



04 DESIGN THEMES



Design themes reflect the unique site context—the dichotomies inherent in the wild undulating coastal chaparral and riparian woodland versus the more formal and orderly language created by the structures of CSUMB’s campus, industrial operations, and remnants of Fort Ord itself.

DESIGN THEME: SUCCESSION

Ecosystems—the assemblage of elements that define natural habitats and built environments—are constantly changing and evolving over time. In ecology this process is known as succession and is comprised of distinct phases, each of which lays the foundation for the next.

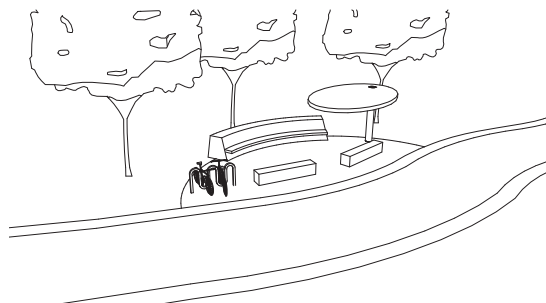
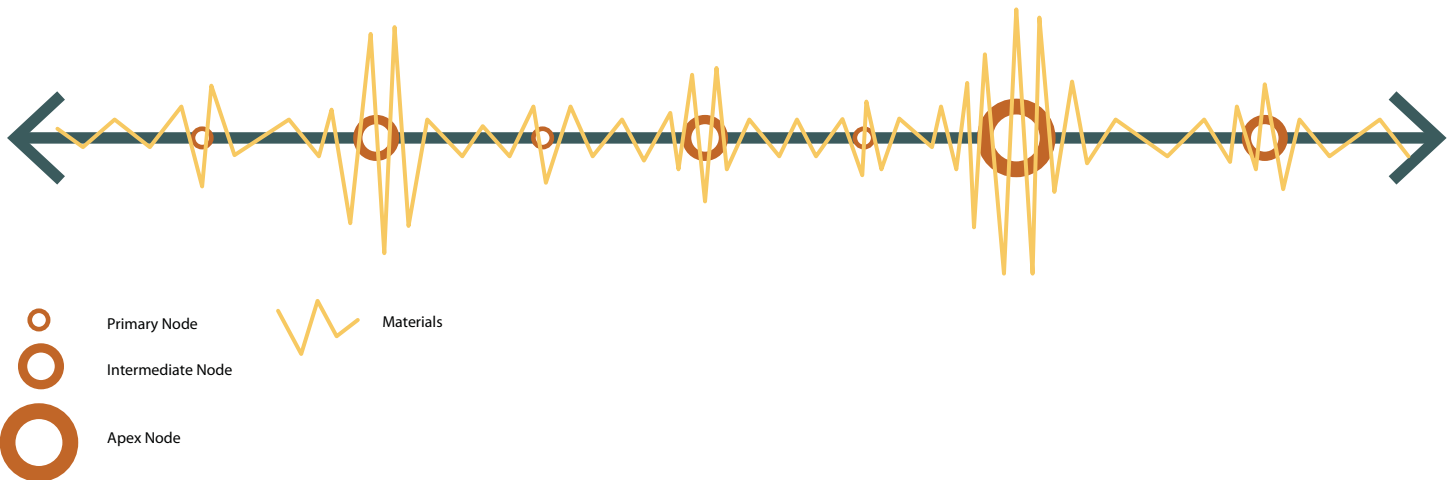
The land through which the Fort Ord Regional Trail winds began, as all land does, as open space. Later it became an Army base. In the years since Fort Ord has been decommissioned, parts have been transformed by nature: lichen, grasses, and shrubs have re-habitated former barracks and neatly maintained lawns, breaking down and growing between cracks in roads that once carried tanks, softening their appearance. Other parts have been transformed into new uses by human hands: landscapes and buildings adaptively re-imagined and re-used to serve new functions as integral parts of CSUMB’s campus. The development of FORTAG is the next step in this land’s evolution.

This concept of succession—slow but constant change and adaptation—informs both the placemaking typologies as well as the textures, finishes, and types of materials used to create trail and programmed nodes. Elements from the branding process are carried through, celebrating materials that are evocative of an endemic to the site, from plant communities to local stone, to the re-use of extant structures and materials in a way that celebrates the interplay between the wild undulating coastal chaparral and riparian woodland versus the more formal and orderly language created by the structures of CSUMB’s campus, industrial operations, and remnants of Fort Ord itself. This opportunity to reuse materials, such as concrete and stone, metals and weathered woods, will result in a site-specific project that is uniquely linked to its context. The design approach uses a light touch to allow the context of the site itself to define the user experience. The asphalt trail will be minimally accentuated by periodic headers to provide visual confirmation to users they are on the trail, and those same materials will grow in intensity, density, and detail as they approach trail nodes.

PLACEMAKING TYPOLOGIES

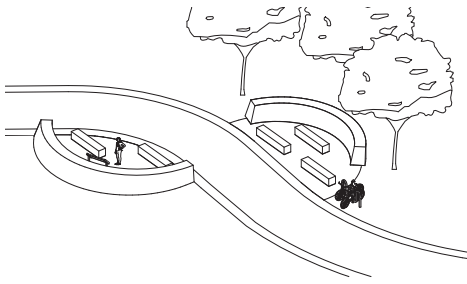
Ecological succession is comprised of different phases, which will provide an organizing structure for the placemaking typologies and application of materials for FORTAG:

1. **Primary** - In this first phase, small plant species and microorganisms enrich the earth with nutrients that later support larger life forms. This term applies to smaller program nodes designed for 2-4 people, at least 144 sf. Only minimal site furnishings or program elements, such as wayfinding or small-scale interpretive elements are associated with this typology. Grasses and shrubs dominate the planting palette, built form is relied upon for shade.
2. **Intermediate** - Once primary species have established themselves, the environment becomes enriched and starts to welcome an increased diversity and scale of plant and animal life. Used to describe medium nodes designed for 4-8 people, at least 288 sf, that can support mid-sized programming, such as more intensive interpretive elements, art or sculptural pieces, or small play or fitness areas. Evergreen trees are a defining species within the planting palette, with some but few deciduous trees, grasses, and shrubs.
3. **Apex** - The intermediate phase gives way to the climax community, in which the greatest level of species diversity and richness is realized, resulting in an ideal biome. Used to describe large nodes for 8 or more people, of 288 sf or more. These spaces are opportunities for small parks or plazas with major programmatic elements like playgrounds, fitness circuits, sculpture gardens, or nature walks guided by more intensive interpretive signage. This plant palette is a celebration of canopy trees and diverse plant communities.



Primary CUTOUT

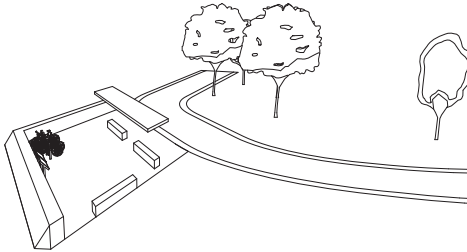
This intimately scaled-space is ideal for tight spaces or minor rest nodes that are needed in between more major nodes to provide trail users with essentials, seating, bike rack, and shade, for a quick place to rest and recharge.



Intermediate

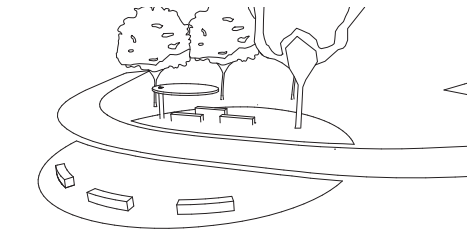
SLIP

Here programming semi-circular spaces are by the trail shifted in opposing directions. Spaces are framed by low walls, creating opportunity for different viewing experiences, uses, and variations in scale. Planting can be used to heighten the experiential differences between these two areas, creating a sense of enclosure in one, and open to views and coupled with interpretive signage on the other.



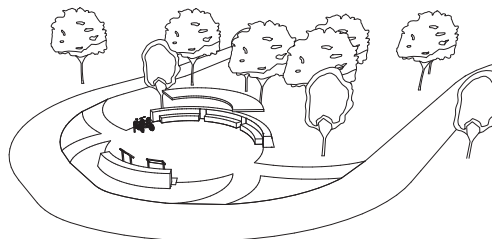
PERCH

This rectilinear typology, which can be at-grade or cantilevered, is purposefully simple and spare to showcase the view. The space is defined by intersecting low walls and a shade structure.



RETREAT AND ADVANCE

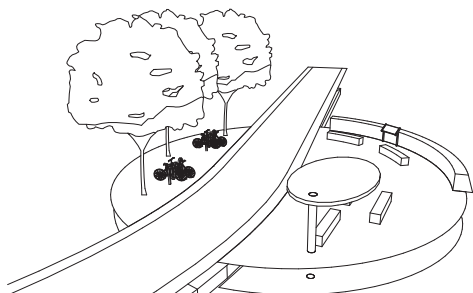
This configuration creates two distinct spaces bisected by the trail. One is located on the inside of a curve, creating a dense shaded refuge with trees, dense plantings, and shade structures. The area on the outside of the curve allows users to enjoy an uninterrupted 180-degree view and bask in the sun.



Apex

GATHER

There are several locations along the trail that are appropriate for large activity nodes. These can function like small plazas or parks with their own minor path networks. This typology carves out space for gathering and active programming that requires more space. Canopy trees and denser plantings frame the space and can direct visitors' views and reinforce connections to the trail's rich natural context.



IMMERSE

This typology is all about separating functional site elements, like bike racks or trail maps, from elements that allow you to immerse yourself in the view and the landscape. The path divides the node in two, the smaller portion for those functional elements, the larger for seating, interpretive signage, and a view framed by a retaining wall on the other.



RE-USE + ADAPTATION: MATERIALS + CONSTRUCTION APPROACH

The use of reclaimed materials from Fort Ord can help to unify design language and integrate a historical component into FORTAG. However, the opportunities for widespread re-use of old base materials is likely limited due to the possible presence of toxic materials such as lead, asbestos, and fuel oil, and it is more likely for old base materials to be used intermittently as interpretive or art elements at specific locations along the trail. The re-use of asphalt from historic Fort Ord roads in trail construction represents the best case scenario of potential re-use for FORTAG.

Construction practices and materials can help reduce the climate impact of this project while celebrating the context of the site itself. From innovations in demolition and best practices in on-site construction recycling, such as cold-in-place asphalt recycling, to new materials that have a high recycled material content, there are many ways in which this project can cut costs and environmental impact. Similar thinking about the plant material can reflect plant communities endemic to the area, as well as those that are future-ready in terms of pest and climate adaptability.



The following practices are encouraged:

- Materials must be analyzed for the presence of toxic substances and used where safe
- Incentivize the use of local construction contractors, suppliers, and manufacturers to be located within a certain radius of the site.
- Establish requirements regarding the use of recycled materials in new construction practices.
- Encourage the use of green infrastructure to capture and clean stormwater.
- Encourage the use of pest and disease resistant plant material and climate-appropriate plantings.
- Encourage the expansion of the tree canopy.
- Use innovative materials and design practices to lessen carbon-intensive design practices.



PHOTO: RECYCLING-MAGAZINE.COM

RECYCLED ASPHALT

Recycled asphalt from roadway demolition or reconstruction can be easily re-processed for use in new roadway or trail construction. An existing asphalt recycling facility is present on Fort Ord.

PHOTO: [HTTPS://WINNERSCLUB.COM/TAG/BUILDING-AND-CONSTRUCTION/](https://winnersclub.com/tag/building-and-construction/)

RECYCLED CONCRETE

Also known as "urbanite," demolished concrete can be used for dry-stack walls, gabions, and surface treatment. There is a great deal of urbanite on the former base and surrounding CSUMB, and future development projects will create more.

Fort Ord is an EPA Superfund site and was placed on the agency's priority list in 1990. Over the last three decades, much work has been done to remediate and restore the land through efforts by the U.S. Army, EPA, and the Fort Ord Reuse Authority (FORA). As portions of the base have been remediated and deemed safe for public use and development, land has been transferred to California State Parks (Fort Ord Dunes State Park) and California State University (to establish CSU Monterey Bay).



WOOD

Abandoned barracks throughout the base provide an potential source for reclaimed wood, which can be integrated into furniture, signage, and interpretive elements.



PHOTO: BLYTHEWALTRIP ON FLICKR

METAL

Demolished signs, corrugated doors and roofs, chimneys, fencing, and other metal can be reused for new signage, interpretive elements, and decorative highlights around key points of interest.



STONE

Stone walls are a recurring theme throughout the former base. These walls remain around portions of new development around CSUMB. This can be carried forward in the creation of new walls and paving treatments.

CASE STUDIES

The following case studies illustrate successful projects that incorporate adaptive reuse as a core design strategy and defining characteristic of each project. These projects are examples of how this reuse can ground a project in its unique context and save money in design, construction, and maintenance.

There are great examples of adaptive reuse of historic structures and remnants in these two portions of Fort Ord:



PHOTO:GOOGLE EARTH

CSUMB Visual & Public Art Center

Former structures associated with Fort Ord have been adaptively re-used. This includes the Visual & Public Art Center, which re-uses buildings and unites them with ribbed steel shade structures



[HTTPS://WWW.PARKS.CA.GOV/?PAGE_ID=28340](https://www.parks.ca.gov/?page_id=28340)

Fort Ord Dunes State Park

A campground project slated to begin construction in 2020 includes plans convert the interior and exterior of Bunker 12 into an interpretive display, and a second bunker will be used for on-site storage for the campground.



PHOTO: [HTTPS://WWW.LANDSCAPEPERFORMANCE.ORG/CASE-STUDY-BRIEFS/WEST-POINT-FOUNDRY-PRESERVE-PHASE-1](https://www.landscapeperformance.org/case-study-briefs/west-point-foundry-preserve-phase-1)

West Point Foundry Preserve

This project, located on the Cold Spring, NY in the tidal marshes of the Hudson River, includes 87 acres of forested land on the site of a former Civil War artillery foundry and ironworks on a tidal marsh in Cold Spring, New York. The Scenic Hudson Land Trust collaborated with university-affiliated archaeologists that led to a plan to preserve that celebrate the site's industrial and ecological legacy, while allowing public access to the heart of the site. A network of paths follow historic routes and rail lines to connect visitors to remnant industrial complexes and other structures, celebrating the site's archaeological history and supporting ecological renewal. The project recycled 40 tons of material on site, saving \$9,000 in transportation costs. And 15 abandoned structures and important sites, and refurbishing 5 industrial relics, were restored as part of the project, saving the cost of clearing and removing materials from the site.



PHOTO: [HTTPS://WWW.LANDSCAPEPERFORMANCE.ORG/CASE-STUDY-BRIEFS/WEST-POINT-FOUNDRY-PRESERVE-PHASE-1](https://www.landscapeperformance.org/case-study-briefs/west-point-foundry-preserve-phase-1)

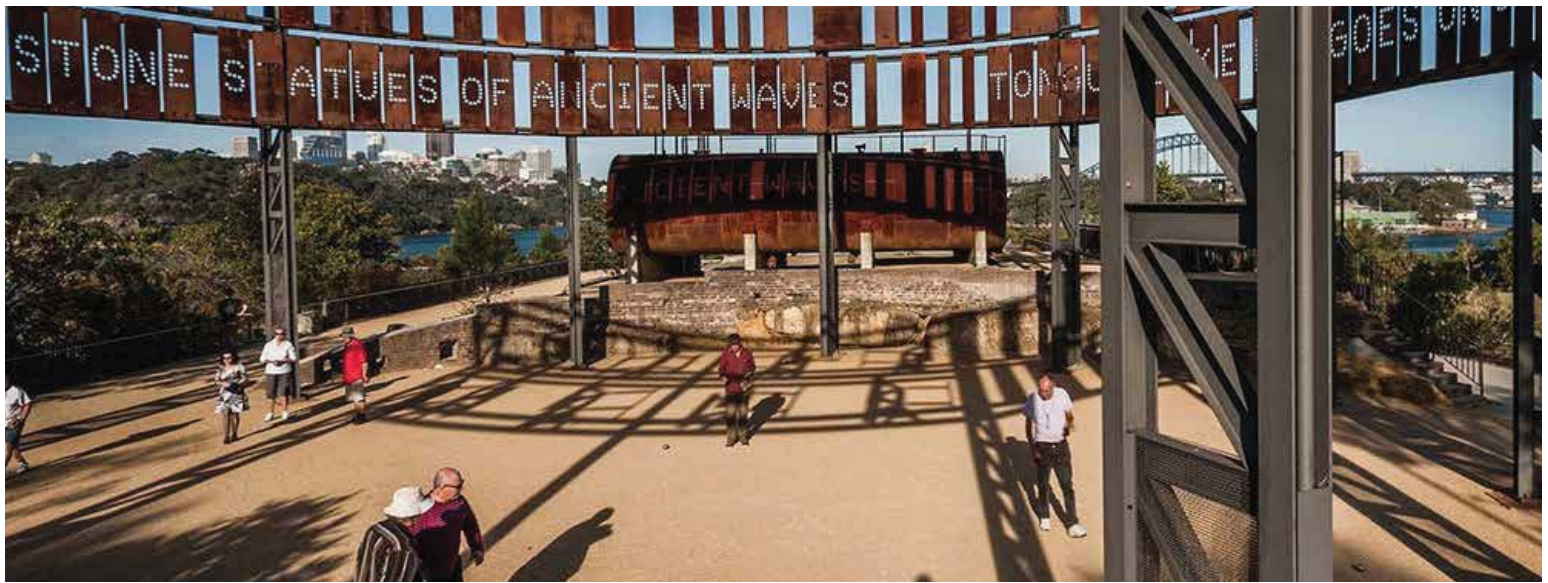


PHOTO: [HTTPS://WWW.LANDSCAPEPERFORMANCE.ORG/CASE-STUDY-BRIEFS/BALLAST-POINT](https://www.landscapeperformance.org/case-study-briefs/ballast-point)

Ballast Point Park

Ballast Point Park is a waterfront park located in Sydney's inner harbor. This project celebrates the site's layered historical past – from original indigenous habitation, colonial use as a ballast quarry for ships, a home for early settlers, and finally to use as an oil terminal from the 1920s until 2002 – through 11 interpretive locations and in the site design itself. Sustainable design principles ground the project, which included developing an endemic plant palette, on-site material recycling, reducing transportation and waste, and managing stormwater runoff before discharge into the harbor.

"A truly sustainable cradle-to-cradle approach was in practice more expensive to implement than certain conventional processes. For example, the on-site processing of waste was more expensive, so site demolition materials that were to be reused were sent off-site to a processor, with other recycled materials being sent back to the site." – Landscape Architecture Foundation.



PHOTO: [HTTPS://WWW.LANDSCAPEPERFORMANCE.ORG/CASE-STUDY-BRIEFS/BALLAST-POINT](https://www.landscapeperformance.org/case-study-briefs/ballast-point)

- Re-purposed 22,000 tons of waste into gabion retaining walls.
- Used 582 tons of coal power plant waste into a concrete mix which also consisted of waste fly ash, slag, aggregate and ground slag.
- Recycled Australian Jarrah hardwood was used throughout the project, saving 30,620 linear feet of "virgin timber."
- Recycled seat belt straps were used as shade structures.

Brooklyn Bridge Park

Brooklyn Bridge Park, which stretches 1.3 miles along New York's East River, is a former cargo shipping and storage facility given new life as an 85-acre park. The park incorporates elements of its industrial past and includes extensive reuse of existing structures and salvaged materials. The park introduces a range of aquatic and terrestrial plant communities and habitats to the formerly desolate site and incorporates stormwater management techniques that capture runoff for irrigation.

As new material was continually discovered during construction, the design adapted and changed to respond to available materials, such as fill, granite, and longleaf yellow pine beams, each re-purposed into site elements including furniture, topography, and infrastructure. The project used 90,000 cubic yards of landfill for the construction of Pier 1 and sound berm topography. Saved \$2.88 million vs. traditional means of fill.



PHOTO: [HTTPS://WWW.LANDSCAPEPERFORMANCE.ORG/CASE-STUDY-BRIEFS/BROOKLYN-BRIDGE-PARK](https://www.landscapeperformance.org/case-study-briefs/brooklyn-bridge-park)



PHOTO: [HTTPS://WWW.LANDSCAPEPERFORMANCE.ORG/CASE-STUDY-BRIEFS/BROOKLYN-BRIDGE-PARK](https://www.landscapeperformance.org/case-study-briefs/brooklyn-bridge-park)



PHOTO: SOSA.TISTORY.COM

PHOTO: [HTTPS://ACOEHRAN.COM/WORK/PERRY-RESIDENCE-LANDSCAPE-ARCHITECTURE/](https://acoehran.com/work/perry-residence-landscape-architecture/)

Ordered Re-Use

Inspired by the orderly barracks and formal composition of the college campus, softened by time and wear like the remnant structures of Fort Ord. Concrete and steel are dominant materials. Colors draw inspiration from CSUMB and Fort Ord military history (olive, khaki, navy blue). Recycled materials that are plentiful and relatively consistent in appearance are incorporated into gabions, concrete, and other site furnishings. Ornamentation is minimal, with visual richness provided by the impacts of time on reused materials. This theme appears primarily in the CSUMB segments, and portions of Canyon Del Rey and Ryan Ranch.

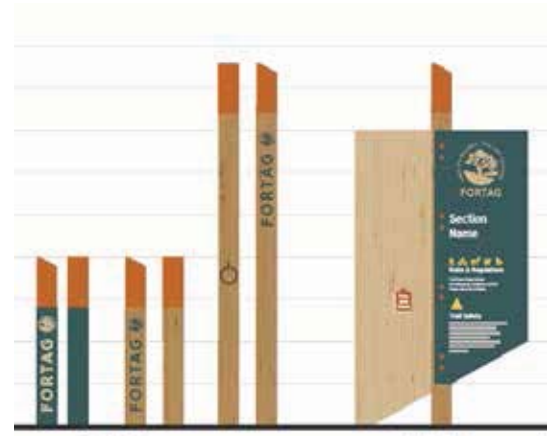
- Metal banding embedded in and along the path to delineate nodes along the trail.
- Laser cut steel posts are used for shade structures, interpretive signage mounts, bike racks, and other site furnishings to tie into branding.
- Concrete and gabion structures combine new and re-used materials.
- Planting leans toward formal patterns.
- Lighting is embedded into site materials (the path itself, benches, walls, etc.).



PHOTO: [HTTPS://WWW.PAVINGEXPERT.COM/GABIONS_01](https://www.pavingexpert.com/gabions_01)



PHOTO: [HTTPS://WWW.DESIGNBOOM.COM/TECHNOLOGY/DAAN-ROOSEGAARDE-SOLAR-POWERED-VAN-GOGH-CYCLE-PATH-NETHERLANDS-11-13-2014/](https://www.designboom.com/technology/daan-roosegaarde-solar-powered-van-gogh-cycle-path-netherlands-11-13-2014/)



Naturalistic Adaptation

This is a celebration of plant communities, varied ecologies, and topographies of the region. Emphasis is placed on rough edges and textures, and natural materials like wood, stone, and decomposed granite. Colors include brighter greens, dull reds, and browns with pops of color. There is room for variation within this theme to respond to the unique plant communities the trail passes through. Unique remnant materials, such as warped metals or weathered woods are celebrated and preserved by encasing in epoxy, embedding into concrete, or celebrated as standalone art objects. This theme appears primarily in the National Monument Loop, Northern Loop, and Northern Marina segments, with portions of Canyon Del Rey and Ryan Ranch.

- Exposed aggregate ribbons and stone trail headers delineate nodes along the trail.
- Wooden posts that hearken to the siding of the barracks and connect to the branding are used as posts for shade structures. Stone slab benches and cobbled walls with embedded interpretive signage define nodes.
- Planting is denser around nodes to create a sense of enclosure and to celebrate unique plant communities along the trail.
- Lighting is subtly integrated into site elements or integrated into the asphalt of the path itself to create naturalistic patterning.



PHOTO: [HTTPS://LONDONIST.COM/LONDON/GREAT-OUTDOORS/SEE-PART-OF-THE-TWIN-TOWERS-IN-THE-OLYMPIC-PARK](https://londonist.com/london/great-outdoors/see-part-of-the-twin-towers-in-the-olympic-park)



PHOTO: [HTTP://WWW.SUSTAINABLESITES.ORG/LUCI-AND-IAN-FAMILY-GARDEN-LADY-BIRD-JOHNSON-WILDFLOWER-CENTER](http://www.sustainablesites.org/luci-and-ian-family-garden-lady-bird-johnson-wildflower-center)



Thoughtful consideration of trail amenities, viewpoints, and rest areas will encourage people to visit FORTAG repeatedly. These features will allow the trail to go beyond just helping people get from here to there, and become a destination unto itself.
