmills, and craftsmanship inform the design elements to create a present-day interpretation of a historic industry. Residential units in the mixed-use buildings contribute to evening and night activity throughout the year.

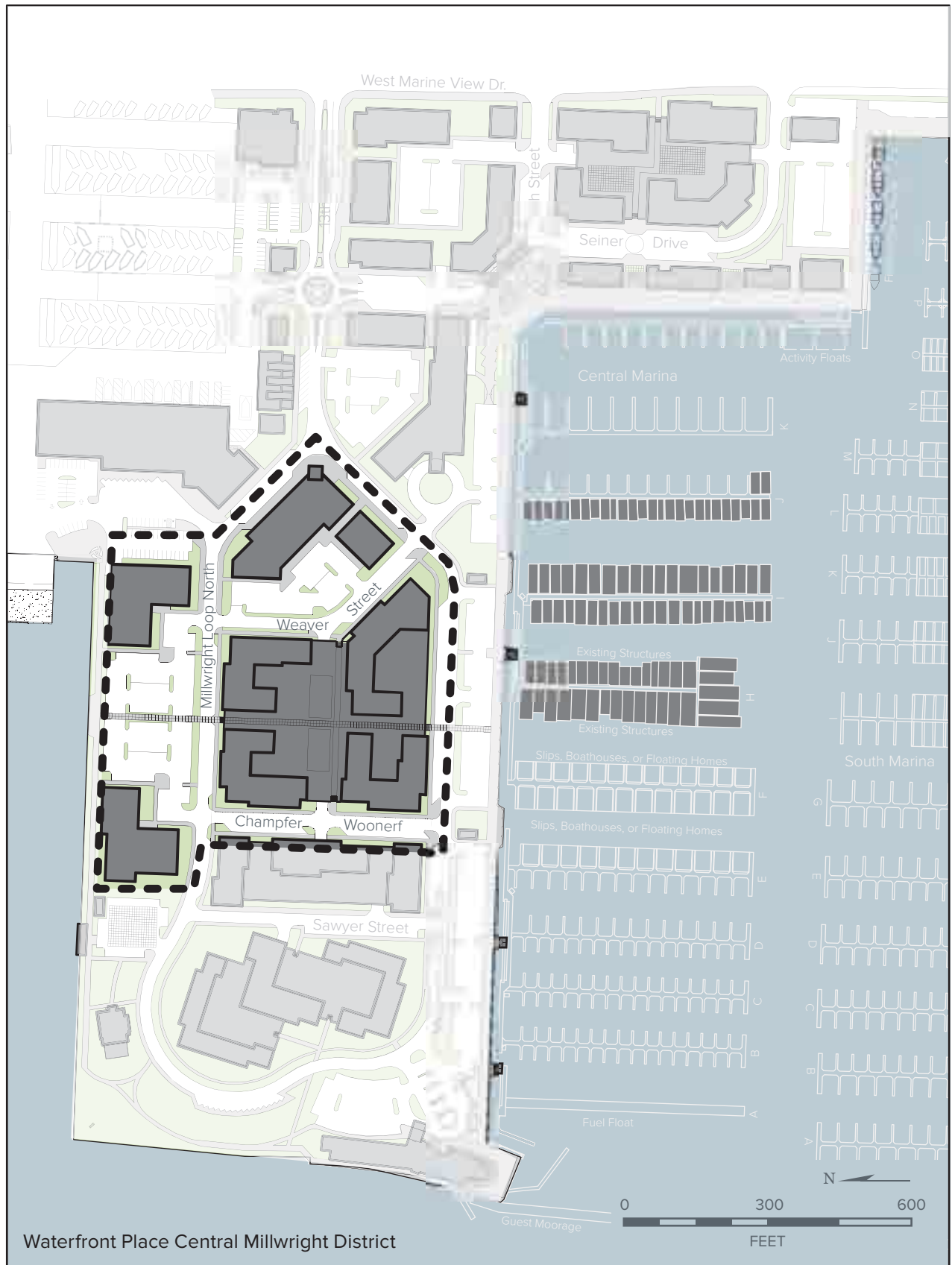


### Inspiration

1. This waterside park goes bold with abundant trees mixed with industrial relics.
2. Materials, colors, and form might resemble historic mills.
3. Old mills were located near water and made of wood with steep roofs.
4. A log pile might inform a design pattern or concept.
5. Everett has a rich history of milling.
6. Toronto's Harbourfront Center mixes light, natural materials, and contemporary forms to create a dynamic waterfront park.





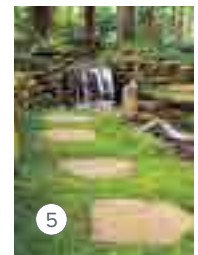


## Wharf's Edge

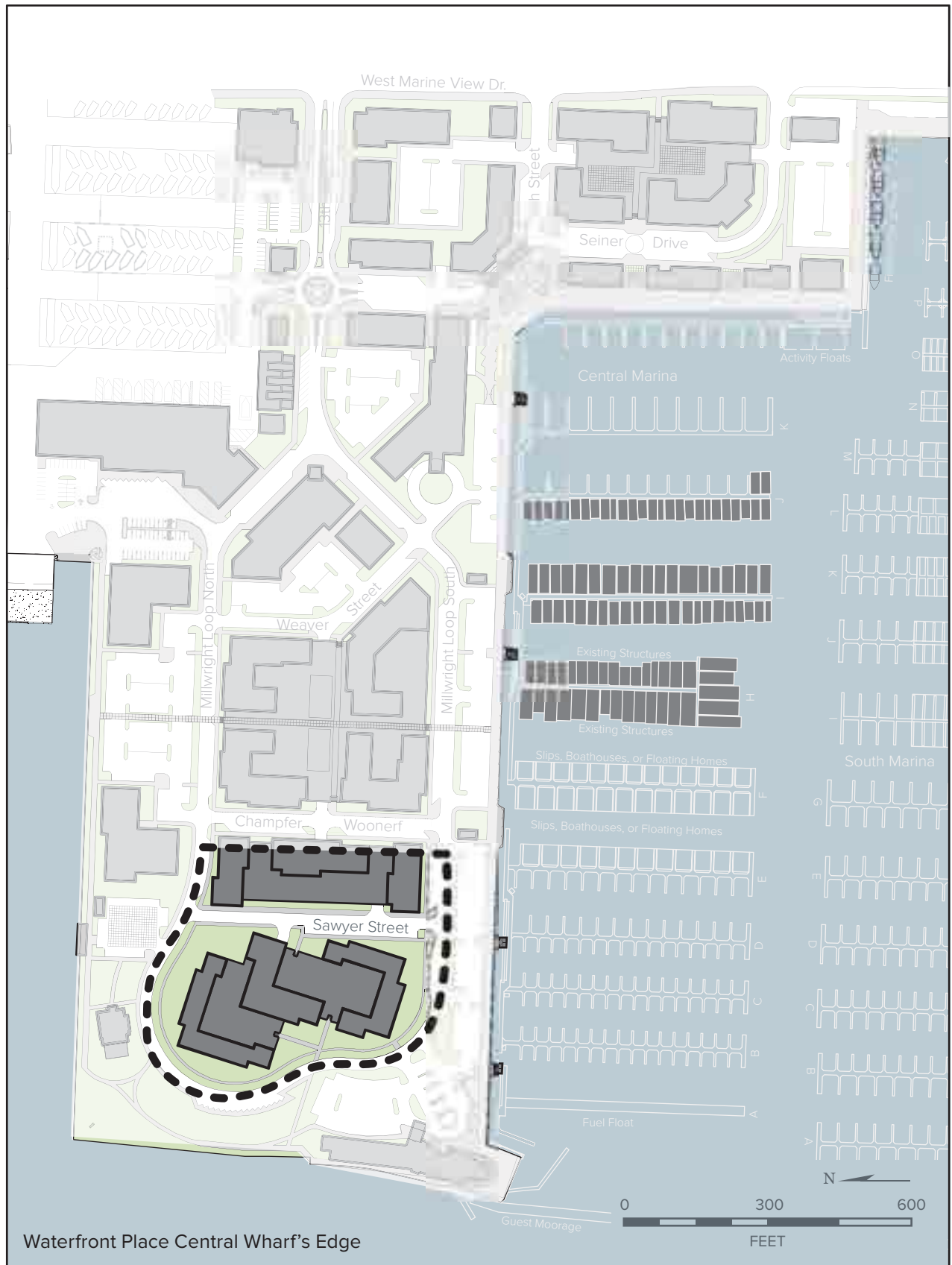
Primarily residential in nature, Wharf's Edge maximizes coastal comforts and vistas. Simplicity and elegance in materials and form create a luxurious waterfront retreat for residents and visitors alike. Coastal hamlets and seaside resorts inspire this beach community's style. Panoramic views to Jetty Island and colorful sunsets define this housing area.

### Inspiration

1. Picket fences and grassy dunes frame a view to the water.
2. Vegetation frames special views.
3. A cottage neighborhood with small-scale details creates a welcoming space.
4. Public furnishings encourage relaxation.
5. Intimate gardens have private spaces.
6. Geometric gardens imply formal areas.







## The Esplanade

Comprised of three distinct zones with waterfront themes, the Esplanade unites Waterfront Place Central's districts and connects the community to surrounding attractions. As a place of recreation, the Esplanade caters to pedestrians, cyclists, and children.

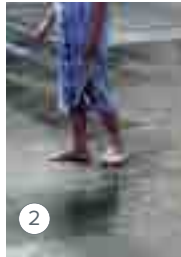
The South Esplanade offers formal urban waterfronts and popular public plazas. Attractions along the South Esplanade include boutique shopping, restaurants, and hospitality services.

Rounding the southwest corner near the western hotel, the West Esplanade opens to a beach-like environment that highlights breathtaking views and native ecology. The West Esplanade meanders through Boxcar Park, which invites children and adults to pursue a variety of recreational opportunities.

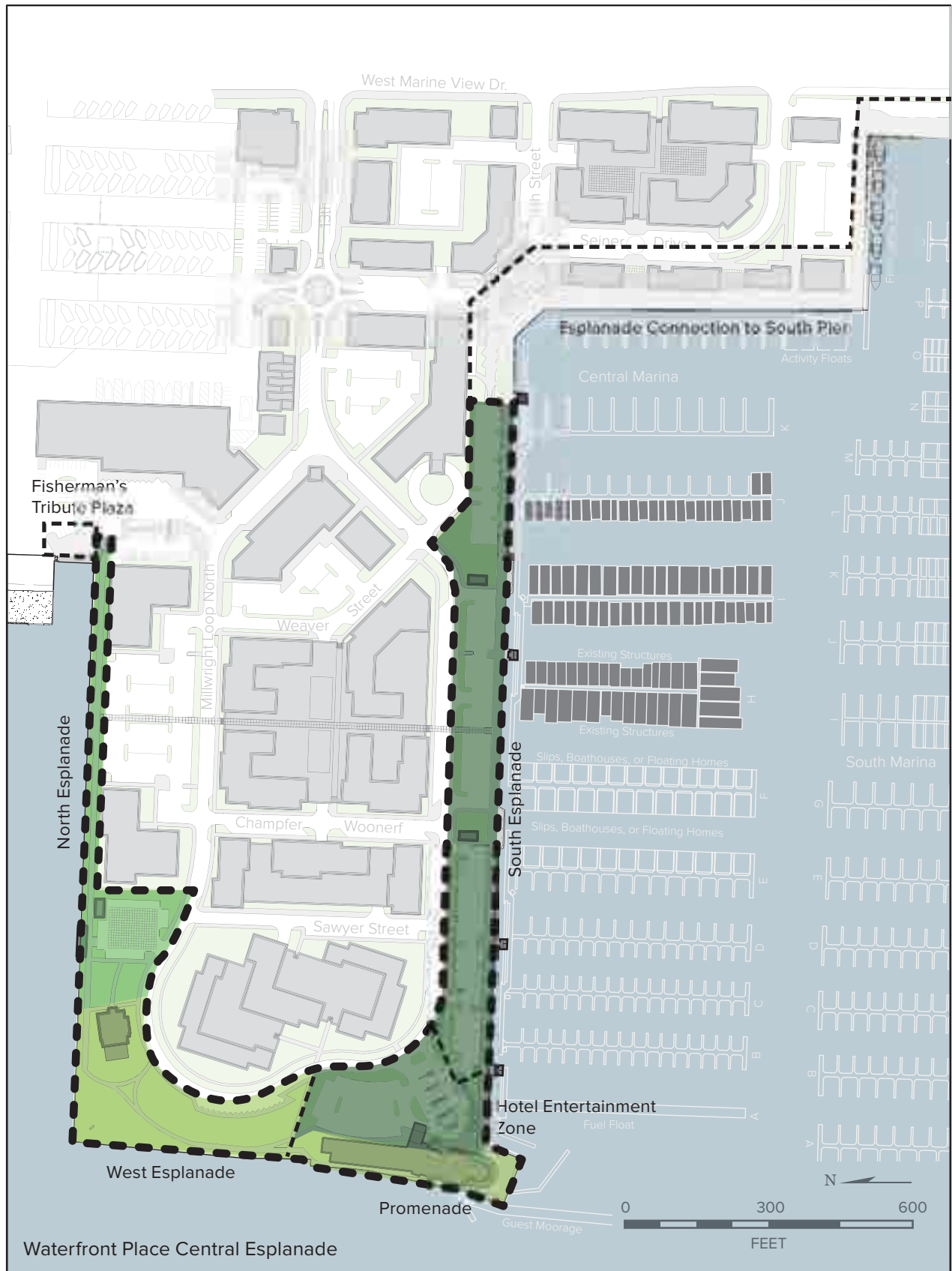
The North Esplanade transitions to a historical and nautical theme, blending with the marina and connecting the relocated Weyerhaeuser Muse to the Fisherman's Tribute Plaza and the Waterfront Center.

### Inspiration

1. Steps leading to the water offer a resting place to enjoy the sunset.
2. A child plays in a water feature.
3. Boardwalks offer passive recreation.
4. Parks visually connect to the marina.
5. The historic Weyerhaeuser Muse building showcases the woodworking talents of yesteryear.
6. Canoes and kayaks have access to the water via a public park.
7. Multi-modal paths offer the greatest number of opportunities for recreation.











## Book 1 : Lighting Elements

## Lighting Inspiration

Activities in Waterfront Place Central extend throughout the day and well into the evening. To provide safety and additional interest, Waterfront Place Central requires adequate and appropriate lighting that enhances the districts' identities while limiting visual clutter.

The lighting elements of Waterfront Place Central contribute to the overall unity of the districts while adding drama and interest to the public realm. Inspiration for the lighting elements comes from a variety of sources including plazas, campuses, residences, and other waterfront developments.

Divided into lighting “zones” (see page 18), Waterfront Place Central uses ten distinct lighting fixtures or bollards. These zones, detailed on the following pages, each use their own light fixtures and poles. Spacing and height recommendations are followed as closely as possible and approved by the project’s electrical engineer and landscape architect.

In placing lighting, consider the desired light effect: washing the area with a consistent light or allowing pools of light that visitors pass through. Waterfront Place Central encourages secondary lights to highlight buildings and interesting features. Multiple layers of light

### Inspiration

1. Marina lights reflect on the water.
2. Accent lighting adds detail to railing.
3. Light columns create rhythm along the waterfront.
4. Existing guardrail with bold forms and integrated light.



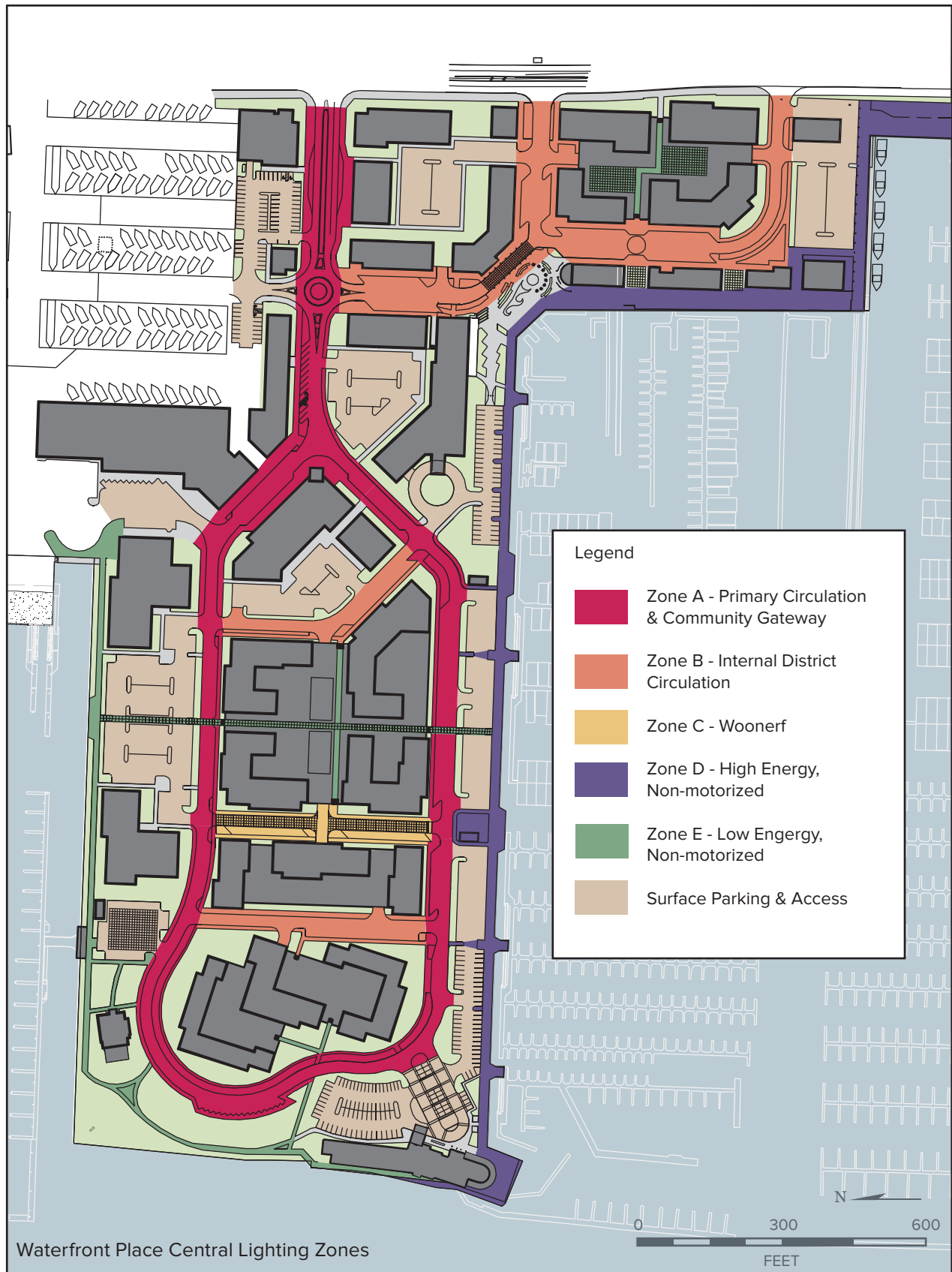




#### Inspiration

1. Layers and pools of light create a dynamic street and interesting pedestrian environment.
2. Industrial heritage recalls wood and iron.
3. Fishing industry suggests nautical themes.
4. Light structures blend with and enhance waterfront landscape in Toronto, Canada.
5. Subtle lighting embraces serene views and peaceful spaces.









## Zone A Primary Circulation & Community Gateway

Zone A covers the primary access road to Waterfront Place Central. It follows the 13th Street community gateway to the Millwright Loop, wrapping around the north, west, and south of the site. The streets are “washed” in a comfortable, consistent light that implies this zone’s more active status.

As multi-modal streets, 13th Street and the Millwright Loop cater to vehicular traffic, buses, bicycles, and pedestrians. Street lights are slightly higher than for the rest of the site at 25 feet tall around the Loop and 18 feet tall at the gateway, emphasizing the larger scale of the street.

To reduce the number of poles and minimize visual clutter, second luminaires are installed on poles neighboring parking lots to provide light in these areas.

To create the desired “layers of light” effect, secondary lighting elements may be installed on buildings to enhance interesting features and building entrances. These lights should reflect the architectural character of the building while maintaining harmony with the street lights in form, color, and light intensity. Holiday or festival lights may be installed on trees in this zone to add seasonal interest.

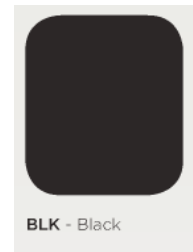
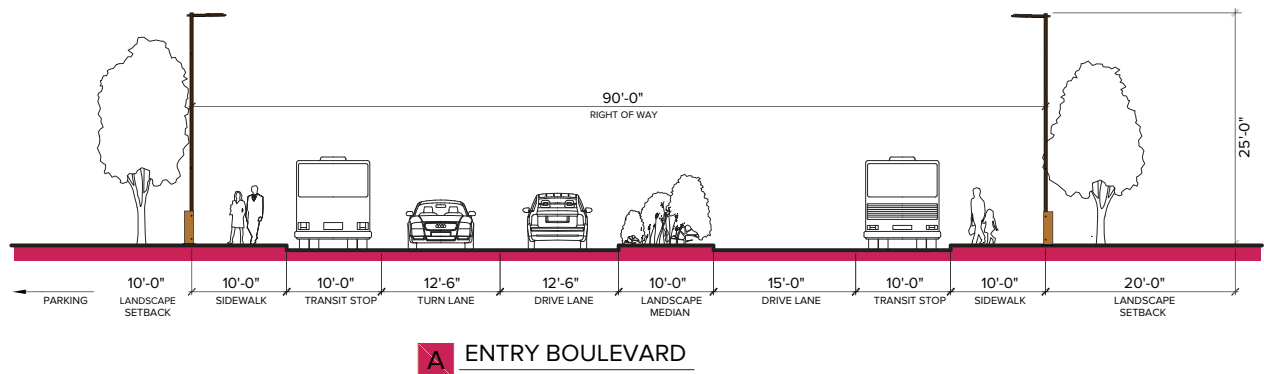
**Luminaires:** Bega 9491 LED

**Poles:** Structura Tandem Ortho 24

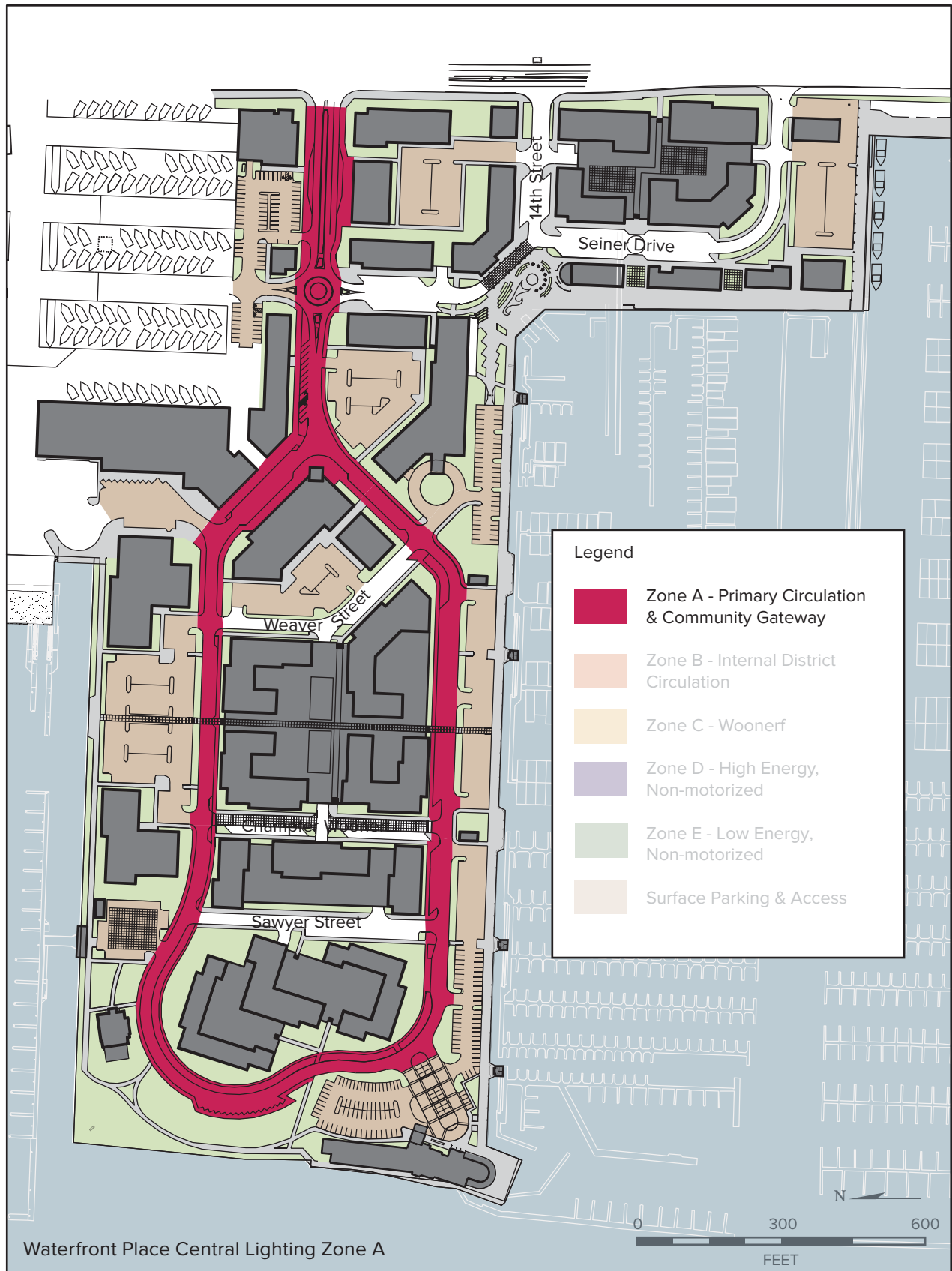
**Finishes:** Black (BLK) pole, Rust Texture (RSTX) Base

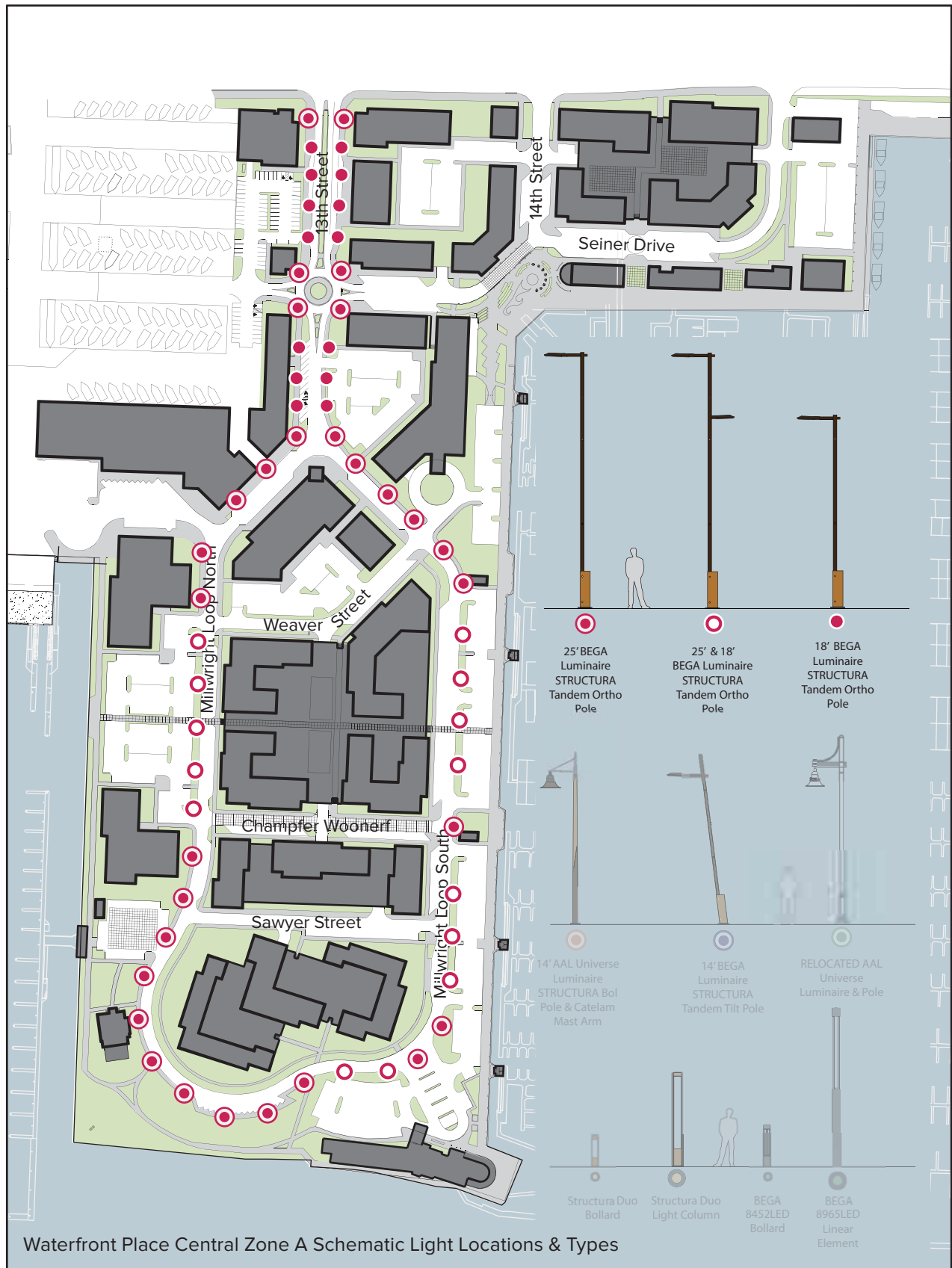
**Spacing:** 60’ OC from West Marine View Drive until fork; 90’ OC around Millwright Loop.

**Heights:** 18’ H from West Marine View Drive until fork; 25’ H at intersections and around Millwright Loop.









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## Zone B Internal District Circulation

Sawyer Street, Weaver Street, Seiner Drive, and 14th Street comprise Zone B. These pedestrian-scaled streets have street parking, wide sidewalks, and slower speeds.

The lighting along these streets responds to the slower pace and smaller scale. 14 foot luminaires suspended from a statement mast arm and perched atop an inviting wooden pole create an intimate street that echoes the site's industrial past.

Users pass from pool of light to pool of light, which creates a steady cadence down the street. Holiday and festival lights in trees are appropriate in this zone while secondary lighting on buildings should be minimal. All secondary fixtures should reflect the architectural character of the building while maintaining harmony with the street lights in form, color, and light intensity.

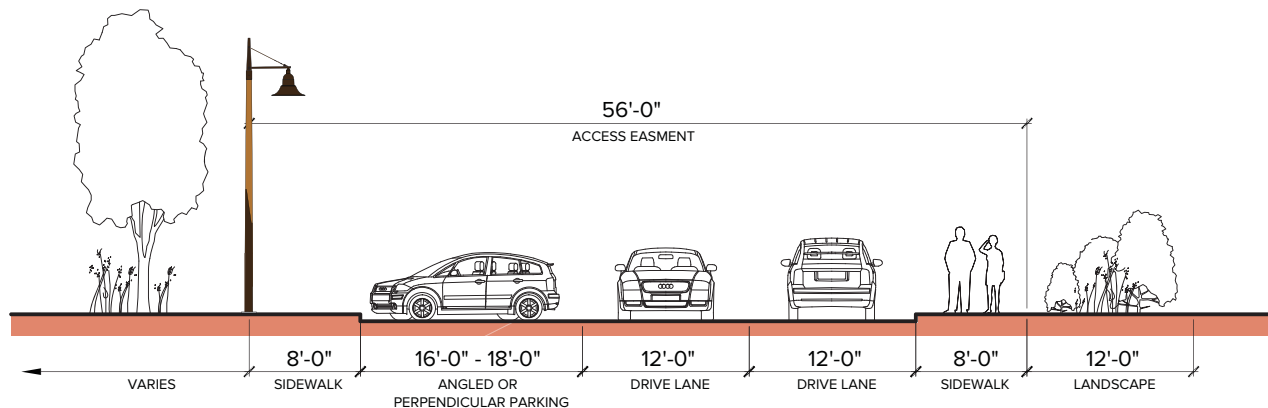
**Luminaire:** AAL Universe 2-UCL, FLR

**Pole:** Structura Bol 12' Straight Wood Pole with Catelam Mast Arm

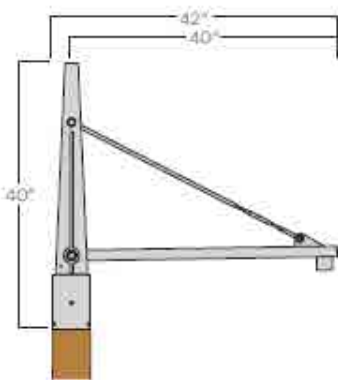
**Finishes:** Black (BLK); Teak (S2)

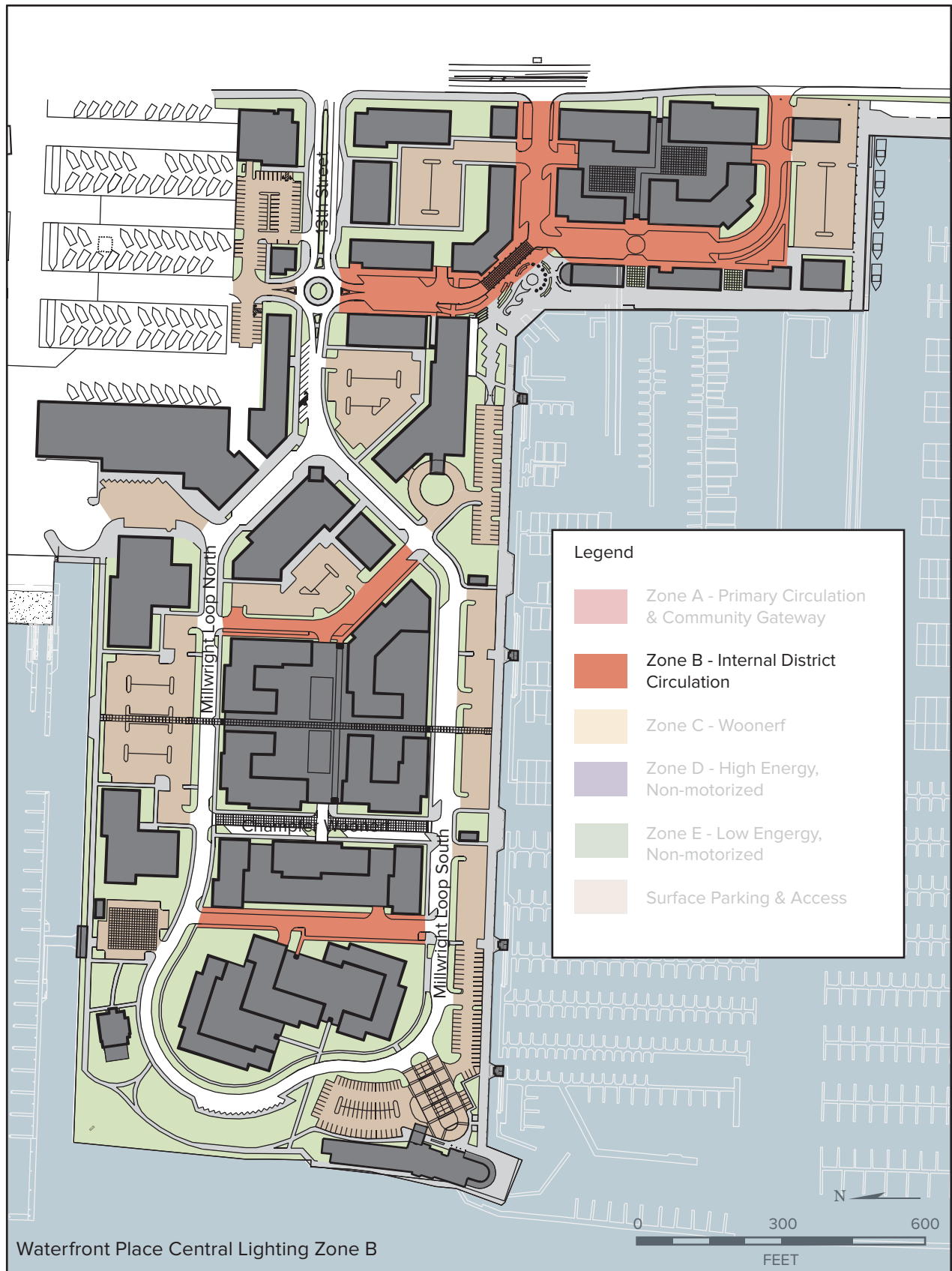
**Spacing:** 60' OC, TYP

**Height:** 14' luminaire



## F INTERNAL DISTRICT STREETS









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## Zone C Woonerf, Pedestrian Street

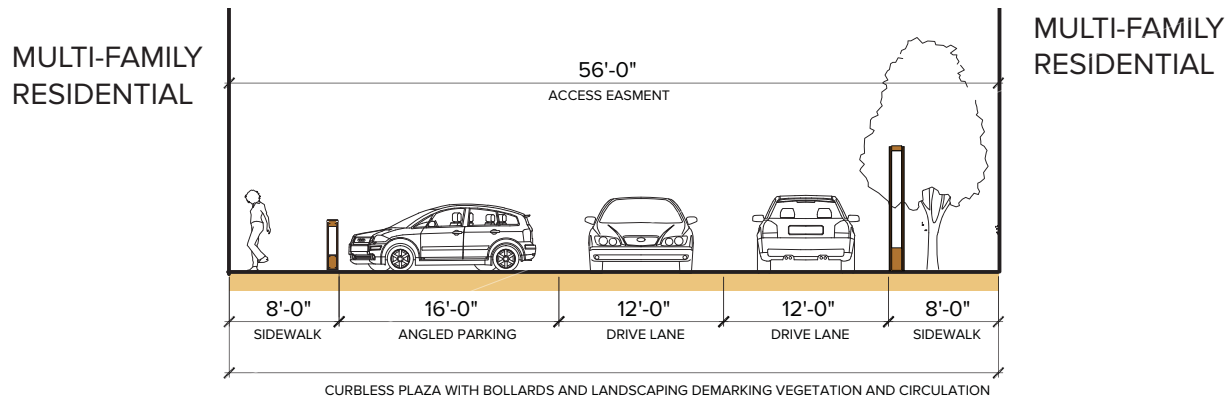
A woonerf prioritizes pedestrian movement over vehicles. Flush curbs, slow traffic, and a plaza-like atmosphere characterize these streets. As a prime location for farmers markets, festivals, and other community gatherings, the Champfer Woonerf has lighting that reflects a festive environment. Primary light sources come from bollards, light columns, and fixtures mounted to the adjacent mixed-use buildings. Additional light effects come from suspended luminaries, art installations, or projection screens.

**Bollard:** Structura Duo Bollard, 15' OC, TYP

**Light Column:** Structura Duo Light Column, 30' OC, TYP

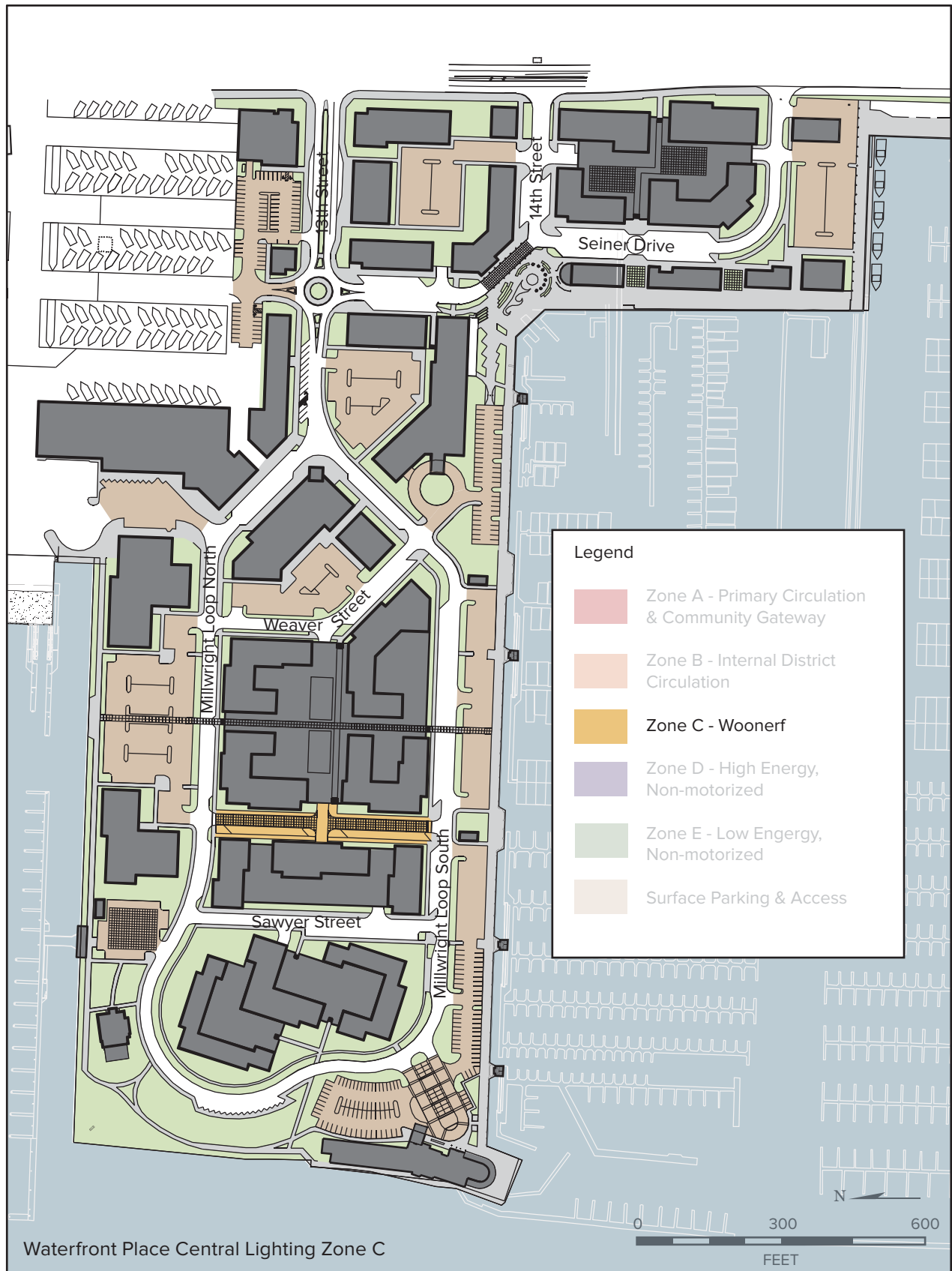
**Pole:** None

**Finishes:** Rust Sandtex & Matte Aluminum



## G WOONERF









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## Zone D High Energy, Non-Motorized

The South Esplanade from Fisherman's Harbor to the West Hotel holds marina pedestrian traffic- walkers and bikers, shoppers, and recreators. The angled lighting helps enclose this otherwise exposed pathway while respecting views to the marina, the water, and Jetty Island. Complementing these poles and fixtures, the railing along the water provides an additional layer of light, softly illuminating the path.

Holiday and festival lighting is appropriate on the trees along the Esplanade in this zone.

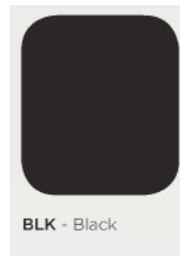
**Luminaire:** Bega 9491 LED

**Pole:** Structura Tandom Tilt

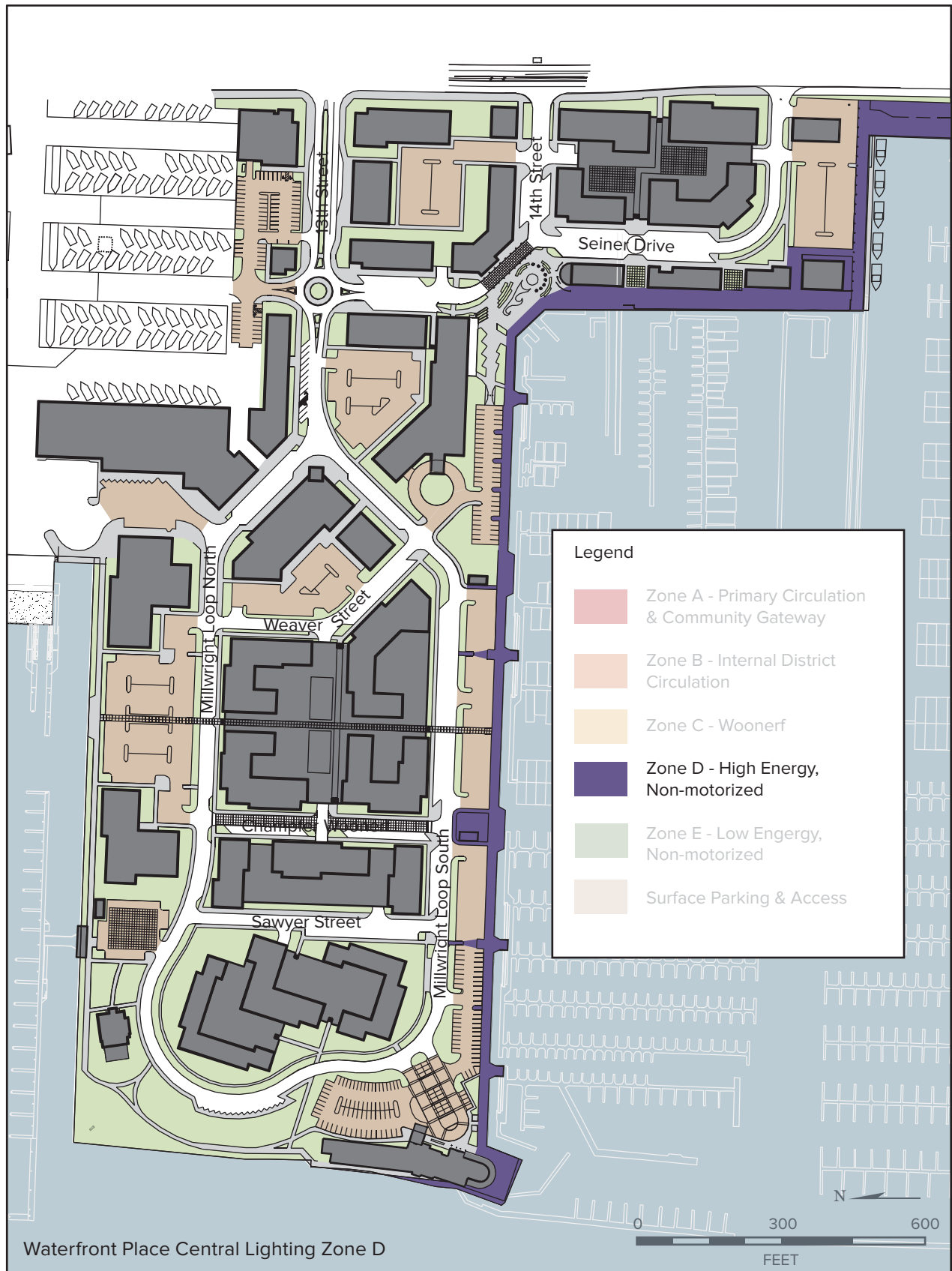
**Finishes:** Black (BLK); Rust (RSTX)

**Spacing:** 50' OC, TYP

**Height:** 14' luminaire









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## Zone E Low Energy, Non-Motorized

Reflecting the industrial and beach themes of the West and North Esplanades, the lighting recedes into the landscape, complementing and enhancing visitor's experience of the views to Jetty Island and beyond. Bollards and light columns light the path with a gentle cadence through Boxcar Park. The Weyerhaeuser Muse marks the transition to the North Esplanade with a change to the relocated AAL Universe lights.

While holiday and festival lights are appropriate near the Weyerhaeuser Muse, their use should be minimized in the open areas of the park to preserve subtle light levels that enhance western views. Possible secondary lighting includes step lights, under-railing lights, and small path lights. All proposed building-mounted lighting must be approved by the project architect and must respect the historical integrity of the building.

This zone also includes the Timberman Trail and adjacent semi-public rooftops. Glare should be kept to a minimum to protect nearby residences from light pollution. Pools of light and a softer touch hint at the secluded nature of this area.

**Luminaire:** Relocated AAL Universe 2-UCL, FLR

**Pole:** Relocated AAL Universe Pole

**Finishes:** White

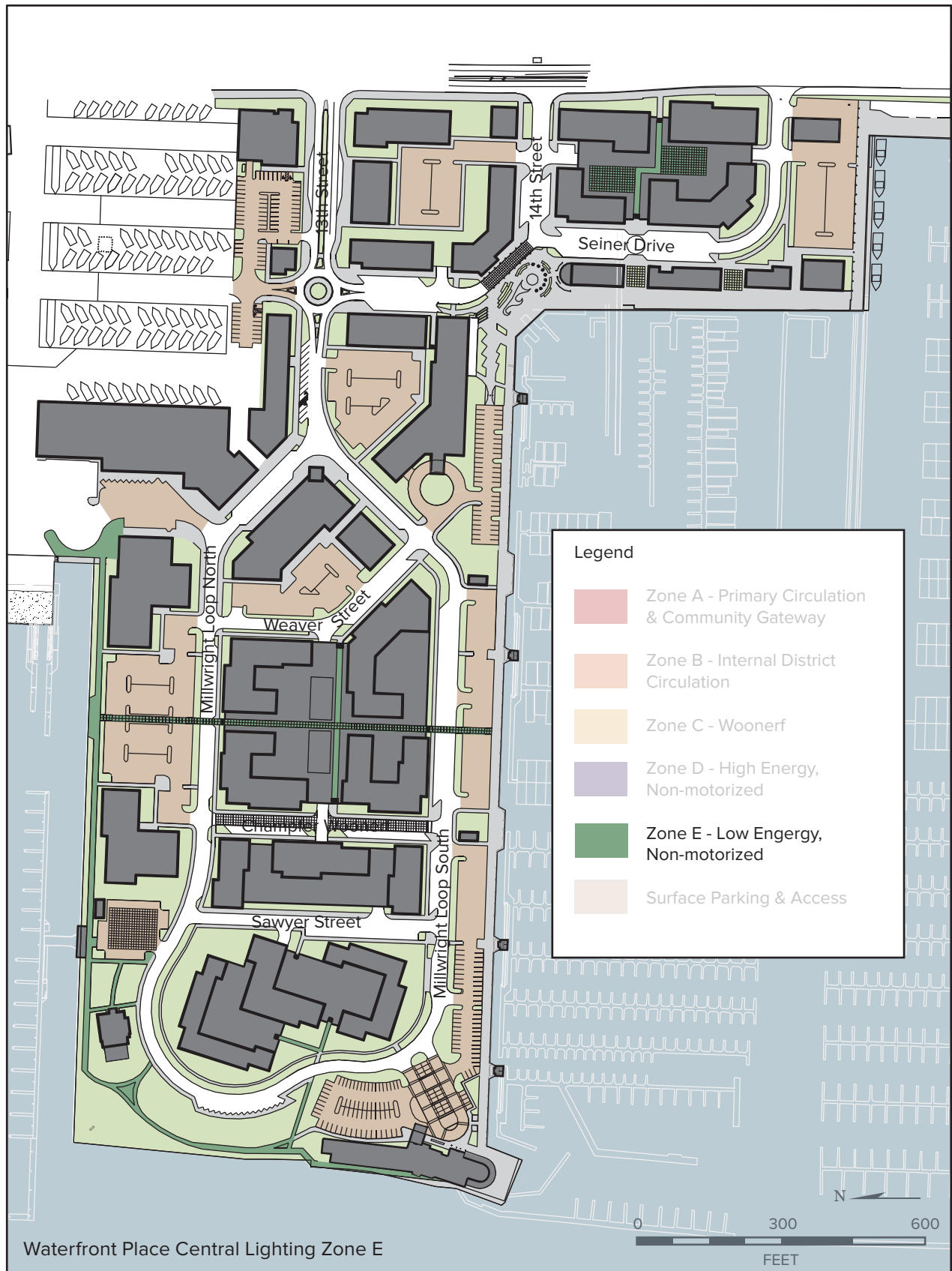
**Spacing:** 60' OC, TYP

**Height:** 14' luminaire

**Bollards:** Structura Duo & Bega 8452LED, 15' OC, TYP

**Light Columns:** Structura Duo Light Column & Bega 8965LED, 30' OC, TYP









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## Book 2: Furnishing



## Sitewide **Bench**



### **Plainwell Bench**

Landscape Forms

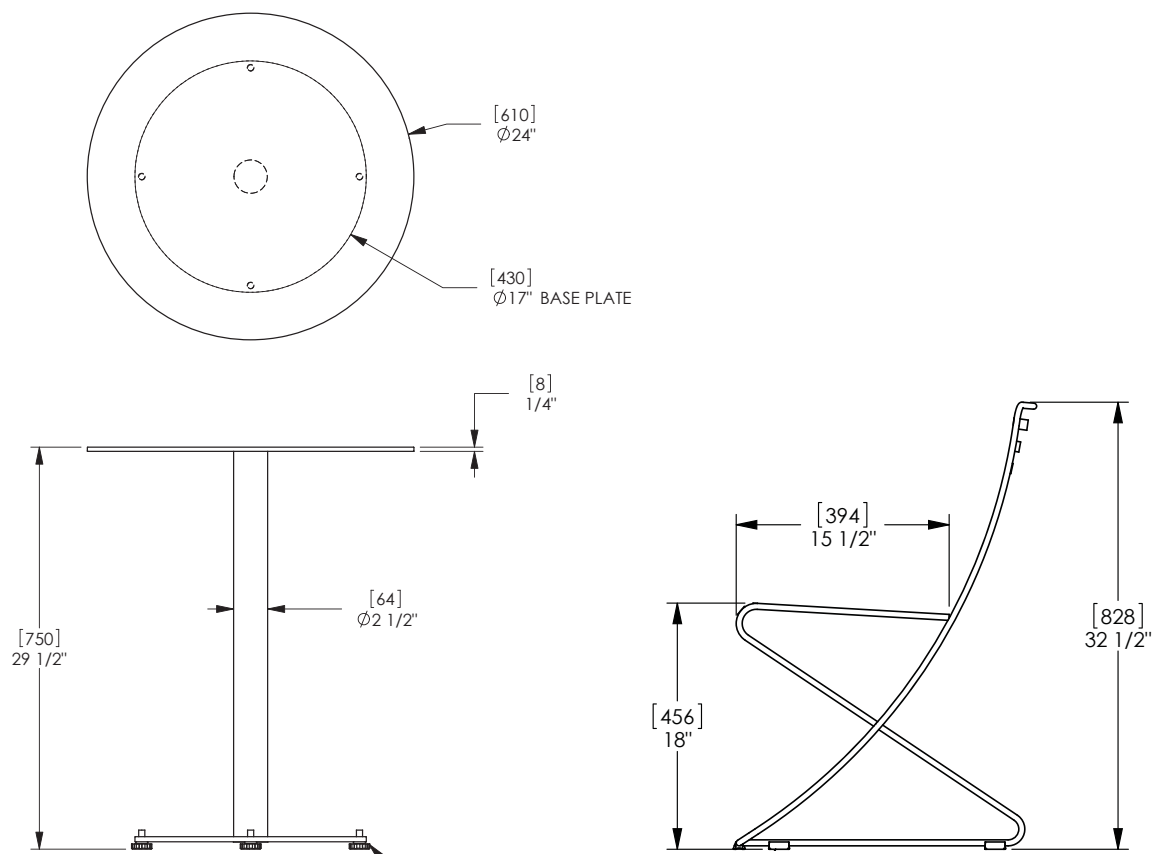
These benches provide elegance while also delivering on sturdiness and longevity. The seating surface is made of horizontal steel straps, which are welded to steel end frames. These support end frames are made of 3/4" steel. The metal is finished with Landscape Forms proprietary Panguard II polyester powder coat, a hard yet flexible finish that resists rusting, chipping, peeling, and fading.

## Sitewide **Public Tables & Chairs**



### **Parc Centre** Landscape Forms

The table top comes in 24" round, 30" round, and 28" square and is formed of 5/16" steel plate welded to heavy duty steel wall tubing support. The chair frame is formed of 7/16" steel wire and the seat back is made of 3/4" steel straps. All metal is finished with polyester powder coat.



## Sitewide **Private Tables & Chairs**



### **Ronda Chairs & Cambi Table**

Emu

Tubular steel frame and mesh metal are powder coated, making them easy to clean. The chair seat back is mesh metal, and the seat height is 17.7". The table is 32"x32" square with a 1.5" umbrella hole with cap.





## Sitewide **Bollard**



### **DG-4**

#### Urban Accessories

100% recycled aluminum bollard has a polyester powder coat. It is available as cast in, surface mount, or removable. Also comes with optional eyelet to allow for chain to string between bollards and bike loop for locking bicycles. Use bronze top for all bollards.



## Sitewide **Trash & Recycling Receptacles**



### **Smartbelly Station**

#### **Bigbelly**

These waste stations use solar powered monitors to alert maintenance crews to when they need emptying. They come in 50 gallon or 150 gallon capacities.



### **Plainwell**

#### **Landscape Forms**

These waste receptacles have a 35 gallon capacity with a black polyethylene liner included. Side panels are available in aluminum or a selection of woods. Metal parts are finished with Panguard II powder coat. Use the protective top cover throughout Waterfront Place Central.



## Sitewide **Bicycle Racks**



### **Tofino No Scratch Bike Rack**

Sportworks

Bike rack is 28" long, 6" wide, and 33" tall. It contains a rubberized coating around a stainless steel tubular frame. The rack can be surface mounted, embedded, or mounted on a rail. Rails can be surface mounted or freestanding which allows them to be moved.



### **Oahu No Scratch Circular Bike Rack**

Sportworks

Bike rack is 36" long, 6" wide, 33" tall, and round in shape. It contains a rubberized coating around a stainless steel tubular frame. The rack can be surface mounted, embedded, or mounted on a rail. Rails can be surface mounted or freestanding which allows them to be moved.





## Sitewide **Tree Grate and Drain Cover**



### **Chinook**

#### Urban Accessories

Grates come in 100% Recycled Grey Iron, Ductile Iron, 100% Recycled Aluminum, Silicon Bronze, or Nickel Bronze. Finish options are unfinished or liquid coated paint. Shape options include square, rectangle, round, and combination shapes.



### **Double Wave**

#### Urban Accessories

Grates come in 100% Recycled Grey Iron, Ductile Iron, 100% Recycled Aluminum, Silicon Bronze, or Nickel Bronze. Finish options are unfinished or liquid coated paint. Shape options include square, rectangle, round, and curved shapes.



## Sitewide Accessible Routes



### **Detectable Warning Plates**

Neenah Foundry

Cast iron warning plates are extremely durable and able to adhere to concrete for permanence. They're virtually maintenance-free without issues of wearing, peeling, or cracking. Extremely easy interlocking system in new concrete hastens installation. Excellent non-skid characteristics comply with all ADA and ABA guidelines.



## Sitewide **Planters**



### **Rosa Planter**

#### Landscape Forms

Lightweight polyethylene planters are inexpensive to ship and easy to work with on site. Polyethylene won't chip or crack because it's resistant to UV rays, moisture, corrosive substances, and extreme temperature changes. The planters are available in freestanding or surface mount.



### **Universal Planter**

#### Forms+Surfaces

Universal Planters offer the beauty and performance of stainless steel in a range of sizes and options. Corrosion-resistant stainless steel construction is available in round planters from 30 to 190 gallons. Finish options include three different stainless steel finishes, and a durable powder coat finish is also available. Customize with optional perforations and embossments in a variety of sizes and patterns. Mounting options include freestanding and surface mount options, with concrete bases also available. These planters have a high recycled content and are fully recyclable.



## Sitewide **Bus Stop Seating**



### **Connect Rail** Landscape Forms

Sitting and leaning rails provide resting opportunities at bus stops and narrow walkways. The sitting rail features a flat top to give the sitter a stable perch while the leaning rail tilts forward at a 21 degree angle allowing the user a resting stance. Rail frames are aluminum castings; seat slates are aluminum extrusions. These sitting and leaning rails must be surface mounted.



## Sitewide **Ash Receptacles**



### **Butler Ash Receptacle**

Forms+Surfaces

These receptacles are of an aluminum construction with a durable powder coat finish. Medium or large sizes are available. Key locks prevent unauthorized access. Intuitive graphics and custom logos are also available. Pole mount, wall mount, strap mount or receptacle mount options are available.





## Sitewide **Garbage Enclosure**



### **Shadow 80 Fencing**

Ametco

This fixed louver galvanized fencing offers 80% direct visual screening. The weight per sq ft is 2.84lbs. Fencing can be installed in horizontal sections, making it practically peep-proof. Vertical sections allow a reduced one side visibility only.



## Sitewide **Dog Features**



### **Commercial Dog Waste Station**

Bow Wow Waste

Made of rustproof, high strength aluminum for longevity and ease of maintenance. This dog waste disposal and management system is used in a wide variety of locations. Color options are green or black. Station should be set in quick setting concrete when installed. Use Port of Everett approved signage instead of manufacturer's sign (see appendices).

## Sitewide **Drinking Fountains**



### **Barrier-Free Steel Pedestal Fountain 3202G**

Haws

This fountain uses a patented push-button stainless steel valve assembly allowing for front access stream adjustment as well as cartridge and strainer access. Gravel fill and trough design completely eliminate the need for traditional drains that can be clogged with sand and other contaminants. Fountain comes further equipped with multiple vandal resistant components, making it uneasily disrupted. An optional, self-closing faucet valve is available.

### **Foreshore Drinking Fountain**

Furphy Foundry

The Foreshore Drinking Fountain is a signature Furphy Foundry product. Made from Full 316 stainless steel and finished with an electro polish, this Drinking Fountain is a spectacular product that has been built to last.



### **Los Angeles Drinking Fountain**

Canterbury International

This cast aluminum drinking fountain has a pet drinking bowl and is ADA compliant.



## Sitewide Railings

### Steel Handrails

Handrails are simple, made of unfinished galvanized steel or stainless steel. Vertical members are 1.5"x0.5" steel bar while the horizontal handrail is a 1.5" diameter pipe. All railings are to comply with local, state, and federal codes.



### Waterfront Guardrails

Taking inspiration from the existing guardrail along the Esplanade (see bottom two images), the Waterfront Guardrail wraps the Fisherman's Harbor Waterfront and Seiner Pier.





## Fisherman's Harbor

### Furnishing Concepts Overview

The furniture elements for Fisherman's Harbor represent the authenticity of a working waterfront while simultaneously adding to the style and sophistication of an upscale commercial district. Fisherman's Harbor is "sophisti-gritty" and has a high-end feel with a blue-collar influence.

To accomplish this, the furniture takes inspiration from the wood of boat hulls, the planks of a sailboat deck, and the metal of shipping containers. The different furniture elements of this district function as centerpieces of streetscape and plaza areas. They are durable enough to accommodate the high frequency of use but delicate enough to feel unique and customized. The furniture elements are also used to create a transition between private, semi-public, and public spaces.



## Fisherman's Harbor Waterfront



### Vector Seating System

Forms+Surfaces

These interchangeable modules (below) include linear benches in 2', 4', 6', and 8' lengths, two 120 degree angled benches, and a planter. Modules can be arranged together in straight runs or branch out to meet project-specific needs. They have an aluminum frame with a durable powder coat finish. Seat slats may be 100% Jatoba hardwood or powder coated aluminum. Developers may add optional seat backs and seat dividers; optional side panels for benches and planters in unique VividGlass or stainless steel designs are also available.



### Wood & Concrete Benches

Fisherman's Harbor is bustling with people for most of the year. As such, custom seating (right) is designed into this district to accommodate these numbers. Benches are integrated into retaining walls and planters to maximize sitting area.

### Corten Planters

Corten steel planters (top) define planting areas and recall rustic fishing vessels and tools. Planters have a rocky drainage area adjacent to prevent concrete staining as the metal develops its protective patina.





## Fisherman's Harbor **Pacific Rim Plaza**

### **Custom Wall Seating**

Fisherman's Harbor will be an active area that will contain significant public space. One of the best ways to incorporate seating in this district will be to design it directly into the site features themselves. Landscape walls should be designed to accommodate as much seating as possible.

Wood used in the plaza seating comes from FSC-certified lumber sourced from the Port of Everett's trading partner home countries.





## Esplanade

### Furnishing Concepts Overview

The furniture elements for The Esplanade are comfortable, functional, and fit seamlessly into this linear public space. The people who use this space are likely taking part in some form of recreation; walking the dog, jogging, walking to their boat, or perhaps riding a bike. For this reason, the furniture is subtle enough to not create an obstacle to those people that are passing through. However, furniture should also be comfortable enough to visitors to stop and enjoy views of the harbor.

Because The Esplanade is a linear space, there are lots of opportunities to build furniture into border elements. Linear wall seating is the most efficient way to provide seating along the length of this district. There are also opportunities to have some lounge-style seating for people that wish to stay for a while.



## Esplanade **Boxcar Park**



### **Westport Series WP-2**

FairWeather

This bench provides a modern look using rich wood and steel. The frame is fabricated with 1.5" square steel tube. The bench seat is composed of nominal 2x6 angled wood or recycled plastic, all edges eased. Options for wood are Douglas Fir, Ipe, Tigerwood, or Western Red Cedar. All wood is treated with a clear coat preservative to provide long lasting durability. All metal is powder coated with corrosion resistant undercoat. Bench comes with bolt holes to allow for fastening into ground for permanent installation.

## Esplanade **Weyerhaeuser Muse & Courtyard**



### **Black Patio Glider**

Glenbrook

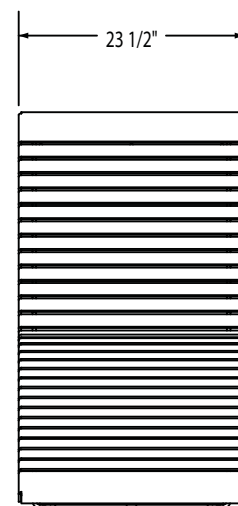
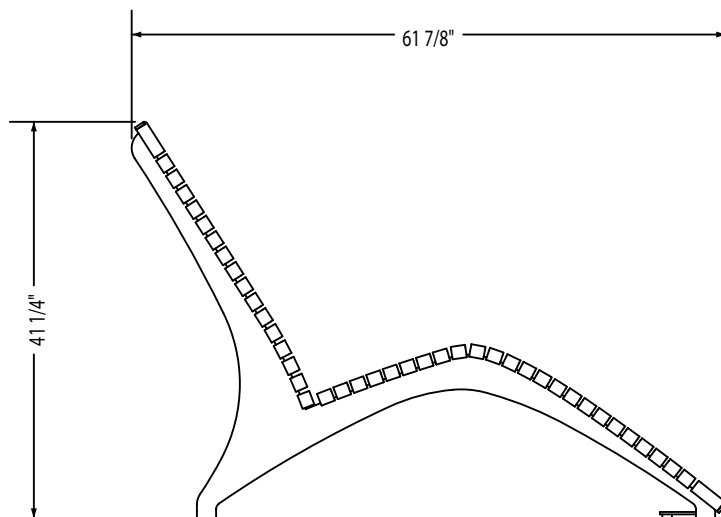
This patio glider seats two people. Constructed of heavy duty wrought iron for durability and longevity. It comes fully assembled and is primed and powdercoated to prevent rust.

## Esplanade Promenade



### **MCL 720 Series** Maglin

Because the Esplanade will have sweeping views of the harbor, lounge-style furniture will fit it perfectly for those people that want to hang out for awhile and take in the view. The Maglin MCL 720 Series frame is made from 3/8" laser cut steel. All steel components are protected with E-Coat rust proofing. The Maglin Powder Coat System provides a durable finish on all metal surfaces. Surface mounted or freestanding.





## Esplanade Promenade



### **Thea Foss Bench** Fairweather

The TF-3 reversible back bench is great for public places that have points of interest on both sides. The unique movable back allows the user to face either direction by simply moving the back of the bench.

## Wharf's Edge

### Furnishing Concepts Overview

The furniture elements for Wharf's Edge are more classic in their aesthetic. To accomplish this look, the furniture will take inspiration from the formal patterns of a wrought-iron fence, the wooden shingles of a beach house, and the repetition of a sand dune fence.

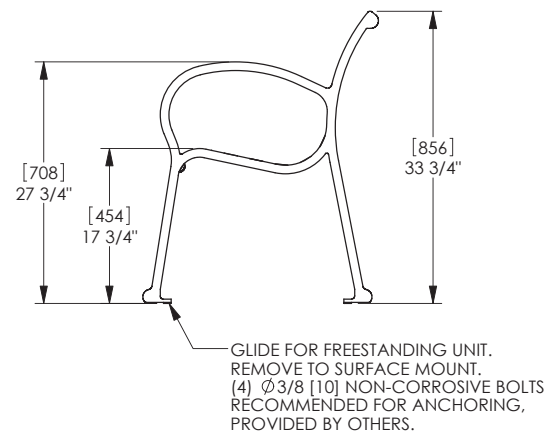
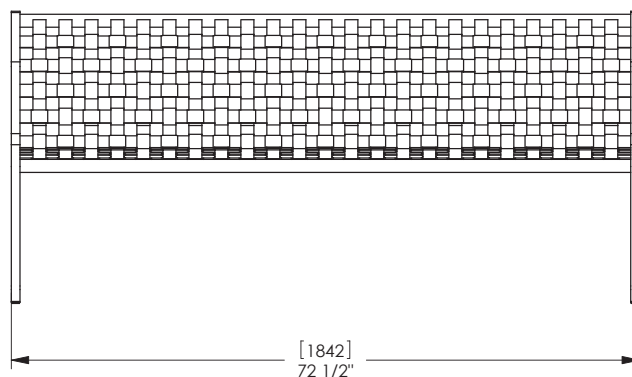


## Wharf's Edge Courtyards & Sawyer Street



### Scarborough Landscape Forms

This backed bench comes in 2', 4', 6', and 8' lengths. It has the options of horizontal strap or woven metal design as its sitting surface. The Port of Everett prefers the woven metal straps option to be used in Wharf's Edge. All metal parts are powder coated with Panguard II powder coat. Benches may be freestanding or surface mounted.





## Wharf's Edge **Chamfer Woonerf & Vista**



### **Bridge Bench** Forms+Surfaces

Straight benches in nominal 6 foot lengths and curved benches in nominal 6-1/2 foot lengths have stainless steel frames with Satin finish. Specify FSC® 100% jatoba hardwood slat seats. Freestanding or surface mount options are available. This bench has high recycled content and is fully recyclable.





## Millwright District

### Furnishing Concepts Overview

The furniture elements for The Millwright District take their inspiration from historic and contemporary lumber mills. These inspirational features are stainless steel saw blades, smooth & rough cut lumber, railroad ties, and water currents.

The Millwright District has both public space and private space. In the private spaces, wood is used to reinforce the theme of lumber mills. In situations where wood is not a desirable material due to maintenance concerns, metals with natural finishes are preferred.



## Millwright District **Timberman Trail & Vista**

### **Trestle Series Model TS-1V**

Fairweather

The Trestle Bench combines the old with the new. The shape is reminiscent of old time railroad trestles but with an updated concept. Also available in wood, the bench top has concrete “boards” to provide the durability of concrete without the weight and bulkiness of other concrete benches.



### **Found Object Components**

Custom Wood Benches

There are opportunities to use historical objects to create furniture. This bench is an old railroad tie that has been stained, sealed, and fastened to stainless steel legs.



## Interim Public Space



**Gretchen**  
Landscape Forms

Handsome, practical and durable Gretchen picnic table features a built-in umbrella holder and clever angled supports to offer wheelchair access at either end; special ADA compliant style with longer table top also offered. To create a shady seat, just add Solstice umbrellas.



**Solstice**  
Landscape Forms

Solstice umbrellas include three styles: Cygnus, Sirius, and Altair. All styles are highly durable, wind and weather resistant, and maintenance free. They are as elegant on the inside as they are out; as whimsical and colorful as the setting calls them to be. These umbrellas may be surface mounted, embedded, or used with Landscape Forms Gretchen picnic tables or Emu Cambi tables.

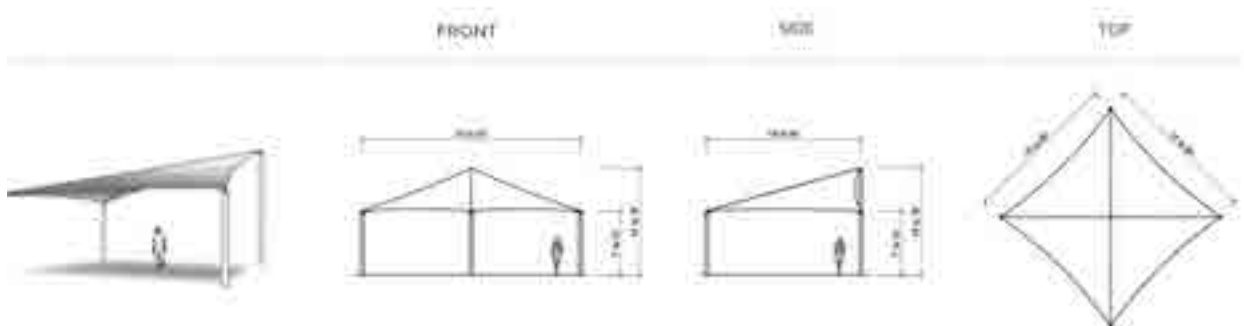
## Interim Public Space



### Shade Kites

Shade Systems Inc.

These imaginative fabric shade canopies use one corner post twice the height of the other three. Shade Kites offer design flexibility of orienting them tilted toward the sun for maximum shading and sun protection. They can be purchased as single, or connected together in groups of two, three, four, or more. They come standard with “Turn-N-Slide” easy canopy fastening and removal system. They are available in square sizes of 15'x15' to 30'x30'. They use “CoolNet” sail - knitted shade fabric manufactured from 100% high-density polyethylene (HDPE) with U.V. stabilizers and flame retardant.







### **Bi-level Grill**

UltraSite

Includes a utility shelf with a 4-level adjustable cooking grate. Firebox is 3/16" steel. 4" square post with 1/4" gussets for additional support. 7 ga. base plate with 11 ga. side walls. All MIG welded.



## Book 3: Planting



## General Planting Guidelines

The Port of Everett distinguishes the character of Waterfront Place Central with regionally appropriate plants that recall historic waterfront communities and complement the native shoreline flora of the Pacific Northwest. Plants provide year-round enjoyment, reinforce pedestrian connections, define edges, and contribute to a comfortable outdoor environment.

The plant choices for Waterfront Place Central reflect the following goals:

- To shape compelling public spaces.
- To promote district identity.
- To reinforce individual street identity and help with wayfinding.
- To enhance and preserve desirable views to the water and regional landmarks.
- To enhance the individual character and use of the buildings while complementing adjacent public open space.
- To promote safety and comfort.
- To preserve resources through site-appropriate, drought tolerant plants.

The Planting Design Guidelines support the incremental development of Waterfront Place Central with a unified project approach to landscape plantings. Waterfront Place Central contains neighborhood districts with individual character. The landscape planting is integral to each district's identity and quality of place. All planting honors the universal principals of public safety and defensible space while working with the natural ecology of the site and recognizing maintenance capacity.

For general planting recommendations, refer to the *Port of Everett Waterfront Place Implementation Strategy*.

All planting must meet the City of Everett standards, codes, and regulations unless otherwise approved by the City per the Waterfront Place Master Plan.

## Views

Located on prime land overlooking the mouth of the Snohomish River and Jetty Island, Waterfront Place Central intentionally uses plants to preserve and frame strategic, desirable views to local and regional landmarks. These views, shown and interpreted on the following pages, are rated according to their perceived value.

### Design Responses for View Categories

#### Premium Regional/Landmark Views

Use columnar, pyramidal, or narrow trees.

Use light, open canopy trees for views of upper story buildings.

Limb trees high for pedestrian viewing.

Locate trees to frame primary view corridors from key vantage points.

Reduce potential for light poles to impact views.

Use trees that create vegetated frames.

#### Opportunity Views

Create opportunities for higher view quality through design mitigation such as locating desirable elements as sculptures or special features into the view, or locating undesirable elements such as comfort stations out of the view.

Balance view preservation with code requirements.

Allow flexibility in tree types, density, size, and scale.

#### Interior/Confined/Wayfinding Views

Enhance district identity with signature plantings.

Enhance business identity with signature plantings.

Higher density planting could offset less dense planting from Premium Regional/Landmark view areas to meet City of Everett goals for tree canopy.

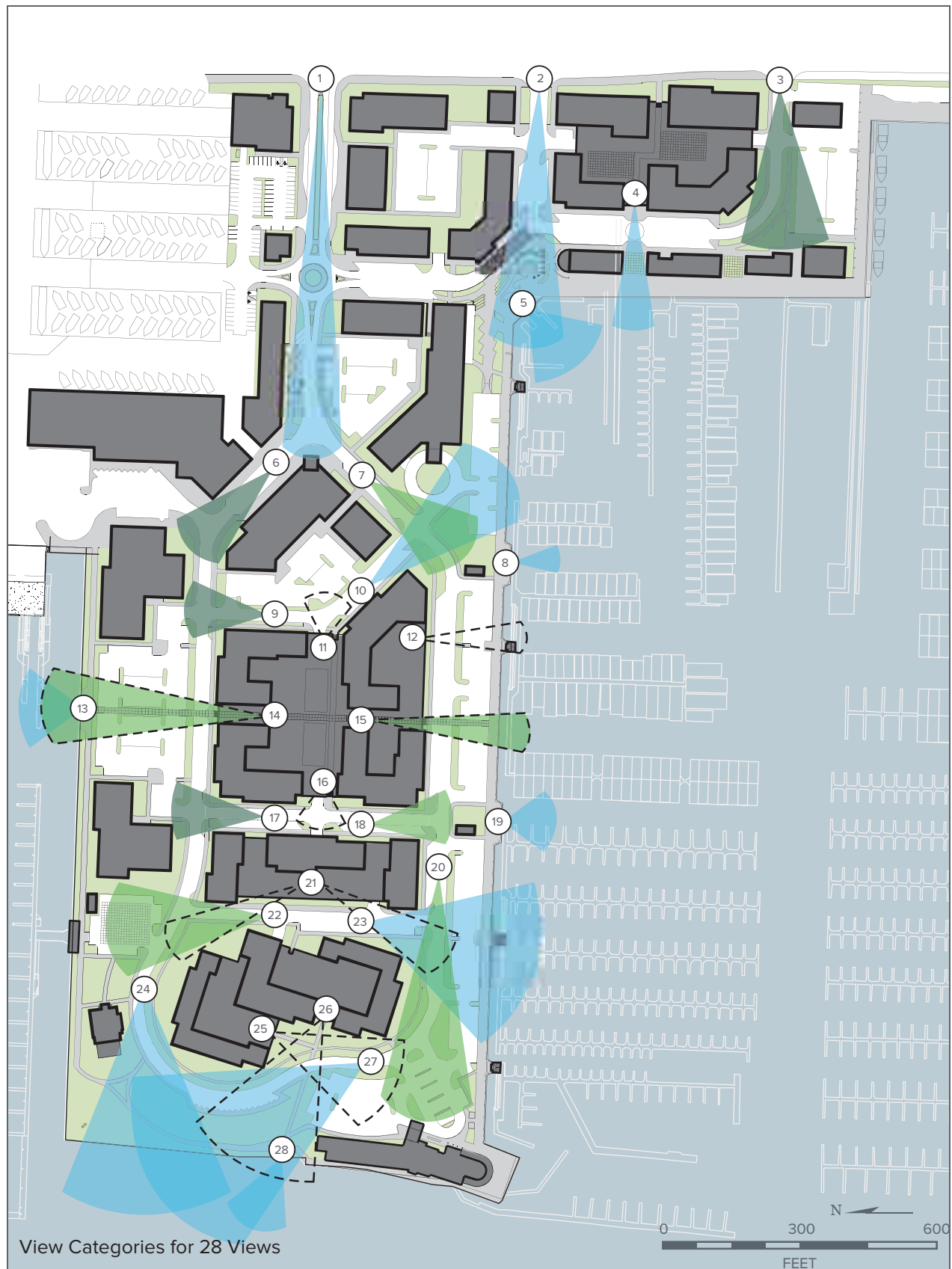
Use a wide variety of tree type, density, and scale.

#### Elevated Views

Consider views from the roofs of buildings or from upper stories.

Recognize vantage points which are high enough to see over vegetation and trees.

Consider planting to provide shade on roof gardens while framing views.



Views can be open, framed, filtered or screened with plant material. The location and shape of trees have an important impact on views. Trees on the edges of views direct your vision and frame the outlook. Trees near the viewer establish scale and perspective for distant vistas. Trees with light canopy can filter views while providing dappled shade. When choosing plant species, consider the ultimate height and form and their effect of on views.

## Crime Prevention Through Environmental Design (CPTED)

All planting design in Waterfront Place Central follows the best practices of Crime Prevention through Environmental Design (CPTED).

The perception of safety in public spaces is based on the design and use of the physical environment and the extent that the environment has the potential to facilitate or discourage crime.

Plants as a spatial design element can provide both positive and negative aspects to the safety of public spaces.

Plants used inappropriately can be physical and visual barriers, sometimes screening streetlights and views to and from adjacent interior spaces and creating potential hiding places for people and undesirable activities.

On the other hand, plants used appropriately provide aesthetic appeal and shade that encourages people to linger, and delineate private from public spaces, all of which contribute to a greater sense of safety and ownership.

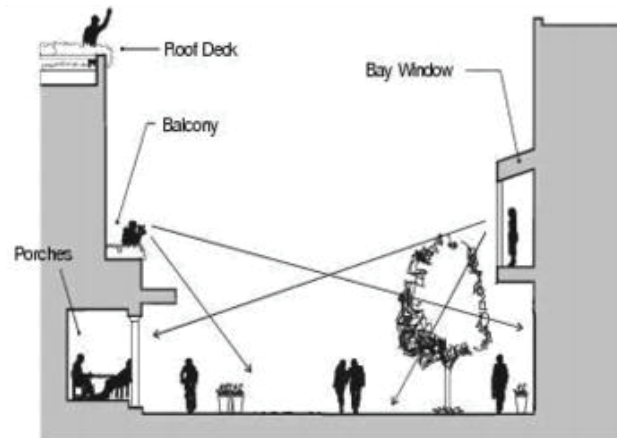
In all planting design, maintain views into and out of the area for effective passive surveillance. To increase visibility, choose shrubs that grow only up to chest level and limb up trees as they grow to provide 8 feet of clearance from the ground. Tall shrubs that limit views are not planted at intersections, driveways, or in places that obscure needed sight lines.

Space trees at least 15 feet from street lights to allow for the light to fully illuminate the surrounding area.

Use plants to define public and private spaces to encourage a stronger sense of where the public is welcome and where private areas begin.

Dense plants with course or prickly textures discourage activities in planting areas and are appropriate for low activity locations such as in parking lots or access roads.

Plants providing shade, fragrance, visual interest, or wind



Example of CPTED in practice.

protection are appropriate in places where the intent is to encourage people to linger.

## Environmental Context

Waterfront Place Central has a variety of growing conditions ranging from the immediate exposed shoreline to protected areas between buildings and rooftop gardens. Species choices are made carefully to assure that the right plant is chosen for the growing conditions of each specific site.

The prevailing wind direction for Everett is from the south from October to April, from the north from May to August. Plants make effective windscreens that can buffer winter winds to make the outdoors more comfortable for use. Summer winds are usually welcome and don't require buffering. Vegetative buffering can be effective as a plant establishment practice to create pockets of planting on the leeward side of wind baffles.

Storm winds in Everett can reach up to 70 miles per hour. Subsurface anchoring of trees and large shrubs can avoid loss of trees and property damage caused by windthrow.

The vegetation at Waterfront Place Central is vulnerable to salt damage due to its proximity to the salt water of Possession Sound and its high water elevation close to the root zone of planting beds at ground level.

Trees and plants growing near large water bodies rarely reach their full size and are subject to wind pruning and smaller leaves. Windswept trees are an iconic shoreline feature which can be beautiful but signify the tree's response to stress. Plants adjacent to the shore and those planted at the lower project elevations are the most at risk for salt damage.



Excavation depth is limited in parts of Waterfront Place Central. Where the required planting soil depth cannot be achieved through excavation, planting areas are raised above grade with retention walls or planters.

Likewise, planting in quality soil dramatically increases each plant's chances for success. Waterfront Place Central's existing soils poorly support plant life, so each planting area requires excavation and the replacement of high quality planting soil. The larger the plant species is, the more planting soil volume is required. A landscape architect or arborist should be consulted for new planting areas to determine the appropriate planting soil depth and volumes.

Even with the support of irrigation and quality planting soil, the chances for success are greatest for salt-tolerant plants. Plants with greatest salt tolerance are planted along the shoreline of Waterfront Place Central. Plants in the interior or protected locations of the site are less exposed to salty conditions, thereby allowing a greater variety of plants choices.

To limit and ameliorate the salt and wind damage to plants, several strategies may be used:

- Use salt tolerant plants in the zones adjacent to the water's edge.
- Provide watering through irrigation systems to aid rainfall in diluting salt accumulation on leaves and soils.
- Protect trees from winter winds but allow summer winds to cool.
- Provide necessary soil volumes suited to the scale of trees to achieve and support lifelong health.
- Baffle the wind with fences, walls, or hedgerows to create microclimates on the lee side.
- Plant small size trees and shrubs to allow them to adjust to adverse site conditions.
- Plant in the fall or early winter to allow plants to get established before the dry season.
- Mulch heavily around new plants to conserve soil moisture.
- Consider a granulated gypsum application in the fall (40-60 pounds of granulated gypsum per thousand square feet) for salt removal.
- Anchor trees and large shrubs with subsurface systems to avoid windthrow.

## Planting Composition Guidelines

Planting complements and enhances design through color, fragrance, visual texture, movement, and seasonal change. Plant selection and landscape architectural design must consider the plant's context and ensure that the mature size and character of the plants are well integrated with built elements.

### Seasonal Interest

The Port of Everett embraces all-season interest of Waterfront Place Central's planting areas.

As a planting standard, at least 60% of all plants in a planting area must demonstrate winter interest. Evergreen plants and species with colorful bark, winter fruits or flowers, or interesting silhouettes provide acceptable winter interest. The intention of this standard is to give the appearance of a "full" planting area year round. This increases perceptions of well-maintained spaces and deters activities in the planting area that might compromise plant health or public safety.



Example of non-evergreen shrub with winter interest.

## Planting Design

Plant beds should be planted to look full. Not only is this more attractive, it lessens maintenance by filling the soil with desirable plants instead of opportunistic weeds. Planting the periphery of the plant beds with evergreens or robust shrubs with winter interest is essential to armor the planting area in pedestrian areas. Holding the edges in this way clearly delineates planting areas and frames the more ephemeral three season plants which provide accent and variety.

Limit the number of species within a single planting area and favor groupings in associations with similar microclimate needs for sun, soil, and water to ease maintenance and create a unified composition. In general, plant in groupings of multiples of the same species. In small areas, the minimum size group should be odd numbers no fewer than 3 or 5. It is appropriate to include specimen plants as a focal point within this framework.

## Maintenance

Prior to any planting design, it is essential to understand who will be providing maintenance, their anticipated level of maintenance, and the common practices of their maintenance regime.

Planting strategies to lessen maintenance include:

- Provide of an automatic irrigation system.
- Limit use of species with special maintenance

requirements.

- Compose planting in groups and multiples of the same species for greater efficiency of care.
- Plant densely to achieve complete covering of the ground within 3 years of planting.
- Use mulch and groundcovers to suppress weeds.
- Require landscape contractor to provide a comprehensive maintenance manual with monthly schedule of activities.

## Dog Amenities

The Port of Everett welcomes dogs and their families. In order to promote a safe, clean environment for people and dogs to enjoy, the Port of Everett provides dog comfort stations throughout Waterfront Place Central.

Dog comfort stations ease the maintenance concerns associate with canine populations by isolating dog waste and limiting its impacts on public health and welfare. These areas promote owner responsibility by providing convenient access to disposal bags and litter bins. They protect plants from damages caused by pet urine, trampling, and digging.

Dog comfort stations have rounded, flat river rock and cobble located at the edge of sidewalks. Irrigation helps to clean surfaces, and the areas are free draining. Drinking water is also provided in some areas.

Plants poisonous to dogs are avoided across Waterfront Place Central.

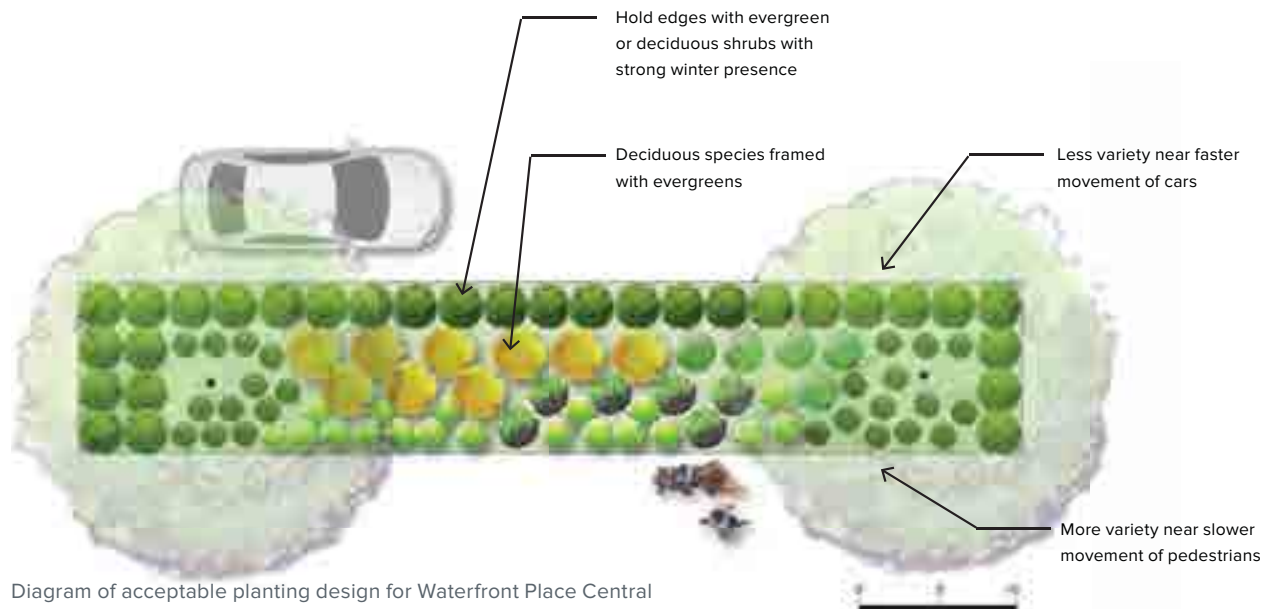


Diagram of acceptable planting design for Waterfront Place Central



1. Dog Comfort Station at corner of plant bed with rock as a target.
2. Rocks along sidewalk to protect plants and provide dog comfort.
3. Rooftop comfort station with artificial turf.
4. Raised panting areas protect plants for a better appearance.
5. Drainage provided at the base of vertical elements allows cleaning and infiltration.
6. Targets provided in dog comfort areas.
7. Waste bags and disposal.
8. Water for dogs.



Strategies for dog-friendly open space include:

- Provide free-draining designated areas as waste stations
- Provide vertical targets for urination
- Provide drainage at base of vertical structures
- Provide dog waste bags and bins
- Provide water for drinking and cleaning
- Protect planting areas with raised plant beds or edge treatments
- Provide paths for dog walkers in large planting areas.

## Plant Species Choices

The plant species listed in the Waterfront Place Central Plant Palette at the end of this chapter are specifically chosen and approved for use on the site. Additional plant selections may be used if they meet the following criteria:

- Are approved by the Port of Everett landscape maintenance staff
- Are suited to site conditions of the urban marine environment, including factors of climate, sun and wind exposure, salt tolerance, soils, and
- Support view enhancement or screening requirements
- Meet the design goals for district identity.
- Are drought tolerant
- Are readily available in the nursery trade thereby cost effective
- Contribute to a varied palette of evergreen and deciduous, textures, colors, seasonal interest
- Emphasize the unique qualities of their context within the Waterfront Place Districts.
- Have a proven track record – only use newly introduced cultivars with thoughtfulness toward proven performance and ultimate size.
- Native or adapted species resulting in less maintenance and loss of life
- Are appropriate for CPTED principles: trees that can be limbed up, and plants that remain under 4' tall or be of a density to allow views through plants.
- Are long-lived for a better capital investment.
- Are nontoxic, not on jurisdictional Noxious Weed Lists, and are low allergen producing.

## Trees

Trees play a major role in place-making and establishing the identity of the various open spaces. Use both deciduous and evergreen trees for year-round variety in keeping with the Pacific Northwest character. Specifically trees are valued for:

- Reinforcing pedestrian connections.
- Helping to soften building appearances and reduce perception of scale.
- Providing shade for seating areas.
- Ameliorating the heat island effect of urban conditions.
- Improving property values.
- Enhancing and framing views.

The placement of trees is carefully considered within the context of views, utilities and street intersections. Guidelines for the placement of trees include locations:

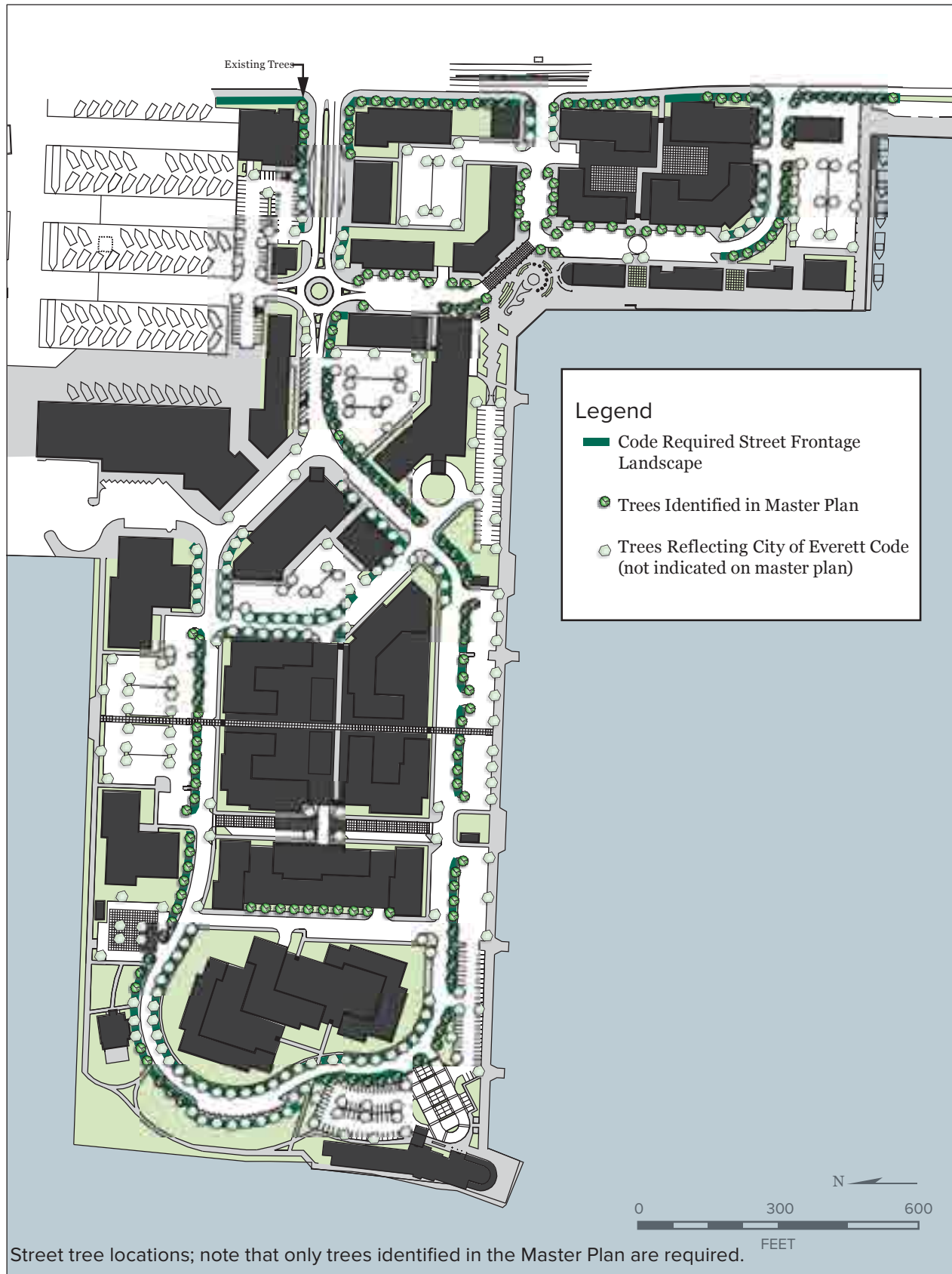
- At least 10-15' away from building structures
- At least 15' from pole lights.
- At least 30' away from street intersections.
- At least 12 feet away from curb cuts and driveways.

Generally, tree sizes at installation are a minimum 2-3" caliper for deciduous trees and 8-10' height for coniferous trees. When planted in naturalistic groves, tree sizes can vary to replicate successional patterns found in nature with younger and older trees.

Tree grates may be used for trees placed at ground level in pavement when they are not part of a larger planting area because of space limitations. All tree grates are ADA compliant. Tree grates must allow for ultimate growth of the trunk. The minimum allowable size is 4'x4', although larger grates such as 4' x 6' , 5' x 5' or greater are preferred to provide more water and air to the tree roots. See the Furnishing Guidelines for approved grates for Waterfront Place Central.

## Understory Planting

Understory plantings include all plant materials that are smaller than trees, including but not limited to shrubs, groundcovers, ferns, grasses, and vines. Understory plants provide buffers for parking and service areas, define spaces, and add color, texture, scent, and seasonal change.



The understory plant palette reflects the character of the District areas through form and texture. The focus is on the longlasting qualities of texture, foliage, and bark rather than the more ephemeral flowers.

Layered planting should provide four season interest. Plant beds contain over 60% evergreen species unless otherwise approved. The edges of planting beds are armored with evergreens or deciduous plants with dense structure and winter presence. Understory plants should be designed in simple drifts of shrubs, grasses, and groundcovers.

The size of shrubs at installation should be predominately 5 gallon, although adjustments to size can be made to accommodate large multi-stem shrubs or shrubs of small stature. Shrubs are spaced to allow free growth to mature size of the species.

Ferns, grasses and groundcovers are sized and spaced to achieve full coverage within 2-3 years of planting. Ferns and grasses are range in size at installation from 1-3gallon containers. Groundcovers are installed as 4" pots spaced at 12" on center or 1 quart containers planted at 18" on center.

Planters, plant pots, and planter boxes may be used in the Esplanade, plazas, pocket parks, café railings and other open spaces or as exterior architectural features to add interest. Plants in these containers are a mixture of long-lasting shrubs and groundcovers mixed with grasses, perennials and annuals for variety and interest. Plant pots and boxes must be at least 18" deep and have a minimum 18" diameter. Raised planters and boxes are 12" to 24" high. Seat walls at the edges protect plants from pedestrians and provide informal seating areas. Daily watering during the seasonally dry months is required for all planters, pots, and boxes, and frequent maintenance of deadheading and replacing plants should be assumed.

Trellis and arbor structures may provide areas for privacy and shade, and structure for vines to grow.

## Lawn

Lawn is reserved for use in selected pocket parks and courtyards for passive or active recreation. Choose appropriate lawn species mixes for optimum performance according to sun and shade exposure. Seeded lawn generally outperforms sod and is more cost effective, but requires installation in the milder months of spring and autumn and protection from foot traffic during the establishment period. If this is not possible, sod without netting is preferred.

## Culturally Significant Plants

Using local, culturally significant plants in Waterfront Place Central recalls its history with the people of the Tulalip Tribe who used these plants to enrich their daily lives.

## Planting on Buildings

Waterfront Place Central features a number of rooftop plantings to provide amenities to the upper stories of buildings and increase views of green space from the Everett bluffs above the project site. The interior private and semi-public courtyards on building structure provide sheltered outdoor recreational and social gathering spaces for guests and residents.

Any plantings on building structures require special considerations. Landscape areas on buildings are carefully coordinated with building design for weight restrictions, waterproofing, and roof penetrations for irrigation and drainage. Consider access to build the garden, and maintenance requirements once installed, including safety and storage of landscape tools and materials.

Generally plant choices are those with root structure that grow well in containers, are adapted to drier conditions, wind, sun, and specified soils.

Soil depths determine the nature of the plantings on structure. Roof gardens are "intensive" or "extensive", depending on soil depths. Extensive gardens have shallow soils, typically under 6" deep, and have limited plant palettes of drought tolerant, hardy, low plants. Intensive roof gardens have deeper soils, and more variety in the plantings, including shrubs and small trees. To increase soil volume and depth for small trees and large shrubs, planters could be built up.

Plant choices for extensive roof gardens are typically drought tolerant, provide year-round interest, and grow well in sun and in containers. A wide range of plants can be grown on a balcony or roof garden. See the Waterfront Place Plant Palette for an indication of plants suited to planting on structures.

## Districts and Special Areas

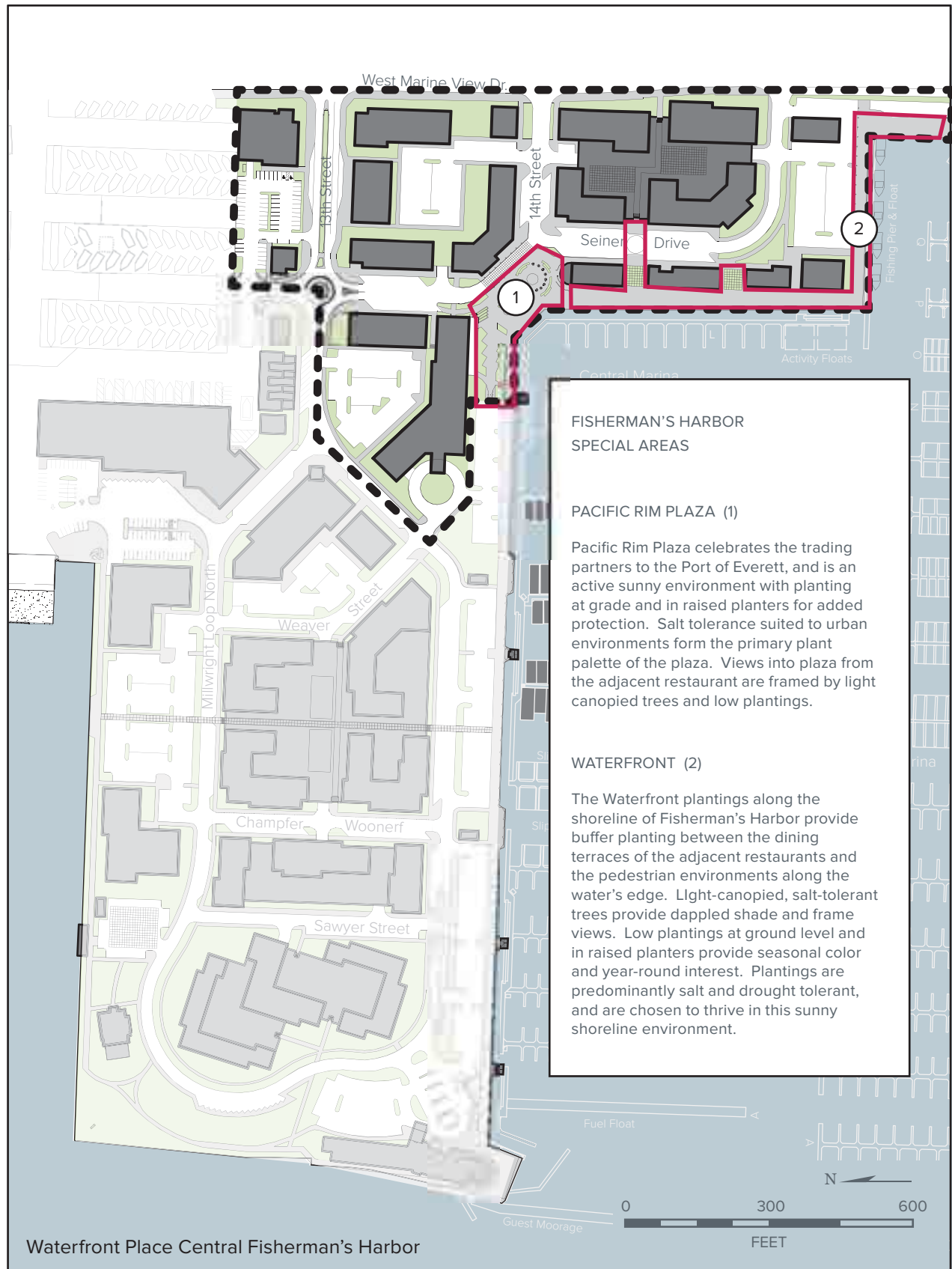
Following are descriptions of planting design responses to the Waterfront Place Central Districts and special areas. In keeping with the district themes, the Port of Everett has designated Special Areas where design elements,

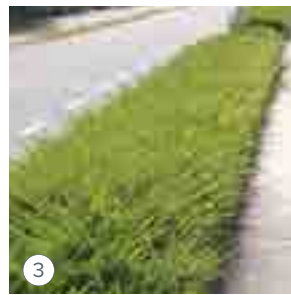




including planting, reflects the district's personality. Locate these spots on the Special Areas Diagram. All of these areas are in the public right-of-way with the exception of the semi-public Timberman Trail, which traverses a rooftop.







## Fisherman's Harbor District

Fisherman's Harbor serves as entry to Waterfront Place Central from the city of Everett and features identifiable gateway plantings to welcome people to the development. The main entry on 13th Street features street trees and lush evergreen plantings in the boulevard for year-round appeal. Views to the landmark of the Clock Tower are important to maintain, and the open space of the plaza of visible and inviting from West Marine View Drive.

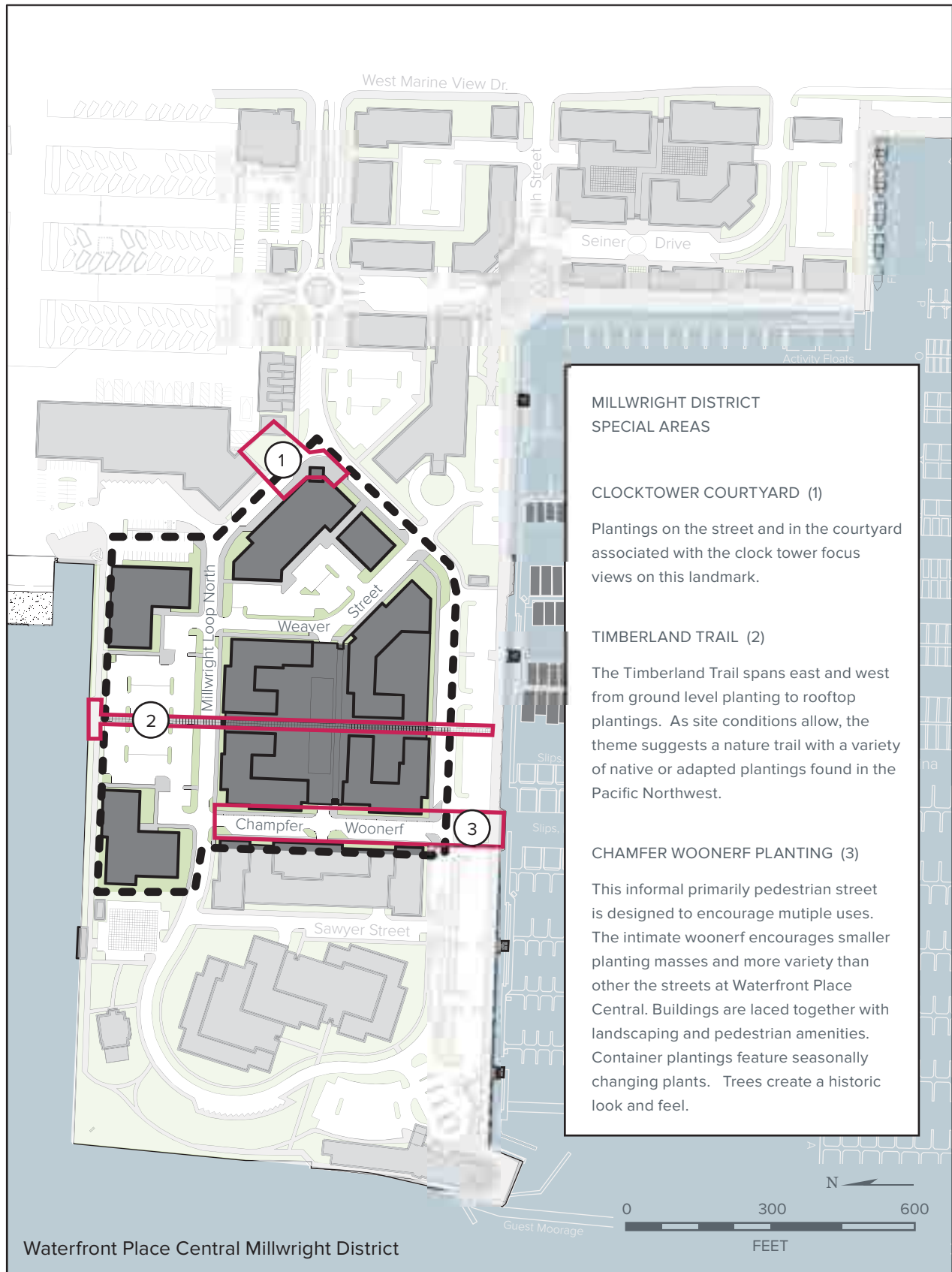
This district contains a wide mix of building uses ranging from restaurants to work spaces, a hotel and residences, with identity plantings associated with each use. These plantings are unified by distinctive street plantings, parking lot planting, and open space plantings.

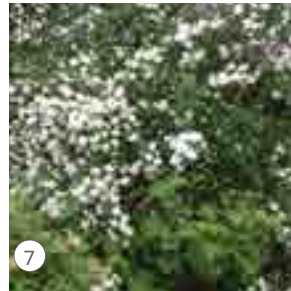
Plantings along the waterfront edge are salt tolerant and thrive in sunny warm conditions. Those on structures or in the interior of the district can be more varied.

### Representative Understory Species

1. *Liriope spicata* 'Big Blue', creeping lily turf
2. *Cistus x hybridus*, white rockrose
3. *Lonicera pileata*, privet honeysuckle
4. *Sedum x 'Autumn Joy'*, autumn joy sedum
5. *Euphorbia amygdaloides robbiae*, Robbiae wood spurge
6. *Nassella tenuissima*, Mexican feather grass
7. *Calamagrostis x acutiflora* 'Karl Foerster', 'Karl Foerster' feather reed grass
8. *Prunus laurocerasus* 'Mount Vernon', Mount Vernon laurel
9. *Euonymus alatus* 'Little Moses', dwarf burning bush
10. *Viburnum davidii*, David viburnum
11. *Taxus x media* 'Everlow', everlow yew
12. *Lavandula angustifolia* 'Irene Doyle', Irene Doyle English Lavendar







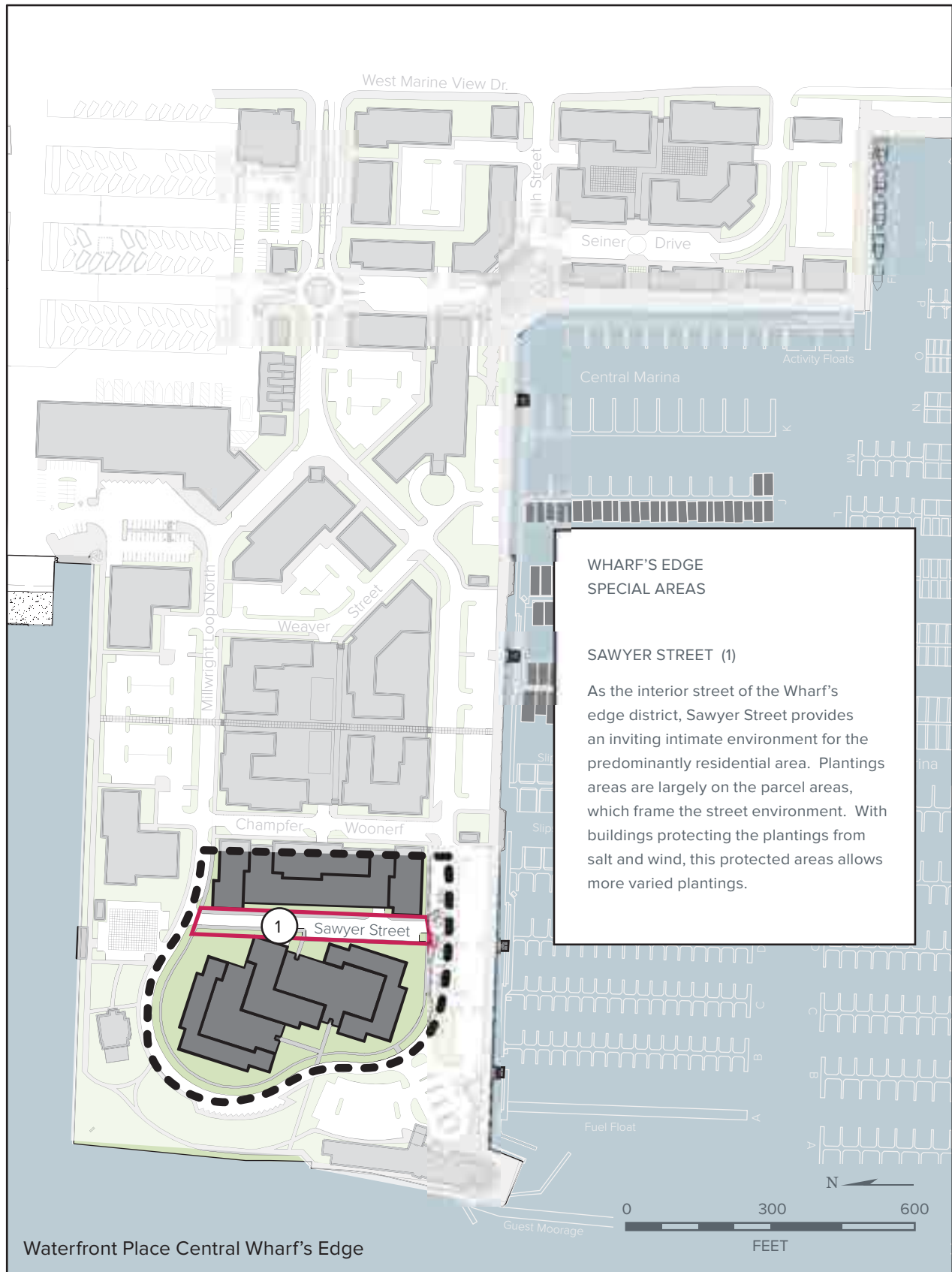
## Millwright District

As a tribute to the mill heritage, The Millwright District highlights the tree species that were milled and the understory plants which are naturally occurring in the Pacific Northwest ecosystems where these trees are found. Trees include smaller cultivars of native trees such as the western red cedar. Where available space allows view preservation, other milled natives such as Douglas fir or western hemlock could be featured. All trees are chosen and placed with careful consideration of preserving views of the water from the upper stories of buildings.

Courtyard plantings and roof gardens will enhance social gathering spaces with year-round interest. For species choices suitable for planting on structure, see the Waterfront Place Central Plant Palette.

### Representative Understory Species

1. *Arctostaphylos uva-ursi*, kinnickinick
2. *Asarum caudatum*, wild ginger
3. *Cornus kelseyi*, Kelsey dogwood
4. *Cornus 'Elegantissima'*, Variegated redbud dogwood
5. *Gaultheria shallon*, salal
6. *Mahonia nervosa*, Low Oregon grape
7. *Philadelphus lewisii*, mock orange
8. *Tellima grandiflora*, fringe cups
9. *Symphoricarpos albus*, snowberry
10. *Polystichum polyblepharum*, tassel fern
11. *Taxus x media 'Everlow'*, everlow yew
12. *Deutzia gracilis 'Nikko'*, Dwarf slender deutzia







## Wharf's Edge

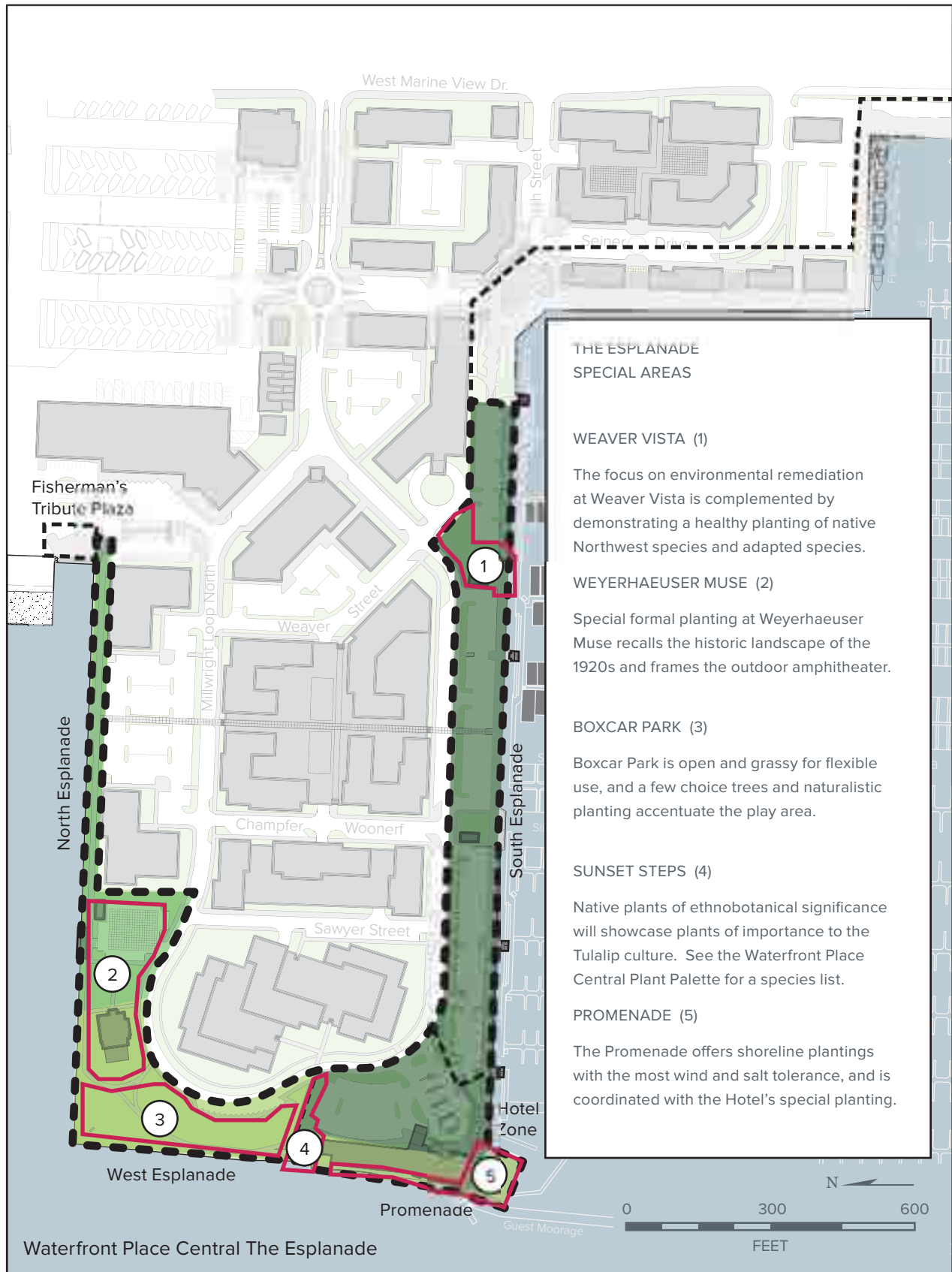
Foundation plantings associated with buildings contain some of the species used in the Esplanade district mixed with ornamental planting in a more formal arrangement to blend the district areas and signify residential uses while maintaining association with the shoreline environment.

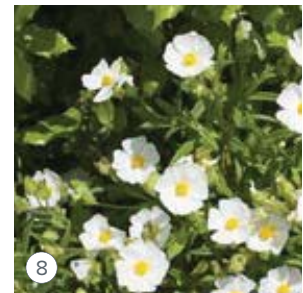
Tree species and locations are chosen with consideration of preserving views of the water from upper stories of buildings.

Courtyard plantings and roof gardens will enhance social gathering spaces with year-round interest. For species choices suitable for planting on structure, see the Waterfront Place Central Plant Palette.

### Representative Understory Species

1. *Fragaria chiloensis*, beach strawberry
2. *Pinus mugo*, mugo pine dwarf varieties
3. *Elymus glaucus*, Blue wild rye
4. *Ceanothus gloriosus*, California lilac
5. *Rosa rugosa*, rugosa rose
6. *Stipa tenuissima*, Mexican feather grass
7. *Panicum virgatum*, switch grass
8. *Cistus x hybridus*, rock rose
9. *Myrica californica*, Pacific wax myrtle
10. *Armeria maritima*, sea thrift
11. *Erica carnea*, winter heath
12. *Calluna vulgaris*, Scotch heather





## The Esplanade

The Esplanade is the most varied of all the districts, including formal planting areas in the Hotel Entertainment Zone to lawn and native planting celebrating the Tullalip culture and the shorelines of the Puget Sound region.

As the esplanade wraps the shoreline of Waterfront Place Central and touches Wharf's Edge, the Millwright District and Fisherman's Harbor, the plantings provide elements of commonality among the various districts.

The esplanade plantings also provide gateways along pedestrian corridors and street ends.

Native or adapted species which are associated with the water's edge and tolerant of wind and salt spray are used in sweeps for a naturalistic shoreline edge. Because of high pedestrian volumes, plant protection such as raised planters is advised to protect planting areas.

### Representative Understory Species

1. *Fragaria chiloensis*, beach strawberry
2. *Pinus mugo*, mugo pine dwarf varieties
3. *Elymus glaucus*, Blue wild rye
4. *Ceanothus gloriosus*, California lilac
5. *Rosa rugosa*, rugosa rose
6. *Stipa tenuissima*, Mexican feather grass
7. *Panicum virgatum*, switch grass
8. *Cistus x hybridus*, rock rose
9. *Myrica californica*, Pacific wax myrtle
10. *Armeria maritima*, sea thrift
11. *Erica carnea*, winter heath
12. *Calluna vulgaris*, Scotch heather



## Waterfront Place Central Plant Palette

		Esplanade	Fisherman's Harbor	Millwright District	Wharf's Edge	Salt tolerant	On structure	Native Ethnobotany
<b>Coniferous Trees</b>								
<i>Callitropsis nootkaensis</i>	Nootka cypress						X	
<i>Chamaecyparis lawsoniana</i>	Port Orford cedar							
<i>Chamaecyparis lawsoniana</i> 'Alumii'	Alumii Port Orford cedar							
<i>Cryptomeria japonica</i> 'Cristata'	Cristata Japanese cryptomeria							
<i>Cryptomeria japonica</i> 'Lobbii'	Lobbii Japanese cryptomeria							
<i>Cryptomeria japonica</i> 'Yoshino'	Yoshino Japanese cryptomeria							
<i>Juniperus scopulorum</i>	Rocky mountain juniper						X	
<i>Picea abies</i>	Norway spruce					X		
<i>Picea sitchensis</i>	Sitka spruce					X		
<i>Pinus contorta</i> var. <i>contorta</i>	Shore pine							
<i>Pinus monticola</i>	Western white pine							X
<i>Pinus nigra</i>	Austrian pine					X		
<i>Pinus sylvestris</i>	Scotch pine					X		
<i>Pseudotsuga menziesii</i>	Douglas fir							X
<i>Taxus brevifolia</i>	Western yew							X
<i>Thuja occidentalis</i>	Arbortvitae						X	
<i>Thuja plicata</i>	Western red cedar							X
<i>Thuja plicata</i> 'Excelsa'	Excelsa cedar							
<i>Tsuga heterophylla</i>	Hemlock							X
<b>Broadleaf Evergreen Trees</b>								
<i>Arbutus 'Marina'</i>	Marina strawberry tree							
<i>Arbutus menziesii</i>	Madrone							
<b>Deciduous Trees</b>								
<i>Acer circinatum</i>	Vine maple						X	X
<i>Acer griseum</i>	Paperbark maple							
<i>Acer japonicum</i>	Japanese fullmoon maple						X	
<i>Acer palmatum</i> varieties	Japanese maple						X	
<i>Acer platanoides</i>	Norway maple					X		
<i>Acer rubrum</i>	Red maple					X		
<i>Acer rubrum</i> 'Karpick'	Karpick red maple							
<i>Alnus rubra</i>	Red alder							X
<i>Amelanchier alnifolia</i>	Serviceberry					X		X
<i>Betula sp.</i>	Birch							
<i>Betulus albo-sinensis septentrionalis</i>	Chinese red birch							
<i>Carpinus betulus</i> 'Fastigiata'	Pyramidal european hornbeam							
<i>Cornus kousa</i>	Kousa dogwood						X	
<i>Cornus nutallii</i>	Pacific flowering dogwood							X
<i>Corylus avellana</i> 'Contorta'	Harry Lauder's walking stick						X	
<i>Corylus cornuta</i> var. <i>californica</i>	Hazelnut							X
<i>Craetegus spp.</i>	Hawthorne					X		
<i>Ginkgo biloba</i> 'Autumn Gold'	Autumn Gold ginkgo							
<i>Ginkgo biloba</i> 'Princeton Sentry'	Princeton Sentry ginkgo							

## Waterfront Place Central Plant Palette

		Esplanade	Fisherman's Harbor	Millwright District	Wharf's Edge	Salt tolerant	On structure	Native Ethnobotany
<i>Gleditsia triacanthos</i> var. <i>inermis</i>	Honey locust					X		
<i>Gleditsia triacanthos inermis</i> 'Skycole'™	Skyline thornless honey locust							
<i>Koelreuteria paniculata</i>	Golden rain tree							
<i>Lagerstroemia indica</i>	Crape myrtle					X		
<i>Liriodendron tulipifera</i> 'Fastigiata'	Columnar tulip tree							
<i>Liquidambar</i> spp.	Sweet gum							
<i>Malus fusca</i>	Crabapple							X
<i>Nyssa sylvatica</i>	Tupelo					X		
<i>Oemleria cerasiformis</i>	Indian plum							X
<i>Parrotia persica</i>	Persian parrotia							
<i>Platanus acerifolia</i>	London plane					X		
<i>Populus tremula</i>	Aspen					X		
<i>Prunus emarginata</i>	Bitter cherry							X
<i>Quercus garryana</i>	Garry oak							
<i>Quercus palustris</i>	Pin Oak							
<i>Rhamnus purshiana</i>	Cascara							X
<i>Robinia pseudoacacia</i>	Black locust							
<i>Robinia pseudoacacia</i> 'Frisia'	Frisia locust							
<i>Salix sitchensis</i>	Sitka willow							X
<i>Styrax japonicus</i>	Japanese snowbell							
<i>Tilia cordata</i>	Littleleaf linden							
<i>Tilia cordata</i> 'Greenspire'	Greenspire linden							
<i>Ulmus parvifolia</i> varieties	Chinese elm							
<i>Ulmus parvifolia</i> 'Emer I'	Athena elm							
<b>Large Evergreen Shrubs</b>								
<i>Abelia grandiflora</i>	Glossy abelia					X		
<i>Arbutus unedo</i>	Strawberry tree							
<i>Acuba japonica</i>	Japanese acuba						X	
<i>Choisya ternata</i>	Mexican orange						X	
<i>Gautheria shallon</i>	Salal						X	X
<i>Ligustrum</i> sp	Privet					X		
<i>Lonicera involucrata</i>	Twinflower or twinberry							X
<i>Myrica californica</i>	Pacific wax myrtle					X		
<i>Philadelphus lewisii</i>	Mock orange							X
<i>Picea glauca</i>	White spruce							
<i>Rhododendron</i> sp	Rhododendron					X	X	
<i>Rosa nutkana</i>	Nootka rose							X
<i>Taxus</i> sp	Yew						X	
<b>Large Deciduous Shrubs</b>								
<i>Arbutus unedo</i>	Strawberry tree						X	
<i>Euonymus alata</i>	Burning bush					X	X	
<i>Holodiscus discolor</i>	Ocean-spray					X		X
<i>Hydrangea macrophylla</i>	Bigleaf hydrangea						X	

## Waterfront Place Central Plant Palette

		Esplanade	Fisherman's Harbor	Millwright District	Wharf's Edge	Salt tolerant	On structure	Native Ethnobotany
<i>Sambucus caerulea</i>	Blue elderberry							
<i>Sambucus racemosa</i>	Red elderberry							
<i>Symphoricarpos albus</i>	Snowberry							X
<i>Vaccinium corybosum</i>	Highbush blueberry					X		
<i>Viburnum (most EG species)</i>	Viburnum							
<b>Medium Shrubs</b>								
<i>Buxus sempervirens</i>	Boxwood					X	X	
<i>Ceanothus sp.</i>	California lilac						X	
<i>Chamaecyparis obtusa 'Nana'</i>	Dwarf hinoki cypress						X	
<i>Chenomeles speciosa</i>	Flowering quince					X	X	
<i>Cistus x hybridus</i>	White rockrose						X	
<i>Cornus stolonifera 'Kelsey'</i>	Kelsey dogwood					X	X	
<i>Cotoneaster glaucophyllus hort.</i>	Grey-leaf cotoneaster					X	X	
<i>Cotoneaster horizontalis</i>	Rockspray cotoneaster					X	X	
<i>Deutzia gracilis</i>	Slender deutzia					X	X	
<i>Eleagnus sp.</i>	Oleaster						X	
<i>Escallonia sp.</i>	Escallonia						X	
<i>Euonymus alatus 'Little Moses'</i>	Little Moses burning bush						X	
<i>Euonymus japonicus</i>	Japanese euonymus						X	
<i>Gautheria shallon</i>	Salal (in shade)						X	
<i>Hebe sp.</i>	Hebe						X	
<i>Ilex crenata 'Convexa'</i>	Japanese holly						X	
<i>Ilex crenata 'Green Island'</i>	Green Island Japanese holly						X	
<i>Ilex glabra</i>	Inkberry					X	X	
<i>Juniperus sp.</i>	Juniper						X	
<i>Juniperus squamata 'Blue Star'</i>	Blue Star Juniper						X	
<i>Mahonia aquifolium</i>	Oregon grape					X	X	
<i>Nandina domestica</i>	Heavenly bamboo						X	
<i>Pieris Japonica</i>	Japanese andromeda					X	X	
<i>Pinus mugo</i>	Mugo pine					X	X	
<i>Rhapiolepis sp.</i>	Hawthorn						X	
<i>Rosa gymnocarpa</i>	Little wild rose					X	X	
<i>Rosa rugosa</i>	Rugosa rose					X	X	
<i>Rosmarinus officinalis</i>	Rosemary					X	X	
<i>Senecio greyii</i>	Daisy bush						X	
<i>Spiraea douglasii</i>	Spirea						X	X
<i>Symphoricarpos albus</i>	Snowberry					X	X	
<i>Taxus baccata 'Repandens'</i>	Spreading English yew						X	
<i>Vaccinium ovatum</i>	Evergreen huckleberry						X	
<i>Vaccinium parvifolium</i>	Red huckleberry						X	
<i>Viburnum (most EG species)</i>	Viburnum						X	
<i>Viburnum davidii</i>	David viburnum						X	
<i>Yucca recurvifolia</i>	Curve-leaf Yucca						X	



## Waterfront Place Central Plant Palette

		Esplanade	Fisherman's Harbor	Millwright District	Wharf's Edge	Salt tolerant	On structure	Native Ethnobotany
<b>Low Shrubs and Groundcovers</b>								
<i>Achillea millefolium</i>	Yarrow					X	X	
<i>Anaphalis margaritacea</i>	Pearly Everlasting					X	X	
<i>Arctostaphylos uva-ursi</i>	Kinnickinick					X	X	
<i>Armeria maritima</i>	Sea Thrift					X	X	
<i>Calluna vulgaris</i>	Scotch heather					X	X	
<i>Ceanothus sp.</i>	California lilac						X	
<i>Cistus sp.</i>	Rockrose						X	
<i>Cistus x hybridus</i>	White Rockrose						X	
<i>Cistus salvifolius</i>	Sageleaf rockrose						X	
<i>Cotoneaster horizontalis</i>	rockspray cotoneaster					X	X	
<i>Cotoneaster procumbens</i> 'Queen of Carpets'	Gound-hugging cotoneaster						X	
<i>Erica carnea</i>	Winter heath					X	X	
<i>Fragaria chiloensis</i>	Strawberry					X	X	
<i>Gautheria shallon</i>	Salal (in sun)						X	
<i>Genista pilosa</i> 'Vancouver Gold'	Vancouver gold broom						X	
<i>Hebe sp.</i>	Hebe						X	
<i>Juniperus sp.</i>	Prostrate juniper					X	X	
<i>Ilex crenata</i>	Japonesse holly					X	X	
<i>Ilex crenata</i> 'Helerii'	Heler Japanese holly						X	
<i>Lavandula angustifolia</i> 'Irene Doyle'	Irene Doyle English lavender						X	
<i>Lavandula x intermedia</i> 'Hidcote Giant'	Lavender						X	
<i>Lavandula latifolia</i>	Spike Lavender						X	
<i>Lonicera sp.</i>	Honeysuckle						X	
<i>Lonicera pileata</i>	Privet honeysuckle						X	
<i>Lupinus littoralis</i>	Seashore lupine					X	X	
<i>Mahonia nervosa</i>	Low Oregon grape					X	X	X
<i>Pachistima myrsinites</i>	Oregon boxwood						X	X
<i>Pinus mugo</i>	Mugo pine					X	X	
<i>Pinus mugo</i> 'Slowmound'	Slowmound mugo pine						X	
<i>Prunus laurocerasus</i> 'Mount Vernon'	Mount Vernon laurel						X	
<i>Rhus aromatica</i> 'Gro-Low'	Gro-low fragrant sumac						X	
<i>Taxus x media</i> 'Everlow'	Yew						X	
<i>Teucrium chamaedrys</i>	Wall germander						X	
<i>Thymus</i>	Thyme						X	
<i>Vinca minor</i>	Periwinkle					X	X	
<i>Yucca filamentosa</i>	Adam's needle					X	X	
<b>Groundcovers/Perennials</b>								
<i>Achillea millefolium</i>	Yarrow						X	X
<i>Agapanthus</i>	Lily-of-the-Nile						X	
<i>Agapanthus x 'Bluestorm'</i>	Bluestorm lily-of-the-Nile						X	
<i>Ajuga reptans</i>	Ajuga						X	

## Waterfront Place Central Plant Palette

		Esplanade	Fisherman's Harbor	Millwright District	Wharf's Edge	Salt tolerant	On structure	Native Ethnobotany
Arctostaphylos uva-ursi	Kinnikinnick					X	X	
Armeria maritima	Common thrift					X	X	
Artemisia stelleriana	Dusty Miller						X	
Artemisia schmidtiana	Silvermound						X	
Asarum caudatum	Wild ginger						X	X
Astilbe varieties	Astilbe						X	
Calluna vulgaris	Heather						X	
Carex (some)	Sedge						X	
Carex morrowii 'Ice Dance'	Ice Dance Japanese sedge						X	
Cornus sericea 'Kelsey'	'Kelsey' red-twig dogwood						X	
Cotoneaster dammeri	Bearberry cotoneaster						X	
Cotoneaster procumbens 'Queen of Carpets'	Ground-hugging cotoneaster						X	
Cotoneaster salicifolius 'Repens'	Spreading willowleaf cotoneaster						X	
Dianthus	Pink					X	X	
Dicentra formosa	Bleeding heart						X	X
Euonymus fortunei	Wintercreeper					X	X	
Euphorbia spp.	Spurge						X	
Euphorbia amygdaloides robbiae	Mrs Robb's Bonnet wood spurge						X	
Euphorbia x martinii 'Red Martin'	Red Martin wood spurge						X	
Fragaria chiloensis	Strawberry					X	X	
Festuca rubra	Red fescue					X	X	
Fuchsia magellanica	Hardy fuchsia						X	
Gaultheria procumbens	Wintergreen						X	
Geranium sp.	Geranium					X	X	
Hakonechloa macra	Japanese forest grass						X	
Hemerocallis	Daylily					X	X	
Heuchera sanguinea	Coral Bells					X	X	
Heuchera x 'Sashay'	Sashay coral bells						X	
Iberis sempervirens	Candytuft					X	X	
Iris	Iris					X	X	
Lavendula spp.	Lavender					X	X	
Liriope spicata	Lily turf					X	X	
Liriope spicata 'Big Blue'	Creeping lily turf						X	
Maianthemum dilatatum	Wild lily-of-the-valley						X	X
Perovskia atriplicifolia	Russian sage						X	
Phlox subulata	Moss pink						X	
Salvia officinalis	Sage						X	
Sedum 'Autumn Joy'	Autumn Joy sedum						X	
Sedum varieties	Sedum						X	
Sempervivum varieties	Hen and chicks						X	
Stachys byzantina	Lamb's ear						X	
Tellima grandiflora	Fringe-cup						X	X
Trillium ovatum	Trillium						X	X
Thymus sp.	Thyme					X	X	

## Waterfront Place Central Plant Palette

		Esplanade	Fisherman's Harbor	Millwright District	Wharf's Edge	Salt tolerant	On structure	Native Ethnobotany
Thymus serpyllum	Creeping thyme						X	
Vinca minor	Periwinkle						X	
<b>Grasses</b>								
Calamagrostis x acutiflora 'Karl Foerster'	'Karl Foerster' Feather Reed Grass						X	
Chasmanthium latifolium	Northern sea oats						X	
Elymus glaucus	Blue wildrye						X	
Elymus mollis	Rye grass						X	
Festuca glauca 'Elijah Blue'	Elijah Blue blue fescue						X	
Heliotrichon sempervirens	Blue oat grass						X	
Juncus effusus	Soft rush						X	X
Juncus ensifolius	Dagger-Leaf rush						X	X
Miscanthus sinensis varieties	Maiden grass						X	
Miscanthus sinensis 'Adagio'	Adagio eulalia grass						X	
Miscanthus sinensis 'Sarabande'	Sarabande eulalia grass						X	
Nassella tenuissima	Mexican feather grass						X	
Panicum virgatum 'Heavy Metal', 'Warrior'	Switch grass						X	
Pennisetum alopecuroides	Fountain grass						X	
Pennisetum alopecuroides 'Hameln'	'Hameln' dwarf fountain grass						X	
Phorium tenax	New Zealand flax						X	
Scripus acutus (occidentalis)	Hardstem bullrush						X	X
Stipa tenuissima	Mexican feather grass						X	
<b>Ferns</b>								
Blechnum spicant	Deer Fern						X	X
Dryopteris dilatata	Wood Fern						X	X
Dryopteris erythrosora	Autumn Fern						X	
Polypodium scolieri	Licorice fern						X	
Polydium vulgare	Licorice fern						X	X
Polystichum munitum	Sword fern						X	X
Pteridium aquilinum	Brake Fern						X	X
<b>Vines</b>								
Akebia quintata	Akebia						X	
Campsis radicans	Trumpet creeper					X	X	
Hydrangea petiolaris	Climbing hydrangea					X	X	
Passiflora incarnata	Passion flower						X	
Parthenocissus quinquefolia	Virginia creeper					X	X	
Parthenocissus tricuspidata	Boston ivy					X	X	





Port of Everett

## WATERFRONT PLACE CENTRAL

### Appendix A: Product Information

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## Universe® Collection Large LED – UCL

TYPE

## FEATURES

- D.C. O.P.R. 1 year
- Reliable, uniform, glare-free illumination
- Types II, III, IV, V and others distributing
- 5000K, 4000K, 3000K CCT
- 0.1/0.5 dimming ready
- Integral surge suppression
- LifeShield™ thermal protection
- 15 standard powder coat finishes
- Upgrade 5-in.



## SPECIFICATIONS

The first dimension is the length of luminaire with 1/2" or 3/4" extension (inches)



ARCHITECTURAL AREA LIGHTING  
 10555 East Gwy Ave. | City of Industry | CA 91748  
 P 626.908.3008 | F 626.909.3005 | www.aal.net  
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HOOD	HOOD ONLY	4 LUMINOUS WINDOW (WND)	SOLID RINGS (SR)	VERTICAL SLOTS (VSL)	LUMINOUS RINGS (LUN)
Angled (AKG)  DIA 177/200mm	 HT 21.4/24.4mm WT 47.8g DPA 1.12	 HT 26.7/69.0mm WT 96.53g DPA 1.07	 HT 26.7/69.0mm WT 55.8g DPA 1.28	 HT 26.7/69.0mm WT 48.8g DPA 1.55	 HT 26.7/69.0mm WT 50.8g DPA 1.38
Bell (BEL)  DIA 177/200mm	 HT 25.2/29.2mm WT 47.8g DPA 1.08	 HT 26.7/69.0mm WT 48.8g DPA 1.08	 HT 26.7/69.0mm WT 50.8g DPA 1.30	 HT 26.7/69.0mm WT 48.8g DPA 1.38	 HT 26.7/69.0mm WT 50.8g DPA 1.38
Flared (FLR)  DIA 177/200mm	 HT 31.5/33.5mm WT 47.8g DPA 1.35	 HT 26.7/69.0mm WT 48.8g DPA 1.27	 HT 26.7/69.0mm WT 55.8g DPA 1.28	 HT 26.7/69.0mm WT 48.8g DPA 1.37	 HT 26.7/69.0mm WT 50.8g DPA 1.38
Skirted Bell (SKB)  DIA 177/200mm	 HT 21.2/24.2mm WT 48.8g DPA 1.02	 HT 26.7/69.0mm WT 48.8g DPA 1.05	 HT 26.7/69.0mm WT 55.8g DPA 1.28	 HT 26.7/69.0mm WT 48.8g DPA 1.35	 HT 26.7/69.0mm WT 50.8g DPA 1.38



## AMETCO - Shadow 80 Security Fencing

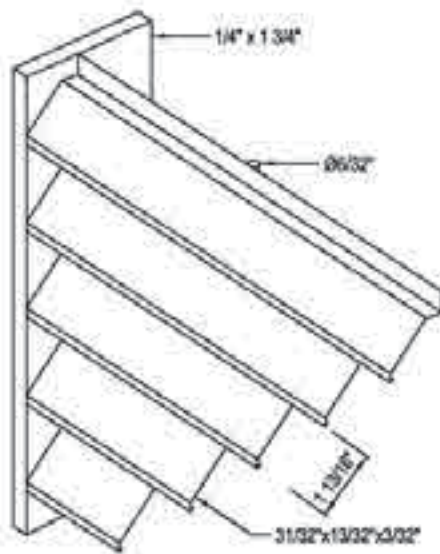
Sitewide Garbage Enclosure



AMETCO MANUFACTURING CORPORATION  
4326 HAMANN PARKWAY P.O. BOX 1210  
WILLOUGHBY, OHIO 44096  
800-321-7042 TOLL FREE  
PHONE: (440) 951-4300  
FAX: (440) 951-2542  
www.ametco.com

### DIRECT VISUAL SCREENING

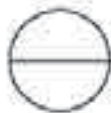
80%



SHADOW DESIGN			
DESIGN	OPEN AREA	VISUAL SCREENING	MAX. LENGTH
SHADOW 80	44.3%	80%	60"

#### NOTES:

1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWINGS.



**SHADOW 80 DESIGN**

80% DIRECT VISUAL SCREENING

## BEGA - 8452LED Bollard

Lighting Zone E

**Post construction:** Made from four triangular aluminum extrusions mechanically fastened to a one piece die-cast splice compartment (bottom) and a one piece die-cast lamp housing (top). Die castings are marine grade, copper free ( $\leq 0.3\%$  copper content) A360.0 aluminum alloy.

**Enclosure:** One piece die-cast aluminum lamp housing. Clear, molded, tempered glass  $\frac{3}{4}$ " thick extends below lamp housing to increase light spread. Lamp housing secured with two (2) stainless steel, captive fasteners. Fully gasketed using a one piece, molded, high temperature silicone gasket for weather tight operation. Reflector made from pure, anodized aluminum.

**Electrical:** 19.6W LED luminaire, 20.5 total system watts,  $-30^{\circ}\text{C}$  start temperature. Integral 120V through 277V electronic LED driver, 0-10V dimming. Standard LED color temperature is 3000K with a  $>80$  CRI. Available in 4000K ( $>80$  CRI); add suffix K4 to order.

**Anchor base:** Heavy cast aluminum, slotted for precise alignment. Mounts to BEGA #895A anchorage kit. Bollards are secured to the post with one (1) stainless steel set screw.

**Finish:** All BEGA standard finishes are polyester powder coat with minimum 3 mil thickness. Available in four standard BEGA colors: Black (BLK), White (WHT), Bronze (BRZ), Silver (SLV). To specify, add appropriate suffix to catalog number. Custom colors supplied on special order.

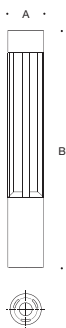
**U.L.** listed for US and Canadian Standards, suitable for wet locations. Protection class: IP65.

Weight: 16.1 lbs.

**Luminaire Lumens:** 434

Tested in accordance with LM-79-08

Type:  
BEGA Product:  
Project:  
Voltage:  
Color:  
Options:  
Modified:



Lamp	A	B	Anchorage
8452 LED 19.6W LED	6 1/2	39 3/8	895 A



**BEGA-US** 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-0533 FAX (805) 566-9474 [www.bega-us.com](http://www.bega-us.com)  
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BEGA - 8965LED Light Column

Lighting Zone E

**Post construction:** Made from four triangular aluminum extrusions, mechanically fastened to a cylindrical extruded lamp housing (top) and a wiring/driver compartment (bottom). Die castings are marine grade, copper free ( $\leq 0.3\%$  copper content) A360.0 aluminum alloy.

**Enclosure:** One piece die-cast aluminum extruded housing (top). Clear, molded tempered glass,  $\frac{3}{4}$ " thick, extends below the lamp enclosure to increase the light spread. Lens is secured to the lamp enclosure with a one piece die-cast trim ring, secured to housing with four (4) stainless steel screws. Fully gasketed using a one piece molded high temperature silicone gasket for weather tight operation. Reflector made from pure anodized aluminum.

**Electrical:** 36.4W LED luminaire, 43 total system watts,  $-30^{\circ}\text{C}$  start temperature, surge protection. Integral 120V through 277V electronic LED driver, 0-10V dimming. LED module(s) are available from factory for easy replacement. Standard LED color temperature is 3000K with an 85 CRI. Available in 4000K (85 CRI); add suffix K4 to order.

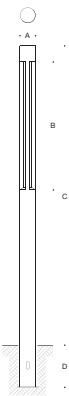
**Note:** LEDs supplied with luminaire. Due to the dynamic nature of LED technology, LED luminaire data on this sheet is subject to change at the discretion of BEGA-US. For the most current technical data, please refer to [www.bega-us.com](http://www.bega-us.com).

**Finish:** All BEGA standard finishes are polyester powder coat with minimum 3 mil thickness. Available in four standard BEGA colors: Black (BLK); White (WHT); Bronze (BRZ); Silver (SLV). To specify, add appropriate suffix to catalog number. Custom colors supplied on special order.

**CSA** certified to U.S. and Canadian standards, suitable for wet locations. Protection class IP65

**Weight:** 102.5 lbs.

Luminaire Lumens: 1385



	Lamp	A	B	C	D
8965 LED	36.4W LED	8 3/4	81 3/8	177	31 1/2

Type:  
BEGA Product:  
Project:  
Voltage:  
Color:  
Options:  
Modified:



**BEGA-US** 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-0533 FAX (805) 566-9474 [www.bega-us.com](http://www.bega-us.com)  
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## BEGA - 9491LED Luminaire

Lighting Zone A

**Housing:** Die-cast aluminum housing and slip fitter. Slip fits 3" O.D. pole top, secures to pole with integrated slip fitter mechanism and single set screw. Die castings are marine grade, copper free ( $\leq 0.3\%$  copper content) A360.0 aluminum alloy.

**Enclosure:** Faceplate is hinged; constructed of die-cast aluminum with toolless access latch for easy maintenance. Tempered clear safety glass with a reflector of pure anodized aluminum. Fully shielded light distribution for no trespass above horizontal. Type II wide spread light distribution, optionally available with Type III light distribution, consult factory. Fully gasketed with a molded silicone gasket.

**Electrical:** 26W LED luminaire, 29 total system watts,  $-30^{\circ}\text{C}$  start temperature. Integral 120 V through 277 V electronic LED driver, 0-10V dimming. Integral 10KV surge protection. Standard LED color temperature is 4000K with an 85 CRI. Available in 3000K (85 CRI); add suffix K3 to order.

**Note:** LEDs supplied with luminaire. Due to the dynamic nature of LED technology, LED luminaire data on this sheet is subject to change at the discretion of BEGA-US. For the most current technical data, please refer to [www.bega-us.com](http://www.bega-us.com).

**Finish:** All BEGA standard finishes are polyester powder coat with minimum 3 mil thickness. These luminaires are available in four standard BEGA colors: Black (BLK); White (WHT); Bronze (BRZ); Silver (SLV). To specify, add appropriate suffix to catalog number. Custom colors supplied on special order.

**CSA** certified to U.S. and Canadian standards for wet locations. Protection class: IP66.

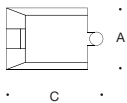
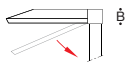
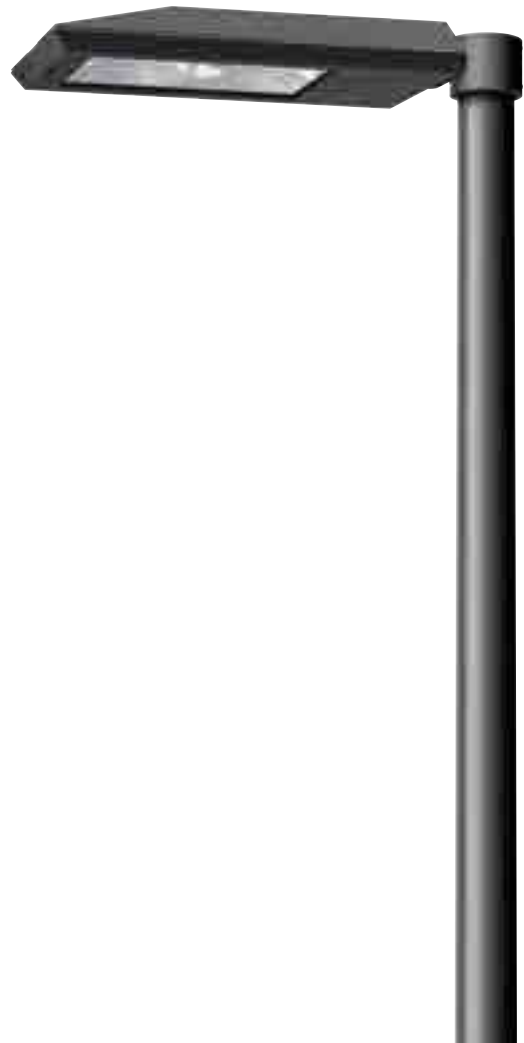
**Weight:** 9.5 lbs.

**Effective Projected Area (EPA):** .32 ft<sup>2</sup>

**Luminaire Lumens:** 2084

Tested in accordance with LM-79-08

Type:  
BEGA Product:  
Project:  
Voltage:  
Color:  
Options:  
Modified:



### Single LED pole-top luminaires

	Lamp	LEED	A	B	C
<b>9491 LED</b>	26W LED	LZ-0	10	2 $\frac{3}{4}$	17 $\frac{3}{4}$

Recommended for use with 12' to 18' poles.

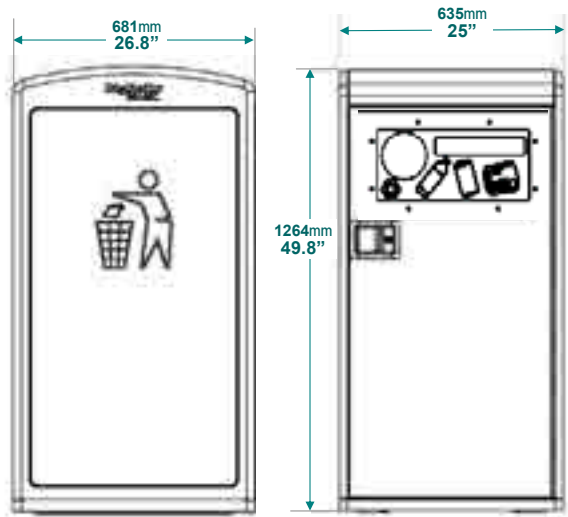
**BEGA-US** 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-0533 FAX (805) 566-9474 [www.bega-us.com](http://www.bega-us.com)

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## Bigbelly - Smartbelly Station

### Sitewide Trash and Recycling



**Configurations:** Mixed waste or single-stream recycling  
(with appropriate markings)

### Materials

RoHS compliant

Galvanized sheet metal steel interior and exterior construction

Heavy duty plastic side panels for dent and scratch resistance (recycled content)

Interior Bin: Single bin is leak proof made out of low density polyethylene plastic

### Power & Electronics

Polycrystalline silicon cell PV module (20 watts).  
(30 watts HE [high energy] upgrade available)

PV panel protected by polycarbonate bubble

Spill-proof, sealed maintenance-free battery

Self-powered unit requires no wiring

## Technical Specifications

### Overall Machine Dimensions

Height: 49.8" (1264mm)

Width: 25" (635mm)

Depth: 26.8" (681mm)

Weight: 175 lbs (80kg); Shipping weight: 205 lbs (136kg)

Insertion Opening: Can be configured for multiple recycling or waste streams.

Bin Volume: 50 gallons (227L)

### Features

Fully automated, microprocessor controlled system senses fullness and machine status

LED status indicate fullness level, machine status and error codes

GPRS wireless data link for remote monitoring and management

GPS assisted location service

### Safety Features

CE approved

Fully interlocked access doors protect users and service personnel

Locked front trash removal door. (Locked rear door option available)

Separately keyed service access

### Durability

Weather resistant, UV stabilized polyester powder-coat finish on all exterior parts

Electronic components temperature range of -40°F to +185°F  
(-40°C to +85°C)

Fully weatherized, but in the event of a flood, Smartbelly can withstand up to 40" (1.06m) of water without harming electronics

Info\_TechSpecs(SB5)\_2015Jun

**Bigbelly Solar, Inc.**  
150 A Street – Suite 103  
Needham, MA 02494 USA



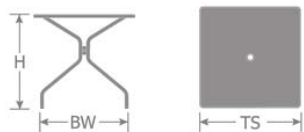
Sales@Bigbelly.com  
Bigbelly.com

**Toll-free: +1 888.820.0300**  
**International: +1 781.444.6002**  
**FAX: +1 781.444.5651**

Emu - Cambi #801 Table

Sitewide Private Tables

DETAILS



H	BW	TS	Lbs
29.5"	25"	32" Sq"	33

Outdoor/Indoor Umbrella Table

Umbrella Hole Dia. 1 9/16"

E-coated powder coat finish

Made in Italy

Top Thickness: 1 1/4"

Top: Extended Steel Mesh

Base: Tubular Steel Legs

Assembly Required: Yes

Quick Ship Finishes:



20 Aluminum



22 A/ Iron



41 A/ Bronze



24 A/ Black

Special Order Ship Finishes:



23 A/ White



44 A/ Red



60 A/ Green



61 A/ Blue



50 A/ Cherry



82 A/ Lilac



49 A/ Mint



71 A/ Taupe

SHIPPING

Master Pack Quantity: 1

Master Pack Dimensions: 42"x33"x5"

Master Pack Weight: 35 Lbs.

Density: 9

Master Cartons/Pallet: 15

Freight Class: 100

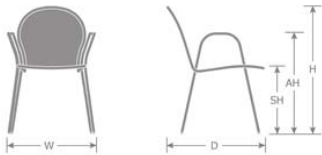
emuamericas LLC  
T:(800) 726-0368 F:(800)970-7708  
emuamericas.com

Emu - Rhonda #116 Chair

Sitewide Private Chairs



DETAILS



H	W	D	SH	AH	Lbs
32.5"	22.5"	25.5"	18"	26"	11.5

Outdoor/Indoor Stacking Armchair

E-coated powder coat finish

Made in Italy

Frame: Tubular Steel

Seat/Back: Extended Steel Mesh

Stackability: 12

Quick Ship Finishes:



Special Order Ship Finishes:



SHIPPING

Master Pack Quantity:	4
Master Pack Dimensions:	24"x26"x47"
Master Pack Weight:	57 Lbs.
Density:	3.4
Master Cartons/Pallet:	6
Freight Class:	250
FOB:	PA 17042

emuamericas LLC  
T:(800) 726-0368 F:(800)970-7708  
emuamericas.com

## SPECIFICATIONS

### MATERIAL

**2 x 6 Elements** (1-1/2" x 5-1/2") Wood, all edges eased or recycled plastic  
**Seat Frame** – two each 1-1/2" (1.9" OD) sch. 40 pipe fully welded to 3/8" x 3" steel strap  
**Seat back frame** – 1/2" x 2" steel strap fully welded to 1-1/4" sch. 40 pipe pivot.  
**End frames** – Ductile cast iron with arm rest ground smooth. Castings shall be 1-1/4" wide with a web thickness of 5/8".

### HARDWARE

**Assembly hardware** – Seat elements attach to frame with 3/8" x 1-1/2" SS lag screws. Elements for seat back attach to end frames with 1/4" flat head SS screws (typ). End frames attach to seat and bars with 1/2" and 3/8" SS buttonhead bolts and friction rings. **Anchor bolts by others**

### PROTECTIVE COATINGS

**Wood:** clear wood preservative  
**Powder Coating, for frames:** Following fabrication metal frames shall be cleaned and treated with an iron phosphate process prior to the coating application. The protective coatings shall be either polyester or polyester TGIC powder. Following application the parts shall be baked until properly cured. The coating shall be a minimum of 4 mils thick on all surfaces.

### OPTIONS

**Wood:** Western red cedar, CVG Douglas Fir, lpe or Tigerwood

**Recycled Plastic:** Grey, cedar, weathered wood, dark brown

**Length:** 6 ft and 8 ft standard

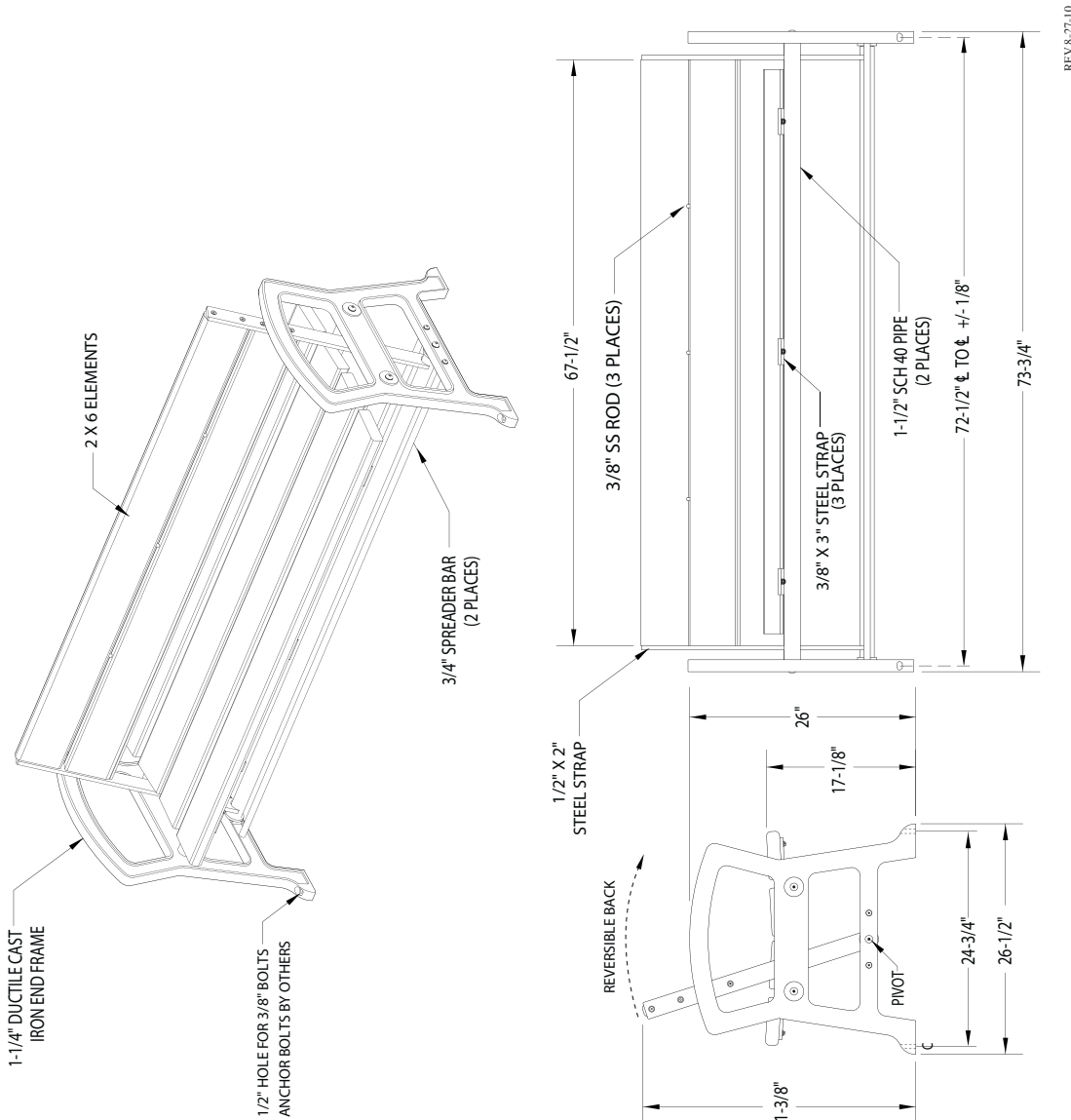
**Hot Dip Galvanized:** Interior frame

## FairWeather Site Furnishings

360-895-2626 or Toll Free 800-323-1798

Port Orchard, Washington

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FairWeather Site Furnishings division



REV 8-27-10

## Thea Foss Model TF-3, 6 ft Reversible Bench



FairWeather - Trestle Bench

Millwright District - Timberman Trail & Vista

SPECIFICATIONS

MATERIAL

**Seat:** 1" x 7-1/4" wood boards  
**Frame:** 11 gauge laser cut steel framework  
Length: 72"

FASTENERS

**Assembly hardware:** Stainless Steel  
**Anchor bolts by others**

PROTECTIVE COATINGS

**Wood:** clear wood preservative  
**Powder Coating – for steel frame:** Following fabrication products shall be cleaned and treated with an iron phosphate process prior to the coating application. This process shall include a non-chromated alkaline cleaner and an iron phosphate treatment followed with an acidic sealer for maximum adhesion. The protective coatings shall be either polyester or polyester TGIC powder. Following application the parts shall be baked until properly cured. The coating shall be a minimum of 4 mils thick on all surfaces.

OPTIONS

**Mounting:** Surface mount or freestanding

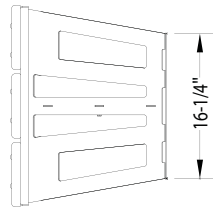
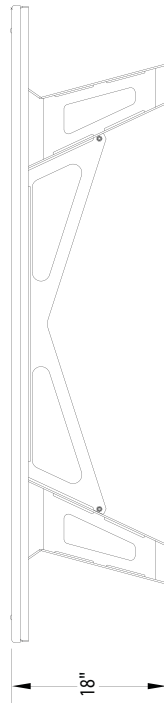
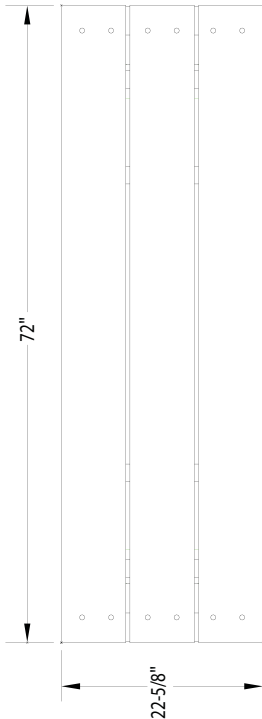
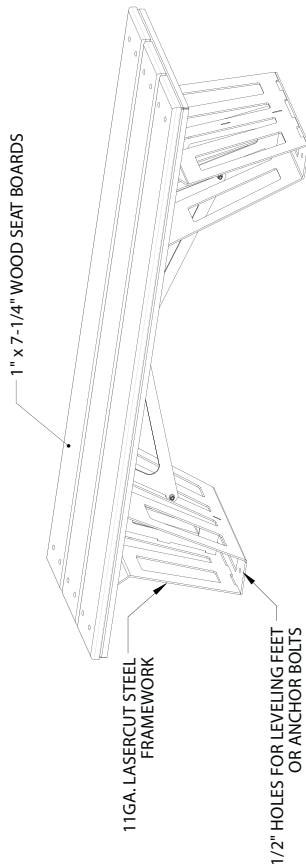
**Seat: Wood:**

1" x 7 1/4" Tigerwood, CVG Douglas-fir or western red cedar

**Board Orientation: TS-1V** - boards aligned front to back, **TS-1H** - boards aligned horizontally

**Hot dip galvanizing for steel frame:**

Following fabrication frames shall be hot dip galvanized to standard ASTM A123, 3 to 4 mils thick



Design PATENTS PENDING  
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REV 10-22-09

Trestle Backless Bench, Model TS-1H

**FairWeather Site Furnishings**  
360-895-2626 or Toll Free 800-323-1798  
Port Orchard, Washington  
©1999-2009 Leader International Corporation,  
FairWeather Site Furnishings division

SPECIFICATIONS

MATERIAL

**Seat and Back:** Frame is fabricated with 1-1/2" square steel tube and 11 Ga. steel.

**End Frames:** 1 x 3 square steel tube and 11 Ga. steel

**Boards:**

**Bench seat:** Nominal 2 x 6 (1-1/2" x 5-1/2" actual size) angled wood or recycled plastic, all edges eased.

**Bench back:** Nominal 5/4 x 6 (1" x 5-1/2" actual size) angled wood or recycled plastic, all edges eased.

FASTENERS

**Assembly hardware:** Stainless Steel

**Anchor bolts by others**

PROTECTIVE COATINGS

**Wood:** clear wood preservative  
**Powder Coating – for steel frame:** Following fabrication products shall be cleaned and treated with an iron phosphate process prior to the coating application. This process shall include a non-chromated alkaline cleaner and an iron phosphate treatment followed with an acidic sealer for maximum adhesion. The protective coatings shall be either polyester or polyester TGIC powder. Following application the parts shall be baked until properly cured. The coating shall be a minimum of 4 mils thick on all surfaces. **Options for finish:** Corrosion resistant undercoat, strongly recommended

OPTIONS

**Seat:**

Wood: CVG Douglas-fir, lpe, Tigerwood or

Western Red Cedar

**Recycled Plastic:** Cedar, Gray, Dark Brown,

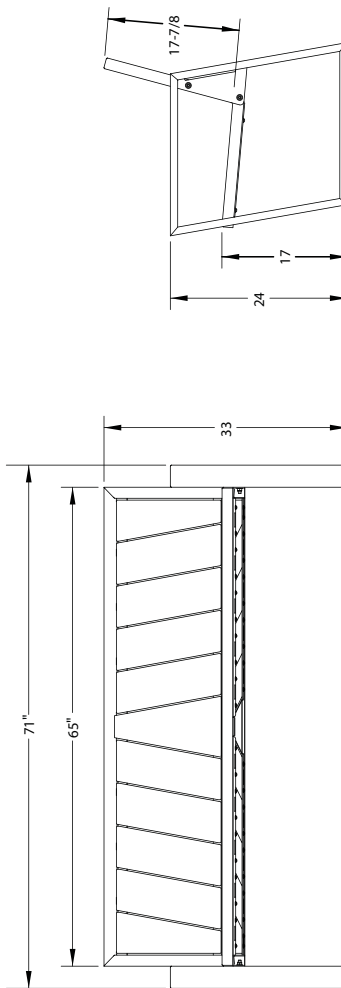
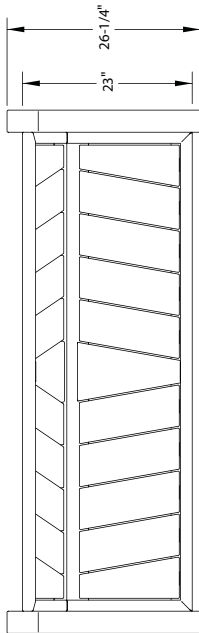
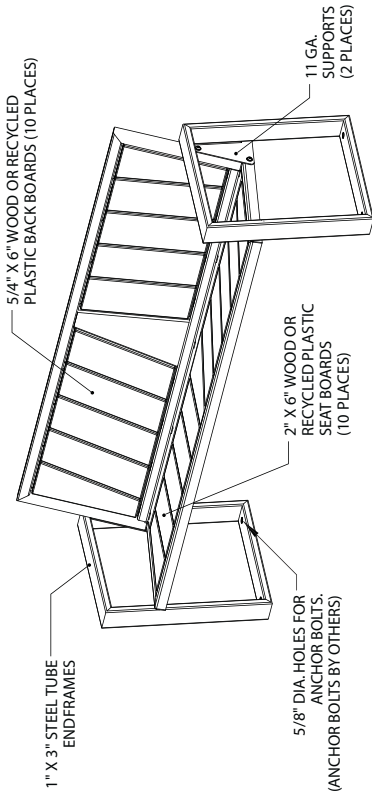
Weathered wood

FairWeather Site Furnishings

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Port Orchard, Washington

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NEW RELEASE  
10-17-13

Westport Bench with Back, Model WP-2  
with Wood or Recycled Plastic

## Forms + Surfaces - Bridge Bench

Wharf's Edge - Champfer Woonerf & Vista



### BRIDGE™ BENCH



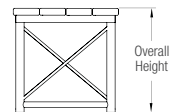
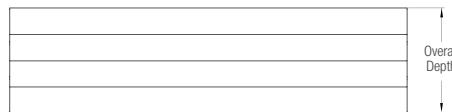
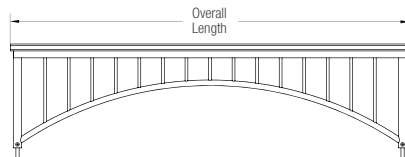
PRODUCT DATA

The **Bridge Bench** offers an imaginative, highly original design executed in exceptionally durable materials. Frames are constructed entirely of stainless steel, ensuring a long life cycle with minimal maintenance. Seats are available in a range of attractive woods or upholstered with triple-layer foam and first quality simulated leather. Custom seat materials are also available. The Bridge Bench come in straight and curved versions. Use one or both to arrange linear rows, circles, ovals, u-shapes, s-shapes - the possibilities are virtually endless.

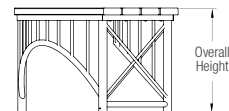
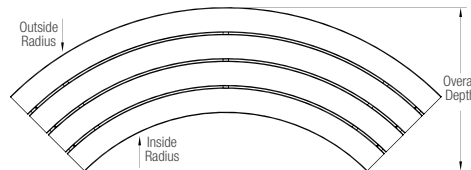
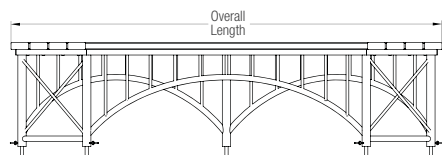
#### MATERIAL & CONSTRUCTION DETAILS

FRAME	SEATS	INSTALLATION	MAINTENANCE
<ul style="list-style-type: none"> <li>Frames are fabricated from a combination of one-inch and half-inch diameter tubular stainless steel with Satin finish.</li> <li>All tube junctions are fully welded.</li> </ul>	<ul style="list-style-type: none"> <li>Ipé hardwood slats are FSC® 100% and offer superior resistance to moisture, insects, fire, vandalism and decay. (FSC License Code: FSC-C004453)</li> <li>Solid Mahogany seats receive an additional Mahogany stain, bringing out the wood's deep, reddish brown color.*</li> <li>Solid Maple seats are given a Cherry stain to produce a beautiful light reddish brown color.*</li> </ul> <p>*Benches with Mahogany or Maple seats are for indoor use only.</p>	<ul style="list-style-type: none"> <li>Bridge Benches may be freestanding or permanently mounted.</li> <li>Leg-over anchor tubes and hardware are included for permanent mount, which provide clean attachment points without exposed brackets or bolts.</li> </ul>	<ul style="list-style-type: none"> <li>Metal surfaces can be cleaned as needed using a soft cloth or brush with warm water and a mild detergent. Avoid abrasive cleaners.</li> <li>Ipé hardwood slats can be maintained by re-oiling as needed with Penofin® hardwood finish or similar products. Slats can also be left to weather to a silver-grey patina.</li> <li>Mahogany and Maple seats can be maintained with standard commercial cleaners and polishes formulated for use on interior woods.</li> </ul>

#### NOMINAL DIMENSIONS



MODEL	OVERALL LENGTH	OVERALL DEPTH	OVERALL HEIGHT	OVERALL WEIGHT
SBBGE-IPE	72.0" (1829 mm)	19.0" (483 mm)	18.8" (476 mm)	97.8 lbs (44.4 kg)
SBBGE-MAH	72.0" (1829 mm)	19.0" (483 mm)	18.8" (476 mm)	97.8 lbs (44.4 kg)
SBBGE-MAP	72.0" (1829 mm)	19.0" (483 mm)	18.8" (476 mm)	97.8 lbs (44.4 kg)



MODEL	OVERALL LENGTH	OVERALL DEPTH	OVERALL HEIGHT	INSIDE RADIUS	OUTSIDE RADIUS	OVERALL WEIGHT
SBBGE-CIPE	77.8" (1976 mm)	29.5" (750 mm)	18.8" (476 mm)	36" (914 mm)	55" (1397 mm)	106.5 lbs (48.3 kg)
SBBGE-CMAH	77.8" (1976 mm)	29.5" (750 mm)	18.8" (476 mm)	36" (914 mm)	55" (1397 mm)	106.5 lbs (48.3 kg)
SBBGE-CMAP	77.8" (1976 mm)	29.5" (750 mm)	18.8" (476 mm)	36" (914 mm)	55" (1397 mm)	106.5 lbs (48.3 kg)

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CASCADE DESIGN COLLABORATIVE | 911 Western Ave., Suite 210, Seattle, WA | 206.628.9133 | [www.cascadedesigncollab.com](http://www.cascadedesigncollab.com)

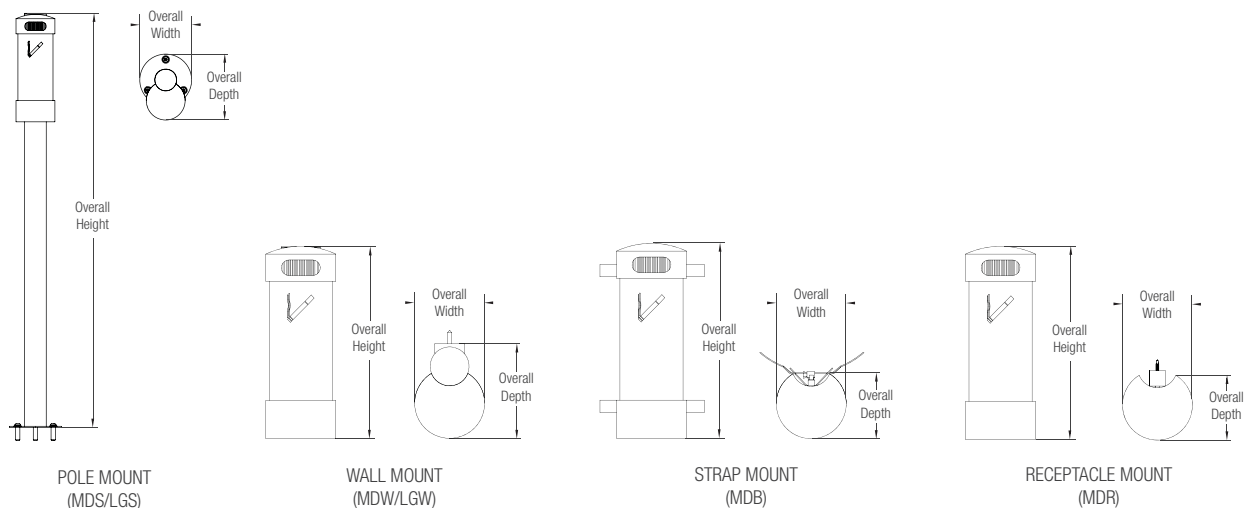
**BUTTLER®** ASH RECEPTACLE

PRODUCT DATA

**Buttler Ash Receptacles** acknowledge society's changing views towards smoking by offering an aesthetic and discreet solution for the disposal of cigarette butts. Unlike exposed-sand containers, the Buttler conceals discarded cigarettes, keeping the unsightly well out of sight. Buttlers are made for easy servicing and include an internal gasket to inhibit smoldering.

**MATERIAL & CONSTRUCTION DETAILS****INSTALLATION & MAINTENANCE**

BODY	FINISHES	INSTALLATION	MAINTENANCE
<ul style="list-style-type: none"> <li>Cylinder is made of extruded aluminum with two cast aluminum end caps with powdercoat finish.</li> <li>A grooved inner wall assists in extinguishing cigarettes and discourages the placement of litter inside.</li> <li>The cigarette graphic is applied in either white or black depending on cylinder color.</li> </ul>	<ul style="list-style-type: none"> <li>See the Forms+Surfaces Powdercoat Chart for details. Custom RAL colors are available for an upcharge.</li> <li>Due to the nature of metal castings, gloss powdercoats are not offered for cast components.</li> </ul>	<ul style="list-style-type: none"> <li>Pole mount: Surface mounted 48" (1219 mm) high pole with 2.5" (63 mm) diameter includes mounting plate.</li> <li>Wall mount: Tubular stainless steel bracket allows Buttler to be mounted to walls or other vertical surfaces.</li> <li>Strap mount: Stainless steel bracket system allows Buttler to be attached to existing lampposts, street signs or similar vertical supports (medium Buttler only).</li> <li>Litter &amp; recycling receptacle mount: A special bracket is available that allows Buttler to be attached to the side of Forms+Surfaces' Urban Renaissance Litter &amp; Recycling Receptacles. Prep must be specified at the time of order (medium Buttler only).</li> </ul>	<ul style="list-style-type: none"> <li>Surfaces can be cleaned as needed using a soft cloth or brush with warm water and a mild detergent. Stains or spotting from cigarettes may be removed using a biodegradable cleaner such as Simple Green. Avoid abrasive cleaners.</li> <li>The bottom end casting incorporates a key-operated security latch to prevent unauthorized access. When unlocked, the cylinder can be lowered and removed for emptying.</li> </ul>

**NOMINAL DIMENSIONS**

MODEL	OVERALL HEIGHT	OVERALL WIDTH	OVERALL DEPTH	OVERALL WEIGHT
SUBUT-MDS	47.9" (1217 mm)	6" (152 mm)	7.6" (193 mm)	11 lbs (5 kg)
SUBUT-MDW	12.4" (315 mm)	4.5" (114 mm)	6.1" (155 mm)	9 lbs (4 kg)
SUBUT-MDB	12.4" (315 mm)	4.5" (114 mm)	4.2" (107 mm)	4 lbs (2 kg)
SUBUT-MDR	12.4" (315 mm)	4.5" (114 mm)	4.2" (107 mm)	4 lbs (2 kg)
SUBUT-LGS	47.9" (1217 mm)	6" (152 mm)	9.4" (239 mm)	14 lbs (6 kg)
SUBUT-LGW	16.8" (427 mm)	6" (152 mm)	7.8" (198 mm)	9 lbs (4 kg)

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## Forms + Surfaces - Universal Planter

### Sitewide Planters



## UNIVERSAL PLANTER



PRODUCT DATA

The **Universal Planter** offers the beauty and performance of stainless steel, while remaining remarkably affordable. Stainless steel's natural finish provides aesthetic appeal and simplifies maintenance. For settings where color is appropriate, Universal Planters are unique in offering powdercoat colors applied over the same corrosion-resistant stainless steel used on uncoated versions. Their versatility makes them a premier choice for airports, malls, educational institutions, health care facilities, corporate buildings, entertainment venues, and other public spaces.

#### MATERIAL & CONSTRUCTION DETAILS

#### INSTALLATION & MAINTENANCE

CONSTRUCTION & FINISHES	LINERS	INSTALLATION	MAINTENANCE
<ul style="list-style-type: none"> <li>Body and internal structure are both made entirely of stainless steel.</li> <li>Standard stainless steel finishes include Sandstone, Diamond, and Satin.</li> <li>See the Forms+Surfaces Powdercoat Chart for details. Custom RAL colors are available for an upcharge.</li> </ul>	<ul style="list-style-type: none"> <li>Universal Planters use independent, replaceable internal liners.</li> <li>Liners are molded from durable black polyethylene with a UL94HB fire rating.</li> </ul>	<ul style="list-style-type: none"> <li>Universal Planters offer the following installation options*:                             <ul style="list-style-type: none"> <li>-Freestanding with adjustable stainless steel levelers &amp; nylon feet.</li> <li>-Freestanding with concrete base.</li> <li>-Surface mounted directly to substrate (hardware included).</li> <li>-Surface mounted with concrete base (hardware included).</li> </ul> </li> <li>Concrete bases are 3.25" thick (2.5" visible) and are available in two colors: Black Sand and Pumice. Please refer to our website for color swatches.</li> </ul> <p>*100- &amp; 190-gallon planters are not available with levelers or concrete bases.</p>	<ul style="list-style-type: none"> <li>Surfaces can be cleaned as needed using a soft cloth or brush with warm water and a mild detergent. Avoid abrasive cleaners.</li> </ul>

#### STAINLESS STEEL BODY FINISH OPTIONS

Sandstone and Diamond are High-Durability finishes, designated by the "HD" logo below, and are manufactured in a process that creates a work-hardened surface with enhanced resistance to abrasion and wear.



SANDSTONE



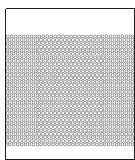
DIAMOND



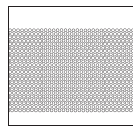
SATIN

#### STANDARD PATTERN OPTIONS

OVERALL PERFORATIONS: 1/4" and 1/2" diameter

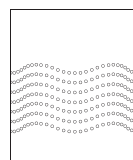


100 & 190 GALLON

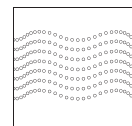


30 GALLON

WAVE PERFORATIONS OR EMBOSSURES: 3/8" diameter

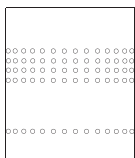


100 & 190 GALLON

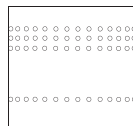


30 GALLON

ASYMMETRICAL PERFORATIONS OR EMBOSSURES: 3/4" diameter



100 & 190 GALLON

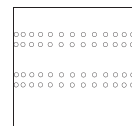


30 GALLON

SYMMETRICAL ROW PERFORATIONS OR EMBOSSURES: 3/4" diameter



100 & 190 GALLON



30 GALLON

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**VECTOR™ SEATING SYSTEM**

PRODUCT DATA

The **Vector Seating System** is a modern, modular design that goes in whatever direction your seating needs take. This highly customizable line invites you to mix interchangeable bench and planter modules. Choose materials and finishes to suit your design scheme. And personalize your layouts with optional seat backs and seat dividers, LED accent lighting below bench seats, and/or side panels in stainless steel or VividGlass.

**MATERIAL & CONSTRUCTION DETAILS**

CONFIGURATIONS	SIDE PANEL OPTIONS	PLANTER MODULE
<ul style="list-style-type: none"> <li>There are seven basic components to the Vector Seating System: four linear benches (2-, 4-, 6-, and 8-foot lengths), a 2' planter module, and two 120° angle benches. The component pieces can be specified to connect to each other in a linear fashion and/or branch off of the sides.</li> <li>In addition to linear benches, standard configurations include Cross, Tri-Hub, and Oblique. See pages 7 &amp; 8 for details.</li> <li>The Vector Seating System provides endless possibilities for custom configurations. See page 8 for examples.</li> <li>All seating components are available with or without seat backs. Seat backs are not available at some connection points.</li> </ul>	<ul style="list-style-type: none"> <li>All seating components are available with or without side panels on one or both sides.</li> <li>Side panels are available in two materials: stainless steel or VividGlass.</li> <li>Stainless steel side panels are available in three stainless steel finishes or can be powdercoated. Four standard perforation patterns are available or side panels can be specified with no pattern. See page 2 for details.</li> <li>VividGlass side panels are available in standard and custom patterns. All VividGlass side panels are tempered and weather proof. See page 3 for standard pattern options.</li> </ul>	<ul style="list-style-type: none"> <li>Planter frame is aluminum with a powdercoat finish.</li> <li>Planter capacity is 14 gallons.</li> <li>Drainage holes are optional.</li> <li>Planter side panels are available in two materials: stainless steel or VividGlass. See page 2 &amp; 3 for side panel options.</li> </ul>
FRAME AND SEAT OPTIONS	OPTIONAL END AND INTERMEDIATE SEAT DIVIDERS	LED ACCENT LIGHTING
<ul style="list-style-type: none"> <li>Frame is aluminum with a powdercoat finish.</li> <li>Seats are available in two material options.</li> <li>FSC® 100% Jatoba hardwood seat slats (8 slats per bench) have a natural oiled finish that enhances the wood's rich color (FSC License Code: FSC-C004453).</li> <li>Extruded aluminum seat slats (4 slats per bench) feature a lightly grooved surface for enhanced appearance and a non-slip feel. Aluminum slats are powdercoated. See the Forms+Surfaces Powdercoat Chart for details.</li> <li>Optional aluminum seat backs are powdercoated to match the bench frame.</li> </ul>	<ul style="list-style-type: none"> <li>Cast aluminum end and intermediate seat dividers are available for all of the seating components.</li> <li>Seat dividers are powdercoated to match the frame.</li> <li>Due to the inherent nature of metal castings, gloss powdercoats are not offered for cast components.</li> </ul>	<ul style="list-style-type: none"> <li>Optional LED accent lighting is available for all seating components.</li> <li>Accent lighting attaches to the underside of the seating components.</li> <li>Offered in 3000K warm white and 4000K cool white LEDs.</li> </ul>

**INSTALLATION & MAINTENANCE**

INSTALLATION	MAINTENANCE
<ul style="list-style-type: none"> <li>The Vector Seating System can be freestanding or surface mounted.</li> <li>Configurations with seat backs must be surface mounted.</li> <li>Surface mount models include anchors and stainless steel mounting screws.</li> </ul>	<ul style="list-style-type: none"> <li>Metal surfaces can be cleaned as needed using a soft cloth or brush with warm water and a mild detergent. Avoid abrasive cleaners.</li> <li>Jatoba hardwood slats can be maintained by re-oiling as needed with Penofin® hardwood finish or similar products. Slats can also be left to weather to a silver-grey patina.</li> </ul>

Forms + Surfaces - Vector Seating System

Fisherman’s Harbor - Waterfront



VECTOR™ SEATING SYSTEM

PRODUCT DATA

SIDE PANEL MATERIAL OPTIONS

STAINLESS STEEL SIDE PANEL FINISH OPTIONS

DIAMOND



SANDSTONE

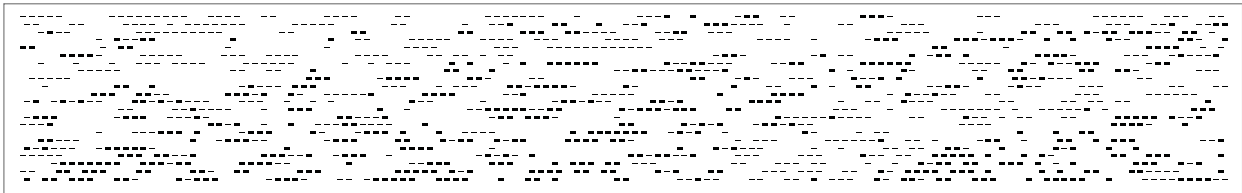


SATIN

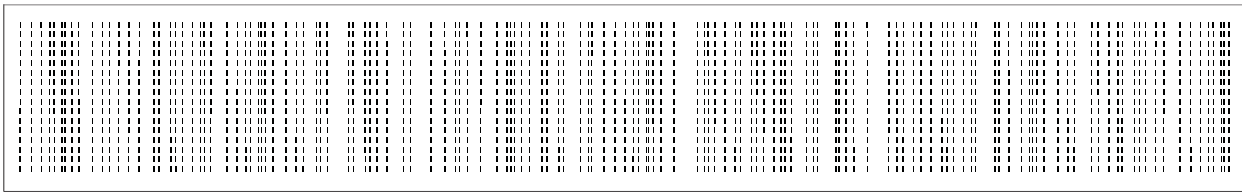


STAINLESS STEEL SIDE PANEL PERFORATION PATTERN OPTIONS

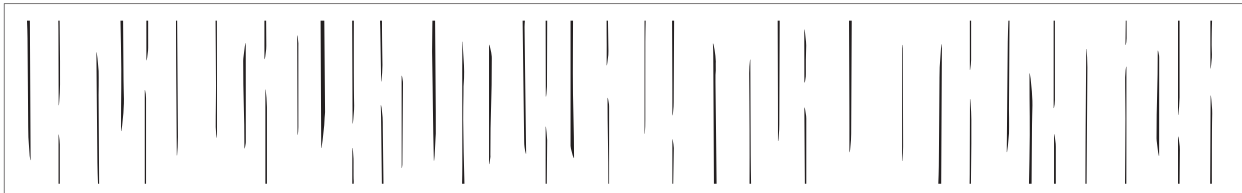
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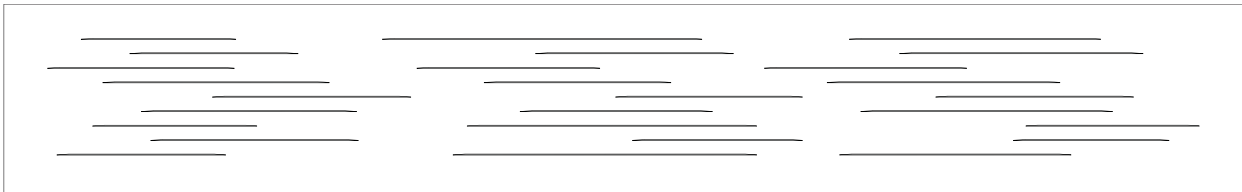
DATA



RAINFALL



GUST

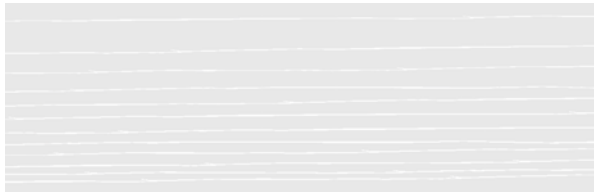


**VECTOR™ SEATING SYSTEM**

PRODUCT DATA

**SIDE PANEL MATERIAL OPTIONS (CONTINUED)****VIVIDGLASS SIDE PANEL PATTERN OPTIONS**

VividGlass side panels can be specified in one of the standard patterns shown below, or you can select from our full VividGlass line. All VividGlass side panels are safety laminated with Dupont™ Sentryglas® structural interlayer and tempered for ultimate durability. They can be used in any exterior environment, regardless of weather conditions, moisture, heat or cold. To see our full array of VividGlass options, including full technical specifications, please visit [www.forms-surfaces.com/vividglass](http://www.forms-surfaces.com/vividglass).

**BRIAR PATTERN IN MINT, STANDARD FINISH****BRIAR PATTERN IN WHITE, STANDARD FINISH****THICKET PATTERN IN OLIVE, STANDARD FINISH****THICKET PATTERN IN WHITE, STANDARD FINISH****CURRENT PATTERN (HORIZONTAL) IN WHITE, STANDARD FINISH****CURRENT PATTERN (VERTICAL) IN SPRING, STANDARD FINISH**



## Forms + Surfaces - Vector Seating System

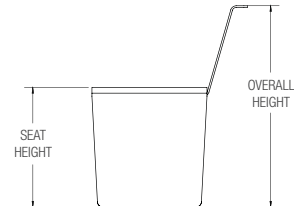
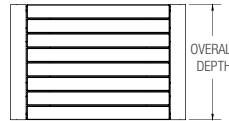
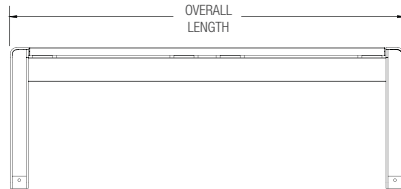
Fisherman's Harbor - Waterfront



### VECTOR™ SEATING SYSTEM

PRODUCT DATA

#### STANDALONE BENCH NOMINAL DIMENSIONS



MODEL	OVERALL LENGTH	OVERALL DEPTH	OVERALL HEIGHT*	SEAT HEIGHT	OVERALL WEIGHT**		
					WITHOUT SIDE PANELS	TWO STAINLESS STEEL SIDE PANELS	TWO VIVIDGLASS SIDE PANELS
SBVTR-24J-2E-0B	25.7" (653 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	53 lbs (24 kg)	73 lbs (33 kg)	89 lbs (40 kg)
SBVTR-24J-2E-1B	25.7" (653 mm)	16.9" (429 mm)	29.5" (749 mm)	17.5" (445 mm)	68 lbs (31 kg)	88 lbs (40 kg)	104 lbs (47 kg)
SBVTR-24A-2E-0B	25.7" (653 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	56 lbs (25 kg)	76 lbs (34 kg)	92 lbs (42 kg)
SBVTR-24A-2E-1B	25.7" (653 mm)	16.9" (429 mm)	29.5" (749 mm)	17.5" (445 mm)	71 lbs (32 kg)	91 lbs (41 kg)	107 lbs (49 kg)
SBVTR-48J-2E-0B	49.1" (1247 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	72 lbs (33 kg)	106 lbs (48 kg)	138 lbs (63 kg)
SBVTR-48J-2E-2B	49.1" (1247 mm)	16.9" (429 mm)	29.5" (749 mm)	17.5" (445 mm)	102 lbs (46 kg)	136 lbs (62 kg)	168 lbs (76 kg)
SBVTR-48A-2E-0B	49.1" (1247 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	78 lbs (35 kg)	112 lbs (51 kg)	144 lbs (65 kg)
SBVTR-48A-2E-2B	49.1" (1247 mm)	16.9" (429 mm)	29.5" (749 mm)	17.5" (445 mm)	108 lbs (49 kg)	142 lbs (64 kg)	174 lbs (79 kg)
SBVTR-72J-2E-0B	72.5" (1842 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	92 lbs (42 kg)	138 lbs (63 kg)	188 lbs (85 kg)
SBVTR-72J-2E-3B	72.5" (1842 mm)	16.9" (429 mm)	29.5" (749 mm)	17.5" (445 mm)	137 lbs (62 kg)	183 lbs (83 kg)	233 lbs (106 kg)
SBVTR-72A-2E-0B	72.5" (1842 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	101 lbs (46 kg)	147 lbs (67 kg)	197 lbs (89 kg)
SBVTR-72A-2E-3B	72.5" (1842 mm)	16.9" (429 mm)	29.5" (749 mm)	17.5" (445 mm)	146 lbs (66 kg)	192 lbs (87 kg)	242 lbs (110 kg)
SBVTR-96J-2E-0B	95.9" (2436 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	111 lbs (50 kg)	169 lbs (77 kg)	237 lbs (108 kg)
SBVTR-96J-2E-4B	95.9" (2436 mm)	16.9" (429 mm)	29.5" (749 mm)	17.5" (445 mm)	171 lbs (78 kg)	229 lbs (104 kg)	297 lbs (135 kg)
SBVTR-96A-2E-0B	95.9" (2436 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	124 lbs (56 kg)	182 lbs (83 kg)	250 lbs (113 kg)
SBVTR-96A-2E-4B	95.9" (2436 mm)	16.9" (429 mm)	29.5" (749 mm)	17.5" (445 mm)	184 lbs (83 kg)	242 lbs (110 kg)	310 lbs (141 kg)

\*Add 12" (305 mm) for optional seat back.

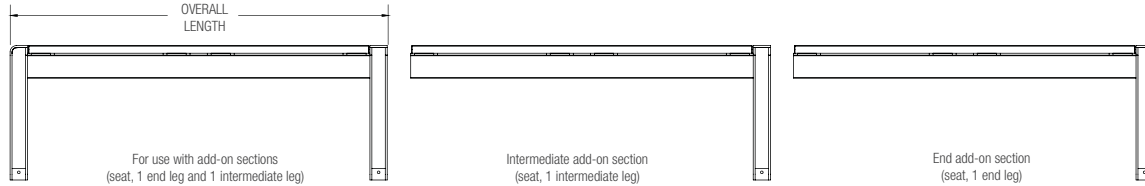
\*Add 2.5" (64 mm) for optional end or intermediate seat divider.

\*\*Add 15 lbs (7 kg) for each additional optional seat back.

\*\*Add 2 lbs (1 kg) for each additional optional end or intermediate seat divider.

**VECTOR™ SEATING SYSTEM**

PRODUCT DATA

**ADD-ON BENCH NOMINAL DIMENSIONS**

MODEL	OVERALL LENGTH	OVERALL DEPTH	OVERALL HEIGHT*	SEAT HEIGHT	OVERALL WEIGHT**		
					WITHOUT SIDE PANELS	TWO STAINLESS STEEL SIDE PANELS	VIVIDGLASS SIDE PANELS
SBVTR-24J-1E1M-OB	25.7" (653 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	53 lbs (24 kg)	73 lbs (33 kg)	89 lbs (40 kg)
SBVTR-24J-1M-OB	23.4" (594 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	36 lbs (16 kg)	56 lbs (25 kg)	72 lbs (33 kg)
SBVTR-24J-1E-OB	23.4" (594 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	36 lbs (16 kg)	56 lbs (25 kg)	72 lbs (33 kg)
SBVTR-24A-1E1M-OB	25.7" (653 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	56 lbs (25 kg)	76 lbs (34 kg)	92 lbs (42 kg)
SBVTR-24A-1M-OB	23.4" (594 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	39 lbs (18 kg)	59 lbs (27 kg)	75 lbs (34 kg)
SBVTR-24A-1E-OB	23.4" (594 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	39 lbs (18 kg)	59 lbs (27 kg)	75 lbs (34 kg)
SBVTR-48J-1E1M-OB	49.1" (1247 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	72 lbs (33 kg)	106 lbs (48 kg)	138 lbs (63 kg)
SBVTR-48J-1M-OB	46.8" (1189 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	56 lbs (25 kg)	90 lbs (41 kg)	122 lbs (55 kg)
SBVTR-48J-1E-OB	46.8" (1189 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	56 lbs (25 kg)	90 lbs (41 kg)	122 lbs (55 kg)
SBVTR-48A-1E1M-OB	49.1" (1247 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	78 lbs (35 kg)	112 lbs (51 kg)	144 lbs (65 kg)
SBVTR-48A-1M-OB	46.8" (1189 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	62 lbs (28 kg)	96 lbs (44 kg)	128 lbs (58 kg)
SBVTR-48A-1E-OB	46.8" (1189 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	62 lbs (28 kg)	96 lbs (44 kg)	128 lbs (58 kg)
SBVTR-72J-1E1M-OB	72.5" (1842 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	92 lbs (42 kg)	138 lbs (63 kg)	188 lbs (85 kg)
SBVTR-72J-1M-OB	70.3" (1786 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	75 lbs (34 kg)	121 lbs (55 kg)	171 lbs (78 kg)
SBVTR-72J-1E-OB	70.3" (1786 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	75 lbs (34 kg)	121 lbs (55 kg)	171 lbs (78 kg)
SBVTR-72A-1E1M-OB	72.5" (1842 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	101 lbs (46 kg)	147 lbs (67 kg)	197 lbs (89 kg)
SBVTR-72A-1M-OB	70.3" (1786 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	84 lbs (38 kg)	130 lbs (59 kg)	180 lbs (82 kg)
SBVTR-72A-1E-OB	70.3" (1786 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	84 lbs (38 kg)	130 lbs (59 kg)	180 lbs (82 kg)
SBVTR-96J-1E1M-OB	95.9" (2436 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	111 lbs (50 kg)	169 lbs (77 kg)	237 lbs (108 kg)
SBVTR-96J-1M-OB	93.7" (2380 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	94 lbs (43 kg)	152 lbs (69 kg)	220 lbs (100 kg)
SBVTR-96J-1E-OB	93.7" (2380 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	94 lbs (43 kg)	152 lbs (69 kg)	220 lbs (100 kg)
SBVTR-96A-1E1M-OB	95.9" (2436 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	124 lbs (56 kg)	182 lbs (83 kg)	250 lbs (113 kg)
SBVTR-96A-1M-OB	93.7" (2380 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	107 lbs (49 kg)	165 lbs (75 kg)	233 lbs (106 kg)
SBVTR-96A-1E-OB	93.7" (2380 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	107 lbs (49 kg)	165 lbs (75 kg)	233 lbs (106 kg)

\*Add 12" (305 mm) for optional seat back.

\*Add 2.5" (64 mm) for optional end or intermediate seat divider.

\*\*Add 15 lbs (7 kg) for each additional optional seat back.

\*\*Add 2 lbs (1 kg) for each additional optional end or intermediate seat divider.

## Forms + Surfaces - Vector Seating System

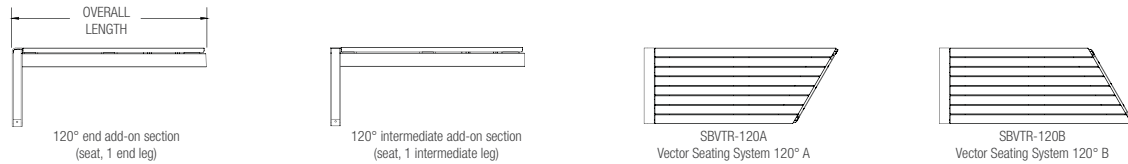
Fisherman's Harbor - Waterfront



### VECTOR™ SEATING SYSTEM

PRODUCT DATA

#### ADD-ON BENCH NOMINAL DIMENSIONS (CONTINUED)



MODEL	OVERALL LENGTH	OVERALL DEPTH	OVERALL HEIGHT*	SEAT HEIGHT	OVERALL WEIGHT**		
					WITHOUT SIDE PANELS	TWO STAINLESS STEEL SIDE PANELS	TWO VIVIDGLASS SIDE PANELS
SBVTR-120AJ-1E-0B	43.2" (1097.28 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	50 lbs (23 kg)	75 lbs (34 kg)	108 lbs (49 kg)
SBVTR-120AJ-1M-0B	43.2" (1097.28 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	50 lbs (23 kg)	75 lbs (34 kg)	108 lbs (49 kg)
SBVTR-120AA-1E-0B	43.2" (1097.28 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	55 lbs (25 kg)	80 lbs (36 kg)	113 lbs (51 kg)
SBVTR-120AA-1M-0B	43.2" (1097.28 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	55 lbs (25 kg)	80 lbs (36 kg)	113 lbs (51 kg)
SBVTR-120BJ-1E-0B	43.2" (1097.28 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	50 lbs (23 kg)	75 lbs (34 kg)	108 lbs (49 kg)
SBVTR-120BJ-1M-0B	43.2" (1097.28 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	50 lbs (23 kg)	75 lbs (34 kg)	108 lbs (49 kg)
SBVTR-120BA-1E-0B	43.2" (1097.28 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	55 lbs (25 kg)	80 lbs (36 kg)	113 lbs (51 kg)
SBVTR-120BA-1M-0B	43.2" (1097.28 mm)	16.9" (429 mm)	17.5" (445 mm)	17.5" (445 mm)	55 lbs (25 kg)	80 lbs (36 kg)	113 lbs (51 kg)

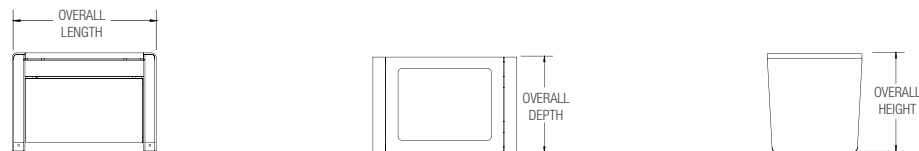
\*Add 12" (305 mm) for optional seat back.

\*Add 2.5" (64 mm) for optional end or intermediate seat divider.

\*\*Add 15 lbs (7 kg) for each additional optional seat back.

\*\*Add 2 lbs (1 kg) for each additional optional end or intermediate seat divider.

#### PLANTER NOMINAL DIMENSIONS



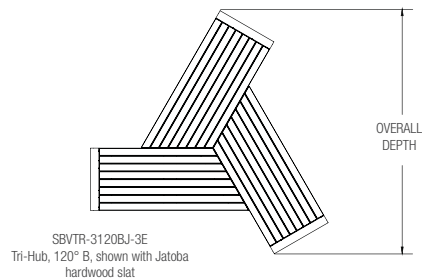
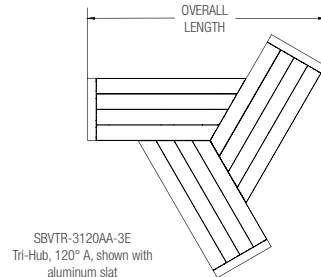
MODEL	OVERALL LENGTH	OVERALL DEPTH	OVERALL HEIGHT	OVERALL WEIGHT
SNVTR-14S-2E	25.7" (653 mm)	16.9" (429 mm)	17.5" (445 mm)	75 lbs (34 kg)
SNVTR-14V-2E	25.7" (653 mm)	16.9" (429 mm)	17.5" (445 mm)	91 lbs (41 kg)
SNVTR-14S-1E1M	25.7" (653 mm)	16.9" (429 mm)	17.5" (445 mm)	75 lbs (34 kg)
SNVTR-14V-1E1M	25.7" (653 mm)	16.9" (429 mm)	17.5" (445 mm)	91 lbs (41 kg)
SNVTR-14S-2M	25.7" (653 mm)	16.9" (429 mm)	17.5" (445 mm)	75 lbs (34 kg)
SNVTR-14V-2M	25.7" (653 mm)	16.9" (429 mm)	17.5" (445 mm)	91 lbs (41 kg)

**VECTOR™ SEATING SYSTEM**

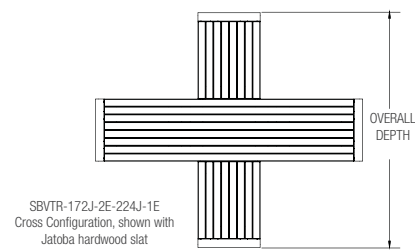
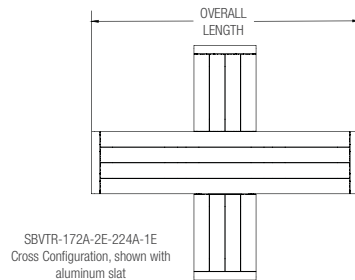
PRODUCT DATA

**NOMINAL DIMENSIONS**

Three standard configurations of the Vector Seating System are available, Tri-Hub, Cross and Oblique, but there are endless possibilities for custom layouts. The examples shown are just a starting point, please contact us for details on your specific project.

**TRI-HUB CONFIGURATION**

MODEL	OVERALL LENGTH	OVERALL DEPTH	OVERALL HEIGHT*	SEAT HEIGHT	OVERALL WEIGHT**
SBVTR-3120AJ-3E	64.5" (1639 mm)	66" (1676 mm)	17.5" (445 mm)	17.5" (445 mm)	150 lbs (68 kg)
SBVTR-3120AA-3E	64.5" (1639 mm)	66" (1676 mm)	17.5" (445 mm)	17.5" (445 mm)	164 lbs (74 kg)
SBVTR-3120BJ-3E	64.5" (1639 mm)	66" (1676 mm)	17.5" (445 mm)	17.5" (445 mm)	150 lbs (68 kg)
SBVTR-3120BA-3E	64.5" (1639 mm)	66" (1676 mm)	17.5" (445 mm)	17.5" (445 mm)	164 lbs (74 kg)

**CROSS CONFIGURATION**

MODEL	OVERALL LENGTH	OVERALL DEPTH	OVERALL HEIGHT*	SEAT HEIGHT	OVERALL WEIGHT**
SBVTR-172J-2E-224J-1E	72.5" (1841.5 mm)	63.7" (1618 mm)	17.5" (445 mm)	17.5" (445 mm)	166 lbs (75 kg)
SBVTR-172A-2E-224A-1E	72.5" (1841.5 mm)	63.7" (1618 mm)	17.5" (445 mm)	17.5" (445 mm)	181 lbs (82 kg)

\*Add 12" (305 mm) for optional seat back.

\*Add 2.5" (64 mm) for optional end or intermediate seat divider.

\*\*Add 15 lbs (7 kg) for each additional optional seat back.

\*\*Add 2 lbs (1 kg) for each additional optional end or intermediate seat divider.



## Forms + Surfaces - Vector Seating System

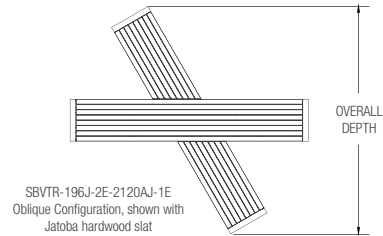
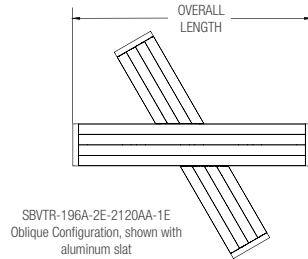
Fisherman's Harbor - Waterfront



### VECTOR™ SEATING SYSTEM

PRODUCT DATA

#### OBLIQUE CONFIGURATION



MODEL	OVERALL LENGTH	OVERALL DEPTH	OVERALL HEIGHT*	SEAT HEIGHT	OVERALL WEIGHT**
SBVTR-196J-2E-2120AJ-1E	95.9" (2436 mm)	91.5" (2336 mm)	17.5" (445 mm)	17.5" (445 mm)	211 lbs (96 kg)
SBVTR-196A-2E-2120AA-1E	95.9" (2436 mm)	91.5" (2336 mm)	17.5" (445 mm)	17.5" (445 mm)	233 lbs (106 kg)

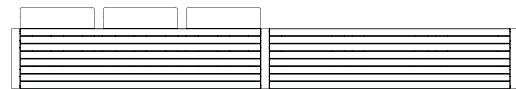
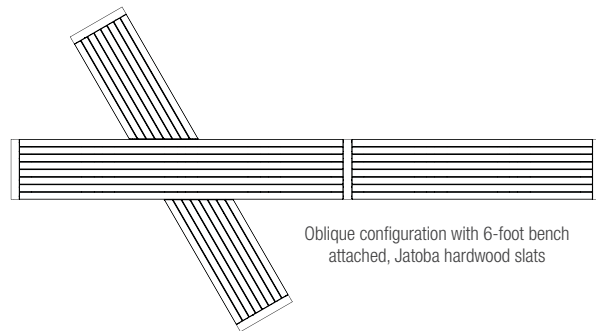
\*Add 12" (305 mm) for optional seat back.

\*Add 2.5" (64 mm) for optional end or intermediate seat divider.

\*\*Add 15 lbs (7 kg) for each additional optional seat back.

\*\*Add 2 lbs (1 kg) for each additional optional end or intermediate seat divider.

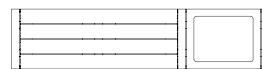
#### EXAMPLE CONFIGURATIONS



6-foot bench with three seat backs with 6-foot bench attached, Jatoba hardwood slats.



8-foot bench with four alternating seat backs, Jatoba hardwood slats



4-foot bench, aluminum slats, with planter attached

#### ENVIRONMENTAL CONSIDERATIONS

- Please refer to the Vector Seating System Environmental Data Sheet for detailed environmental impact information.
- Vector Seating System aluminum frames have a high recycled content.
- All Vector Seating System metal components are fully recyclable.
- All Vector Seating System wood is FSC 100%.
- Standard powdercoat finishes are no-VOC; non-standard powdercoat finishes are no- or low-VOC, depending on color.
- Low maintenance; easy to disassemble.

T 800.451.0410 | [www.forms-surfaces.com](http://www.forms-surfaces.com)

**FORMS+SURFACES®**

CASCADE DESIGN COLLABORATIVE | 911 Western Ave., Suite 210, Seattle, WA | 206.628.9133 | [www.cascadedesigncollab.com](http://www.cascadedesigncollab.com)



## FEATURES & BENEFITS

### CONSTRUCTION

Heavy-duty 12 gauge rough unfinished galvanized surface steel finish that incorporates a recessed push button and welded bubbler guard to provide extra durability, a large access panel for ease of service, and a vandal-resistant bottom plate for added peace of mind.

### BARrier-FREE

Barrier-free capabilities combined with its ease of use allows for a number of installation location possibilities.

### DRAIN FREE

Unique design allows this pedestal fountain to be placed in the harshest of outdoor environments without the worry of a clogged drain. When water is activated, the excess flow runs from its trough basin off the back and onto the ground - perfect for beaches, play grounds, and other areas high in debris.

### BUBBLER HEAD

Polished chrome-plated brass bubbler head with integral basin shank for added strength. Shielded, angled stream opening provides a steady, sanitary source of drinking water.

### PUSH BUTTON VALVE

The push-button activated valve assembly allows for front access stream adjustment as well as cartridge and strainer access. The valve works at an operating pressure range of 30 to 90 psi (2.1 to 6.2 bar).



## SPECIFICATIONS

Model 3202G barrier-free pedestal drinking fountain shall include a 12 gauge rough unfinished galvanized surface steel pedestal, push-button operated stainless steel valve with front-accessible cartridge and flow adjustment, 100% lead-free waterways, polished chrome-plated brass vandal-resistant bubbler head backed against a pedestal guard, trough design in the pedestal instead of a waste to eliminate clogging and a 1/4" (.6 cm) spacer to raise the pedestal off the ground which reduces the potential for corrosion, integral mounting feet, and an over-size vandal-resistant access plate.

## OPTIONS

- Faucet Valve: Model 6250LF, self-closing, plain end, lead-free, brass bib faucet with polished chrome-plated finish. (When used with Haws concrete products, also order part 0004499489; for 3511, use 0004521763)

To see all options for this model, visit [www.hawsc.com](http://www.hawsc.com)

## APPLICATIONS

Perfect for either public or private settings, the 3202G trough style fountain is a great fit in areas more prone to drain clogging. Completely eliminating the need for a traditional fountain drain, trough fountains are a nice complement to outdoor environments where a gravel fill can be implemented. Heavy-duty steel and galvanized finish make for a solid freestanding design that will hold up and blend in with the environment. More specifically, this fountain is applicable in forest/campground environments as well as parks, schools, and other outdoor areas where drinking facilities are needed. Model meets all current Federal Regulations for the disabled including those in the Americans with Disabilities Act. Haws manufactures drinking fountains and electric water coolers to be lead-free by all known definitions including NSF/ANSI Standard 61, Section 9, NSF/ANSI 372, California Proposition 65, and the Federal Safe Drinking Water Act. Product is compliant to California Health and Safety Code 116875 (AB 1953-2006).

## Sitewide Drinking Fountains



**sustainability data sheet**

# Connect™ Sitting and Leaning Rails

May 2012



With our roots in the landscape and a stated purpose to “Enrich Outdoor Spaces,” Landscape Forms has a special relationship to the natural environment. We have always been mindful that as we design and manufacture products that are acted upon by the environment, we act upon it in turn. Environmental sustainability is completely consistent with our purpose, our goals, our values and our principles. We make stewardship of the environment a vital part of our business.

To learn more about our sustainability initiatives, refer to our [Environmental Statement](#).

## CONNECT SITTING AND LEANING RAILS ARE MANUFACTURED USING THE FOLLOWING MATERIALS:

Material	Parts	Recyclable
aluminum	frame, leaning rail seat	100%
steel	base mounting plate	100%
wood	leaning rail seat	100%

### Finishing

All metal is finished with Pangard II ® polyester powdercoat, which is lead-free, hazardous air pollutants-(HAPS) free, does not generate hazardous waste, and contains less than 1% VOCs. Once processed, these trace VOCs are fully inert therefore the finish does not release airborne contaminants.

Landscape Forms wood furniture for outdoor use is manufactured from wood species that weather naturally in outdoor settings to a beautiful pewter gray. We do not apply paints or finishes to these products and do not recommend the use of finishes which would require ongoing maintenance programs as the wood weathers.

Packaging Materials	Parts	Recyclable
biodegradable plastic	product bagged to protect finish	100%
recycled skid		100%
cardboard with 35% recycled content		100%

To find local recyclers visit: for steel: [www.recycle-steel.org](http://www.recycle-steel.org); for cardboard: [www.corrugated.org](http://www.corrugated.org).



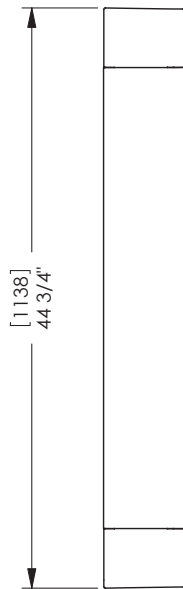
# Landscape Forms - Connect Sitting and Leaning Rails

## Sitewide Bus Stop Seating

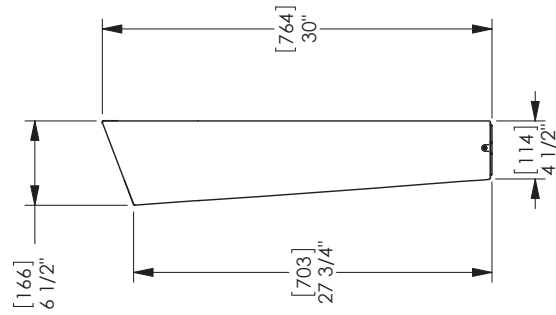
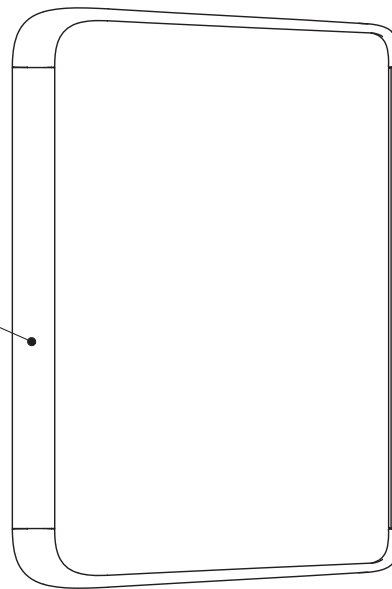
**Connect®**  
Product Drawing

Leaning Rail 45in, Surface Mount, Wood

Date: 9/28/2011  
Ph: 800.521.2546  
www.landscapeforms.com

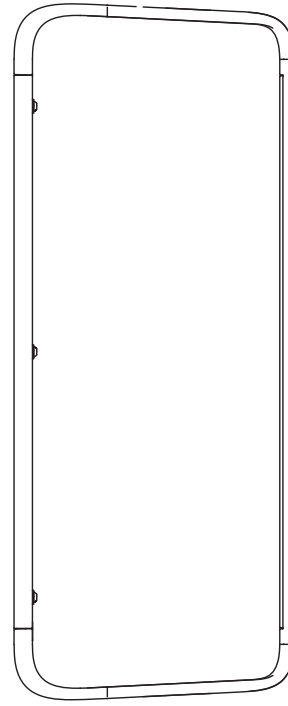
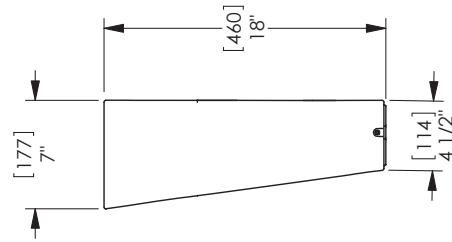
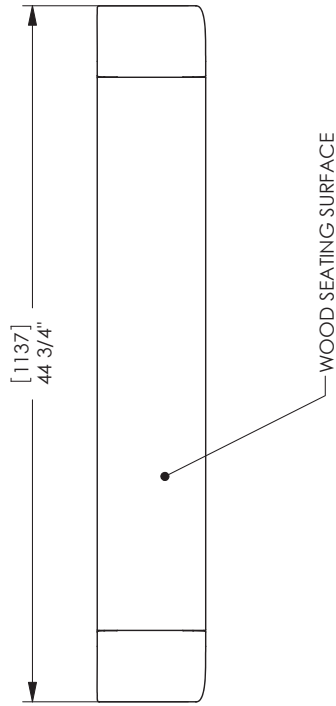


WOOD SEATING SURFACE



Drawing: CN226-02  
Dimensions are in inches [mm]  
U.S. Patent No.: D644,446

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Drawing: CN227-02  
Dimensions are in inches [mm]  
U.S. Patent No.: D602,271



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## Landscape Forms - Connect Sitting and Leaning Rails

### Sidewalk Bus Stop Seating

### sustainability data sheet

# Gretchen Picnic Table

May 2012



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To learn more about our sustainability initiatives, refer to our [Environmental Statement](#).

#### GRETCHEN PICNIC TABLE IS MANUFACTURED USING THE FOLLOWING MATERIALS:

Material	Parts	Recyclable
steel	supports	100%
wood	seats, table tops	100%
PolySite® recycled HDPE plastic	seats, table tops	100%

#### Finishing

All metal is finished with Pangard II ® polyester powdercoat, which is lead-free, hazardous air pollutants-(HAPS) free, does not generate hazardous waste, and contains less than 1% VOCs. Once processed, these trace VOCs are fully inert therefore the finish does not release airborne contaminants.

Landscape Forms wood furniture for outdoor use is manufactured from wood species that weather naturally in outdoor settings to a beautiful pewter gray. We do not apply paints or finishes to these products and do not recommend the use of finishes which would require ongoing maintenance programs as the wood weathers. Our wood furniture for indoor use is finished with LF 80, a clear, catalyzed low-VOC acrylic finish.

Packaging Materials	Parts	Recyclable
biodegradable plastic	product bagged to protect finish	100%
recycled skid		100%
cardboard with 35% recycled content		100%

To find local recyclers visit: for steel: [www.recycle-steel.org](http://www.recycle-steel.org); for cardboard: [www.corrugated.org](http://www.corrugated.org).

#### LEED®

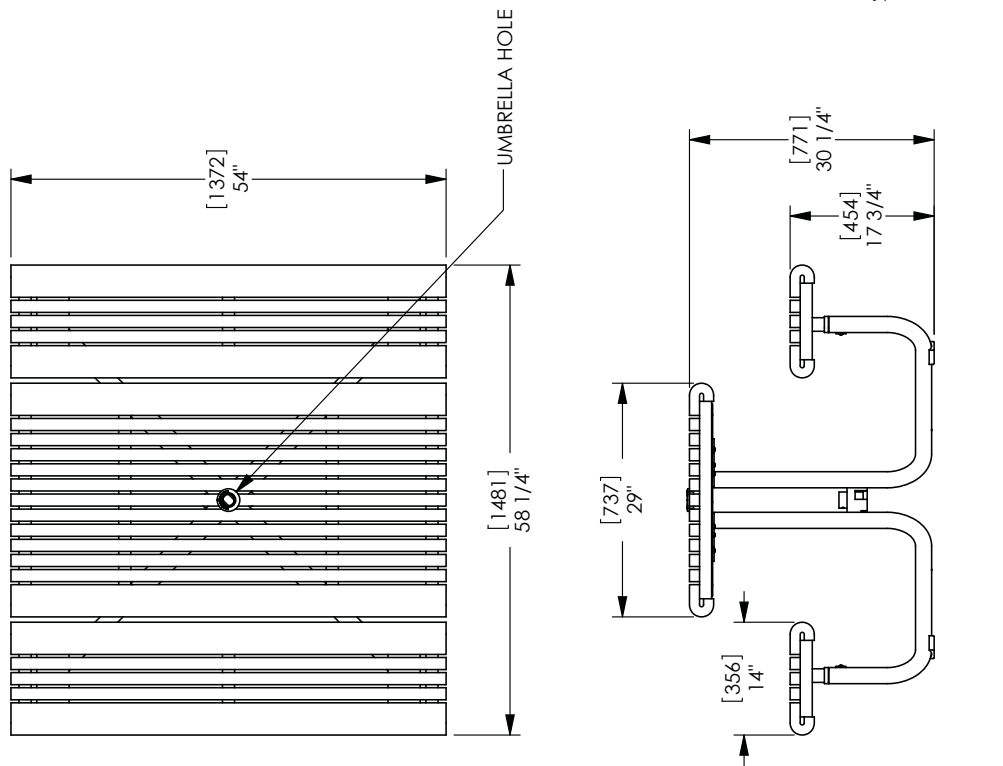
This product may help achieve the following points under the LEED 2009 Rating System. For specifics regarding rules for the inclusion of furniture, please consult the rating system and reference guide that applies to your project.

#### IEQ Prerequisite 2: Environmental Tobacco Smoke (ETS) Control

##### Intent

To prevent or minimize exposure of building occupants, indoor surfaces and ventilation air distribution systems to environmental tobacco smoke (ETS).

Benches, tables, chairs and ash urns help create a designated smoking area 25 feet or more from entries, outdoor air intakes and operable windows to support the intent of this prerequisite.



Drawing: GR136-02  
Dimensions are in inches [mm]

landscapiforms™

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### sustainability data sheet

## Parc Centre® Chair

May 2012



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#### PARC CENTRE CHAIR IS MANUFACTURED USING THE FOLLOWING MATERIALS:

Material	Parts	Recyclable
steel	seat/back panel	100%
nylon	bumpers	100%

#### Finishing

All metal is finished with Pangard II ® polyester powdercoat, which is lead-free, hazardous air pollutants-(HAPS) free, does not generate hazardous waste, and contains less than 1% VOCs. Once processed, these trace VOCs are fully inert therefore the finish does not release airborne contaminants.

Packaging Materials	Parts	Recyclable
biodegradable plastic	product bagged to protect finish	100%
recycled skid		100%
cardboard with 35% recycled content		100%

To find local recyclers visit: for steel: [www.recycle-steel.org](http://www.recycle-steel.org); for cardboard: [www.corrugated.org](http://www.corrugated.org).

#### LEED®

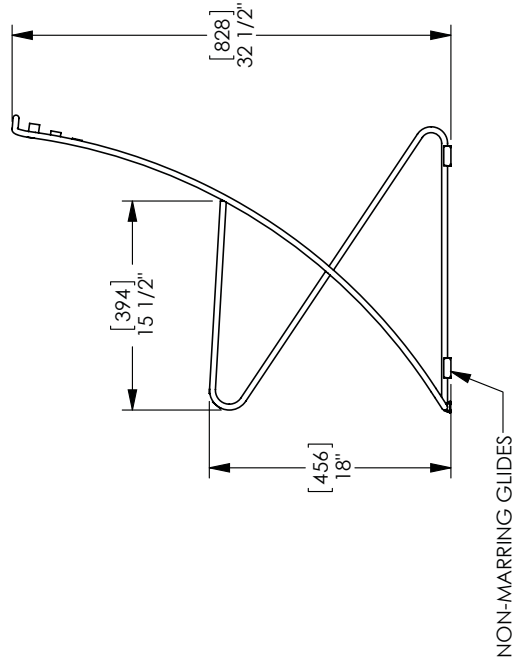
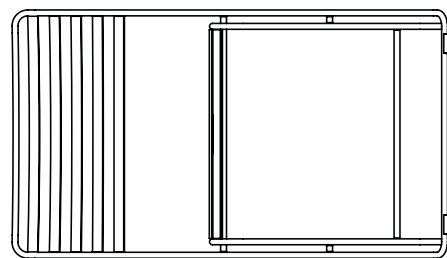
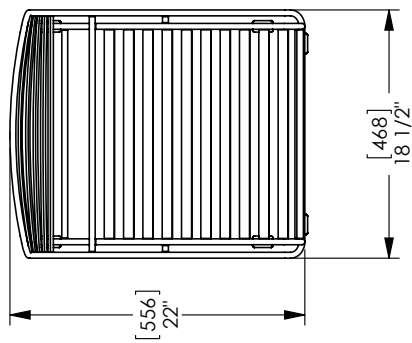
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##### Intent

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Drawing: PC618-01  
Dimensions are in inches [mm]  
U.S. Patent Nos. D572,496; D569,121

landscapiforms

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### sustainability data sheet

# Parc Centre® Table

May 2012



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To learn more about our sustainability initiatives, refer to our [Environmental Statement](#).

#### PARC CENTRE TABLE IS MANUFACTURED USING THE FOLLOWING MATERIALS:

Material	Parts	Recyclable
steel	table top/support	100%
nylon	bumpers	100%

#### Finishing

All metal is finished with Pangard II ® polyester powdercoat, which is lead-free, hazardous air pollutants-(HAPS) free, does not generate hazardous waste, and contains less than 1% VOCs. Once processed, these trace VOCs are fully inert therefore the finish does not release airborne contaminants.

Packaging Materials	Parts	Recyclable
biodegradable plastic	product bagged to protect finish	100%
recycled skid		100%
cardboard with 35% recycled content		100%

To find local recyclers visit: for steel: [www.recycle-steel.org](http://www.recycle-steel.org); for cardboard: [www.corrugated.org](http://www.corrugated.org).

#### LEED®

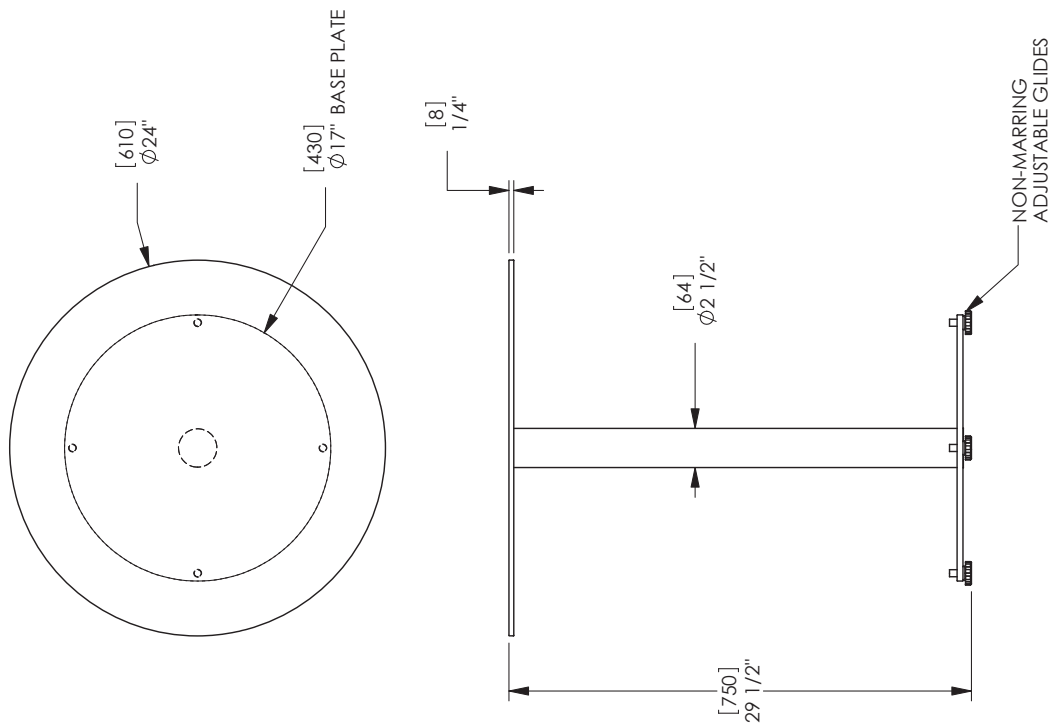
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#### IEQ Prerequisite 2: Environmental Tobacco Smoke (ETS) Control

##### Intent

To prevent or minimize exposure of building occupants, indoor surfaces and ventilation air distribution systems to environmental tobacco smoke (ETS).

Benches, tables, chairs and ash urns help create a designated smoking area 25 feet or more from entries, outdoor air intakes and operable windows to support the intent of this prerequisite.



Drawing: PG620-01  
 Dimensions are in inches [mm]

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### sustainability data sheet

# Plainwell™ Bench

May 2012



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#### PLAINWELL BENCH IS MANUFACTURED USING THE FOLLOWING MATERIALS:

Material	Parts	Recyclable
aluminum	supports, arms, seat/back panels	100%
wood	seat/back panels	100%

#### Finishing

All metal is finished with Pangard II ® polyester powdercoat, which is lead-free, hazardous air pollutants-(HAPS) free, does not generate hazardous waste, and contains less than 1% VOCs. Once processed, these trace VOCs are fully inert therefore the finish does not release airborne contaminants.

Landscape Forms wood furniture for outdoor use is manufactured from wood species that weather naturally in outdoor settings to a beautiful pewter gray. We do not apply paints or finishes to these products and do not recommend the use of finishes which would require ongoing maintenance programs as the wood weathers. Our wood furniture for indoor use is finished with LF 80, a clear, catalyzed low-VOC acrylic finish.

Packaging Materials	Parts	Recyclable
biodegradable plastic	product bagged to protect finish	100%
recycled skid		100%
cardboard with 35% recycled content		100%

To find local recyclers visit: for steel: [www.recycle-steel.org](http://www.recycle-steel.org); for cardboard: [www.corrugated.org](http://www.corrugated.org).

#### LEED®

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#### IEQ Prerequisite 2: Environmental Tobacco Smoke (ETS) Control

##### Intent

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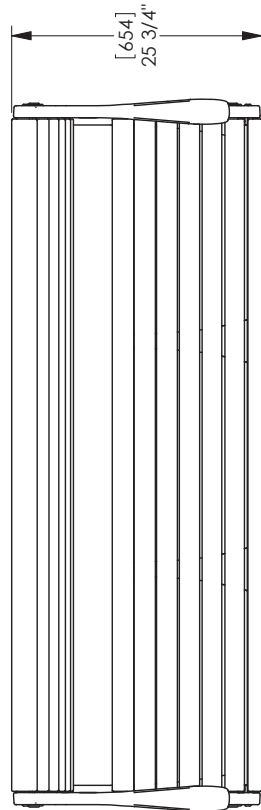
Benches, tables, chairs and ash urns help create a designated smoking area 25 feet or more from entries, outdoor air intakes and operable windows to support the intent of this prerequisite.

# Plainwell™

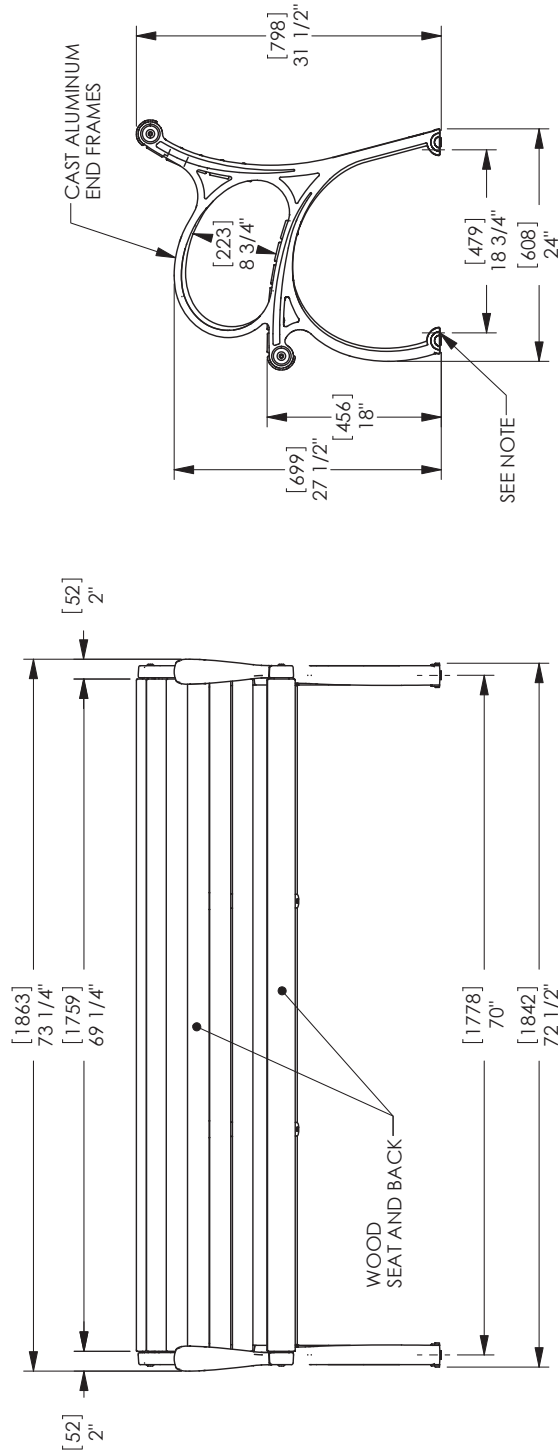
Product Drawing

Bench, 72" Length, with Wood Seat, Freestanding / Surface Mount

Date: 4/9/2010  
www.landscapiforms.com  
Ph: 800.521.2546



NOTE:  
FREESTANDING OR SURFACE MOUNT  
OPTIONS. CORROSION-RESISTANT  
ANCHORING HARDWARE SUPPLIED BY  
OTHERS. Ø13/32" HOLES WITH COUNTERBORE  
PROVIDED FOR SOCKET HEAD CAP SCREWS.



Drawing: PL271-03  
Dimensions are in inches [mm]  
U.S. Patent No.: D419/341

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## Landscape Forms - Plainwell Bench

Sitewide Bench

### sustainability data sheet

# Plainwell™ Litter Receptacle

May 2012



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#### PLAINWELL LITTER RECEPTACLE IS MANUFACTURED USING THE FOLLOWING MATERIALS:

Material	Parts	Recyclable
aluminum	frame, side slats	100%
wood	side slats	100%
linear medium density polyethylene	top, liner	100%

#### Finishing

All metal is finished with Pangard II ® polyester powdercoat, which is lead-free, hazardous air pollutants-(HAPS) free, does not generate hazardous waste, and contains less than 1% VOCs. Once processed, these trace VOCs are fully inert therefore the finish does not release airborne contaminants.

Landscape Forms wood furniture for outdoor use is manufactured from wood species that weather naturally in outdoor settings to a beautiful pewter gray. We do not apply paints or finishes to these products and do not recommend the use of finishes which would require ongoing maintenance programs as the wood weathers. Our wood furniture for indoor use is finished with LF 80, a clear, catalyzed low-VOC acrylic finish.

Packaging Materials	Parts	Recyclable
biodegradable plastic	product bagged to protect finish	100%
recycled skid		100%
cardboard with 35% recycled content		100%

To find local recyclers visit: for steel: [www.recycle-steel.org](http://www.recycle-steel.org); for cardboard: [www.corrugated.org](http://www.corrugated.org).

#### LEED®

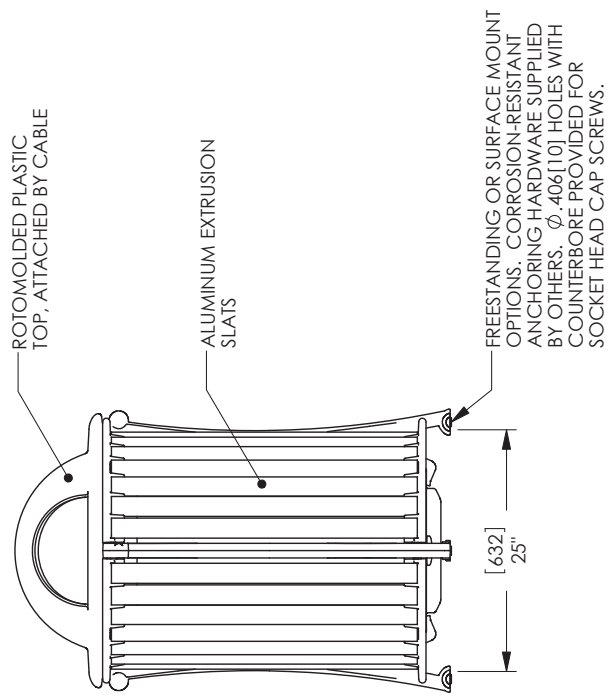
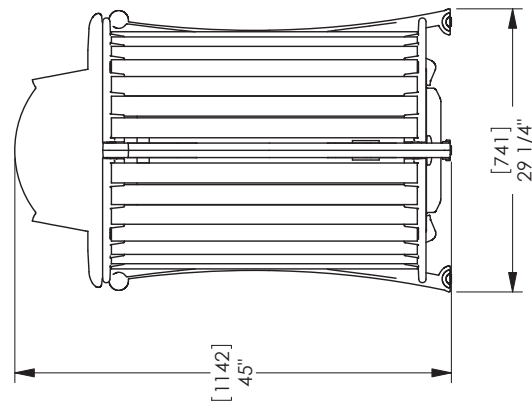
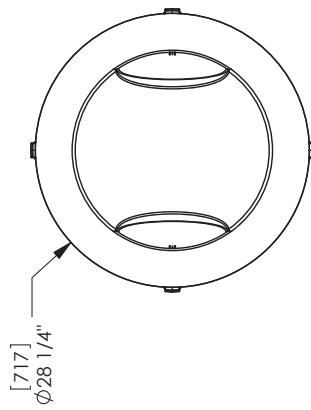
This product may help achieve the following points under the LEED 2009 Rating System. For specifics regarding rules for the inclusion of furniture, please consult the rating system and reference guide that applies to your project.

#### IEQ Prerequisite 2: Environmental Tobacco Smoke (ETS) Control

##### Intent

To prevent or minimize exposure of building occupants, indoor surfaces and ventilation air distribution systems to environmental tobacco smoke (ETS).

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Drawing: PL277-01  
Dimensions are in inches [mm]  
U.S. Patent No.: D422,390

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### sustainability data sheet

Rosa™  
May 2012



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#### ROSA IS MANUFACTURED USING THE FOLLOWING MATERIALS:

Material	Parts	Recyclable
linear medium density polyethylene	complete unit	100%
<b>Recycled Content</b>		
<b>Style</b>	<b>Total</b>	<b>Post Consumer</b>
planter	0	0
<b>Packaging Materials</b>	<b>Parts</b>	<b>Recyclable</b>
biodegradeable plastic	product bagged to protect finish	100%
recycled skid		100%
cardboard with 35% recycled content		100%

To find local recyclers visit: for steel: [www.recycle-steel.org](http://www.recycle-steel.org); for cardboard: [www.corrugated.org](http://www.corrugated.org).

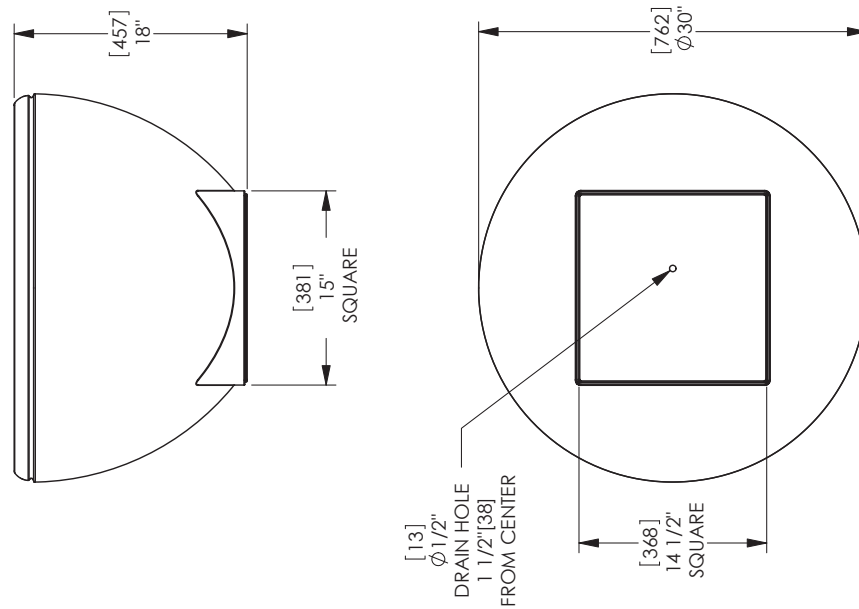
#### LEED®

This product may help achieve the following points under the LEED 2009 Rating System. For specifics regarding rules for the inclusion of furniture, please consult the rating system and reference guide that applies to your project.

#### CARE AND MAINTENANCE

Rosa is designed and engineered to live a long, useful life in outdoor spaces without the use of chemical cleaners to maintain the finish. The durability, longevity and low maintenance of our products contribute to responsible stewardship of the earth's resources.

Polyethylene: Wash surface with all-purpose soap and water. Rinse well. For more stubborn stains apply Scrubbing Bubbles® according to manufacturer's directions. Wipe dry with clean cloth.



Drawing: RO408-02  
Dimensions are in inches [mm]  
U.S. Patent No.: D408,322

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### sustainability data sheet

# Scarborough™ Bench

May 2012



With our roots in the landscape and a stated purpose to “Enrich Outdoor Spaces,” Landscape Forms has a special relationship to the natural environment. We have always been mindful that as we design and manufacture products that are acted upon by the environment, we act upon it in turn. Environmental sustainability is completely consistent with our purpose, our goals, our values and our principles. We make stewardship of the environment a vital part of our business.

To learn more about our sustainability initiatives, refer to our [Environmental Statement](#).

#### SCARBOROUGH BENCH IS MANUFACTURED USING THE FOLLOWING MATERIALS:

Material	Parts	Recyclable
steel	supports, seat panels	100%
stainless steel	woven seat/back panels	100%

#### Finishing

All metal is finished with Pangard II ® polyester powdercoat, which is lead-free, hazardous air pollutants-(HAPS) free, does not generate hazardous waste, and contains less than 1% VOCs. Once processed, these trace VOCs are fully inert therefore the finish does not release airborne contaminants.

Packaging Materials	Parts	Recyclable
biodegradable plastic	product bagged to protect finish	100%
recycled skid		100%
cardboard with 35% recycled content		100%

To find local recyclers visit: for steel: [www.recycle-steel.org](http://www.recycle-steel.org); for cardboard: [www.corrugated.org](http://www.corrugated.org).

#### LEED®

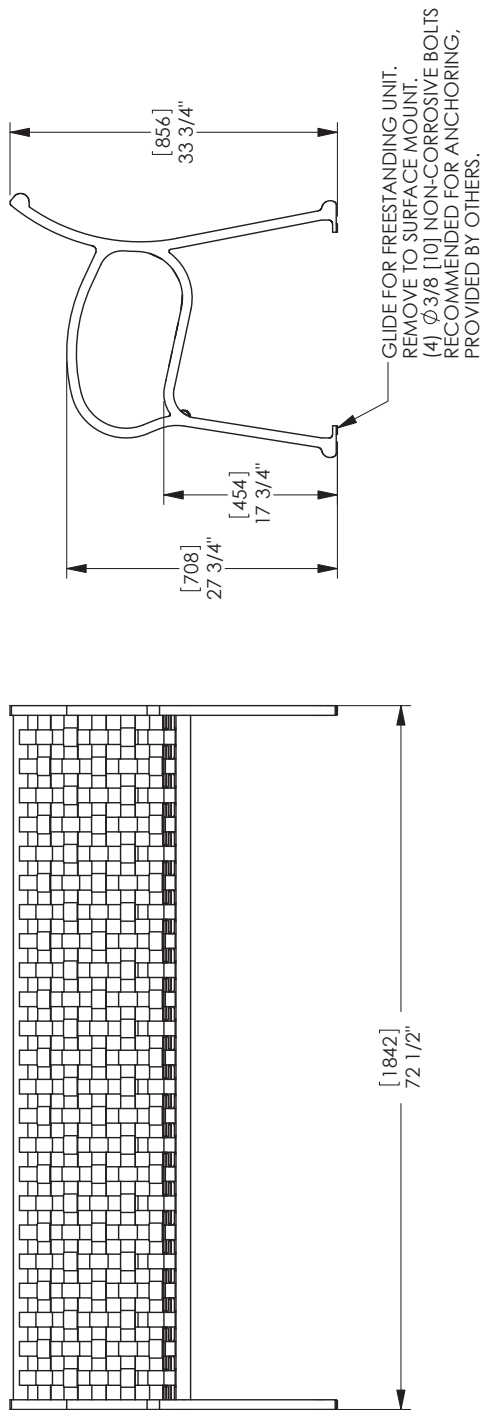
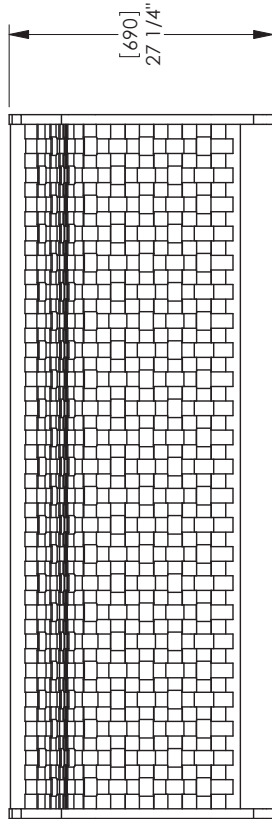
This product may help achieve the following points under the LEED 2009 Rating System. For specifics regarding rules for the inclusion of furniture, please consult the rating system and reference guide that applies to your project.

#### IEQ Prerequisite 2: Environmental Tobacco Smoke (ETS) Control

##### Intent

To prevent or minimize exposure of building occupants, indoor surfaces and ventilation air distribution systems to environmental tobacco smoke (ETS).

Benches, tables, chairs and ash urns help create a designated smoking area 25 feet or more from entries, outdoor air intakes and operable windows to support the intent of this prerequisite.



Drawing: SC175-01  
Dimensions are in inches [mm]  
U.S. Patent No.: D366,773

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### sustainability data sheet

# Solstice™

May 2012



With our roots in the landscape and a stated purpose to “Enrich Outdoor Spaces,” Landscape Forms has a special relationship to the natural environment. We have always been mindful that as we design and manufacture products that are acted upon by the environment, we act upon it in turn. Environmental sustainability is completely consistent with our purpose, our goals, our values and our principles. We make stewardship of the environment a vital part of our business.

To learn more about our sustainability initiatives, refer to our [Environmental Statement](#).

#### SOLSTICE IS MANUFACTURED USING THE FOLLOWING MATERIALS:

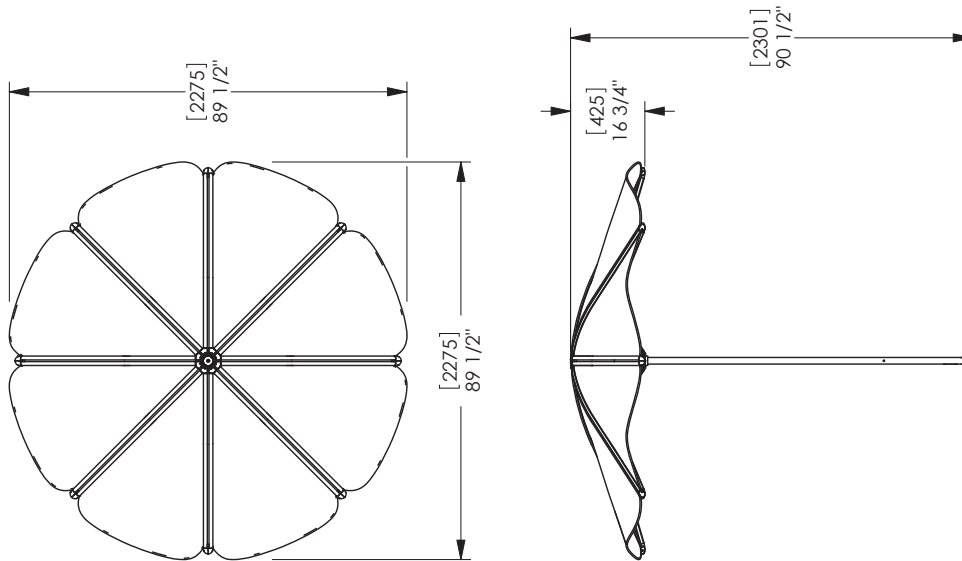
Material	Parts	Recyclable
aluminum	canopy frame/panels, struts, connectors, end caps, top cap	100%
steel	surface mount stand	100%
stainless steel	pole	100%

#### Finishing

All metal is finished with Pangard II ® polyester powdercoat, which is lead-free, hazardous air pollutants-(HAPS) free, does not generate hazardous waste, and contains less than 1% VOCs. Once processed, these trace VOCs are fully inert therefore the finish does not release airborne contaminants.

Packaging Materials	Parts	Recyclable
biodegradable plastic	product bagged to protect finish	100%
recycled skid		100%
cardboard with 35% recycled content		100%

To find local recyclers visit: for steel: [www.recycle-steel.org](http://www.recycle-steel.org); for cardboard: [www.corrugated.org](http://www.corrugated.org).



Drawing: CY208-01  
Dimensions are in inches [mm]  
U.S. Patent No.: D373,465

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## 720 SERIES

### MCL720-M

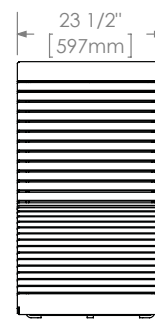
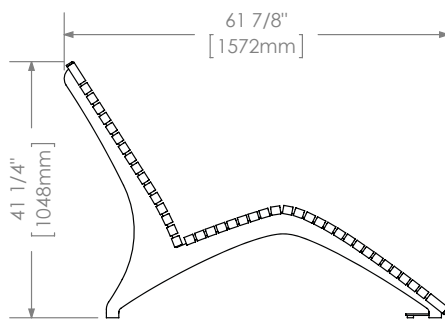


**MATERIALS:** Frame is made from 3/8" (0.95 cm) laser cut steel. The seat employs Steel.

**FINISH:** All steel components are protected with E-Coat rust proofing. The Maglin Powdercoat System provides a durable finish on all metal surfaces.

**INSTALLATION:** The chaise is delivered pre-assembled. Holes (0.5") are provided in each foot for securing to base.

**TO SPECIFY:** Select MCL720-M  
Choose:  
- Powdercoat Color



**DIMENSIONS:**

Height: 41.25" (104.8 cm)  
Length: 61.89" (157 cm)  
Width: 23.50" (59.69 cm)  
Weight: 200 lbs (90.7 kg)



**MAGLIN**

T 800-716-5506  
F 877-260-9393  
WWW.MAGLIN.COM  
SALES@MAGLIN.COM

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- Details and specifications may vary due to continuing improvements of our products.

## 720 SERIES

### MCL720-W

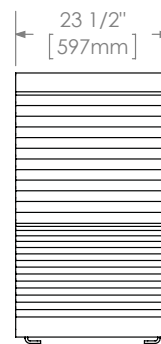
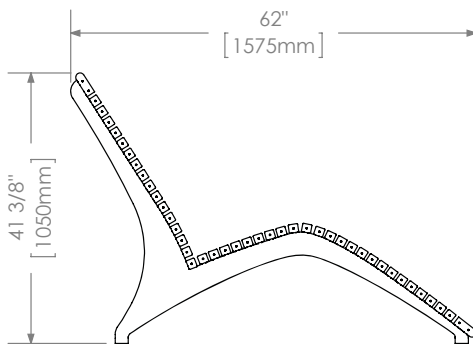


**MATERIALS:** Frame is made from 3/8" (0.95 cm) laser cut steel. The seat employs Ipe wood slats.

**FINISH:** All steel components are protected with E-Coat rust proofing. The Maglin Powdercoat System provides a durable finish on all metal surfaces. Wood slats are finished with penetrating sealers.

**INSTALLATION:** The chaise is delivered pre-assembled. Holes (0.5") are provided in each foot for securing to base.

**TO SPECIFY:** Select MCL720-W  
Choose:  
- Powdercoat Color



#### DIMENSIONS:

Height: 41.38" (105.1 cm)  
Length: 61.31" (155.7 cm)  
Width: 23.50" (59.69 cm)  
Weight: 163 lbs (74 kg)



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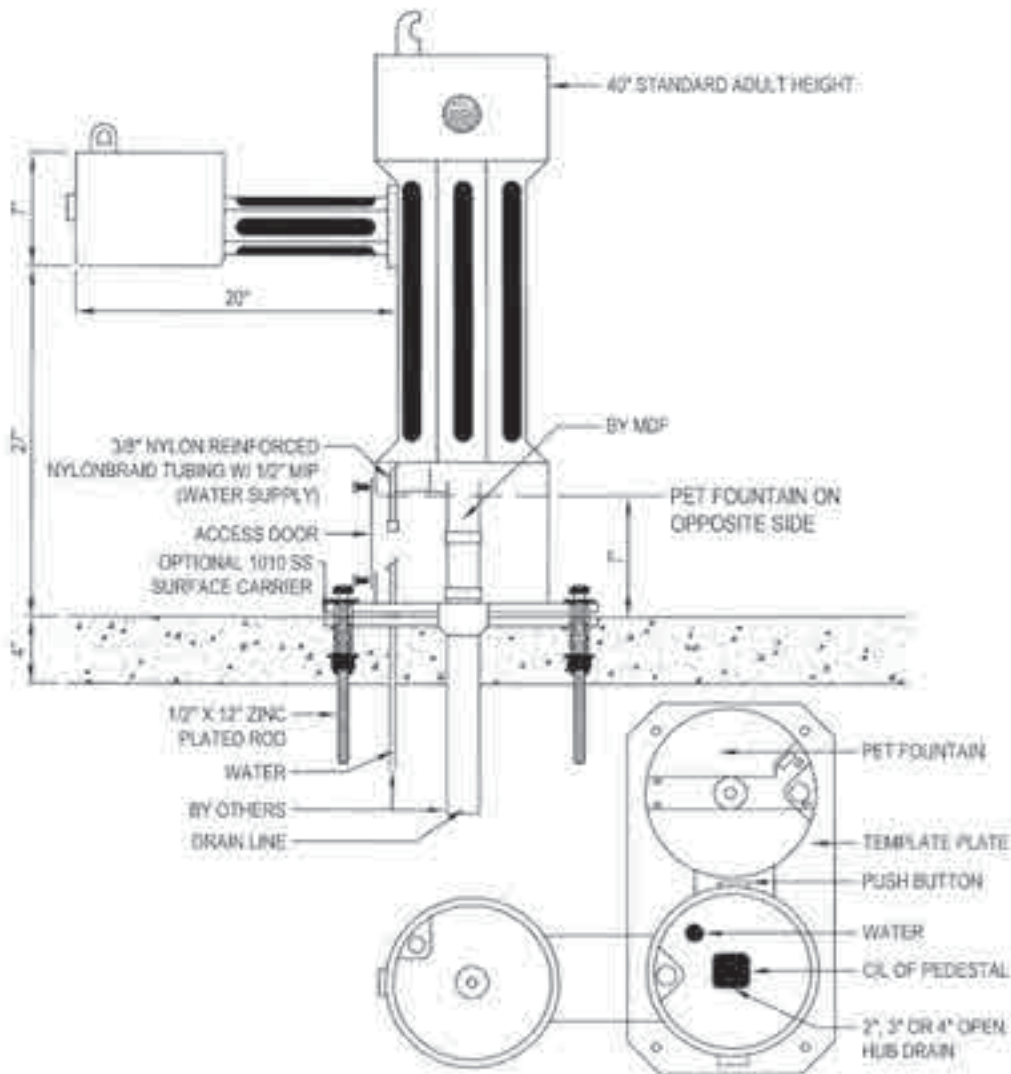


## Most Dependable Fountains - 2008 SM

### Sitewide Drinking Fountain



MOST DEPENDABLE FOUNTAINS  
5705 COMMANDER DR.  
P.O. BOX 587  
ARLINGTON, TN 38002-0587  
1-800-552-6331  
PHONE: (901) 867-0039  
FAX: (901) 867-0159  
www.mostdependable.com



#### NOTES:

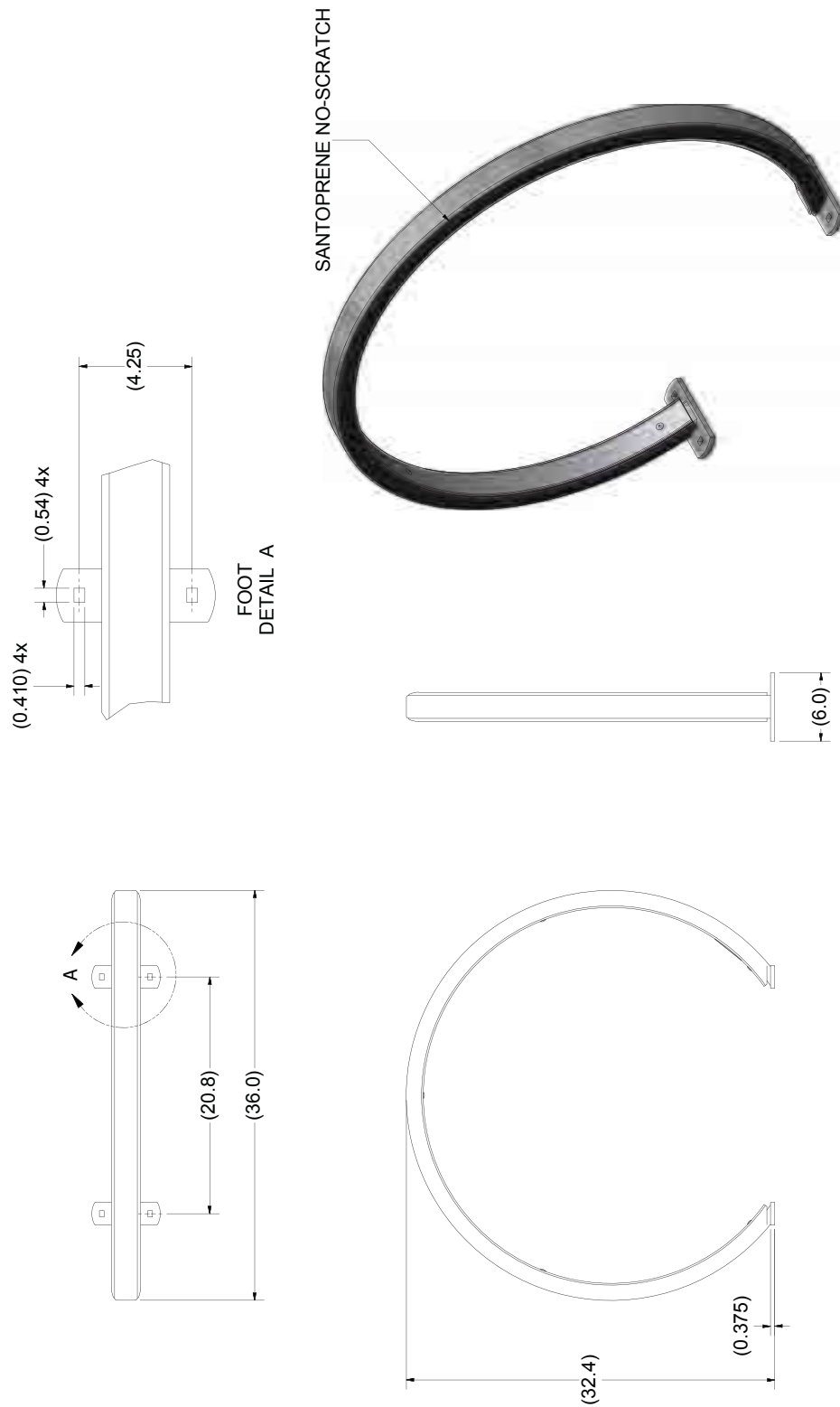
1. DO NOT SCALE DRAWINGS.
2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. SURFACE CARRIER AVAILABLE AS AN OPTION.



**2008 SM**

SHOWN W/ OPTIONAL 2008 STAINLESS STEEL CARRIER-RECOMMENDED



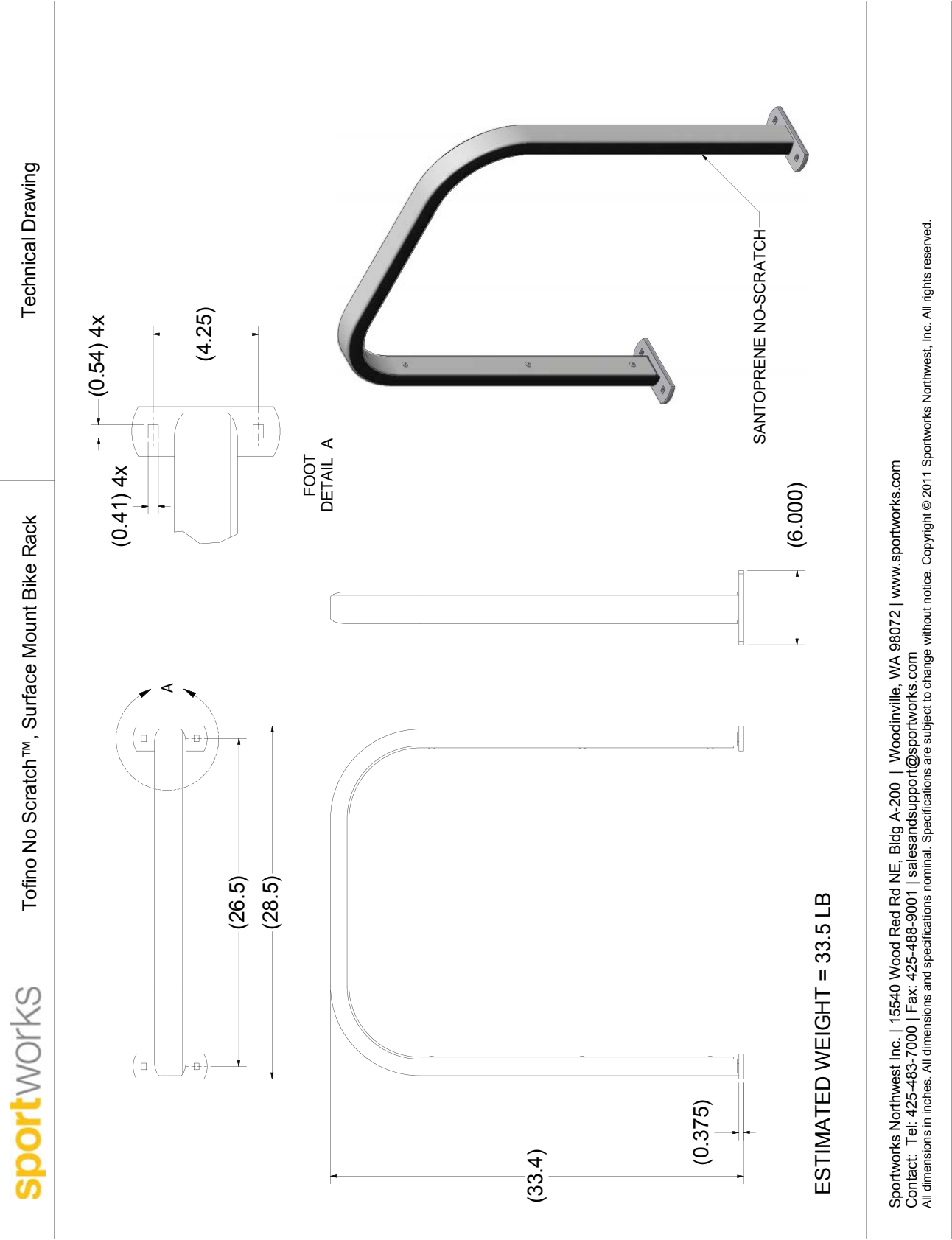


APPROXIMATE WEIGHT: 33.8 LB

Sportworks Northwest Inc. | 15540 Wood Red Rd NE, Bldg A-200 | Woodinville, WA 98072 | [www.sportworks.com](http://www.sportworks.com)  
Contact: Tel: 425-483-7000 | Fax: 425-488-9001 | [salesandsupport@sportworks.com](mailto:salesandsupport@sportworks.com)  
All dimensions in inches. All dimensions and specifications are subject to change without notice. Copyright © 2011 Sportworks Northwest, Inc. All rights reserved.

Sportworks - Tofino No Scratch Bike Rack

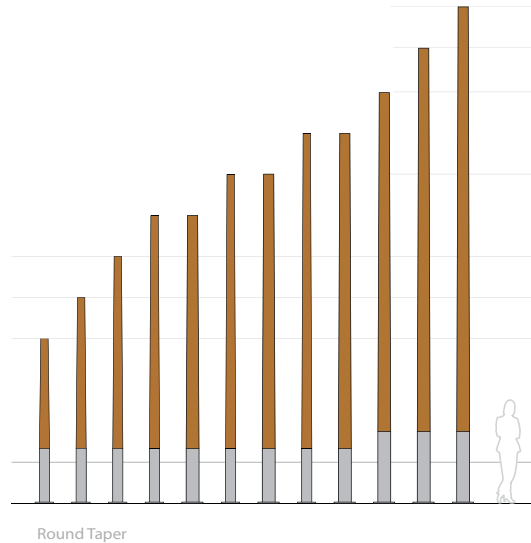
Sitewide Bicycle Racks



## Bol 8' – 24' Round Tapered and Straight Wood Poles

FIXTURE TYPE: \_\_\_\_\_

PROJECT NAME: \_\_\_\_\_



Glulam solid wood and aluminum pole available in 8' – 24' lengths. Tenon adapters, slip fitters and side bracket mounts are available for luminaire mounting.

### FEATURES:

- Round extruded aluminum pole base with flush handhole cover held with countersunk stainless steel fasteners.
- Tapered, round, solid glulam wood pole

### SPECIFICATIONS:

**HOUSING:** Solid wood pole is assembled through glulam construction and precision machined using CNC technology. An electrical raceway is provided in the pole's center for wiring. Laminations measure no more than 2" in thickness. Adhesive complies with ASTM D-2559 glulam construction specifications for extreme exposed weather conditions, is waterproof and rated for wet or dry use exposure.

Glulam wood shaft is fastened to aluminum pole base welded to a 3/4" thick aluminum anchor bolt base. Anchor bolt kit includes (4) 3/4" hot dip galvanized anchor bolts and fasteners and ridged concrete pour template.

**FIXTURE MOUNTING:** Fixtures mount either by 2 3/8", 2 7/8", 3 1/2", or 4" diameter by 4" tall tenon or drill mount for arm brackets. Consult factory for other tenon sizes. Luminaires shall be provided by others.



**ELECTRICAL:** A 5/16" – 18 grounding point is provided on the aluminum pole base. Wireway access is provided through a NEC compliant handhole with a flush, gasketed cover plate.

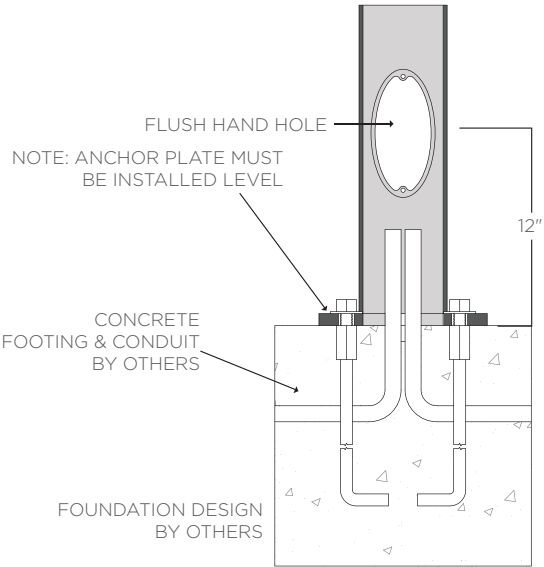
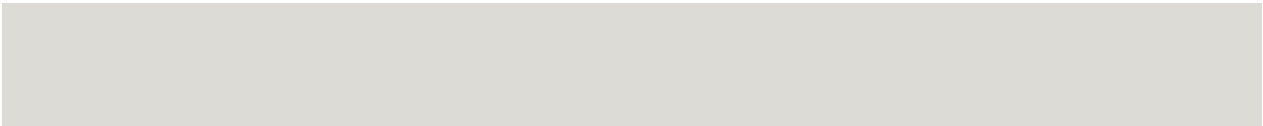
**FINISHES AND MATERIALS:** Woods are finished with a low VOC waterborne matte exterior finish containing UV and mildew inhibitors. All aluminum parts are polyester powder coat painted.

**HARDWARE:** Fasteners are stainless steel. Anchor bolt kits are hot dip galvanized.

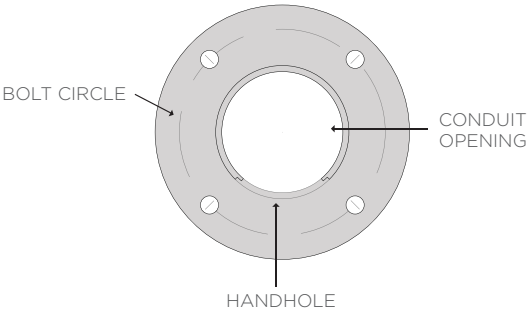


Structura - Bol Light Pole

Lighting Zone B



	Bolt Circle	Conduit Opening
5.5" Base	8.5" dia	5" dia.
7.0" Base	10" dia.	6.5" dia.



**ORDERING GUIDE:** EXAMPLE: BOL-5-12-55-55-S3-SILTX-T3124-STD



<b>BOL</b>								
1	2	3	4	5	6	7	8	9

Series		4		Base Diameter		8		Fixture Mounting	
BOL	Bol	55	5.5" – 20' Maximum Height	7.0" – 24' Maximum Height		Tenon		2 3/8" x 4" Tenon	
2	Shaft Shape	70							
T	Round Tapered	5	Top Diameter		T2384		2 7/8" x 4" Tenon		
S	Round Straight	40	4.0"	7.0"		T3124		3 1/2" x 4" Tenon	
3	Height	55	5.5"			T4004		4" x 4" Tenon	
8	8'	70	7.0"			TXXX		Specify diameter and height	
10	10'	6	Wood Finish		Drill		1 @ 90deg		
12	12'	S*	See color options on finishes technical sheet		D1		2 @ 180deg		
14	14'	7	Metal Finish		D2		2 @ 90deg		
16	16'	****	See color options on finishes technical sheet		D3		3 @ 90deg		
18	18'	CSM	Custom Color		D4		4 @ 90deg		
20	20'				D5				
22	22'				9		Special		
24	24'				STD		Standard		
					MOD		Modified		



## Catelam Mast Arm and Pendant Lighting Bracket

FIXTURE TYPE: \_\_\_\_\_

PROJECT NAME: \_\_\_\_\_



Aluminum fixture mounting brackets to attach mast arm and pendant fixtures to our wood poles.

### FEATURES:

- Easy mast arm or pendant fixture attachment
- 2" bracket incline

### SPECIFICATIONS:

**CONSTRUCTION:** Tapered 6063-T6 aluminum alloy tube with 6061-T6 extension plates. Steel outreach arm and bracing rod.

**FINISHES AND MATERIALS:** Parts are polyester powder coat painted.

**HARDWARE:** All arm fasteners are stainless steel.

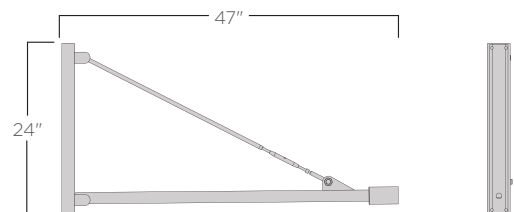
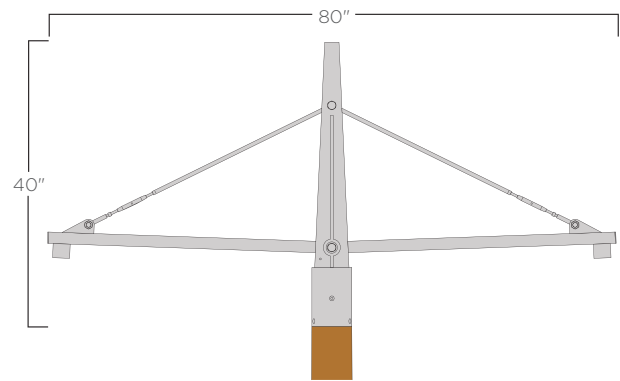
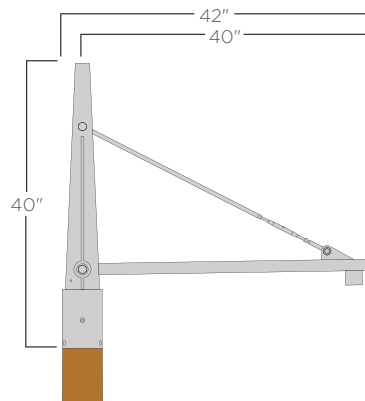
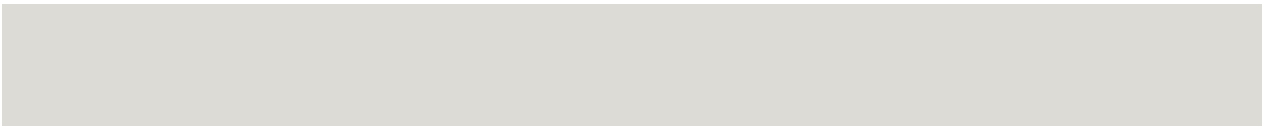
**ELECTRICAL:** Wire raceway through arm into top of pole.

**FIXTURE MOUNTING:** Mounting attachment made as per lighting manufacture specified attachment mast arm size or pendant.



Structura - Catelam Mast Arm

Lighting Zone B



ORDERING GUIDE: EXAMPLE: CAT-1-MA

CAT

1

2

3

1	Series	2	Type	3	Mounting
CAT	Catelam	1 2 S	Single Arm Double Arm Side Mount Arm	MA PEN	Mast Arm Pendant

Designed by Aubrilam

## Duo – BL Duo Family LED Bollard

FIXTURE TYPE: \_\_\_\_\_

PROJECT NAME: \_\_\_\_\_



Double aluminum extrusion uprights with wood or metal center accents and LED light source.

### FEATURES:

- High power, low wattage COB LED light source
- Available with wood, aluminum, or custom material accent panels
- Concealed anchor bolt base and mounting hardware

### SPECIFICATIONS:

**CONSTRUCTION:** Rectangular extruded aluminum 6063-T6 alloy tube connected to aluminum 319SR alloy base plate with aluminum 5052-H32 center supports.

Bollard is fastened to a concrete anchor bolt base with concealed hardware accessible from top access plate. Anchor bolt kit includes (4) hot dip galvanized anchor bolts and fasteners and a ridged concrete pour template.

**ELECTRICAL:** Constant current electronic driver available in 120V or 277V input. Standard output is 10W. All drivers are Underwriters Laboratories recognized. Fixture is internally prewired to the electrical splice box located in the fixture base.

**OPTICAL SYSTEM:** Chip on board LEDs have solderless connections for field upgradability. Available in 2700K, 3000K, 3500K and 4000K color temperatures. Consult factory for additional lumen options.

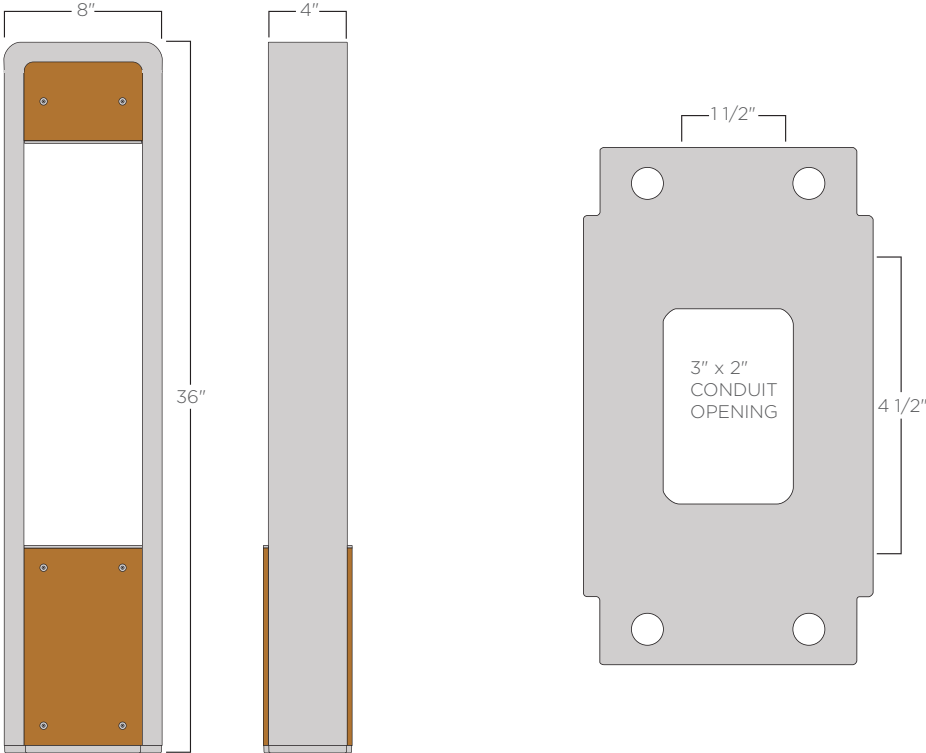
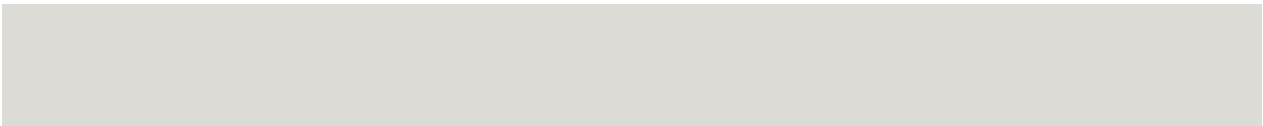
**FINISHES AND MATERIALS:** Woods are finished with a low VOC waterborne matte exterior finish containing UV and mildew inhibitors. All aluminum parts are polyester powder coat painted.

**HARDWARE:** Fasteners are stainless steel. Anchor bolt kits are hot dip galvanized.



Structura - Duo LED Bollard

Lighting Zone E



**ORDERING GUIDE:** EXAMPLE: DBL-36-L27SO-CHRTX-P1/S6-120-STD



<b>DBL</b>	<b>36</b>		<b>SO</b>				
1	2	3	4	5	6	7	8

1	Series	4	Light Source	7	Voltage/Dimming <sup>(3)</sup>
DBL	Duo Bollard	SO	1420 Lumens	120	120V
2	Overall Height	5	Bollard Finish	277	277V
36	36"	****	See color options on finishes technical sheet	120D	120V with Dim
3	Color Temperature	CSM	Custom Color	277D	277V with Dim
L27	2700K LED	6	Panel Material	8	Special
L30	3000K LED	P1	Wood (specify wood color) <sup>(2)</sup>	STD	Standard
L35	3500K LED	P2	Aluminum (specify paint color) <sup>(2)</sup>	MOD	Modified
L40	4000K LED	CP	Custom Material (specify)		

1. Spec sheet for ScREW-In Bollard Foundation is available in the Accessories section.  
2. See color options on finishes technical sheet.  
3. Dimming Control 0 - 10V

## Duo – LC Duo Family LED Light Column

FIXTURE TYPE: \_\_\_\_\_

PROJECT NAME: \_\_\_\_\_



Double aluminum extrusion uprights with wood or metal center accents.

### FEATURES:

- High power, low wattage COB LED light source
- Available with wood, aluminum, or custom material accent panels
- Concealed anchor bolt base and mounting hardware

### SPECIFICATIONS:

**CONSTRUCTION:** Rectangular extruded 6063-T6 aluminum alloy tube welded to 356-T6 aluminum alloy base plate with 6063-T6 aluminum center supports.

Bollard is fastened to a concrete anchor bolt base with concealed hardware accessible from base accent plate. Anchor bolt kit includes (4) hot dip galvanized anchor bolts and fasteners and a ridged concrete pour template.

**ELECTRICAL:** Constant current electronic driver available in 120V or 277V input. Standard output is 10W. All drivers are Underwriters Laboratories recognized. Fixture is internally prewired to the electrical splice box located in the fixture base.

**OPTICAL SYSTEM:** Chip on board LEDs have solderless connections for field upgradability. Available in 2700K, 3000K, 3500K and 4000K color temperatures. Consult factory for additional lumen options.

**FINISHES AND MATERIALS:** Woods are finished with a low VOC waterborne matte exterior finish containing UV and mildew inhibitors. All aluminum parts are polyester powder coat painted.

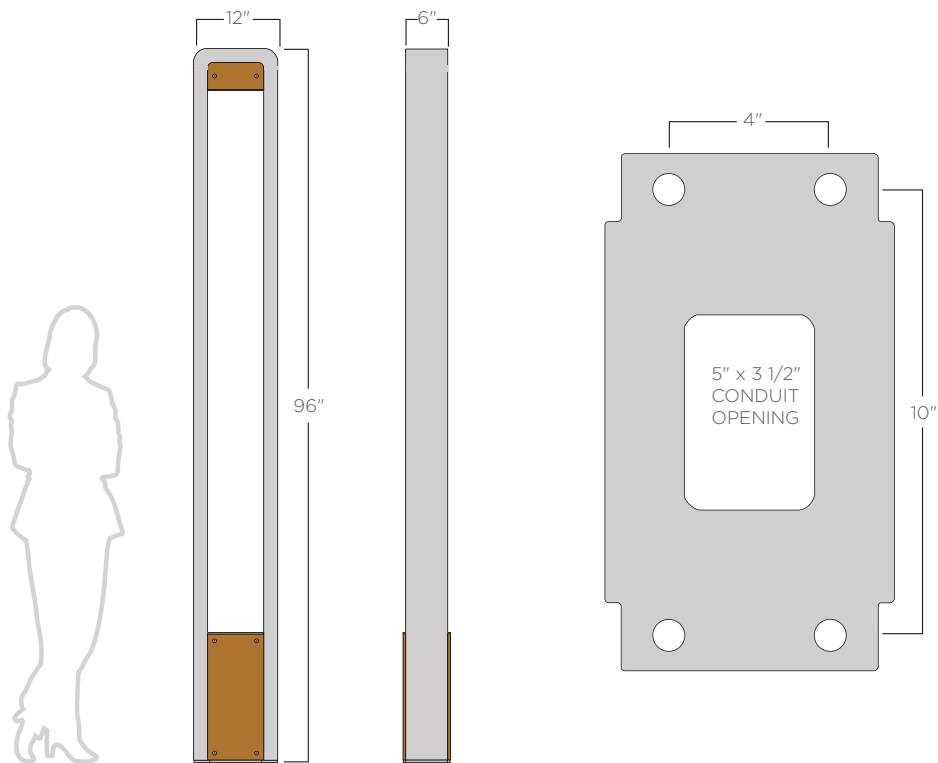
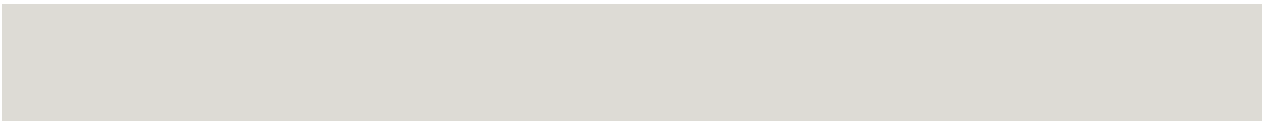
**HARDWARE:** Fasteners are stainless steel. Anchor bolt kits are hot dip galvanized.





Structura - Duo LED Light Column

Lighting Zone C & E



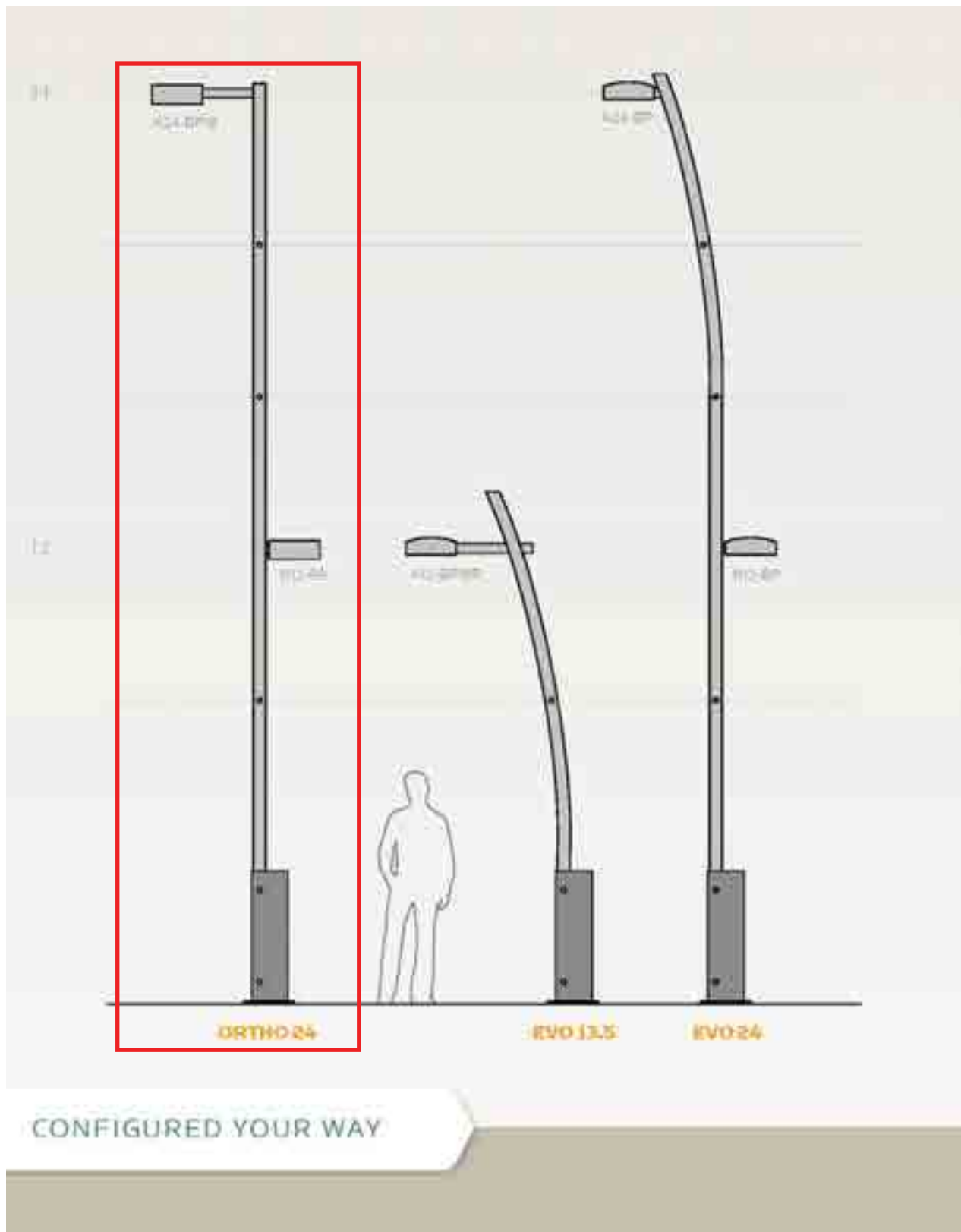
**ORDERING GUIDE:** EXAMPLE: DLC-102-L3050-GRY-CP/CORTEN-277-STD



<b>DLC</b>	<b>96</b>		<b>SO</b>				
1	2	3	4	5	6	7	8

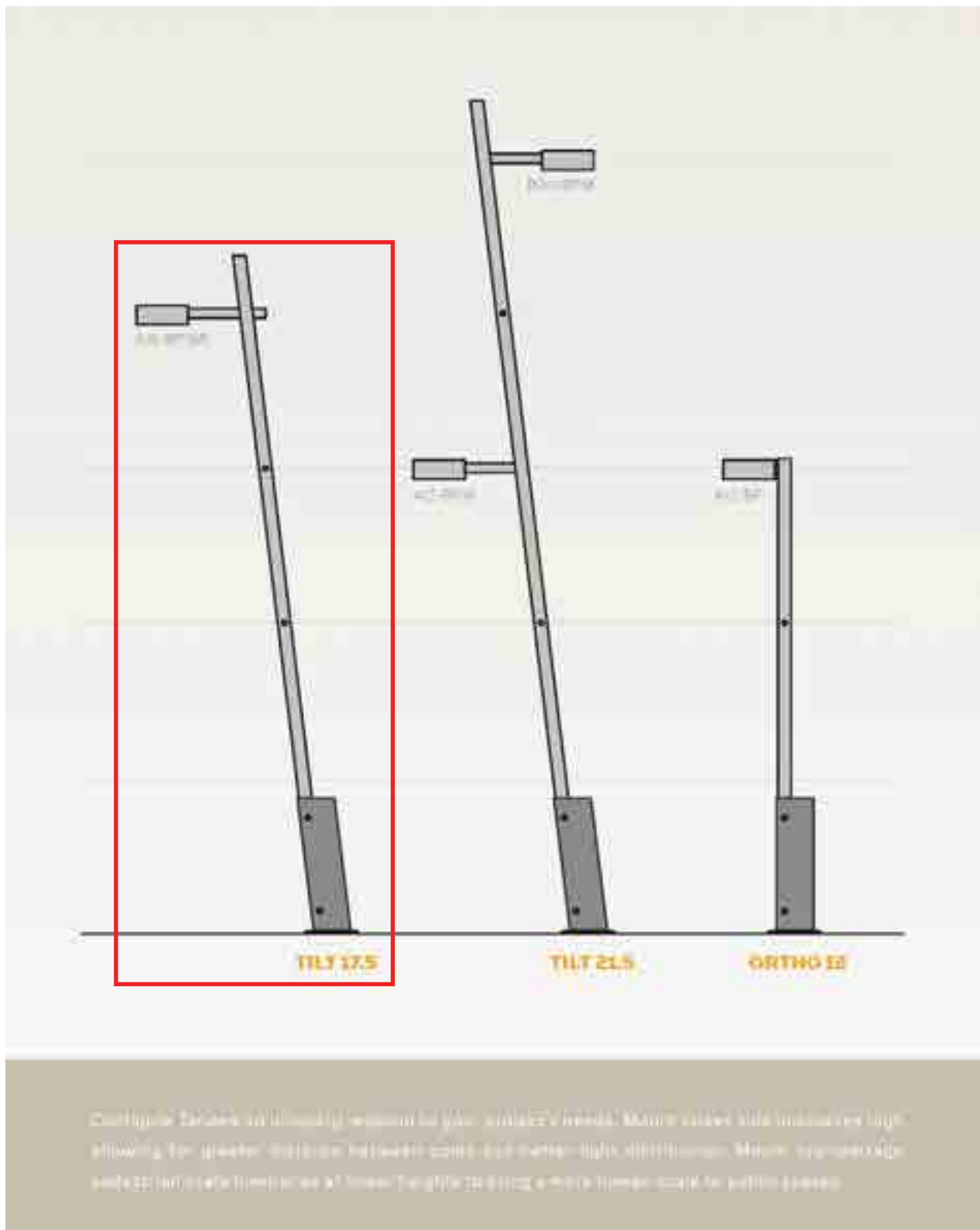
1	Series	4	Light Source	7	Voltage/Dimming <sup>(3)</sup>
DLC	Duo Light Column	SO	2710 Lumens	120	120V
2	Overall Height	5	Bollard Finish	277	277V
96	96"	****	See color options on finishes technical sheet	120D	120V with Dim
3	Color Temperature	CSM	Custom Color	277D	277V with Dim
L27	2700K LED	6	Panel Material	8	Special
L30	3000K LED	P1	Wood (specify wood color) <sup>(2)</sup>	STD	Standard
L35	3500K LED	P2	Aluminum (specify paint color) <sup>(2)</sup>	MOD	Modified
L40	4000K LED	CP	Custom Material (specify)		

1. Spec sheet for ScREW-In Bollard Foundation is available in the Accessories section.  
2. See color options on finishes technical sheet.  
3. Dimming Control 0 - 10V



## Structura - Tandem Light Poles

### Lighting Zone D



## FIXTURE MOUNTING OPTIONS

### BOLT PLATE MOUNTING OPTIONS

Bolt plate is supplied pre-drilled per pole in mounting of pole(s) (limited by offset)



BOLT PLATE MOUNT



BOLT PLATE MOUNT WITH EXTENSION



BOLT PLATE MOUNT



BOLT PLATE MOUNT WITH EXTENSION

### MAST ARM MOUNTING OPTIONS

2.5' or 3' masting arm (per pole) for use when mounting fixtures with industry standard mast arm adapters



MAST ARM MOUNT



MAST ARM MOUNT WITH EXTENSION



MAST ARM MOUNT



MAST ARM MOUNT WITH EXTENSION

## Lighting Zone D





# Structura - Tandem Light Poles

Lighting Zone A & D

FIXTURE TYPE

PROJECT NAME

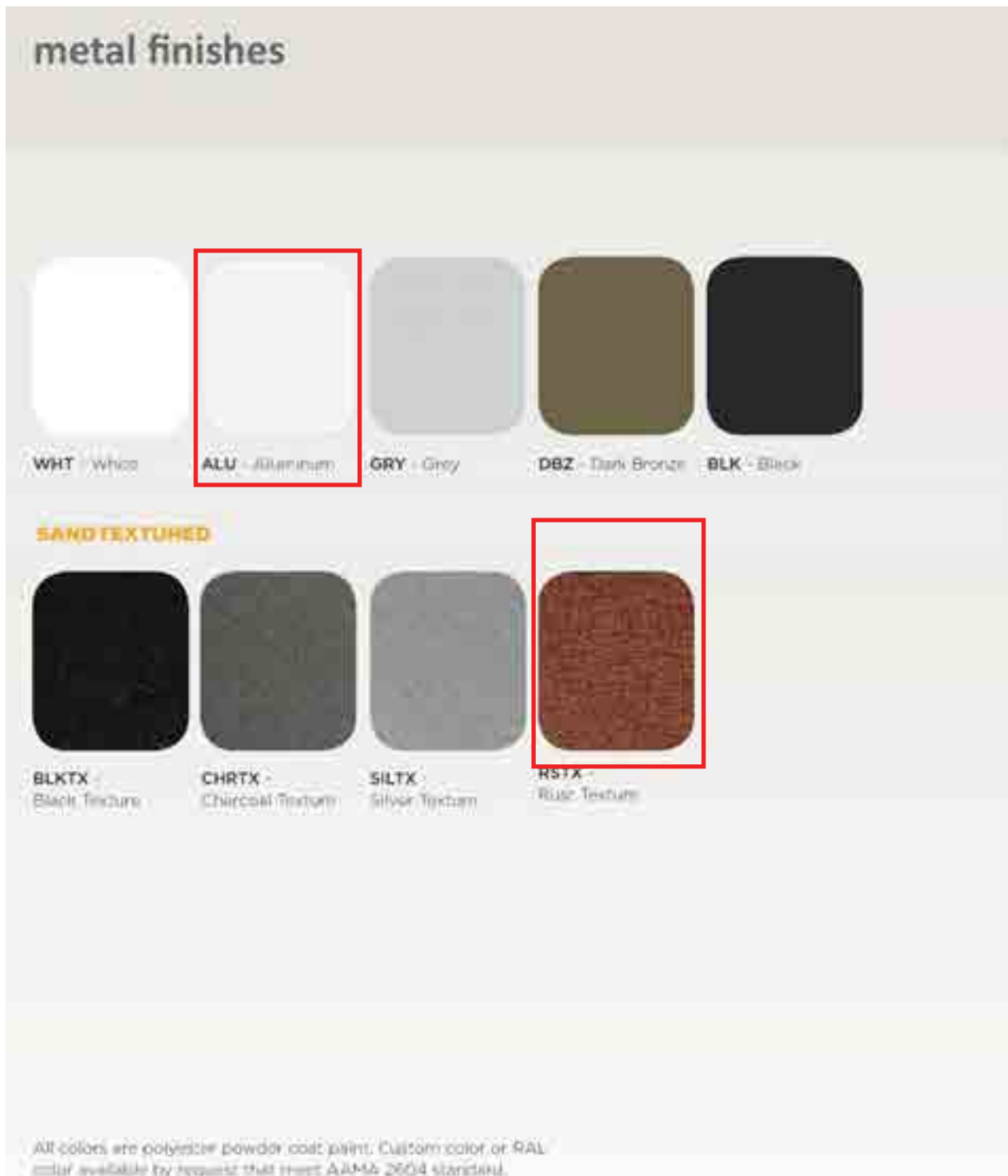
**ORDERING GUIDE:** EXAMPLE: INV-215-WHT-20-A20BP18R-B24/MA-#250-STD

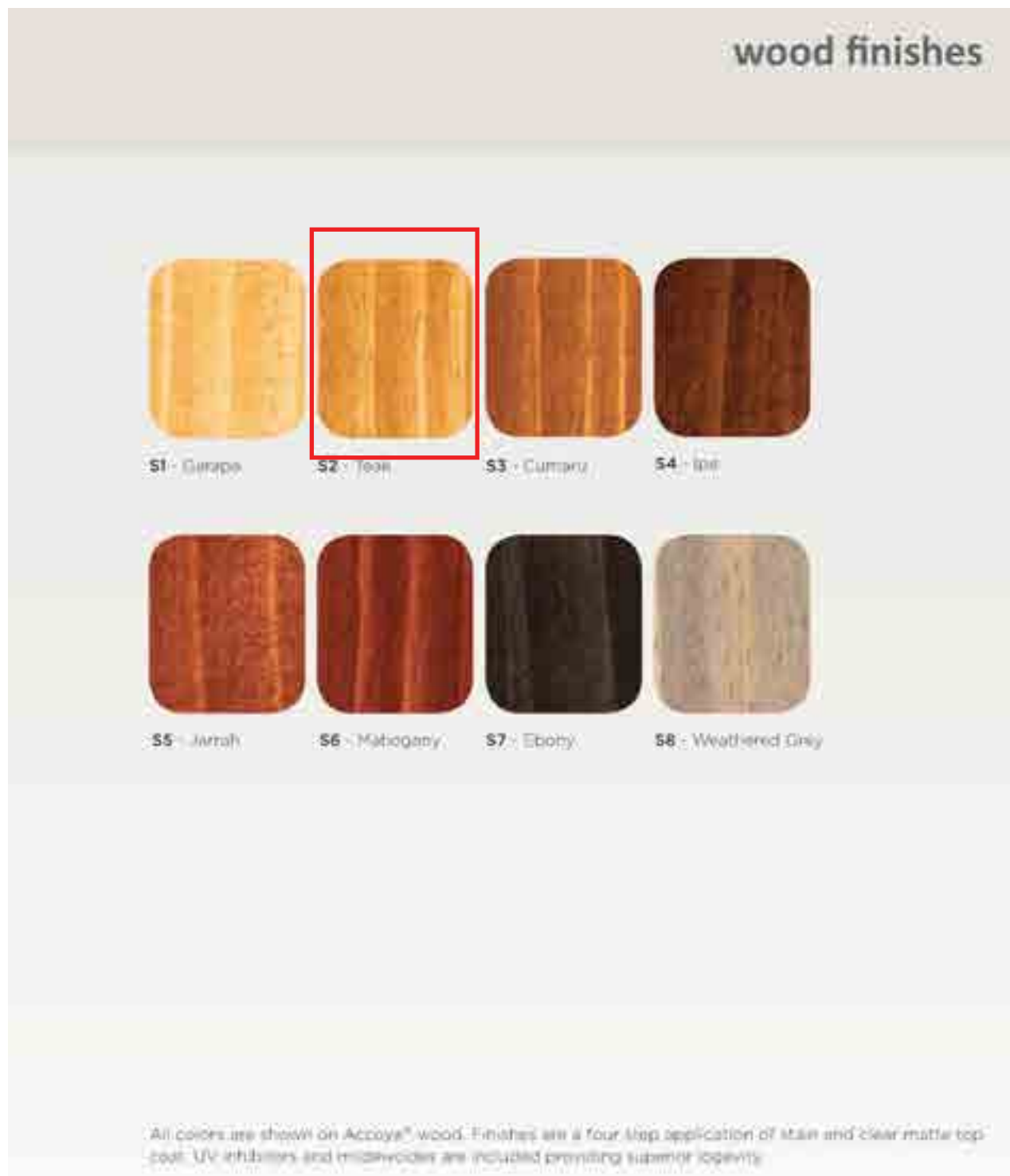
1	Series	3	<b>A Arm</b> Fixture Mounting Height	7	<b>A Arm</b> Fixture Mounting Height
ORTHO	Ortho	A0	Not Mounting on this side	B0	Not Mounting on this side
EVO	Evo	A12	12"	B12	12"
TILT	Tilt	A16	16"	B16	16"
2	Overall Height	A20	20"	B20	20"
12	12"	A24	24"	B24	24"
13.5	13.5"				
16	16"	6	Mounting Type <sup>(1)</sup>	6	Mounting Type <sup>(1)</sup>
17.5	17.5"				
20	20"		<b>2 3/8" Diameter Mast Arms</b>		<b>2 3/8" Diameter Mast Arms</b>
21.5	21.5"	HA	Flush Mount	MA	Flush Mount
24	24"	HA18	Flush Mount with 18" Rear Extension	HA18	Flush Mount with 18" Rear Extension
25.5	25.5"	HA18R	18" Arm with 18" Rear Extension	HA18R	18" Arm with 18" Rear Extension
3	Dot Finish		<b>Bolt Plates</b>		<b>Bolt Plates</b>
----	See dot options on System, without client Custom Zone	BP	Flush Mount	BP	Flush Mount
CSH		BP18	Flush Mount with 18" Rear Extension	BP18	Flush Mount with 18" Rear Extension
		BP18R	18" Arm with 18" Rear Extension	BP18R	18" Arm with 18" Rear Extension
4	Wall Thickness <sup>(1)</sup>			5	Panel Material
125	0.125" wall			P1	Wood (specify wood species) <sup>(2)</sup>
250	0.250" wall			P2	Aluminum (specify panel color) <sup>(2)</sup>
				CP	Custom Material (specify)
				CU	Custom
				DBH	Smooth Die Roll
				DUP	Super Powder Co
				TI	Special
				STD	Standard
				MOD	Modified

1. All dimensions are minimum. The actual height of the pole will be the height of the pole plus the height of the arm.
2. See the wall thickness on the back of the pole.
3. See the wall thickness on the back of the pole.

## Structura - Finishes

All Lighting Zones





## Sitewide Bollard

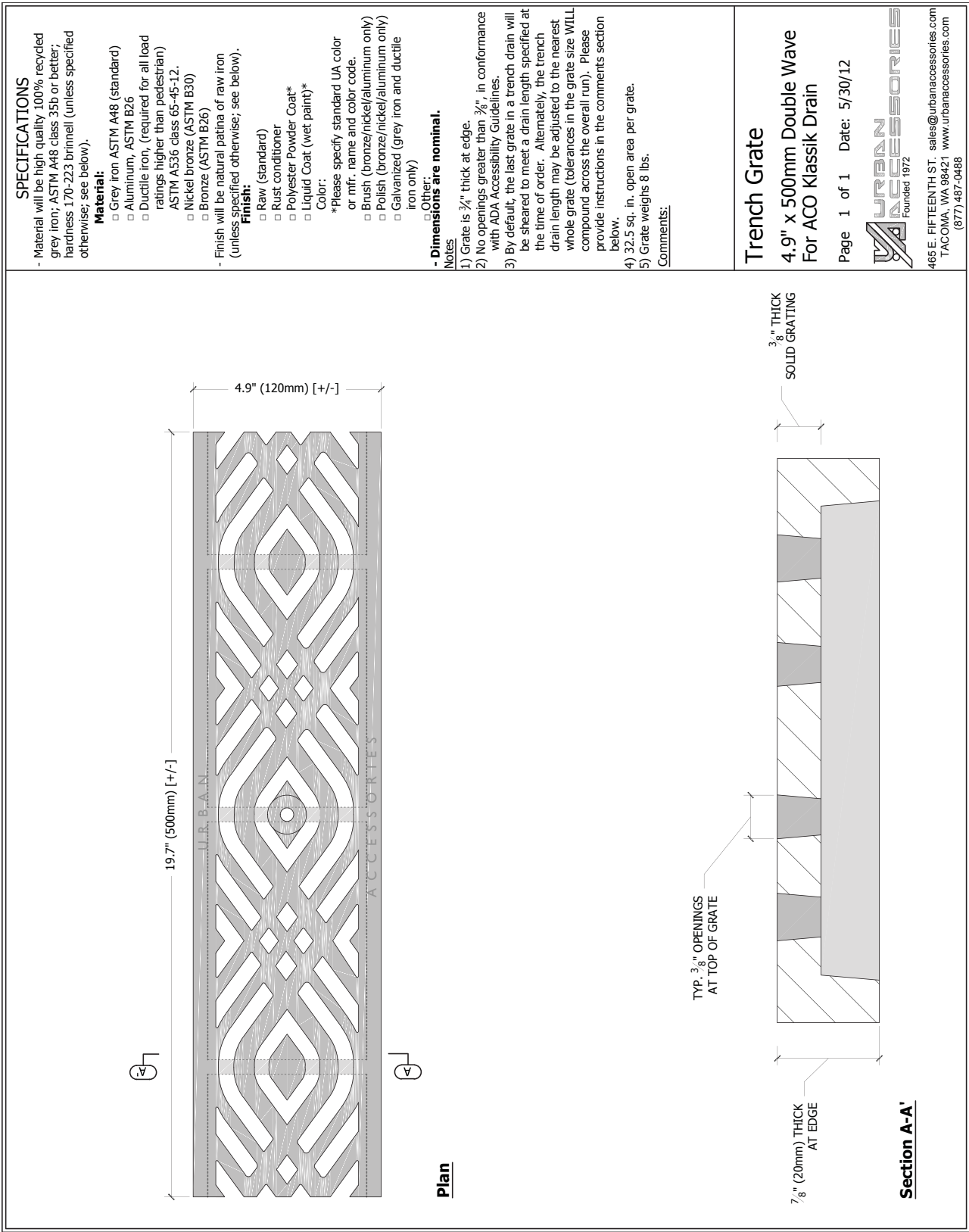
**Technical Drawing: Decorative Cast Aluminum Bollard**

**Side Elevation Dimensions:**

- Total Height: 44" [+/-]
- Base Diameter:  $\varnothing 7 \frac{3}{16}" [+/-]$
- Base Width: 18" MIN.
- Cap Height: 2 15/16" [+/-]
- Base Thickness: 24" MIN.
- Internal Width: 18" [+/-]
- Internal Height: 9" [+/-]

**Detail A (Cross-Section):**

- Decorative Cast Silicon-Bronze Cap Threaded to Receive 1/2"  $\varnothing$  All Thread.
- Threaded to Receive 1/2"  $\varnothing$  All Thread.
- Decorative Cast Aluminum Bollard.
- 2.5" Sched. 40 Pipe Weld Attached to Decorative Casting and Drilled to Accept #3 Rebar (Rebar by Others).
- 1/4"  $\varnothing$  Tamper-Resistant Set Screw.
- 1/2"  $\varnothing$  All Thread.





Urban Accessories - Double Wave Manhole Cover

Sitewide Drain Cover

