

TRANSBAY ROOF PARK LANDSCAPE MAINTENANCE MANUAL

PWP LANDSCAPE ARCHITECTURE
DECEMBER 2019



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INTRODUCTION

This manual is intended to be used by the managers and maintenance teams of the Transbay Roof Park to help direct maintenance over time. The goals and concepts behind the landscape design will need to be realized, through maintenance, pruning, and management. As a landscape and a garden, the park will grow and change. The appearance and the issues that are apparent now are different than those that will come up in 2 years and may differ from those further down the road. As the designers of the park, it is our intention that it's structure remains the same, but its specific composition and the expression imparted by the plants will evolve. This manual lays out the general goals for major planted zones of the park.

Qualified and regular arboricultural review of the trees at the park is recommended and will be necessary. The growth and structural integrity of all of the trees on the park will need to be monitored and an arborist report with recommendations related to pruning for safety, health and form should be made annually or semi-annually. Significant pruning of the trees and large shrubs should occur annually to establish their forms and growth patterns.

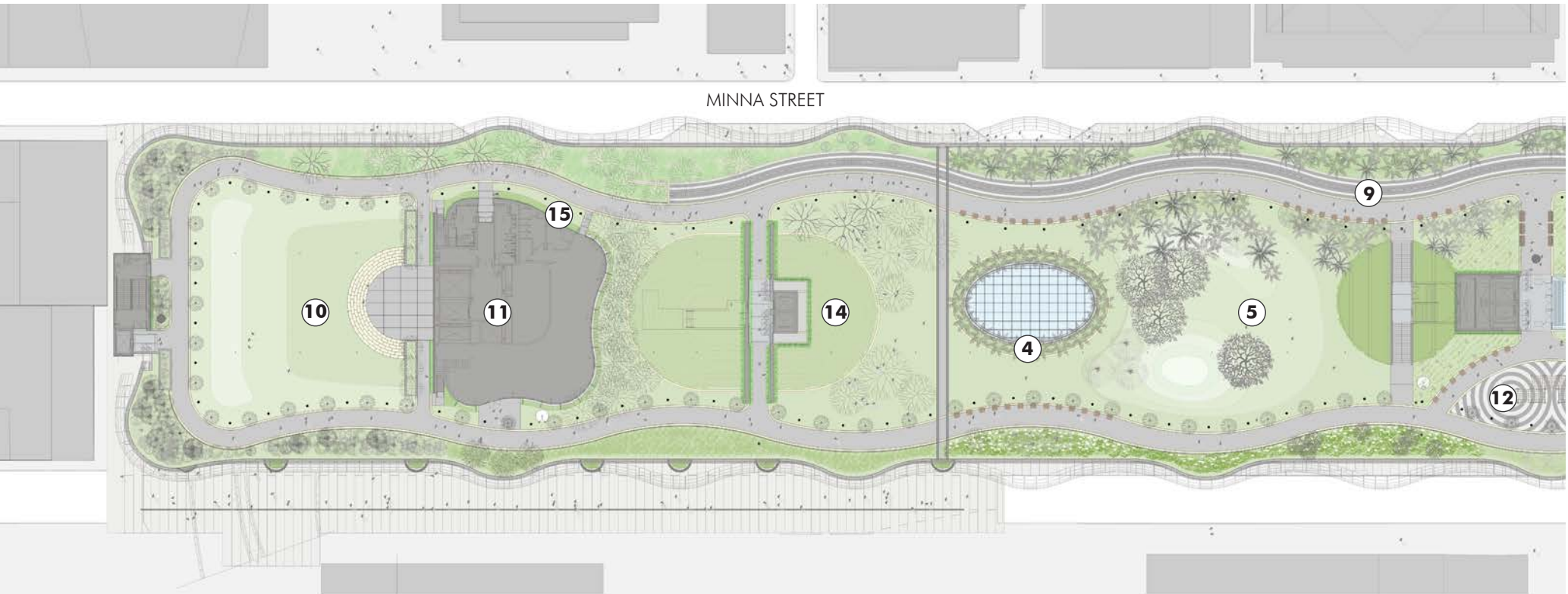
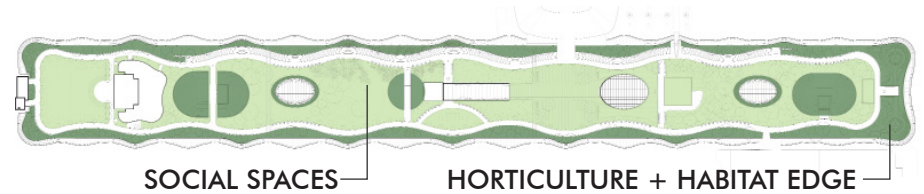
Because the first decade of establishment of any landscape is the time during which the structure, foundational health and strongest growth occurs, we recommend that PWP continues to review of the planting and to be part of the pruning process. Ideally, we recommend that a PWP representative be present to review pruning with the tree pruning team each year prior to a major pruning effort.

1.0 OVERALL DESIGN INTENT

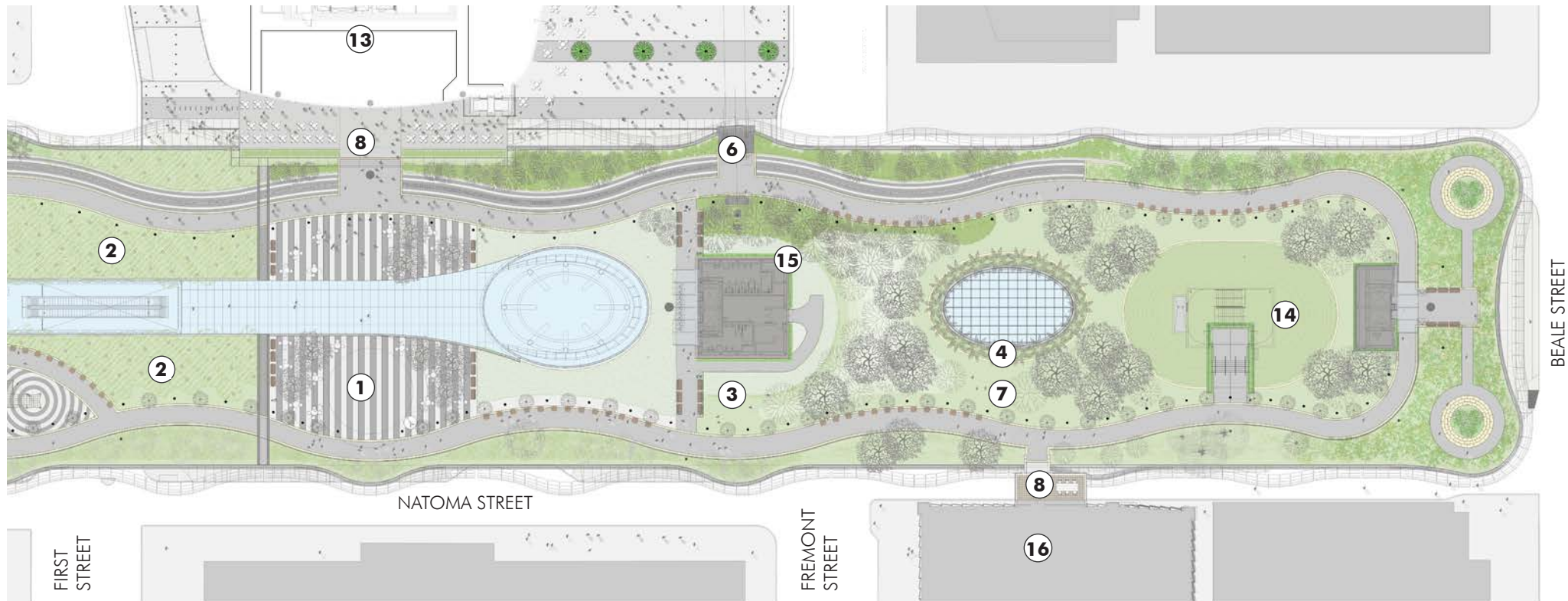
AREA ID/ILLUSTRATIVE PLAN

The Park is designed as a verdant green space in the center of what will be the densest part of San Francisco. The goal is for visitors to feel that they are in nature and experiencing the wonders of the natural world.

The central spaces of the park are the social spaces – available for gathering, congregation and activity. There are also quieter spaces within the social center of the park where people can relax passively alone or in small groups. The outer ring around the park is not meant to be occupied by visitors and is focused on botanical horticulture and habitat. The feature gardens that ring the park focus on particular geographical bioregions or certain types of plants and welcome the flying residents of San Francisco into the park, away from human use.



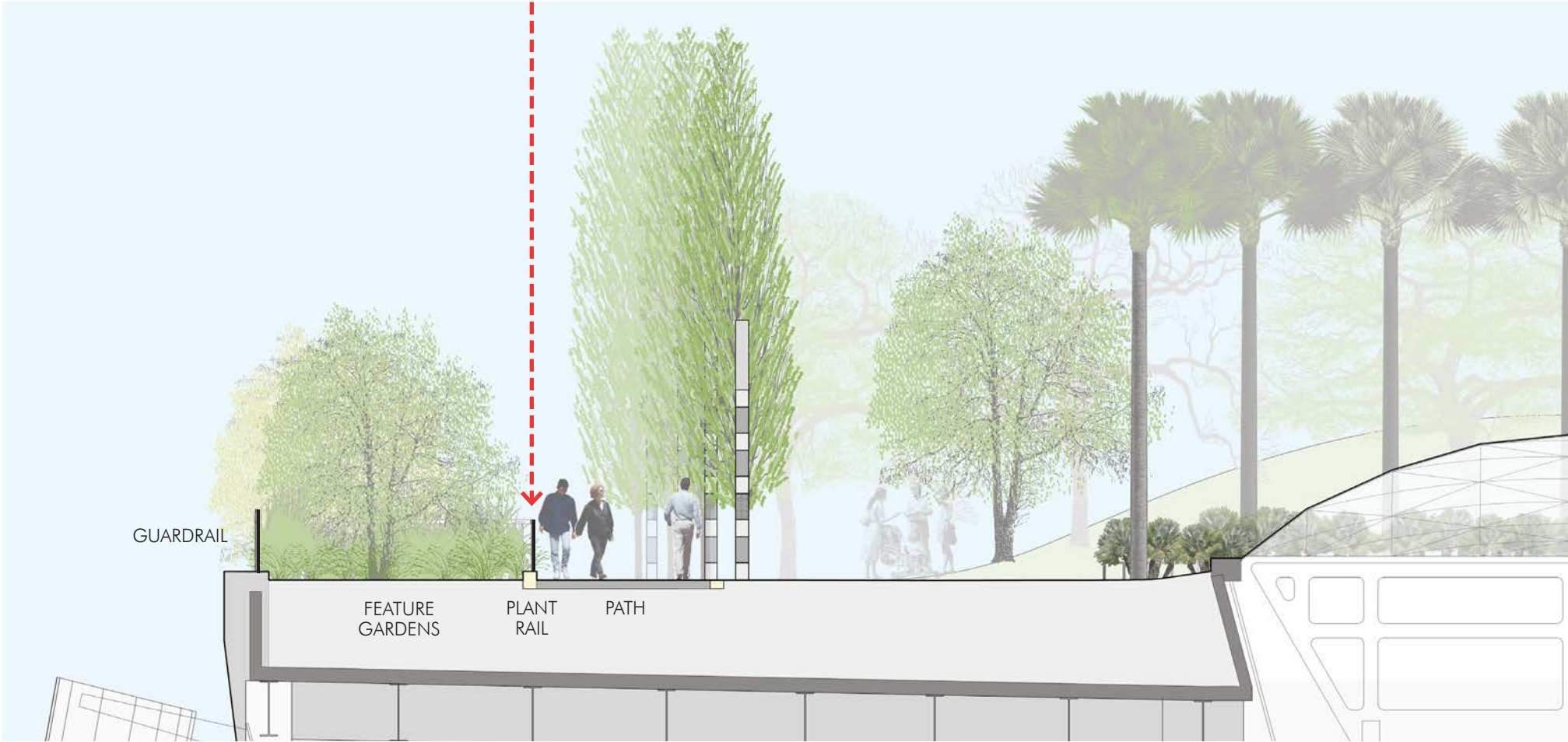
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|----------------------------|------------------------|----------------------|
| ① MAIN PLAZA + FUTURE CAFE | ⑦ OAK MEADOW | ⑬ SALESFORCE TOWER |
| ② ARRIVAL GROVE | ⑧ BRIDGE TO TOWER | ⑭ GROUNDCOVER MOUNDS |
| ③ BAMBOO GROVE | ⑨ BUS JET FOUNTAIN | ⑮ FICUS VINE WALLS |
| ④ SKYLIGHT RING GARDENS | ⑩ AMPHITHEATER | ⑯ 181 FREMONT |
| ⑤ PICNIC MEADOW | ⑪ RESTAURANT | |
| ⑥ GONDOLA LANDING | ⑫ CHILDREN'S PLAY AREA | |



SECTIONS

Planting at the feature gardens highlight plant material that grow in California’s Mediterranean climate as well as the diversity of plants from several of the world’s other climate zones. Each of these gardens, from Mediterranean Europe to Western Australia, is featured in its own location in the park. Plant material in these gardens also helps to conceal the perimeter garden at the edge of the park.

PLANT RAIL
PLANTS IN FEATURE GARDENS
AT PLANT RAIL SHOULD BE
ALLOWED TO GROW
THROUGH THE PLANT RAIL
PICKETS



SKYLIGHT SECTION ELEVATION FACING WEST

VIEWS FROM BELOW

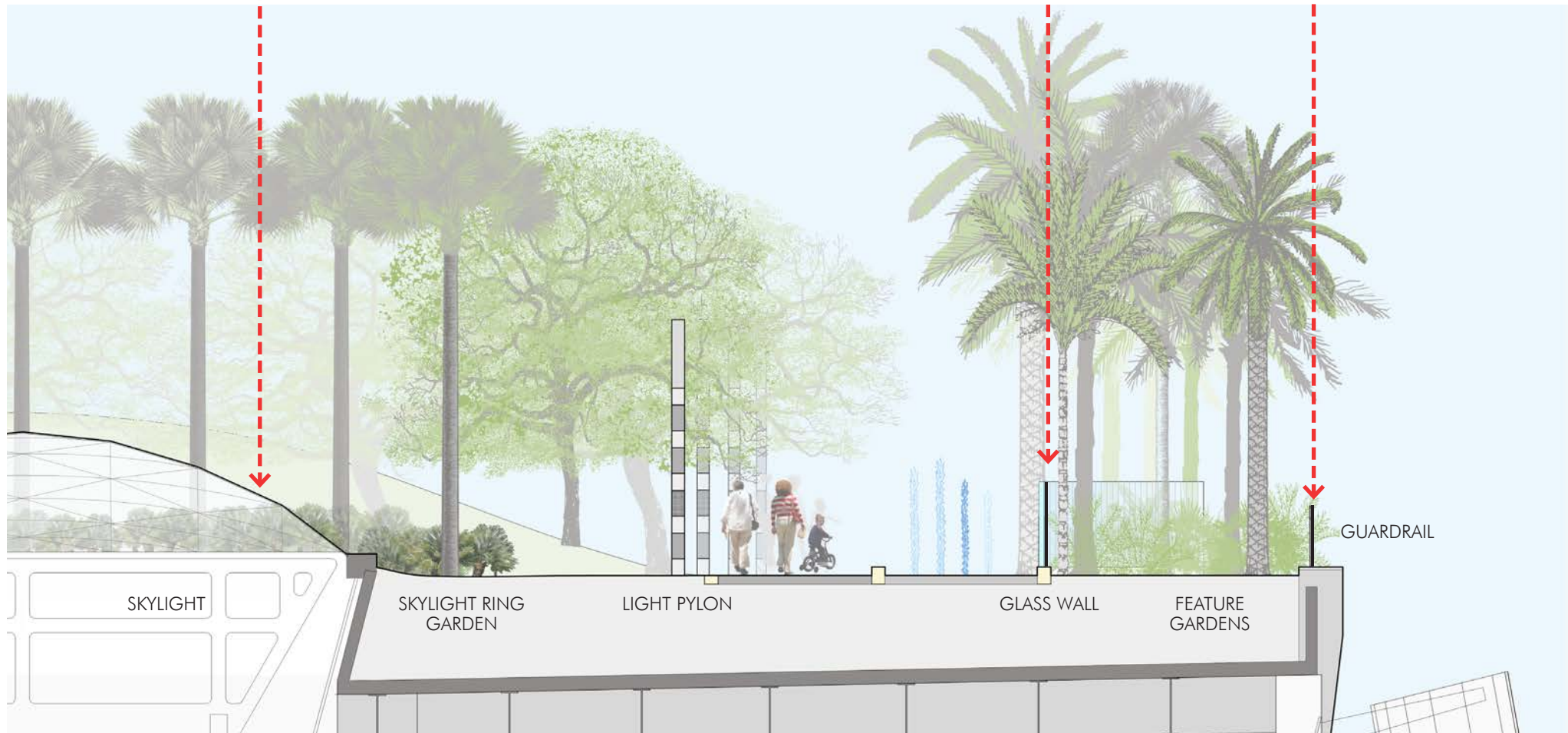
PLANTS SHOULD BE VIEWED FROM SKYLIGHTS BELOW. THE PALMS, AND UNDERSTORY PLANTING AT THE SKYLIGHT GARDENS IS INTENDED TO BE VISIBLE FROM THE GRAND HALL, ESCALLATOR, AND SPACES BELOW.

PLANTS BEHIND GLASS

PLANTS BETWEEN THE BUS JET FOUNTAIN AND PERIMETER GUARDRAIL HAVE STRONG SILHOUETTES THAT ARE VISIBLE FROM INSIDE THE PARK, ALONG THE PARK PATH, AND FROM THE ADJACENT TOWERS.

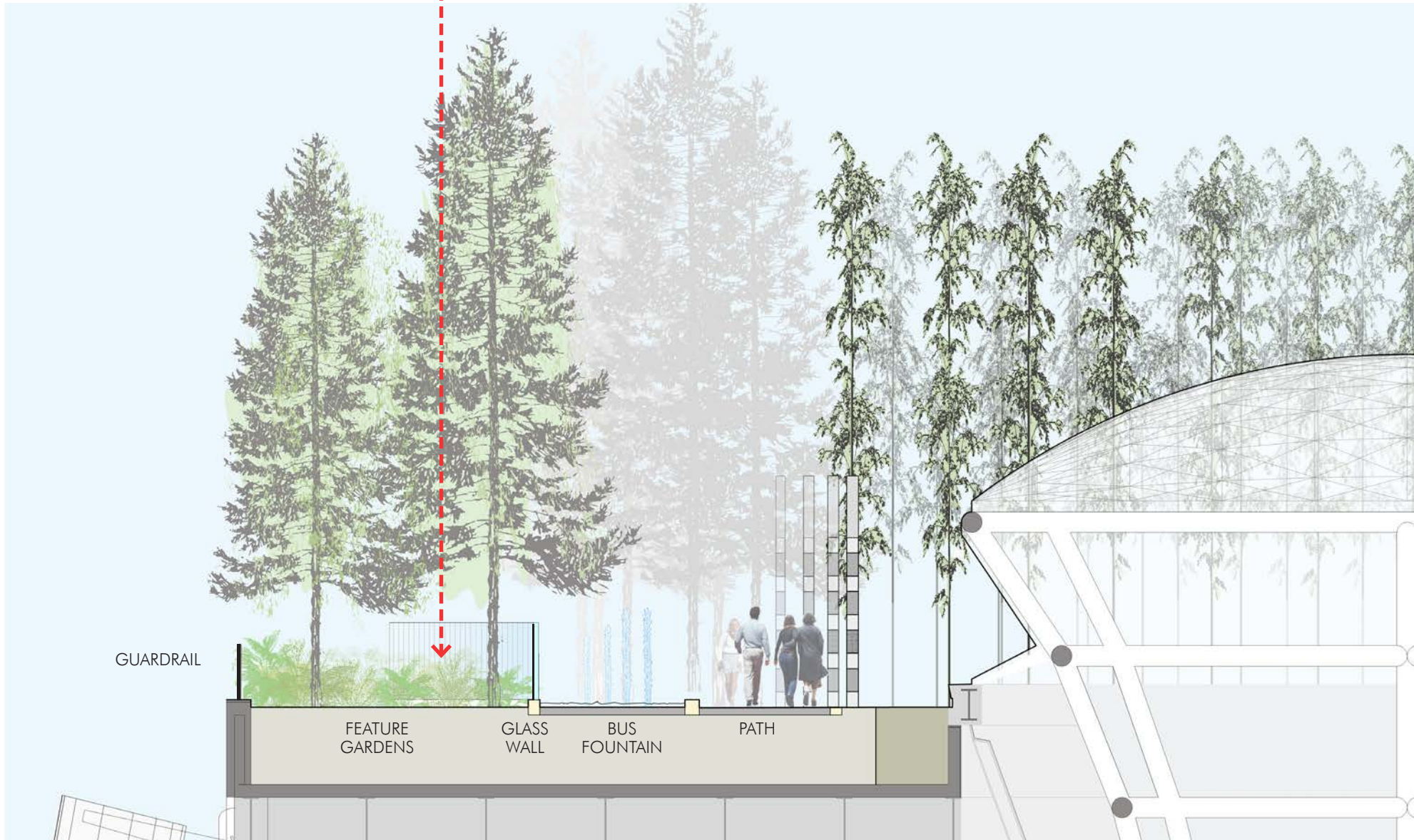
GUARDRAIL

PERIMETER PLANTING IN THE FEATURE GARDENS ARE STRUCTURED WITH SCREENING PLANTS AT THE BACK TO CONCEAL GUARDRAILS.



PLANTS BEHIND GLASS

PLANTS BETWEEN THE BUS JET FOUNTAIN AND PERIMETER GUARDRAIL HAVE STRONG SILHOUETTES THAT ARE VISIBLE FROM INSIDE THE PARK, ALONG THE PARK PATH, AND FROM THE ADJACENT TOWERS.



LIGHT COLUMN SECTION ELEVATION FACING EAST

VIEWS FROM BELOW

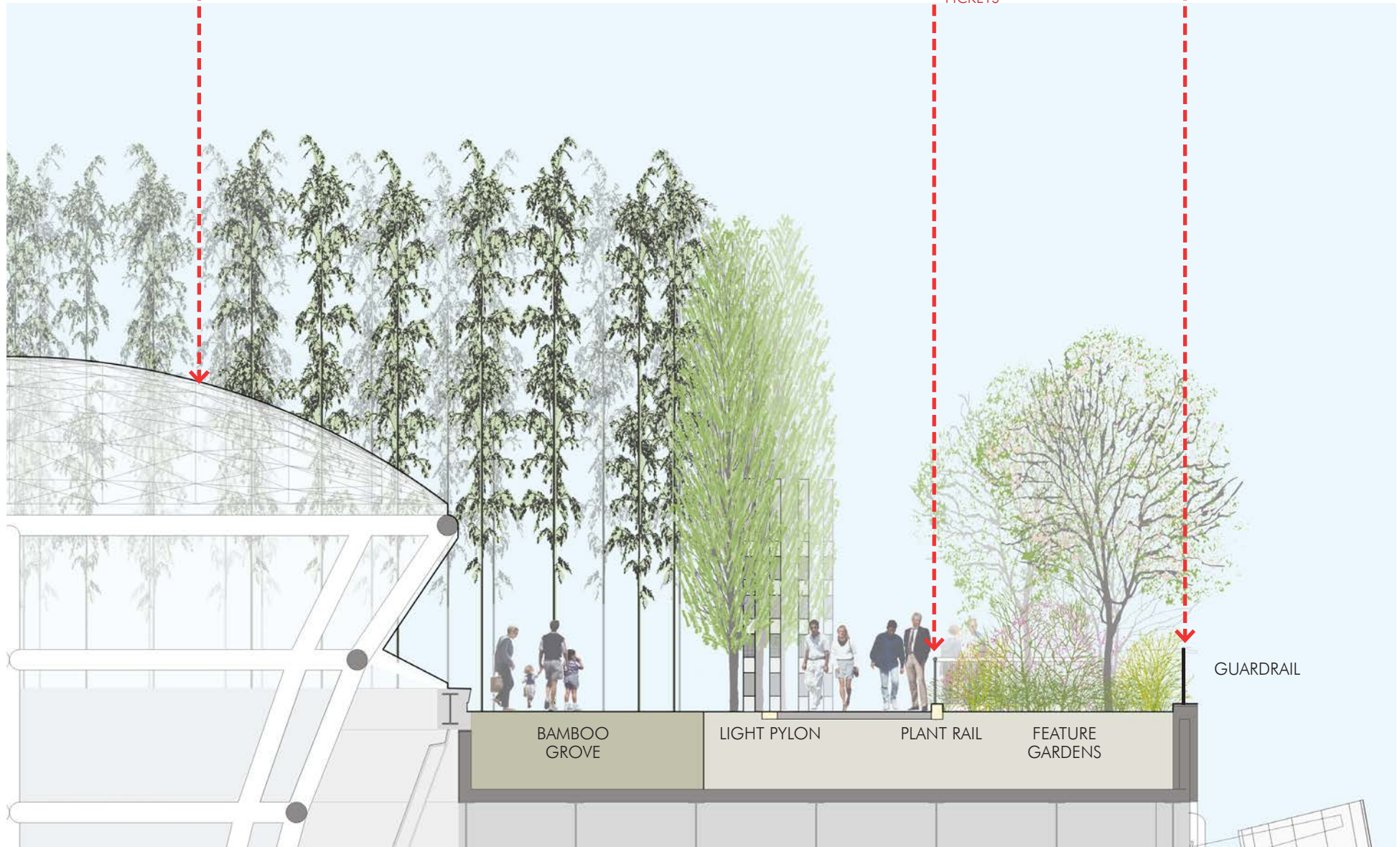
PLANTS SHOULD BE VIEWED FROM SKYLIGHTS BELOW. THE PALMS, AND UNDERSTORY PLANTING AT THE SKYLIGHT GARDENS IS INTENDED TO BE VISIBLE FROM THE GRAND HALL, ESCALATOR, AND SPACES BELOW.

PLANT RAIL

PLANTS IN FEATURE GARDENS AT PLANT RAIL SHOULD BE ALLOWED TO GROW THROUGH THE PLANT RAIL PICKETS

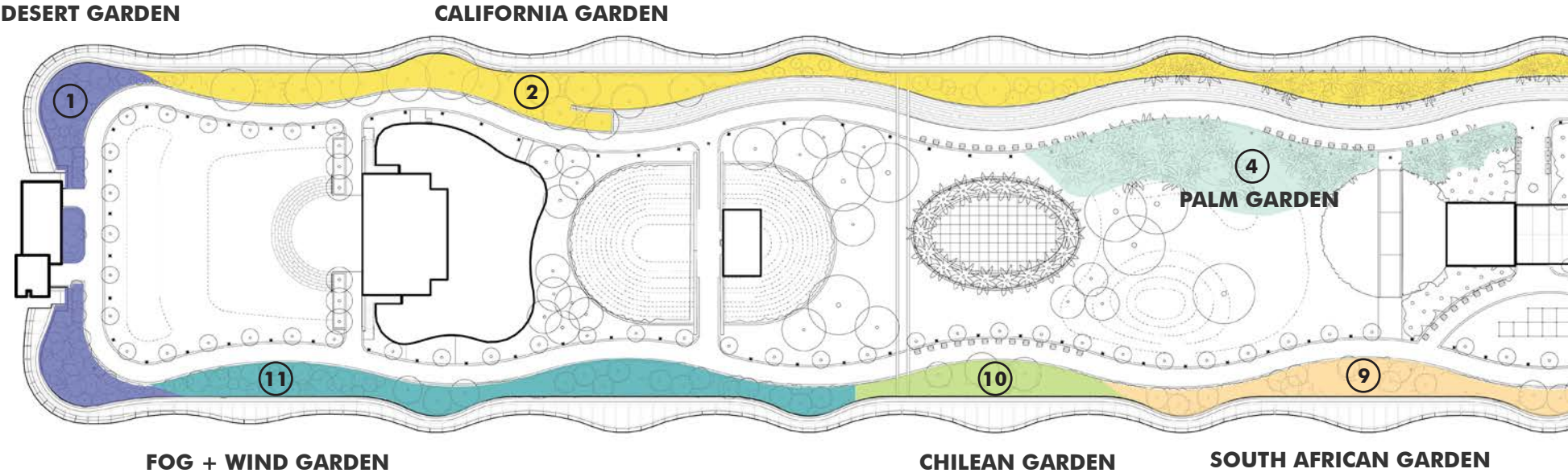
GUARDRAIL

PERIMETER PLANTING IN THE FEATURE GARDENS ARE STRUCTURED WITH SCREENING PLANTS AT THE BACK TO CONCEAL GUARDRAILS.

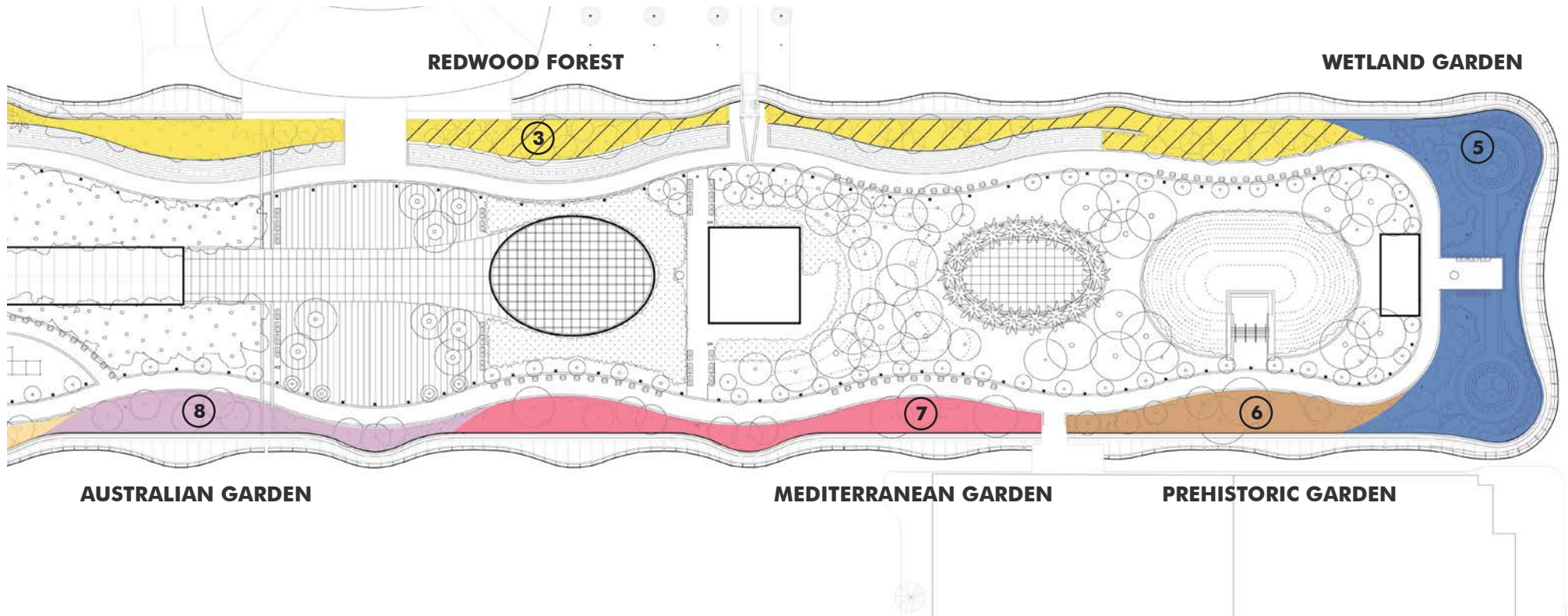


0' 1' 3' 5' 10' 15'

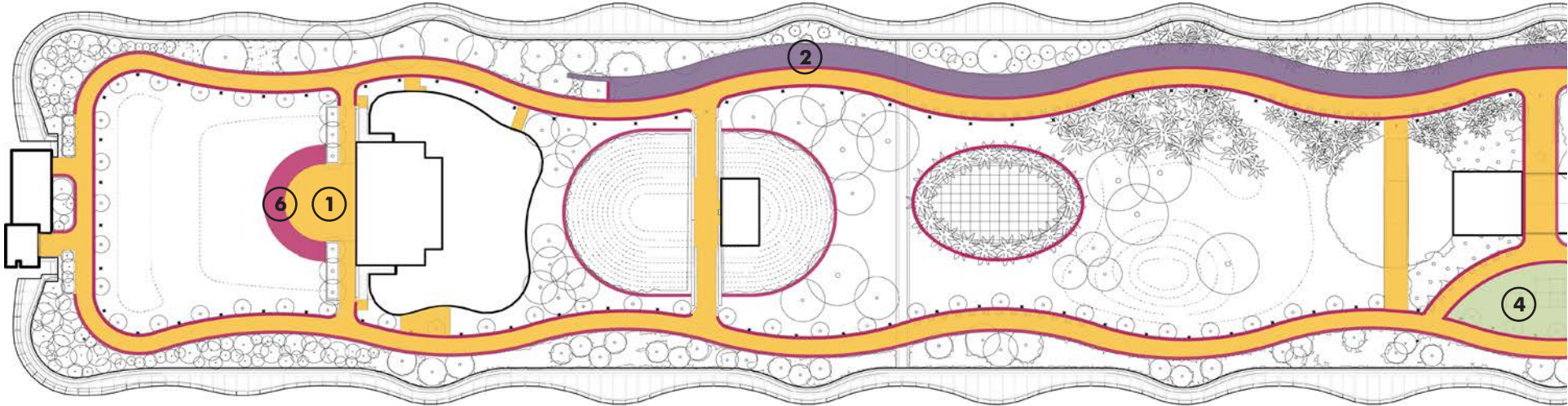
FEATURE GARDEN LOCATION DIAGRAM



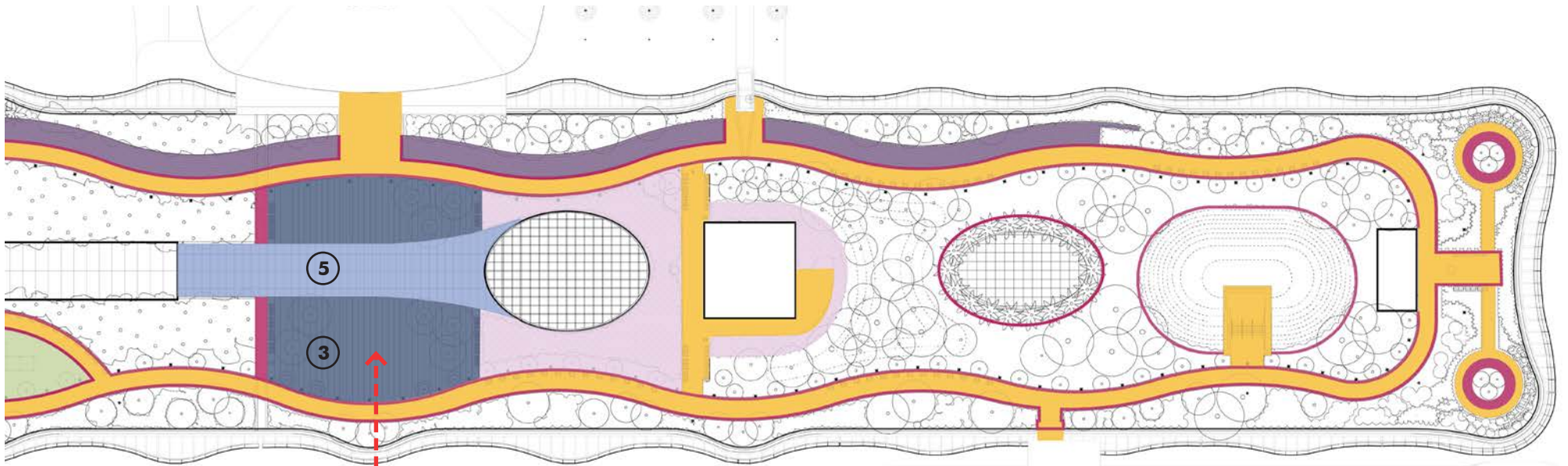
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|-----------------------------|----------------------|------------------------|---------------------|
| ① DESERT GARDEN | ④ PALM GARDEN | ⑦ MEDITERRANEAN GARDEN | ⑩ CHILEAN GARDEN |
| ② CALIFORNIA GARDEN | ⑤ WETLAND GARDEN | ⑧ AUSTRALIAN GARDEN | ⑪ FOG + WIND GARDEN |
| ③ CALIFORNIA REDWOOD FOREST | ⑥ PREHISTORIC GARDEN | ⑨ SOUTH AFRICAN GARDEN | |



HARDSCAPE PLAN

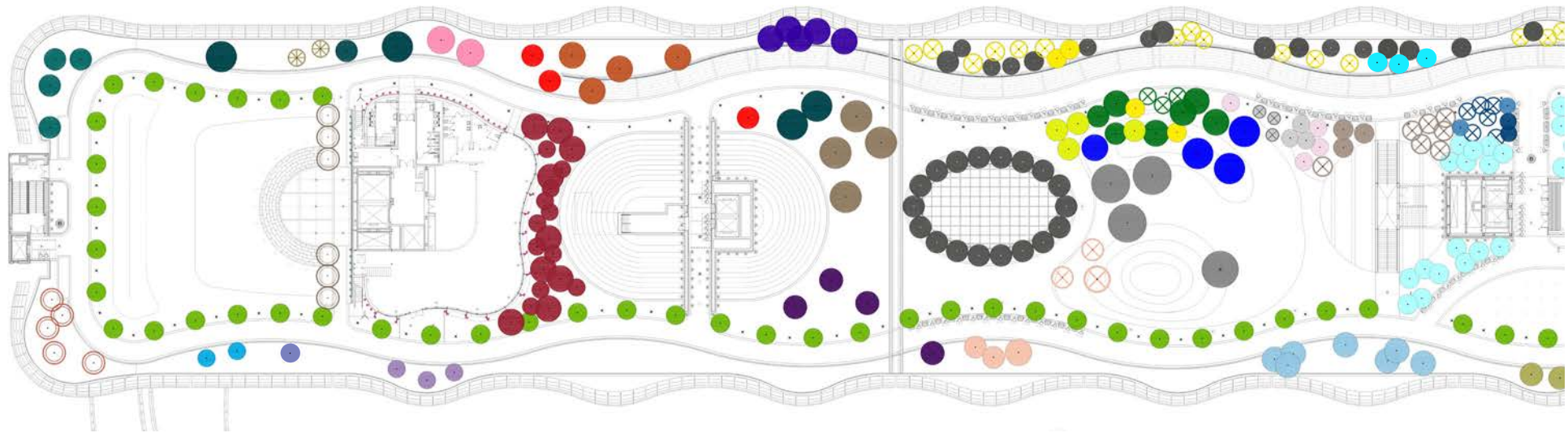


- | | |
|-------------------------|-------------------|
| ① CONCRETE PAVING | ④ PLAY SURFACING |
| ② MORTAR SET STONE | ⑤ GLASS PAVING |
| ③ SAND SET STONE PAVING | ⑥ AGGREGATE MULCH |

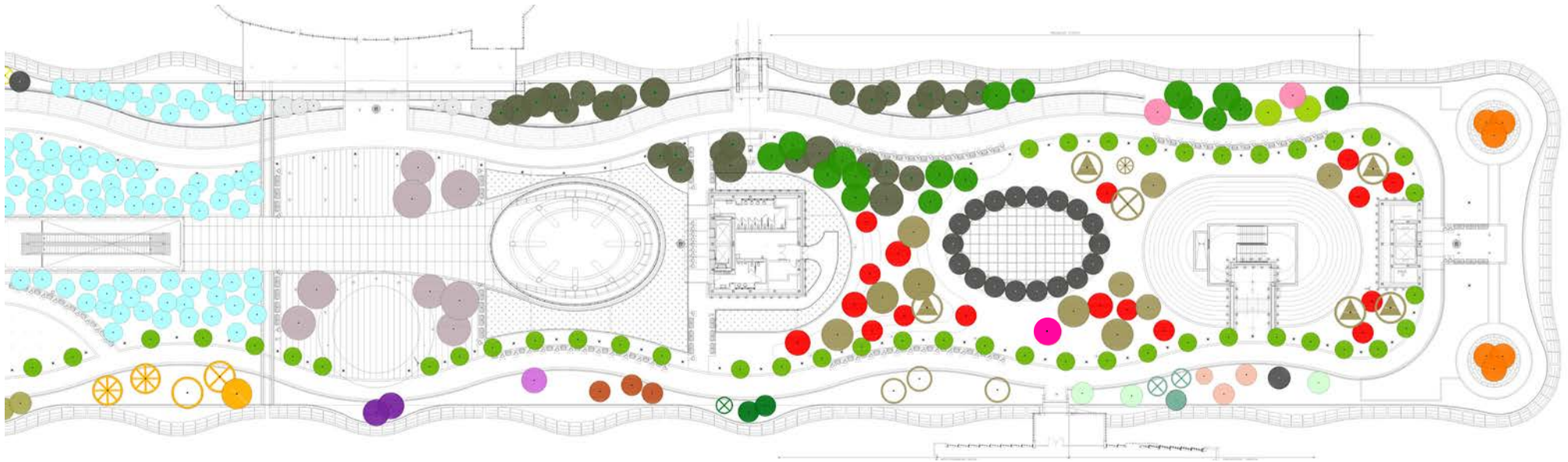


NOTE:
SAND SET PAVING SHOULD NEVER BE
POWERWASHED. BE MINDFUL WHEN
CLEANING ADJACENT GLASS PAVING.

TREE PLANTING PLAN

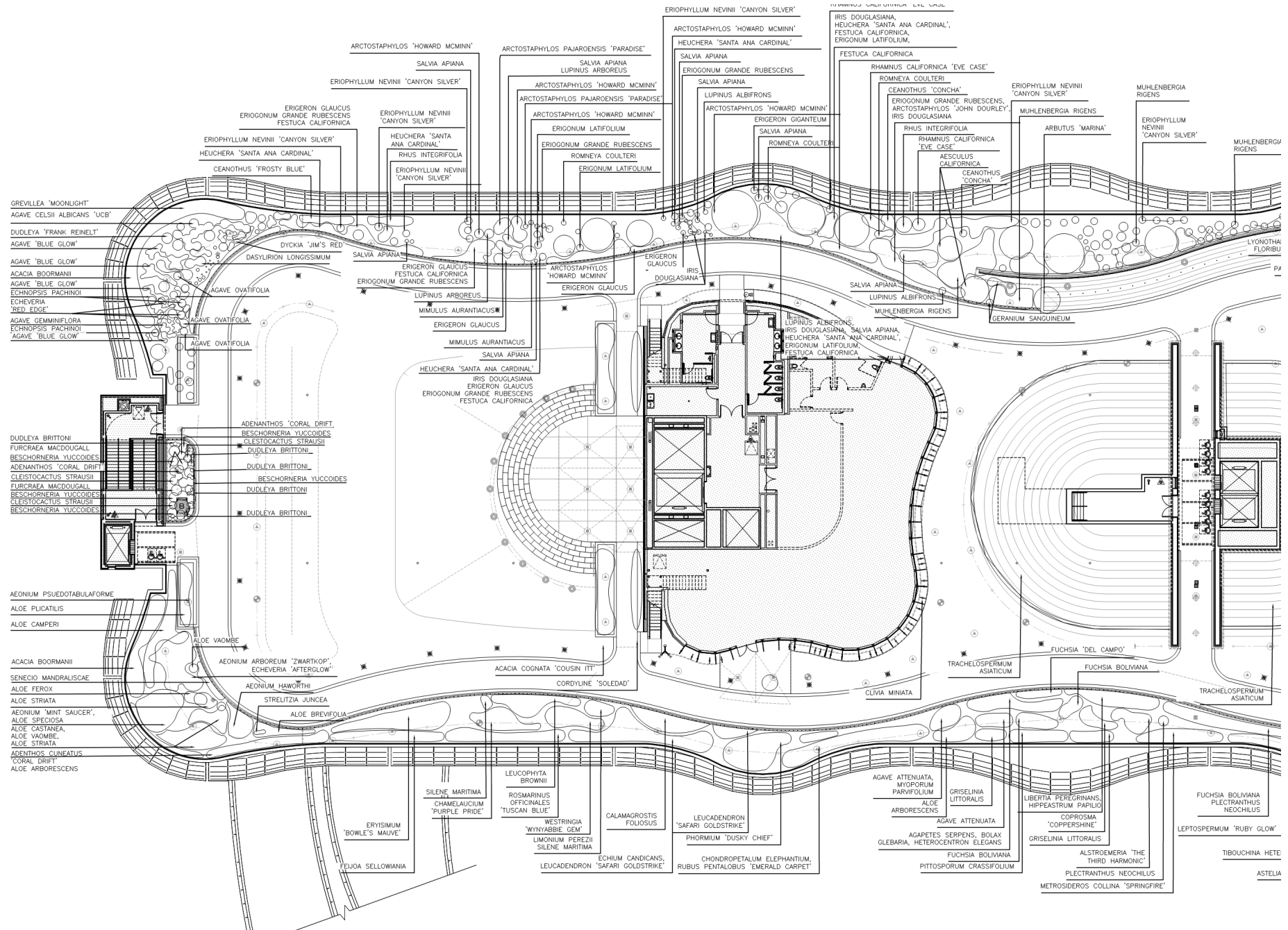


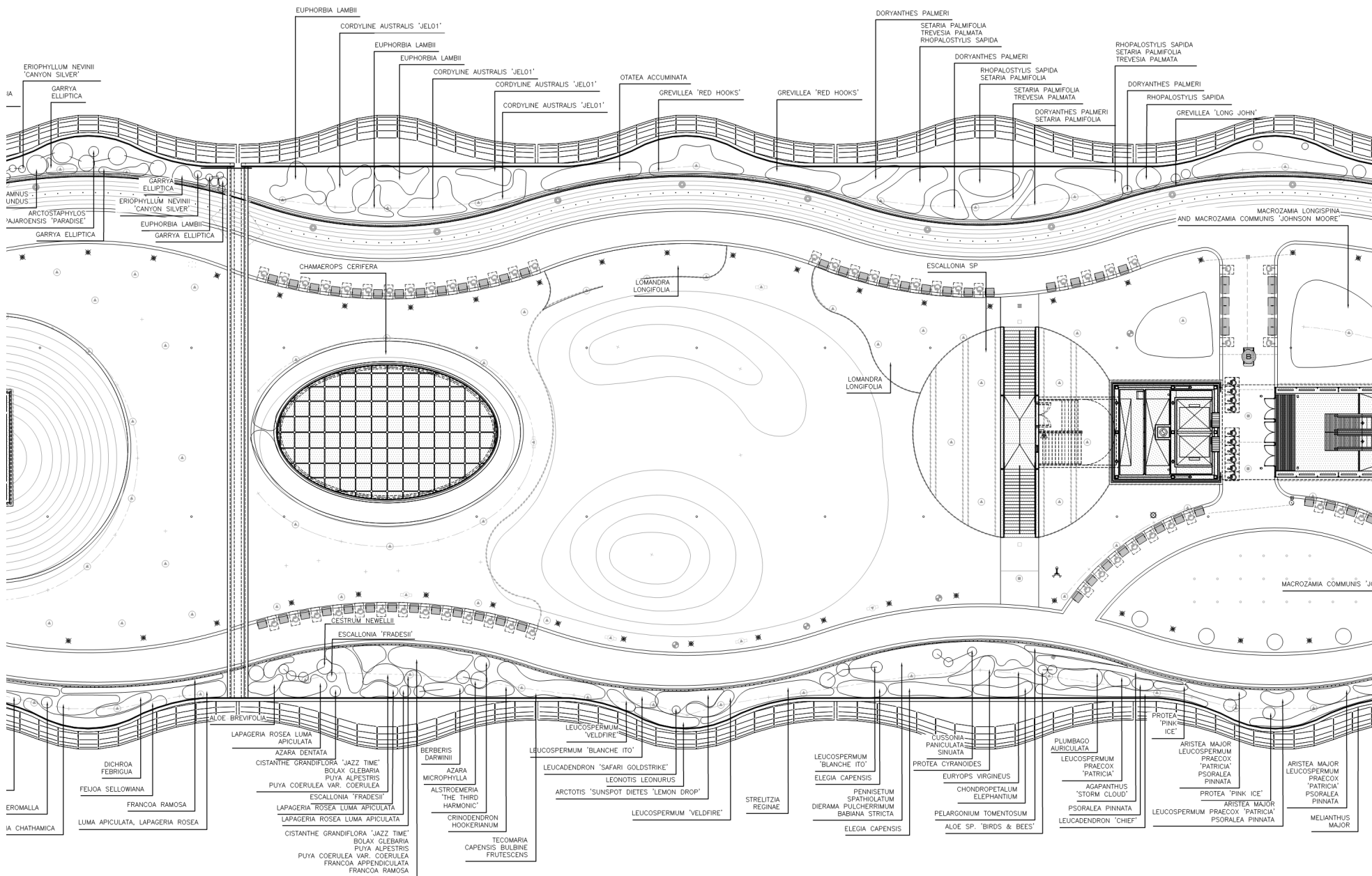
Acer palmatum	Betula nigra	Brahea edulis	Chamaerops humilis v. Cerifera	Howea belmoreana
Aesculus californica	Brachychiton acerifolia	Butia capitata	Cupressus macrocarpa	Howea forsteriana
Aloe tongaensis	Brachychiton discolor	Calocedrus decurrens	Dracaena draco	Jubaea chilensis
Araucaria araucana	Brachychiton populneus	Carpinus betulus	Encephalartos altensteinii	Lepidozamia peroffskyana
Araucaria heterophylla	Brachychiton rupestris	Cedrus deodara	Encephalartos natalensis	Leptospermum laevigatum
Arbutus 'Marina'	Brahea 'Clara'	Chamaerops humilis	Ginkgo biloba varieties	Leucadendron argenteum



- | | | | | |
|--|--------------------------------------|-------------------------------|--|---|
| • <i>Livistona decipiens</i> | • <i>Michelia champaca</i> 'Alba' | • <i>Quercus agrifolia</i> | ⊗ <i>Rhopalostylis sapida</i> | • <i>Ulmus parvifolia</i> |
| • <i>Lophostemon confertus</i> | • <i>Olea europaea</i> 'Swan Hill' | ⊗ <i>Quercus engelmannii</i> | ⊗ <i>Rhus lancea</i> | • <i>Washingtonia robusta</i> x <i>filifera</i> |
| • <i>Lyonothamnus floribundus</i> | • <i>Parajubaea cocoides</i> | ⊗ <i>Quercus suber</i> | • <i>Sequoia sempervirens</i> 'Aptos Blue' | • <i>Wollemia nobilis</i> |
| • <i>Maytenus boaria</i> 'Green Showers' | • <i>Parrotia persica</i> | ⊗ <i>Quercus tomentella</i> | ⊗ <i>Sequoiadendron giganteum</i> 'Pendulum' | |
| • <i>Melaleuca nesophila</i> | • <i>Pinus torreyana</i> | ⊗ <i>Quercus virginiana</i> | • <i>Trachycarpus takil</i> | |
| • <i>Metrosideros excelsa</i> | • <i>Platanus racemosa</i> 'Roberts' | • <i>Rhopalostylis baueri</i> | ⊗ <i>Trachycarpus wagnerianus</i> | |

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TREES

- *Acer palmatum*
- *Acer palmatum* 'Sango-kaku'
- *Aesculus californica*
- *Aloe tongaensis*
- *Araucaria araucana*
- *Araucaria heterophylla*
- *Arbutus* 'Marina'
- *Betula jacquemontii*
- *Brachychiton acerifolius*
- *Brachychiton discolor*
- *Brachychiton populneus*
- *Brachychiton rupestris*
- *Brahea* 'Clara'
- *Brahea edulis*
- *Butia capitata*
- *Calocedrus decurrens*
- *Carpinus betulus*
- *Cedrus deodara*
- *Chamaerops humilis*
- *Cupressus macrocarpa*
- *Dracaena draco*
- *Encephalartos altensteinii*
- *Encephalartos natalensis*
- *Ginkgo biloba* 'Autumn Gold'
- *Ginkgo biloba* 'Princeton Sentry'
- *Howea belmoreana*
- *Howea forsteriana*
- *Jubaea chilensis*
- *Lepidozamia peroffskyana*
- *Leptospermum laevigatum*
- *Leucadendron argenteum*
- *Livistona decipiens*
- *Lophostemon confertus*
- *Lyonothamnus floribundus* v. *Asplenifolius*
- *Maytenus boaria* 'Green Showers'
- *Melaleuca nesophila*
- *Metrosideros excelsa*
- *Michelia champaca*
- *Olea europaea* 'Swan Hill'
- *Parajubaea cocoides*
- *Parrotia persica*
- *Pinus torreyana*
- *Platanus racemosa* 'Roberts'
- *Quercus agrifolia*
- *Quercus engelmannii*
- *Quercus rugosa*
- *Quercus suber*
- *Quercus tomentella*
- *Quercus virginiana*
- *Rhopalostylis baueri*
- *Rhopalostylis sapida*
- *Rhus lancea* *Rhus lanceolata*
- *Sequoia sempervirens* 'Aptos Blue'
- *Sequoiadendron giganteum* 'Pendulum'
- *Trachycarpus takil*
- *Trachycarpus wagnerianus*
- *Ulmus parvifolia*
- *Ulmus parvifolia* 'Allee'
- *Washingtonia robusta* x *filifera*

SHRUB AND GROUNDCOVER PLANTING SPECIES

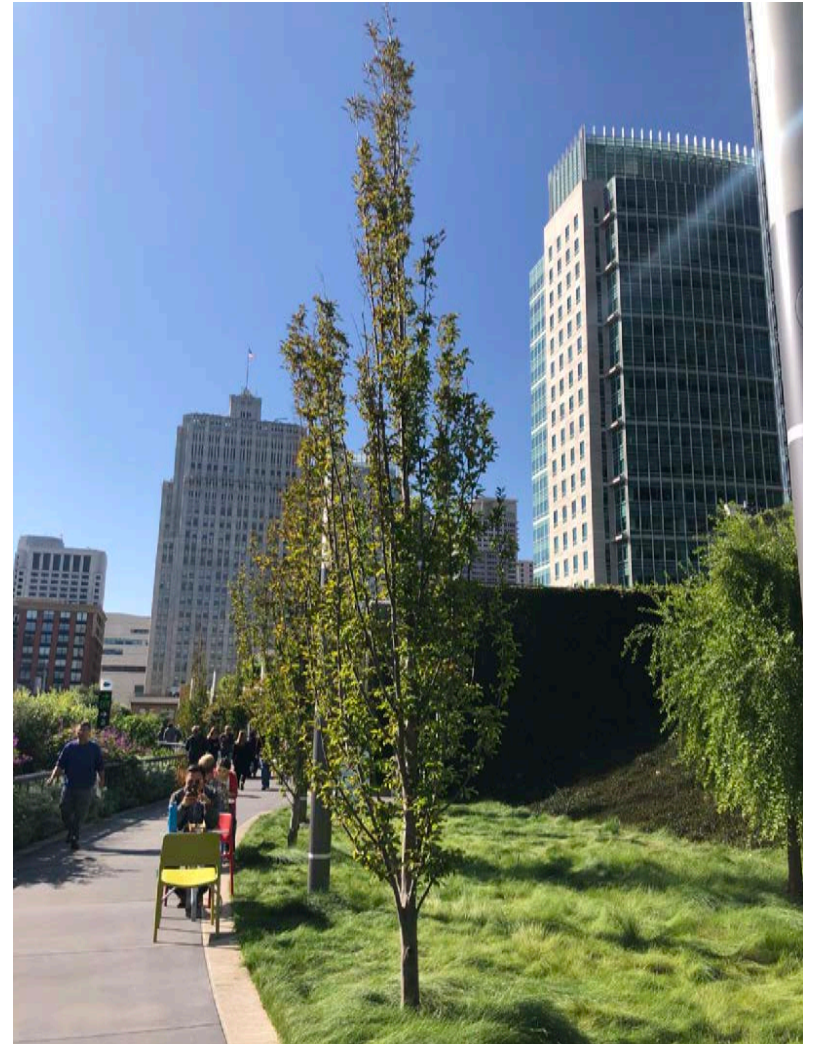
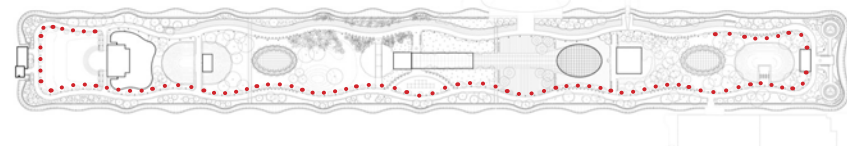
- *Acacia boormanii*
- *Acacia cognata* 'Cousin Itt'
- *Acacia iteaphylla*
- *Acacia vestita*
- *Acanthus mollis*
- *Acorus gramineus* 'Ogon'
- *Adenanthos cuneatus* 'Coral Drift'
- *Adenanthos sericeus*
- *Adenanthos* 'Silver Haze'
- *Aeonium arboreum* 'Zwartkop'
- *Aeonium haworthi* *Aeonium* 'Mint Saucer'
- *Aeonium psuedotabulaforme*
- *Agapanthus* 'Storm Cloud'
- *Agapetes serpens*
- *Agave attenuata*
- *Agave* 'Blue Glow'
- *Agave celsii* *albicans* 'UCB'
- *Agave filifera*
- *Agave gemminiflora*
- *Agave ovatifolia*
- *Agave victoriae-reginae*
- *Aloe arborescens*
- *Aloe brevifolia*
- *Aloe camperi*
- *Aloe castanea*
- *Aloe ferox*
- *Aloe marlothii*
- *Aloe plicatilis*
- *Aloe* sp. 'Birds & Bees'
- *Aloe speciosa*
- *Aloe striata*
- *Aloe thraskii*
- *Aloe vaombe*
- *Alstroemeria* 'The Third Harmonic'
- *Alyogyne huegelii*
- *Anemanthele lessoniana*
- *Anigozanthos* 'Big Red'
- *Arbutus unedo* 'Compacta'
- *Arctostaphylos* 'Howard McMinn'
- *Arctostaphylos* 'Joun Dourley'
- *Arctostaphylos pajaroensis* 'Paradise'
- *Arctotis* 'Sunspot'
- *Aristea major*
- *Artemisia* 'Powis Castle'
- *Astelia chathamica*
- *Astelia nivicola* 'Red Gem'
- *Azara dentata*
- *Azara microphylla*
- *Babiana stricta*
- *Banksia ashbyi*
- *Banksia ericifolia*
- *Banksia menziesii*
- *Banksia speciosa*
- *Berberis darwinii*
- *Berberis lomariifolia*
- *Beschomeria yuccoides*
- *Blechnum brasiliense*
- *Blechnum gibbum* 'Silver Lady'
- *Bolax glebaria*
- *Brachyglottis* 'Silver Dormouse'
- *Bulbine frutescens*
- *Calamagrostis foliosus*
- *Calothamnus quadrifidus* 'Seaside'
- *Cantua buxifolia*
- *Capparis spinosa*
- *Carex albula*
- *Carex divulsa*
- *Carex flagellifera*
- *Ceanothus arboreus* 'Cliff Schmidt'
- *Ceanothus* 'Concha'
- *Ceanothus* 'Frosty Blue'
- *Ceanothus* 'Ray Hartman'
- *Ceanothus* 'Yankee Point'
- *Cestrum newellii*
- *Chamaerops humilis* 'Cerifera'
- *Chamelaucium* 'Purple Pride'
- *Chondropetalum elephantium*
- *Chondropetalum tectorum*
- *Chorizema* 'Bush Flame'
- *Cistanthe grandiflora* 'Jazz Time'
- *Cistus ladanifer* 'Blanche'
- *Cleistocactus strausii*
- *Coprosma* 'Coppershine'
- *Cordyline australis* 'Jel01'
- *Cordyline glauca*
- *Coreopsis gigantea*
- *Cornus sericea* 'Isanti'
- *Correa* 'Ivory Bells'
- *Corynocarpus laevigatus*
- *Cotinus coggygria* 'Royal Purple'
- *Cotyledon orbiculata* var. *oblonga* 'Flavida'
- *Crassula muscosa*
- *Crinodendron hookerianum*
- *Cussonia paniculata sinuata*
- *Cussonia spicata*
- *Cyathea copperi*
- *Cycas panzhihuaensis*
- *Cycas thoursii*
- *Dasyliirion longissimum*
- *Deppea splendens*
- *Dianella tasmanica*
- *Dianella tasmanica* 'Casa Blue'
- *Dianella tasmanica* 'Tasred'
- *Dichroa febrigua*
- *Dicksonia antarctica*

- *Dierama pulcherrimum*
- *Dietes 'Lemon Drop'*
- *Distictis buccinatoria*
- *Doryanthes palmeri*
- *Dryopteris erythrosora*
- *Dudleya brittonii*
- *Dudleya 'Frank Reinelt'*
- *Dyckia 'Jim's Red'*
- *Dymondia margaretae*
- *Echeveria 'Afterglow'*
- *Echeveria cante*
- *Echeveria elegans*
- *Echeveria 'Perle Von Nurnberg'*
- *Echeveria 'Red Edge'*
- *Echium candicans*
- *Echnopsis pachinoi*
- *Elegia capensis*
- *Encephalartos*
- *Equisetum scirpoides*
- *Erigeron glaucus*
- *Eriogonum giganteum*
- *Eriogonum grande rubescens*
- *Eriogonum latifolium*
- *Eriophyllum nevinii "Canyon Silver"*
- *Erysimum 'Bowler's Mauve'*
- *Escallonia 'Fradesii'*
- *Euphorbia characias wulfenii*
- *Euphorbia lambii*
- *Euryops virgineus*
- *Feijoa sellowiana*
- *Festuca californica*
- *Ficus pumilla*
- *Francoa appendiculata*
- *Francoa ramosa*
- *Fuchsia arborescens*
- *Fuchsia boliviana*
- *Fuchsia 'Del Campo'*
- *Furcraea macdougalii*
- *Garrya elliptica*
- *Geranium maderense*
- *Geranium sanguineum*
- *Grevillea 'Long John'*
- *Grevillea 'Moonlight'*
- *Grevillea 'Peaches and Cream'*
- *Grevillea 'Red Hooks'*
- *Griselinia littoralis*
- *Gunnera chilensis*
- *Helleborus argutifolius*
- *Heracleum lanatum*
- *Heterocentron elegans*
- *Heteromeles arbutifolia*
- *Heuchera 'Santa Ana Cardinal'*
- *Hippeastrum papilio*
- *Iris douglasiana Iris 'Nada'*
- *Isolepis cernua*
- *Isopogon*
- *Juncus effusus 'Quartz Creek'*
- *Juncus pallidus*
- *Juncus patens 'Elk Blue'*
- *Kalanchoe beharensis*
- *Lapageria rosea*
- *Laurus nobilis*
- *Lavandula x intermedia 'Grosso'*
- *Leonotis leonurus*
- *Lepidozamia peroffskiana*
- *Leptospermum 'Ruby Glow'*
- *Leucadendron "Jubilee Crown"*
- *Leucadendron 'Chief'*
- *Leucadendron linifolium*
- *Leucadendron 'More Silver'*
- *Leucadendron 'Safari Goldstrike'*
- *Leucophyta brownii*
- *Leucospermum 'Blanche Ito'*
- *Leucospermum praecox 'Patricia'*
- *Leucospermum 'Veldfire'*
- *Libertia peregrinans*
- *Limonium perezii*
- *Lomandra hystrix 'Tropic Belle'*
- *Lomandra longifolia 'Breeze'*
- *Luma apiculata*
- *Lupinus albifrons*
- *Lupinus arboreus*
- *Macrozamia communis*
- *Macrozamia johnsonii*
- *Macrozamia longispina*
- *Macrozamia moorei*
- *Melaleuca incana*
- *Melianthus major*
- *Metrosideros collina 'Springfire'*
- *Michelia champaca*
- *Microlepidia strigosa*
- *Mimulus aurantiacus*
- *Miscanthus transmorrissonensis*
- *Muhlenbergia rigens*
- *Myoporum parvifolium*
- *Myrica californica*
- *Myrtus communis*
- *Neomarica Caerulea*
- *Nepeta reichenbachiana*
- *Olea europea 'Montra'*
- *Origanum laevigatum 'Hopleys'*
- *Oscularia deltoidea*
- *Osmanthus fragrans*
- *Otatea acuminata*
- *Pelargonium tomentosum*
- *Pennisetum spathiolatum*
- *Phlomis fruticosa*
- *Phormium 'Dusky Chief'*
- *Phyllica pubescens*
- *Phyllostachys bambusoides*
- *Pittosporum crassifolium*
- *Plectranthus neochilus*
- *Plumbago auriculata*
- *Polystichum munitum*
- *Protea cyanoides*
- *Protea 'Pink Ice'*
- *Psoralea pinnata*
- *Punica granatum 'Nana'*
- *Puya alpestris*
- *Puya coerulea var. coerulea*
- *Rhamnus alaternus*
- *Rhamnus alaternus 'Variegata'*
- *Rhamnus californica 'Eve Case'*
- *Rhus integrifolia*
- *Ribes aureum*
- *Ribes californicum*
- *Ribes sanguineum*
- *Romneya coulteri*
- *Rosmarinus officinalis 'Tuscan Blue'*
- *Rubus parvifolius*
- *Rubus pentalobus 'Emerald Carpet'*
- *Russelia equisetiformis*
- *Salvia apiana*
- *Salvia clevelandii 'Winnfred Gilman'*
- *Santolina neapolitana 'Lemon Queen'*
- *Senecio mandraliscae*
- *Sesleria autumnalis*
- *Setaria palmifolia*
- *Silene maritima*
- *Sisyrinchium striatum*
- *Stipa gigantea*
- *Strelitzia reginae*
- *Strelitzia juncea*
- *Symphoricarpos albus*
- *Tecomaria capensis*
- *Teucrium fruiticans*
- *Tibouchina heteromalla*
- *Trachospermum asiaticum*
- *Trevesia palmata*
- *Ugani molinae*
- *Vancouveria hexandra*
- *Viburnum davidii*
- *Westringia 'Wynabbie Gem'*
- *Wollemia nobilis*
- *Woodwardia fimbriata*
- *Xanthorrhoea preisii*

2.0 CENTRAL PARK ZONES

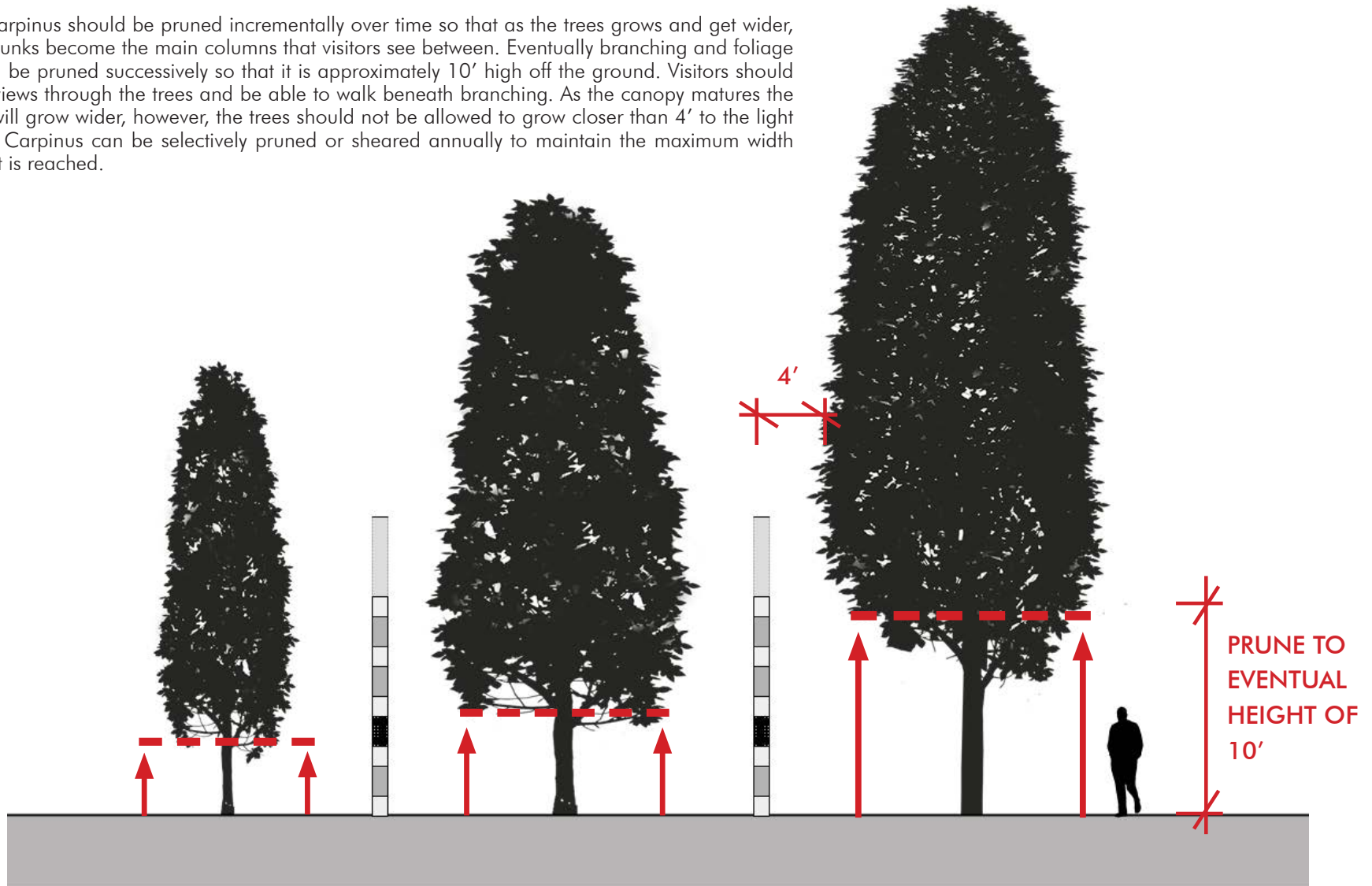
COLUMNAR TREES

The *Carpinus betulus* along the interior perimeter of the park are intended to be columnar and maintained with a uniform canopy. These trees alternate with the lighting and security pylons, and provide a visual register that lead visitors along the perimeter park path.



CARPINUS BETULUS

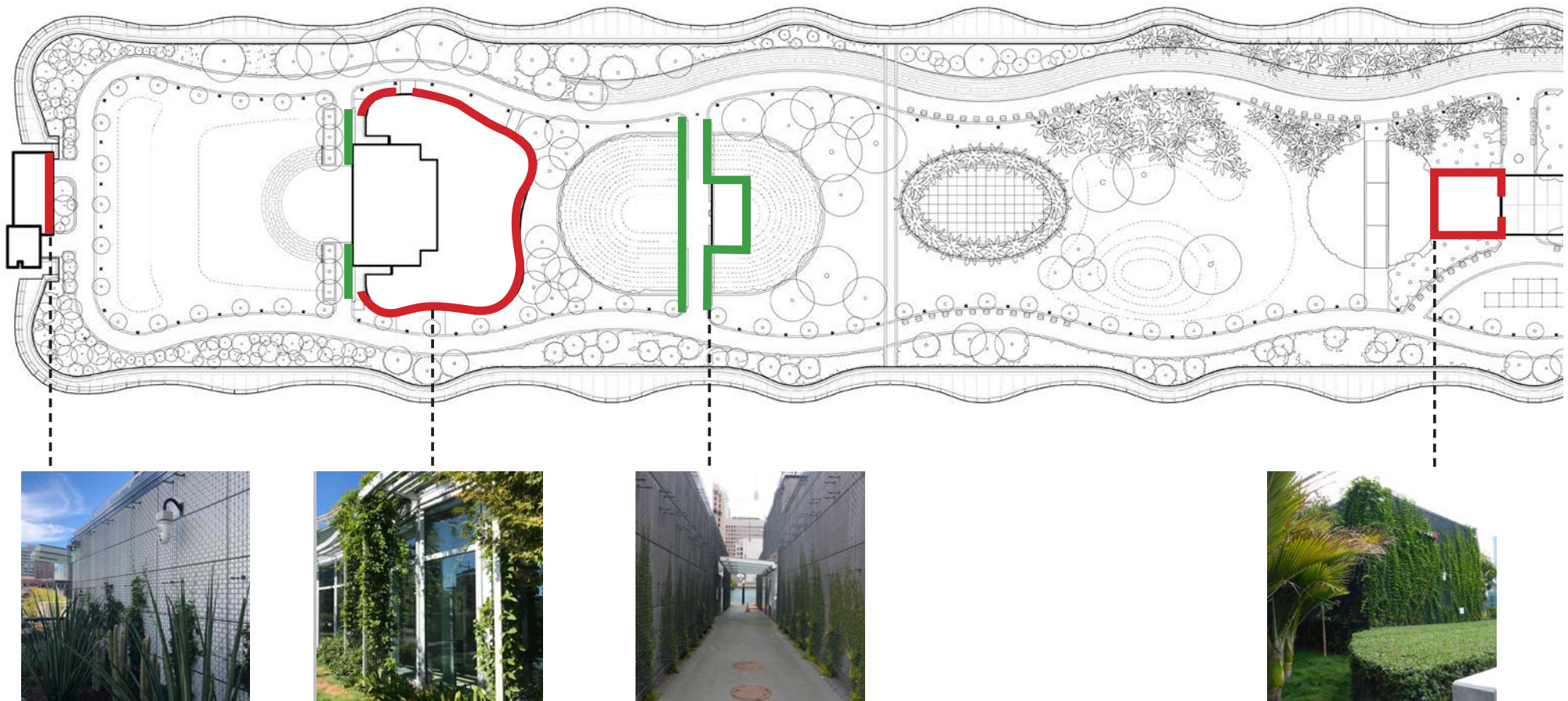
The Carpinus should be pruned incrementally over time so that as the trees grows and get wider, their trunks become the main columns that visitors see between. Eventually branching and foliage should be pruned successively so that it is approximately 10' high off the ground. Visitors should have views through the trees and be able to walk beneath branching. As the canopy matures the trees will grow wider, however, the trees should not be allowed to grow closer than 4' to the light poles. Carpinus can be selectively pruned or sheared annually to maintain the maximum width once it is reached.



PRUNING DIAGRAM

VINES

All of the structures on the park are intended to become “green buildings” through the growth of vines. Openings at doors, windows, signage, utilities, etc will need to be maintained per the following guidelines.

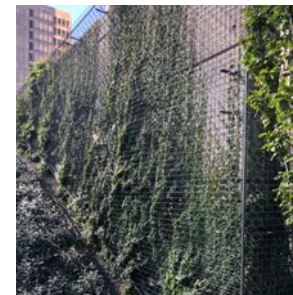
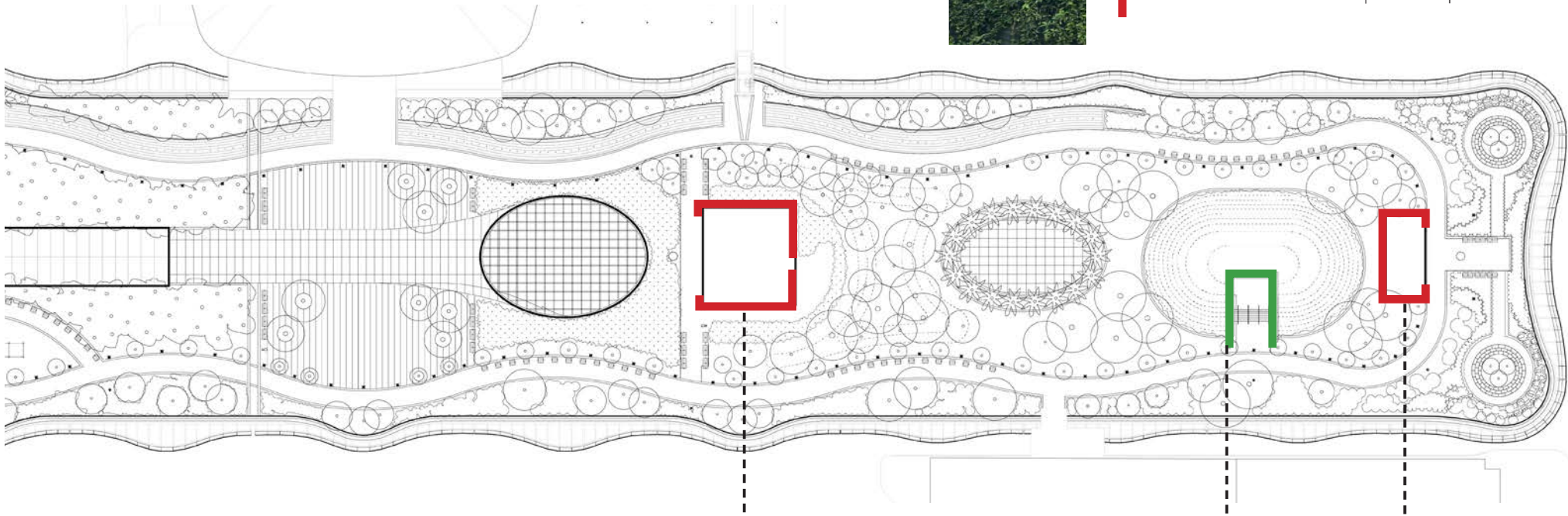




FICUS REPENS | Creeping Fig

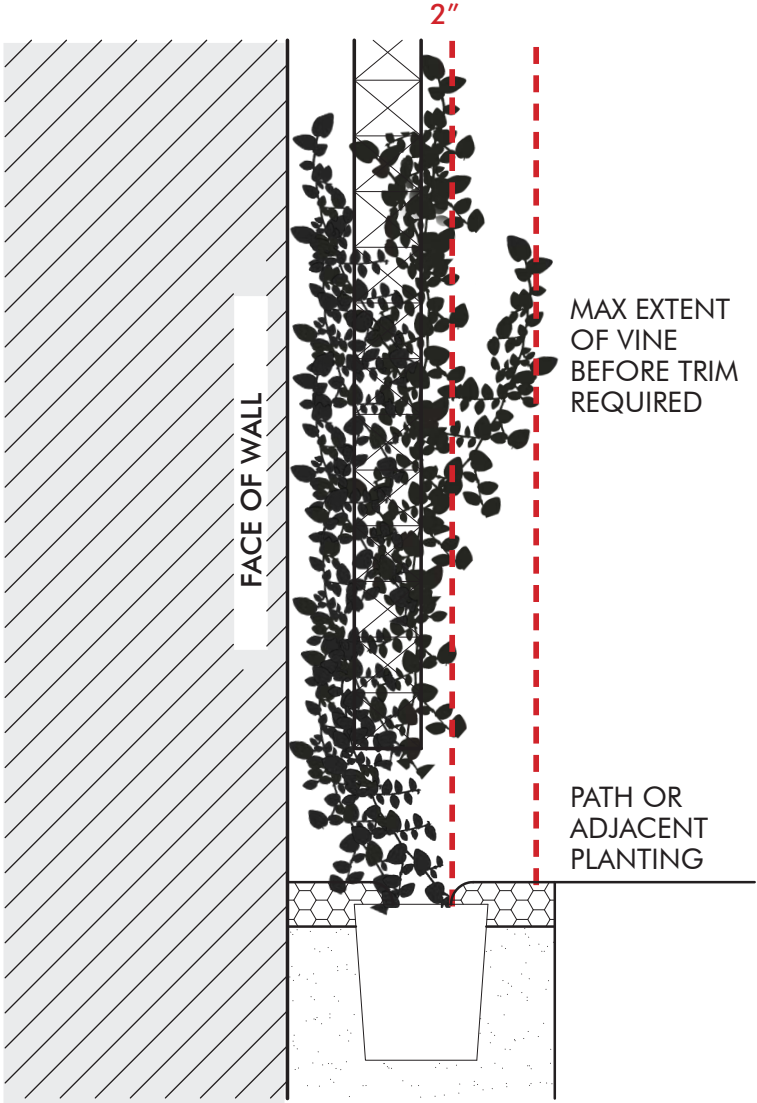


DISTICTIS BUCCINATORIA | Red Trumpet Vine



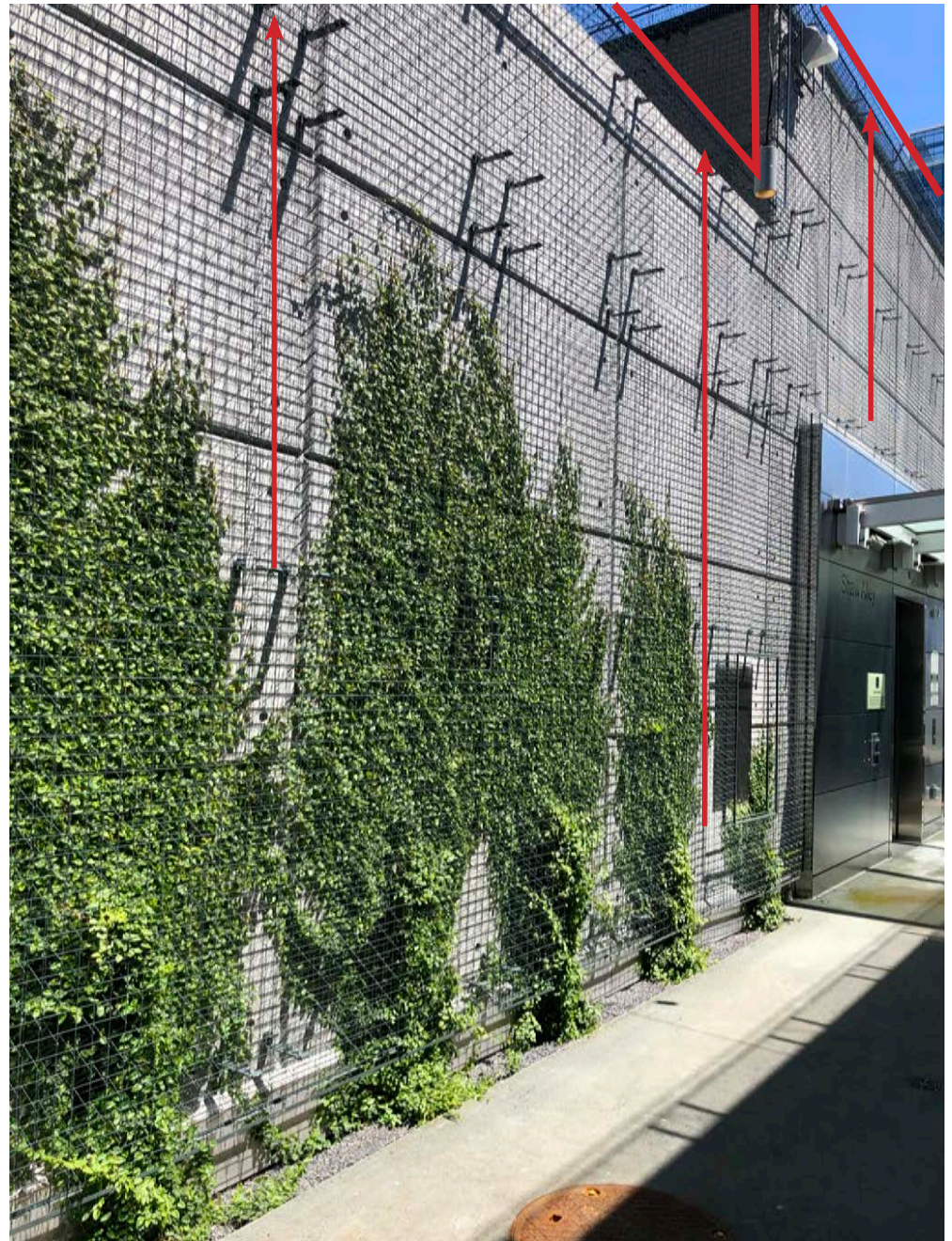
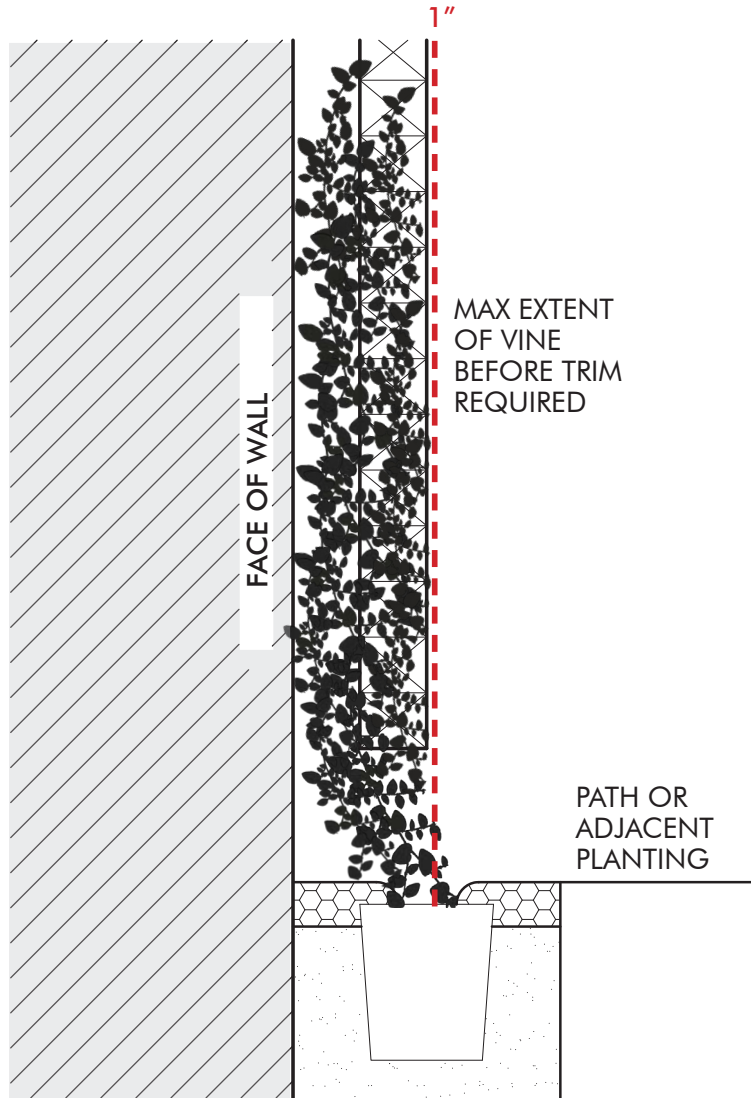
DISTICTUS BUCCINATORIA

Trim Distictis 2" from green screen and let grow until it reaches path or adjacent planting. Allow the vines to grow to the top of the green-screen structure. At the roof park restaurant, all the vines should be encouraged to grow beyond the green screen to the base of the guardrail on level 2 of the restaurant.

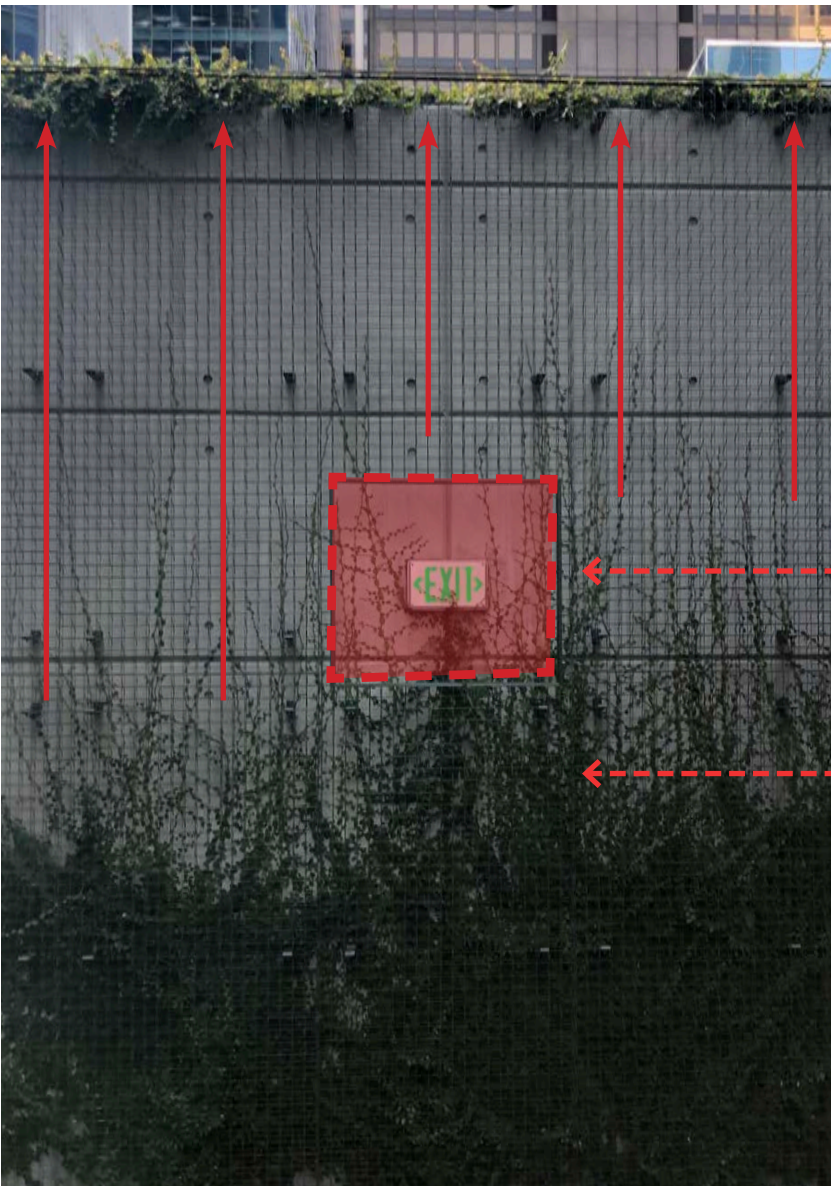


FICUS PUMILA

Using the green screen as a guide, trim back Ficus 1" in front of the face of green screen. Allow the vines to grow to the top of the green screen structure.



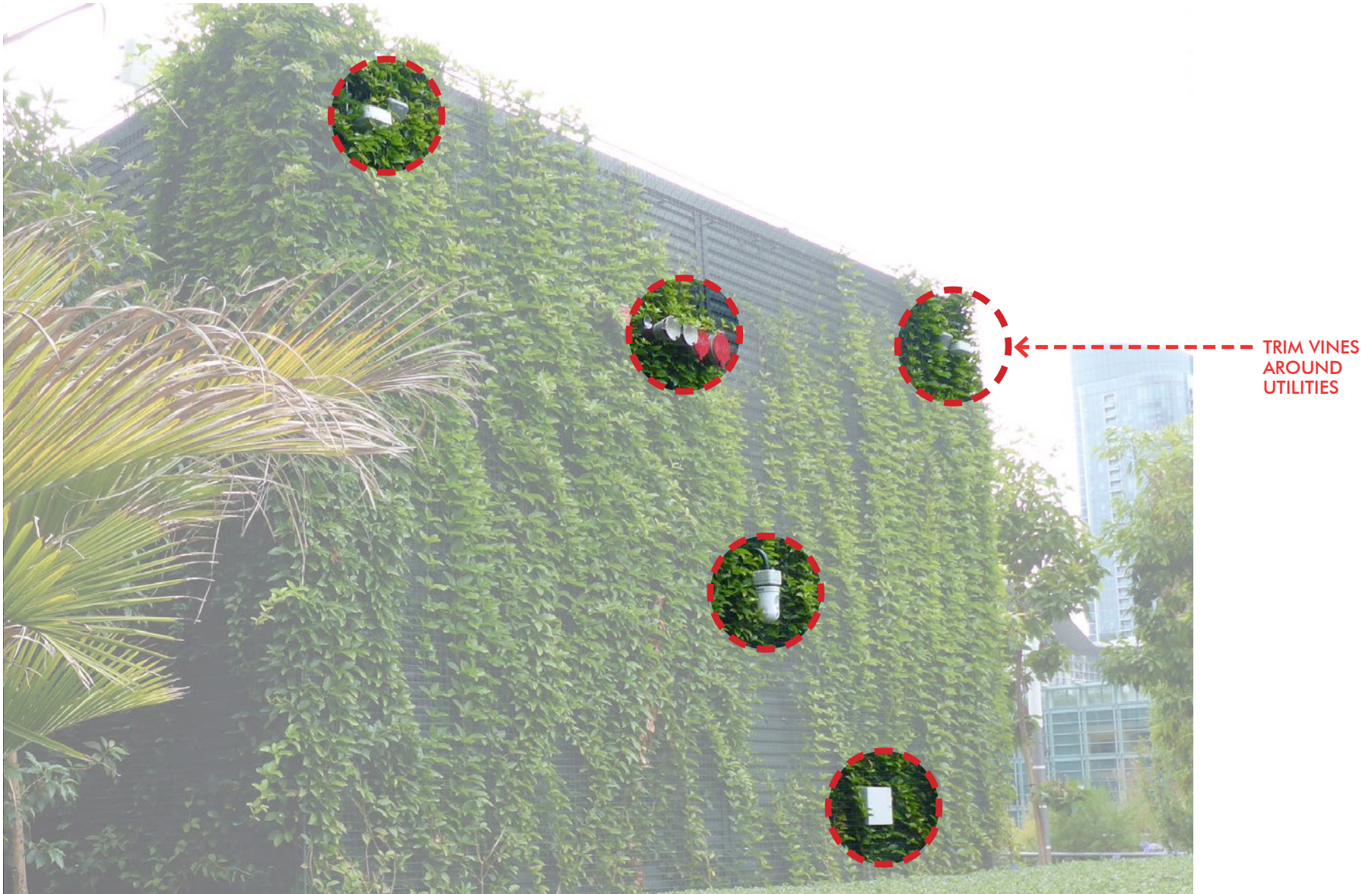
SIGNAGE



USE GREEN
SCREEN AS
GUIDE TO TRIM
VINES AROUND
SIGNAGE

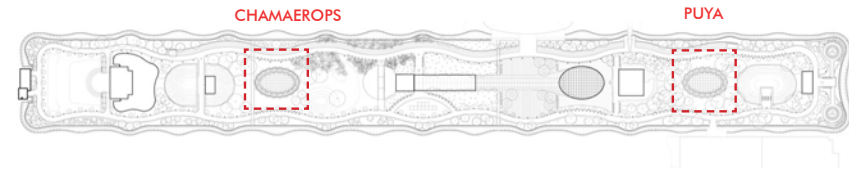
IT IS ACCEPTABLE
FOR VINES TO
GROW ON WALL
ITSELF, BUT THEY
SHOULD NOT
COVER SIGNS

UTILITIES



PALM SKYLIGHT RINGS

The two skylight rings are planted with *Washingtonia robusta* x *filifera* but have different understory planting. The west side is planted with *Chamaerops cerifera* and the east side is planted with *Puya coerulea*. The two types of plant material will have different maintenance requirements.

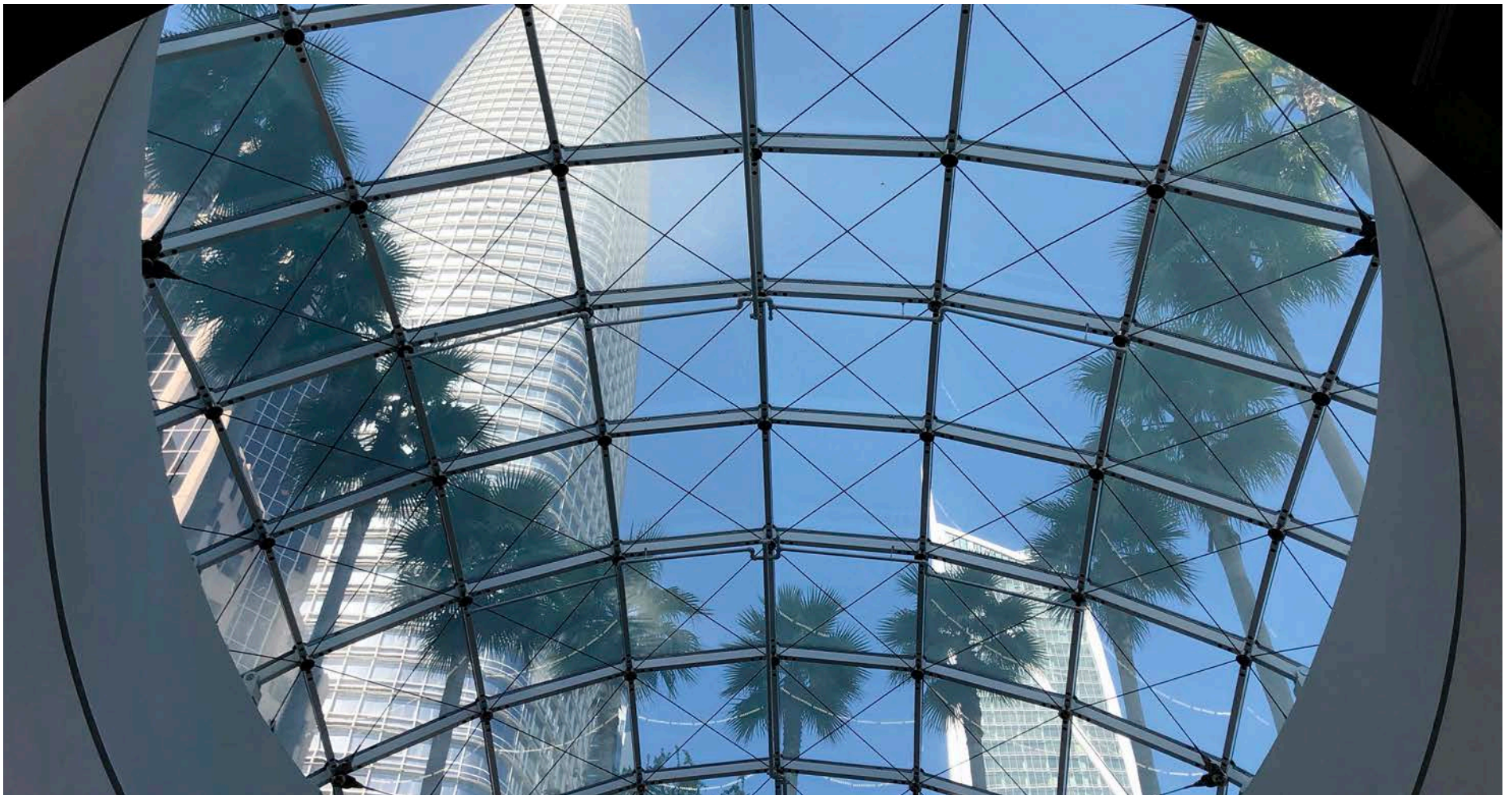


REMOVE DRIED BROWN FRONDS ANNUALLY

TRIM THATCH AND SKIN PALMS TO THE SAME HEIGHT

RAISE SKINNING EVERY 2 YEARS OR MORE BASED ON AESTHETICS AND GROWTH RATE IN SITU

DESIRED PRUNING EFFECT AS VIEWED FROM SKYLIGHT BELOW



CHAMAEROPS CERIFERA

The design intent was to use planting to bring the skylight to the ground. Understory planting deters park visitors from traveling too close to the skylight. Chamaerops should be allowed to fill in around the base of the palms and ultimately conceal the metal flashing around the skylight and the adjacent rail.



DO NOT PRUNE OFF SIDE SHOOTS. ENCOURAGE PLANT TO GROW BEYOND RAILING AND UP TO SKYLIGHT

CHAMAEROPS AT WEST SKYLIGHT

PUYA COERULEA

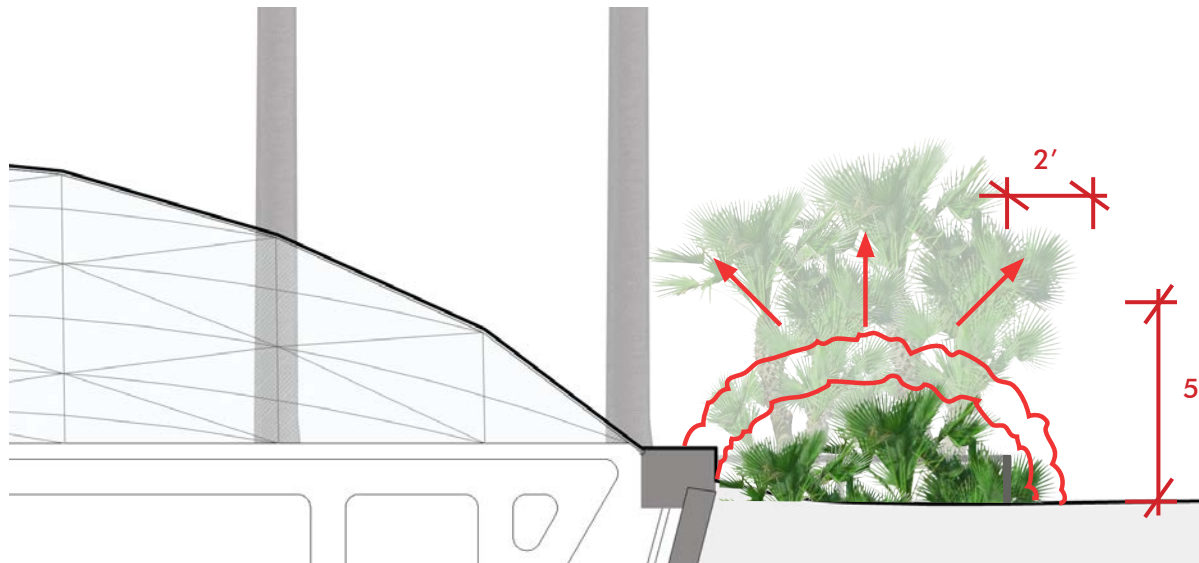
The design intent for the understory planting was to deter park visitors from traveling too close to the skylight. Puya should be allowed to fill in around the base of the palms and ultimately conceal the metal flashing around the skylight and the adjacent rail.



ALLOW PUYA TO GROW THROUGH RAILING

PUYA AT EAST SKYLIGHT

CHAMAEROPS OVER TIME

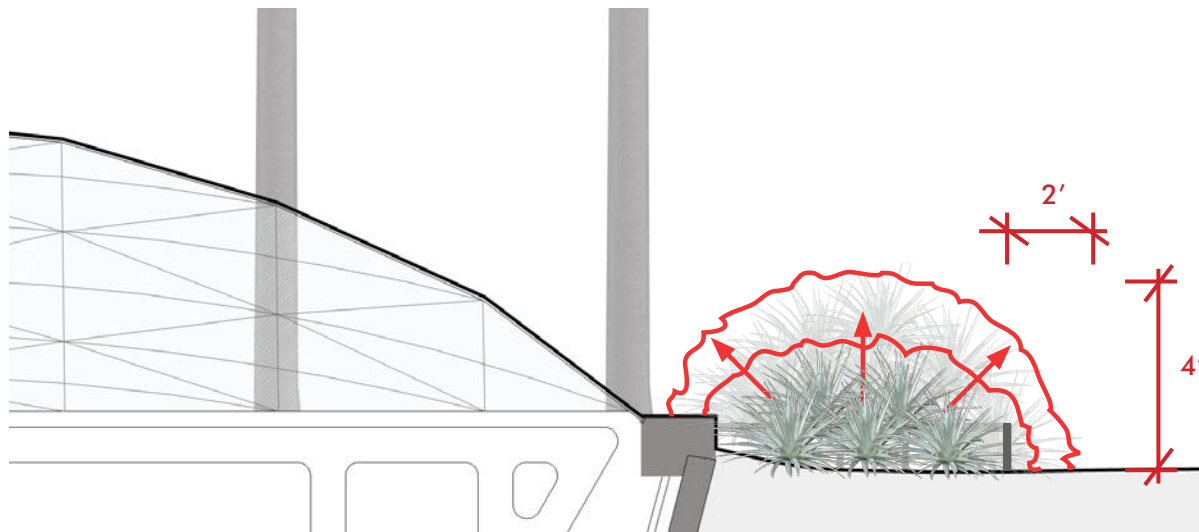


Chamaerops grows as a solid mass but develops trunks over time

5 1/2'

← AFTER CHAMAEROPS GROWS AND MOUNDS TO 5 1/2' THEN NEW SHOOTS SHOULD BE REMOVED, REVEALING THE TRUNKS AND THE PARK BEYOND. AFTER APPROXIMATELY 3 YEARS OF REMOVING NEW SHOOTS, ALLOW SHOOTS TO GROW BACK AND MOUND UNDERNEATH CHAMAEROPS TRUNKS

PUYA OVER TIME



4'

← ALLOW PUYA TO MOUND AROUND THE SKYLIGHT. WHEN THE PLANT FLOWERS, REMOVE FLOWERING STEM AT BASE. REMOVE DEAD FRONDS AND HEADS ANNUALLY.

LAWN + MEADOWS

Lawn areas are located in the picnic meadow and amphitheater and are designed for concentrated use by pedestrians and regular programming. The meadows are designed for occasional pedestrian use were assumed to receive less use, but should accept moderate pedestrian movement.

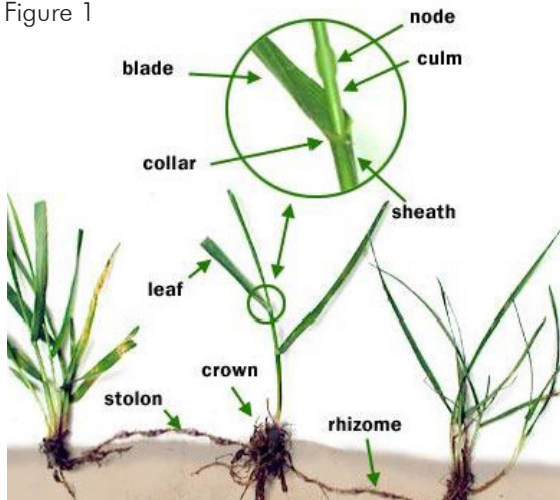
LAWN

- Maintain lawn at 1 to 2 1/2" long.
- After heavy use or big rain events close the lawn area to allow lawn to drain, dry, and recover.

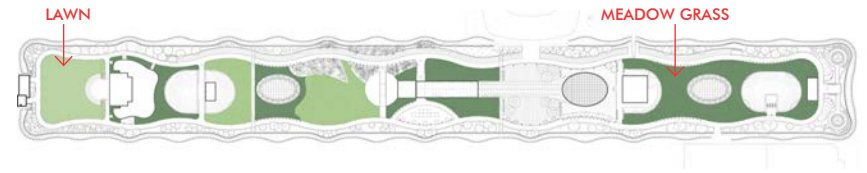
MEADOW GRASS

Design intent for the natural fescue meadow is for it to be used by visitors as a lawn area though we expect it to get less traffic than the turf lawns. This should be possible by optimizing mowing heights and frequency. Well planned mowing height and timing will ensure the overall health of the meadow. Meadow grass should be kept between 3-4" tall for optimal growth and pedestrian use.

Figure 1



*Based on Delta Bluegrass Co. recommendations



- NEVER remove more than 1/3 of the leaf blade per mow cycle. To best understand what defines a leaf blade see Fig. 1
- Although the sod installed is called "Mow Free" by the grower, it still requires periodic mowing for health and pedestrian use.
- Mow areas when turf is dry. When using a non-mulching mower, break up any clumps or clippings left behind to avoid yellowing of the turf below.
- Keep mower blades well sharpened for the best cut. A dull blade tears at the grass which can weaken the turf's ability to fight off pests and disease. Sharpen blades a minimum of twice a year.

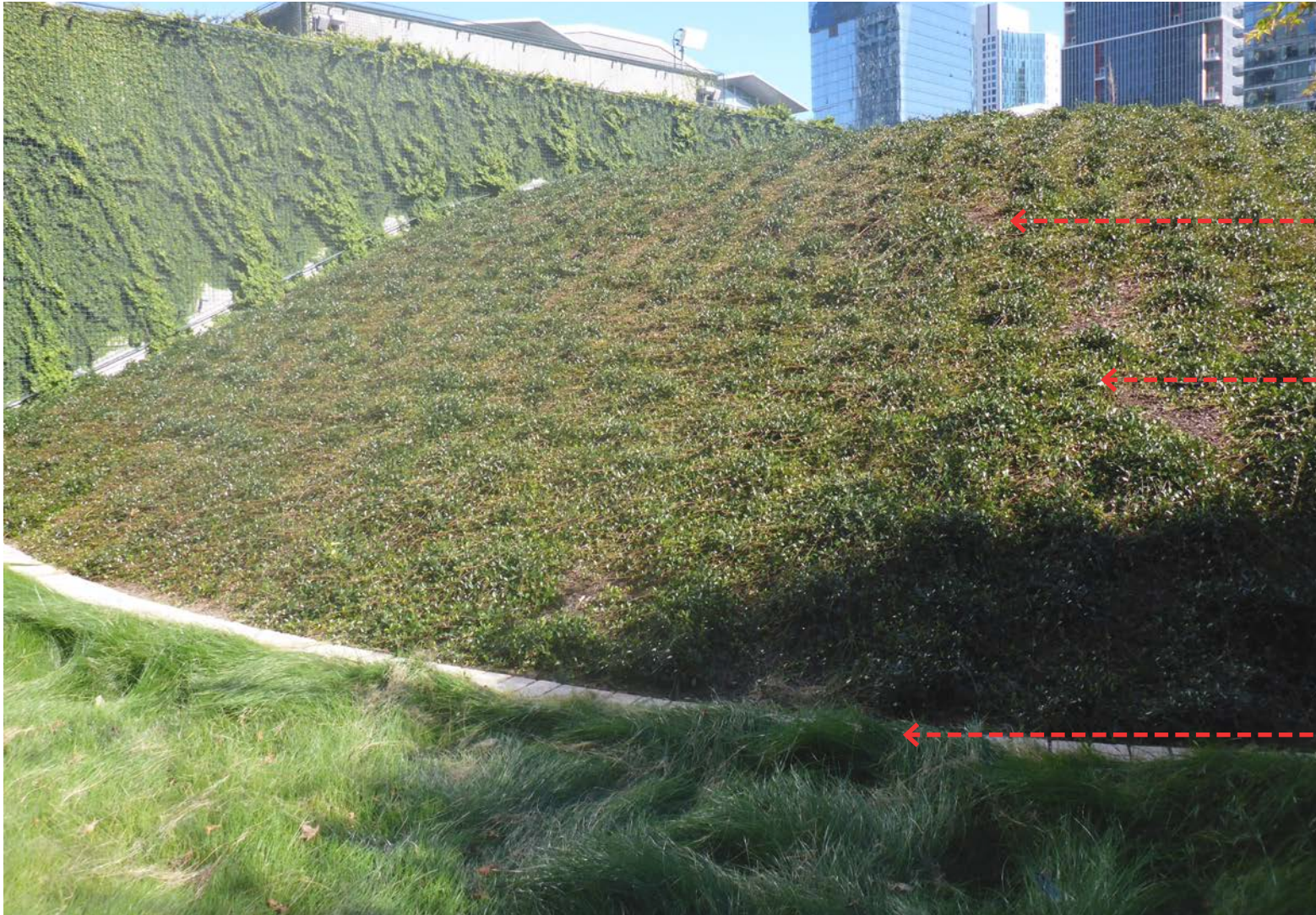
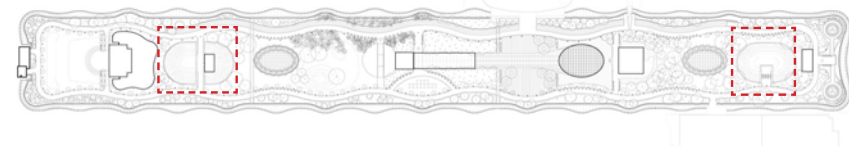
← MEADOW GRASS
LONGER THAN
OPTIMAL FOR
PEDESTRIAN USE

MEADOWS MAINTENANCE CALENDAR

FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN
PEAK SEASON MOWING: Mid to Late February mow every 2 WEEKS until turf reaches 3"-4". Never remove more than 1/3 of the leaf blade in each mow cycle.				OFF SEASON MOWING: Continue mowing AS NEEDED. Taller mowing heights reduce stress on the plant during extreme heat.			PEAK SEASON MOWING: Mid to Late September start mowing every 2 WEEKS until turf reaches 3"-4".			OFF SEASON MOWING: Continue mowing only AS NEEDED.	
OVERSEEDING: Mid to Late February after mowing seed in thin spots to prevent weed encroachment. Apply a starter fertilizer, seed, and a thin layer of topper.							OVERSEEDING: Late September after mowing seed in thin spots to prevent weed encroachment.				
IRRIGATION: When rainfall has stopped for 2 weeks or more, turn on irrigation. ONLY apply water between Midnight to 4 am. Begin applying water every 3rd day in the cycle soak method. Increased irrigation will be necessary when we enter heat waves or excessive heat spells. Begin to cut back water as days shorten and temperatures drop (Approximately Mid September to Early October). June, July, August increase irrigation times and frequency but be mindful to not accidentally over water.											
FERTILIZING: "Tax Day to Turkey Day" with slow release fertilizers such as BEST Super Turf 25-5-5, apply 6# per 1,000 sq. ft No fertilizers should be applied after the 1st of September. Fertilizer may need to be applied in March after heavy rainfall- Apply Turf Royale 21-7-14 at 5# per 1,000 sq. ft.											
		Fertilize April 15th			Fertilize July 4th		Fertilize Sept. 1st				

GROUND COVER MOUNDS

The mounds are meant to appear as solid green forms that contribute to both the rolling topography in the park and help to conceal architectural elements underneath them. The ground cover on the mound should be allowed to fill in to create a uniform 'carpet'.



← ALLOW ASIAN JASMINE TO FILL IN AND BLANKET THE MOUND

← ONCE FILLED IN, TRIM DOWN TO 4-6" TO MAINTAIN UNIFORMITY

← TRIM MEADOW GRASS TO REVEAL HEADER

VERTICALLY GROWING FICUS

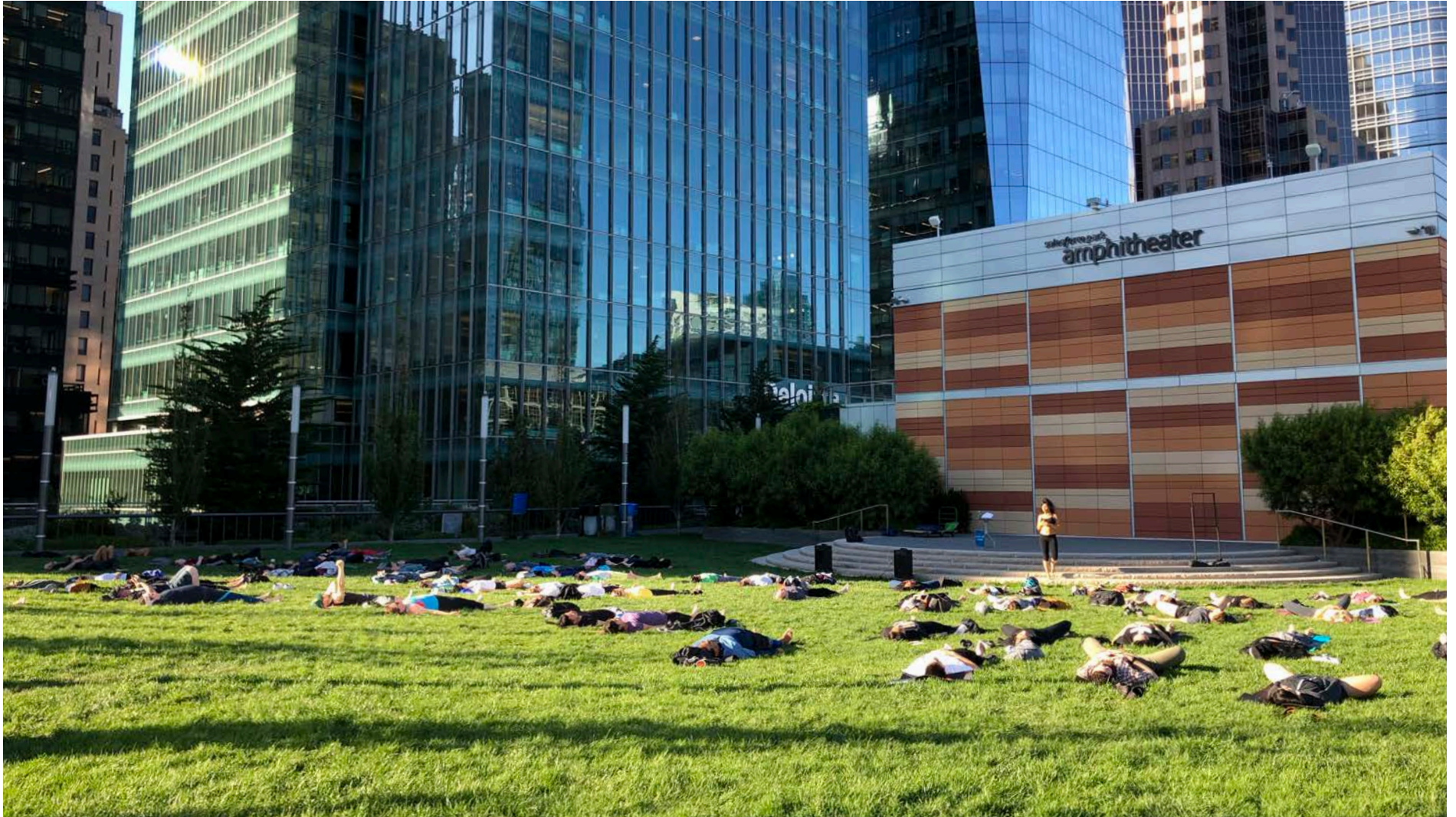
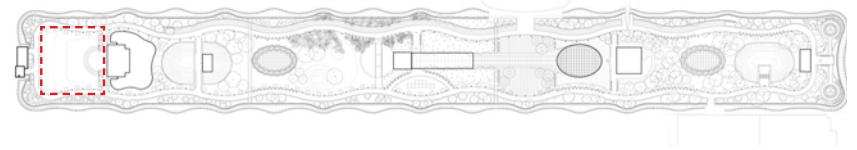
HORIZONTALLY GROWING ASIAN JASMINE



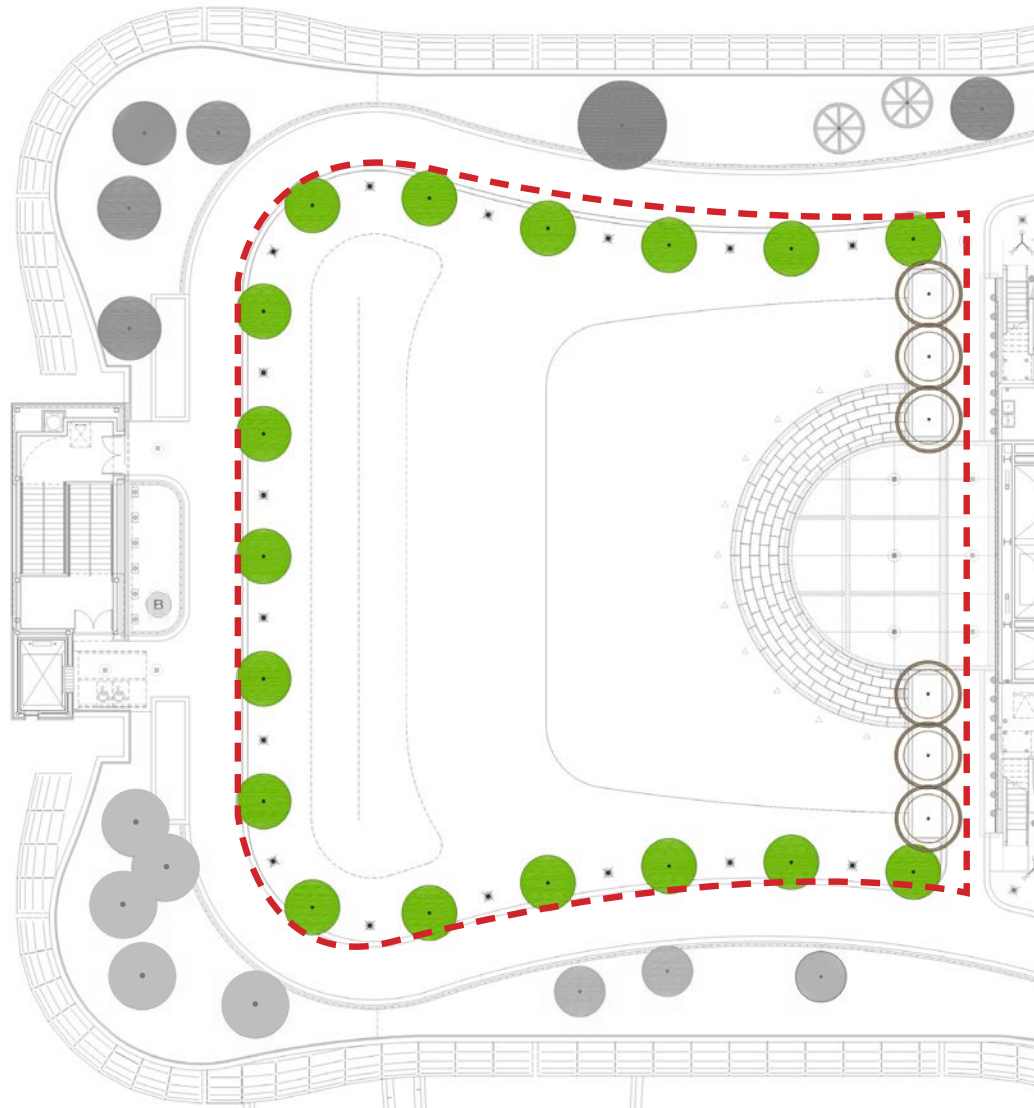
MAINTAIN A CLEAR
DELINEATION BETWEEN THE
ASIAN JASMINE AND THE
CLIMBING VINE
-PRUNE VINES AS
PREVIOUSLY DESCRIBED IN
THIS MANUAL
-MAINTAIN JASMINE TO THE
EDGE OF THE METAL HEADER

AMPHITHEATER

The amphitheater is one of the two event spaces at the park, and is intended to be used for informal gatherings as well as programmed events with moderate to heavy pedestrian use. After large events, or heavy rain events, the lawn should be monitored, and closed if required, to prevent damage.



AMPHITHEATER TREE PLANTING PLAN



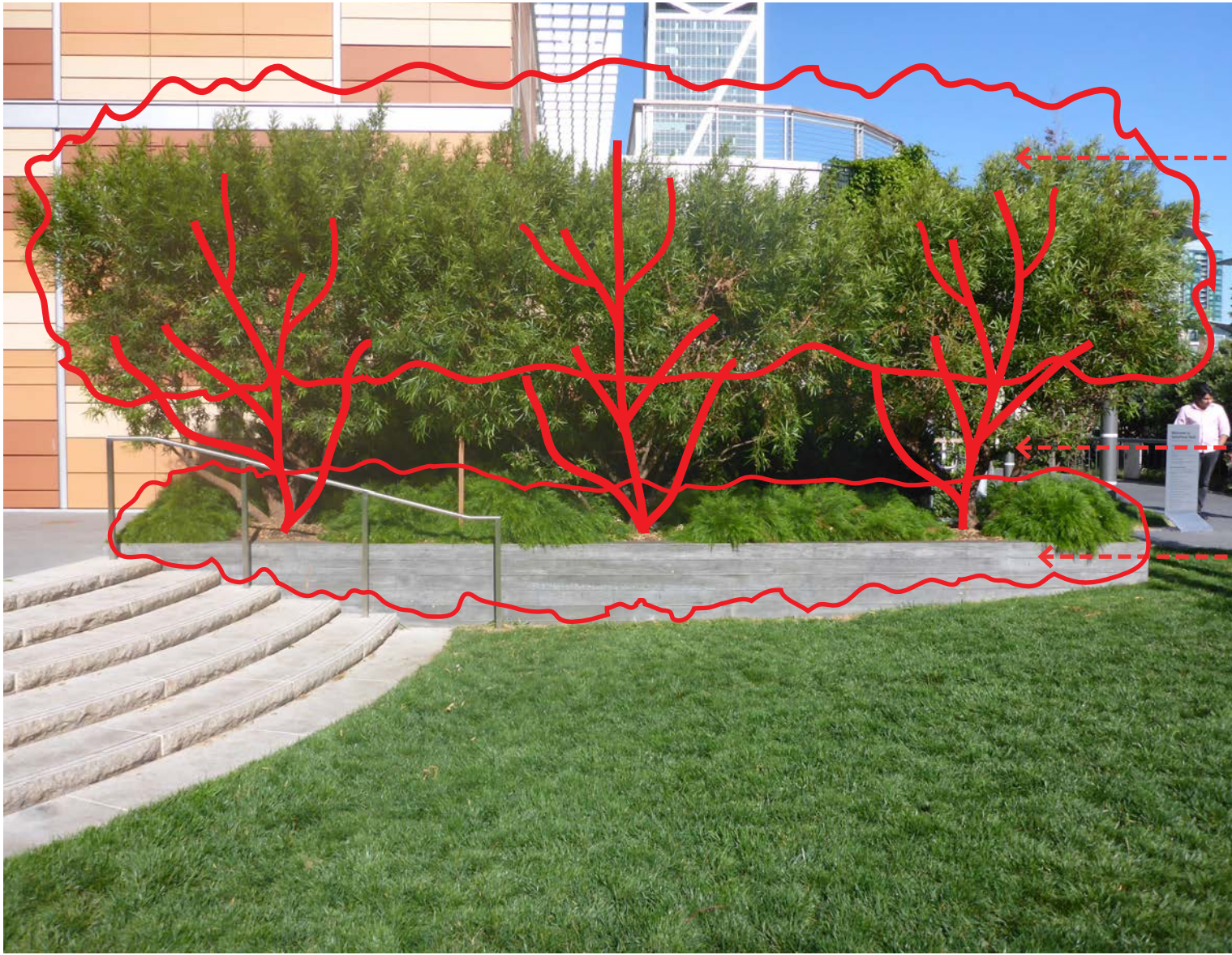
-  *Carpinus betulus*
-  *Rhus lancea*



ALLOW VINES TO CLING
AND REACH THE TOP OF
WALL

ALLOW CORDYLINE
TO GROW AS TALL AS
POSSIBLE. TIE SINGLE
STEMS BACK TO WALL IF
THEY PROTRUDE OUT
TOO FAR

ACACIA COUSIN ITT
SHOULD BE ALLOWED
TO FILL IN AND
GRACEFULLY SPILL OVER
THE PLANTER



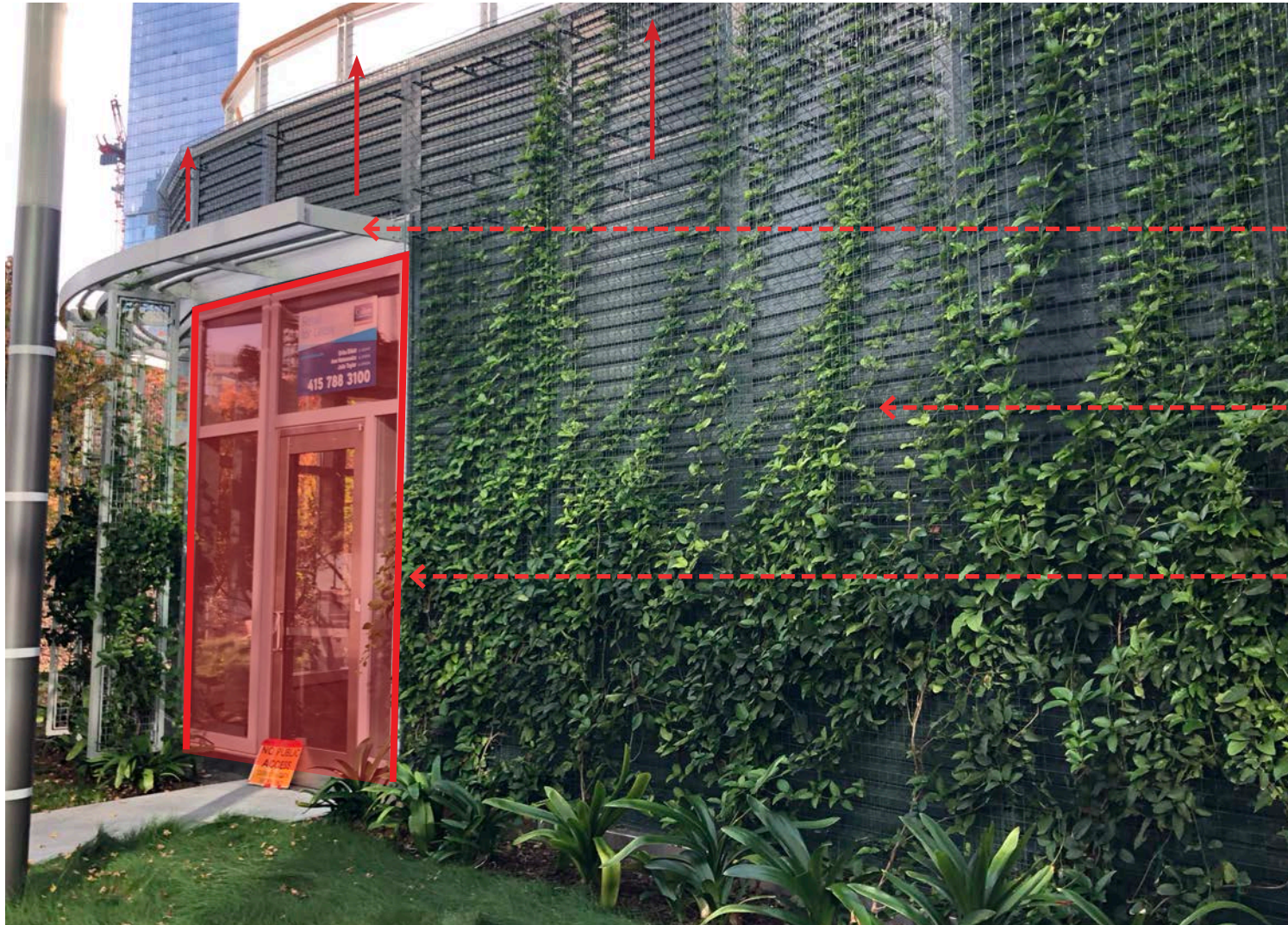
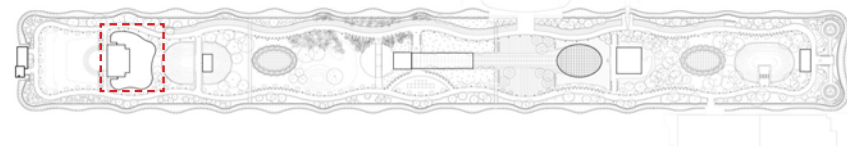
NOTE THAT RHUS ARE KNOWN FOR PRODUCING 'WATER SPROUTS.' THIS NEW GROWTH ALONG THE BASE OF THE TREE AND ALONG THE BRANCHES SHOULD BE REMOVED ANNUALLY TO MAINTAIN THE SCULPTURAL FORM OF THE TREE

PRUNE RHUS FOLIAGE TO REVEAL STEMS

ALLOW 'COUSIN ITT' TO FILL THE BED UNDER THE RHUS AND DRAPE DOWN THE SIDE OF THE BOARD FORM PLANTER

RESTAURANT

At the roof park restaurant, all the vines to grow beyond the green screen to the base of the guardrail on level 2 of the restaurant. Prune vines away from all doors and windows.



ALLOW/TRAIN VINES
TO GROW ABOVE
DOORS AND ONTO
HORIZONTAL TRELLISES

TRIM DISTICTUS 2"
FROM GREEN SCREEN
AS PREVIOUSLY
DESCRIBED IN THIS
MANUAL

TRIM VINES AROUND
RESTAURANT
OPENINGS
AND WINDOWS



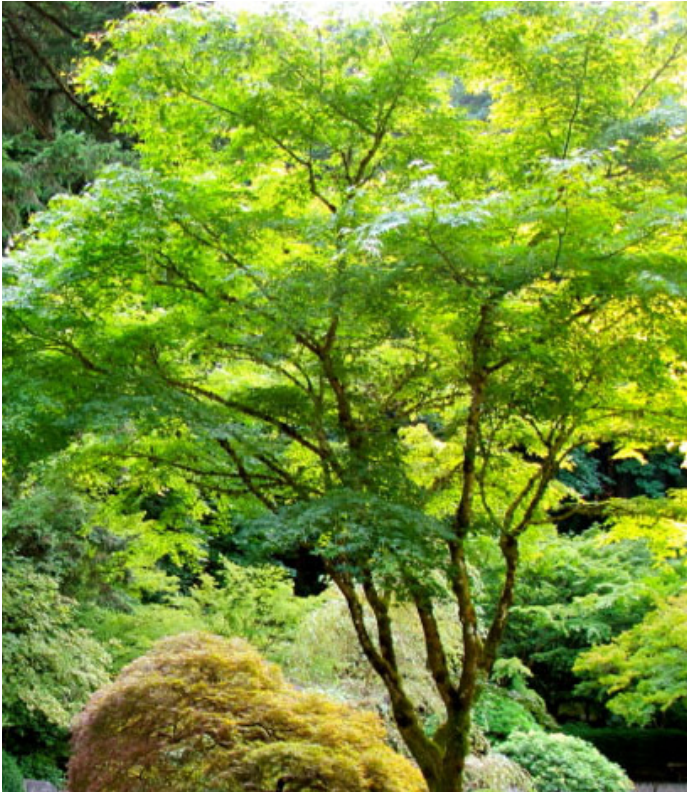
SHEAR VINES ON RESTAURANT
FINS TO 1" OFF THE FACE OF
THE FINS

JAPANESE MAPLE GROVE

The maple grove on the east side of the restaurant is designed to be a grove of vertical stems that preserve views out to the park and allow natural light into the restaurant. To achieve this effect, lower branches on the maples should be removed and the height of the canopy pruned up to 8' or higher. Large limbs should be favored to remain.

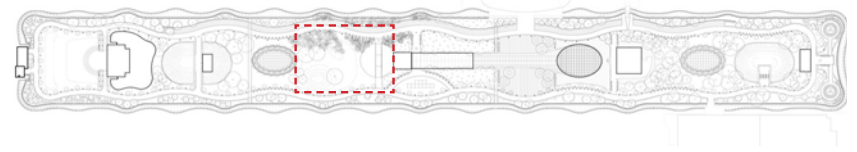


ACER PALMATUM DESIRED EFFECT - AN ASCENDING BRANCH STRUCTURE IS VISIBLE BELOW FOLIAGE



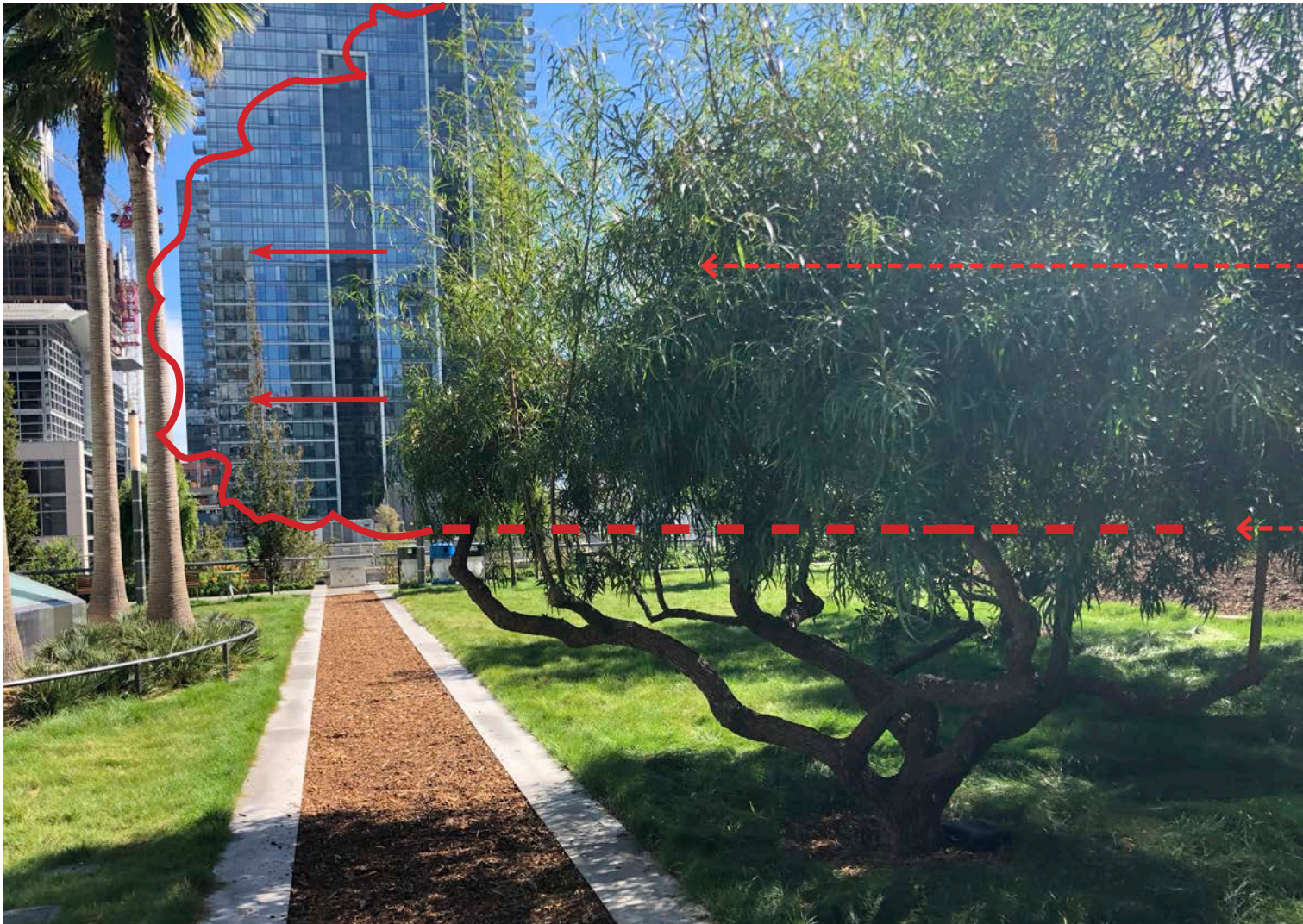
PICNIC MEADOW

The picnic meadow is meant to be an open lawn with tall spreading trees punctuating it, offering dappled shade. It is intended to be used for informal gatherings as well as programmed events with moderate to heavy pedestrian use. After large events, or heavy rains, the lawn should be monitored and closed if required, to prevent damage. The picnic meadow features rolling topography.



RHUS LANCEA

The branches on these trees should be allowed to grow over the seismic joint to discourage pedestrian activity here, and the foliage and lower side branching should be selectively removed to increase visibility through the park and maintain the sculptural form of these trees. Note that Rhus are known for producing 'water sprouts.' This new growth along the base of the tree and along the branches should be removed annually to maintain the sculptural form of the tree.

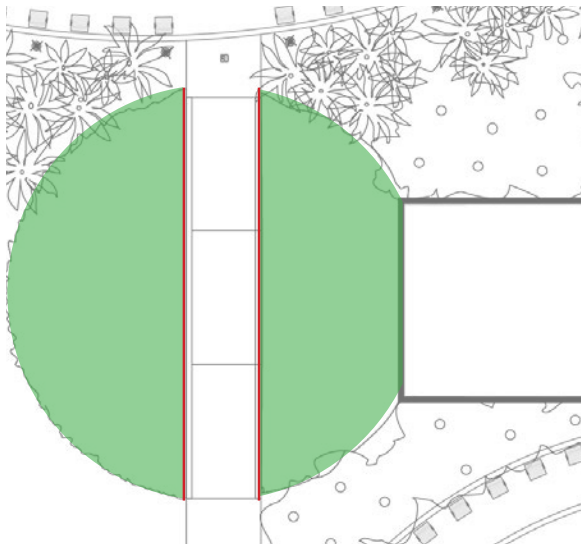


ALLOW BRANCHES TO
GROW OVER SEISMIC
TRAY

FOLIAGE SHOULD BE
RAISED ABOVE 7' HIGH
TO ALLOW FOR VIEWS
TO THE MOUND
BEYOND

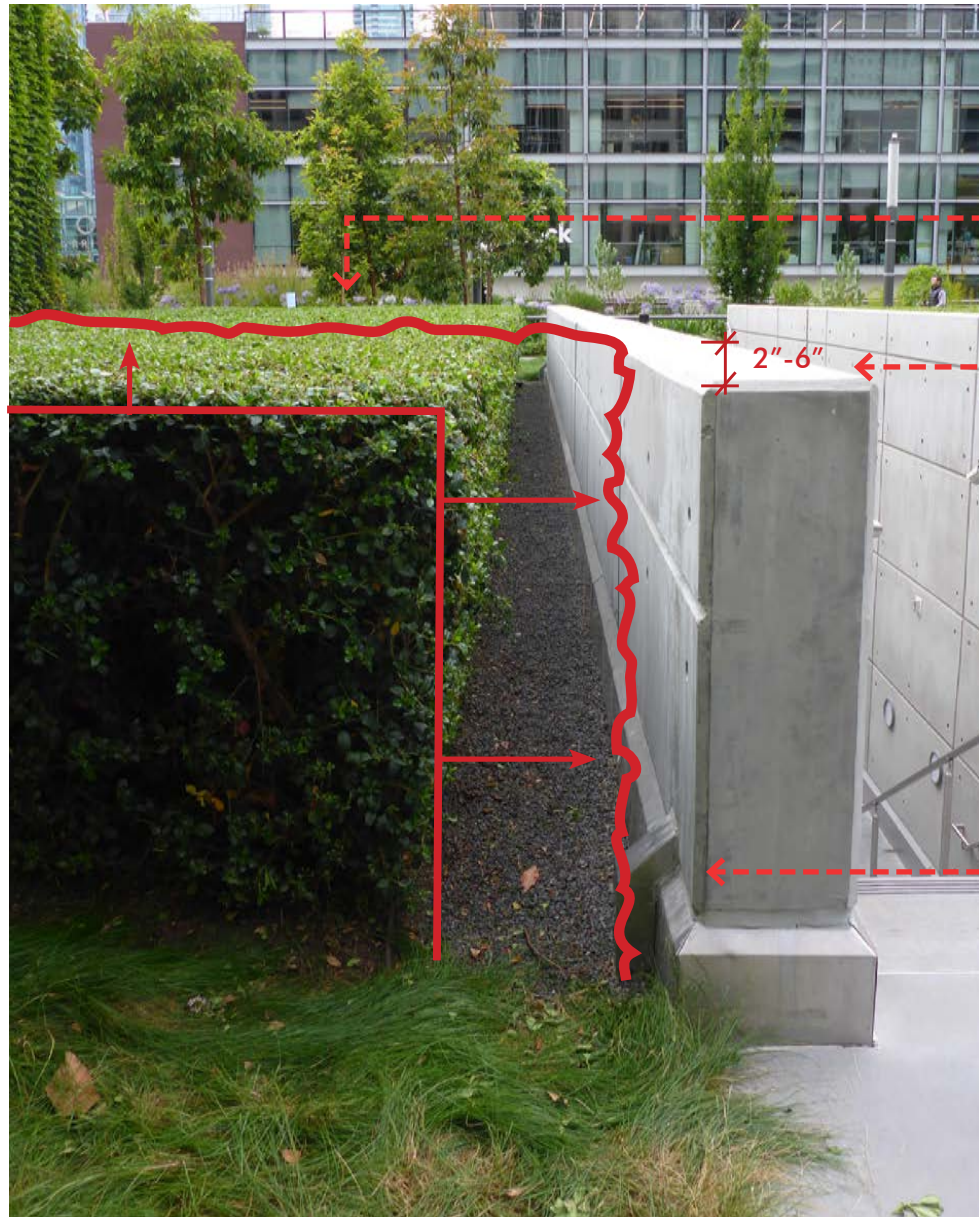
ESCALLONIA 'FRADESII' HEDGE

The circular hedge is intended to be a solid green form that sits on the lawn and screens the concrete parapet wall above egress stairs from view.



PLAN | DESIRED CONDITION

To trim the Escallonia hedge gardeners can walk between the planted rows and between the plants and the parapet wall. The hedge should appear solid, however, and the maintenance paths should not be visible.



— SHEAR TOP OF
ESCALLONIA HEDGE
UNIFORMLY

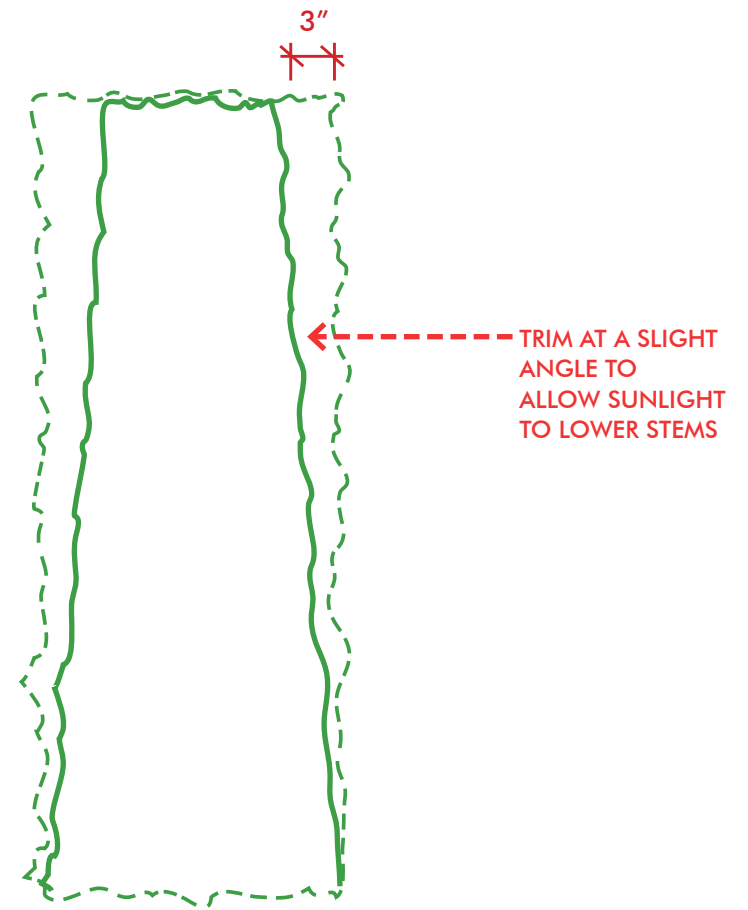
— ALLOW ESCALLONIA TO
GROW TO 2'-6" ABOVE
THE HEIGHT OF THE
PARAPET WALL

— ALLOW ESCALLONIA
TO GROW TO EDGE
OF THE PARAPET
WALL. THE GRAVEL
MAINTENANCE
PATH SHOULD NOT
BE VISIBLE



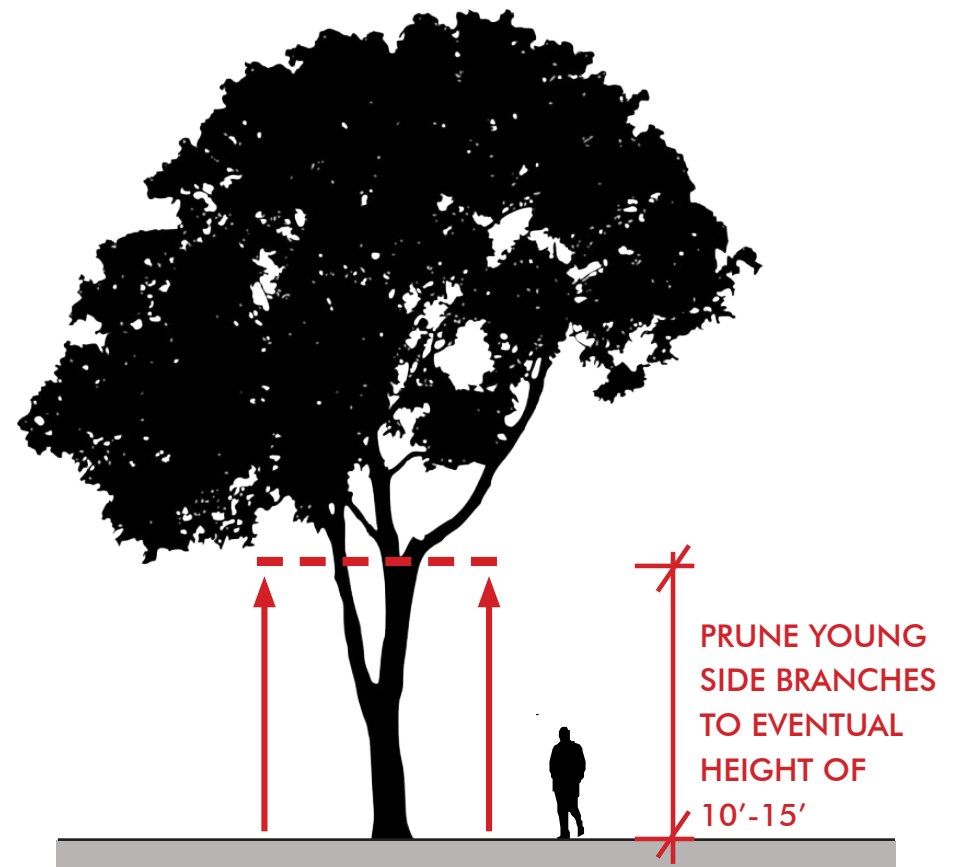
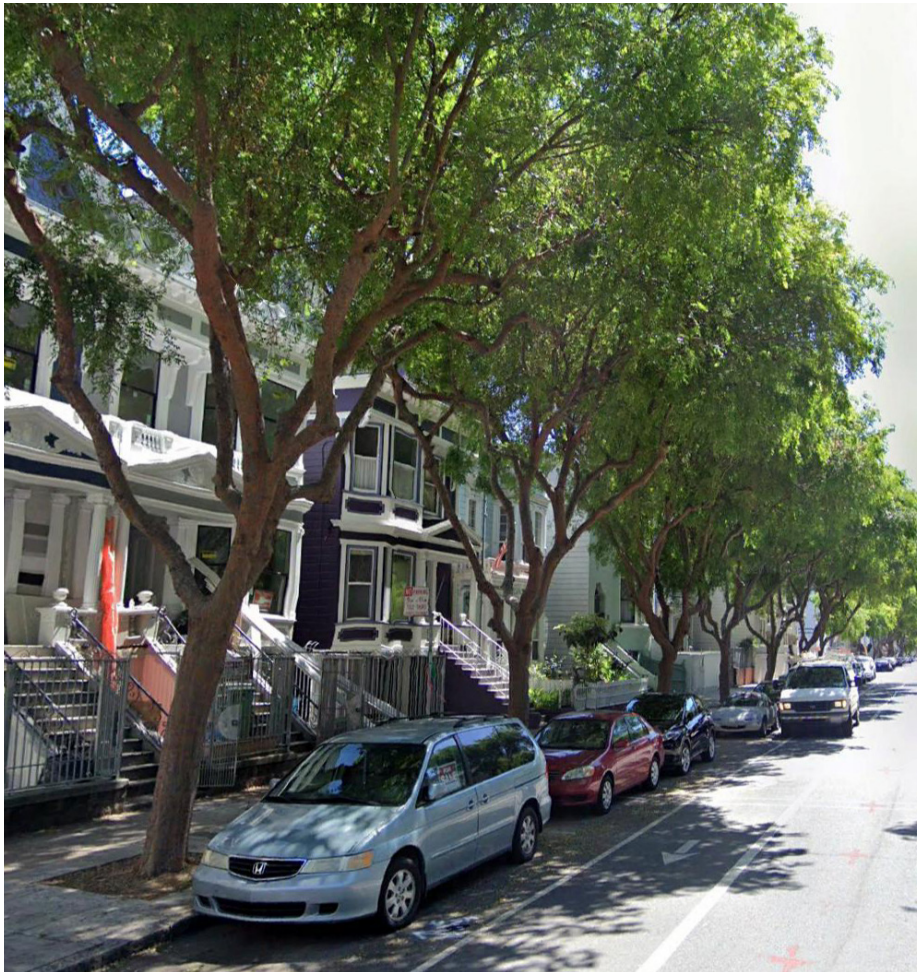
THE ESCALLONIA
SHOULD APPEAR AS
A SEAMLESS PLANE
OF GREEN. THE
PARAPET WALL
SHOULD NOT BE
VISIBLE

Escallonia hedge should be trimmed at a slight angle to allow sunlight to lower stems. The angle should be hardly noticeable. If trimmed straight the hedge might become leggy and woody.



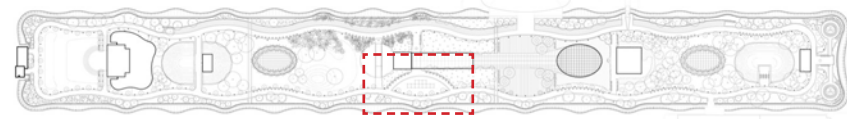
ULMUS PARVIFOLIA | Chinese Elm

Over time remove young side branching. Ultimately foliage should be high above visitors heads and branching silhouette should be visible below.



CHILDREN'S PLAY AREA

Adjacent to the Picnic Meadow, and nestled in a grove of Brisbane Box trees, is The Children's Play Area. The bright yellow play structure sits over a spongy black and white striped pebble flex flooring. Pebble flex has specific cleaning and patching requirements.



PEBBLE-FLEX CLEANING REQUIREMENTS

(Per manufacturer's recommendations)

- Sweeping

Sweep off the surface using a stiff bristled broom to keep dirt and debris out of the top surface. Remember, Pebble-Flex is a porous system so sweeping the surface is not the most effective means of maintenance.

- Hosing

Hosing works well when a hose with a pressure-spraying nozzle is used to remove contaminants from the porous top surface. (Using a bristled broom with a mild cleaning agent while surface is wet works well while cleaning with the hose).

- Power Washing

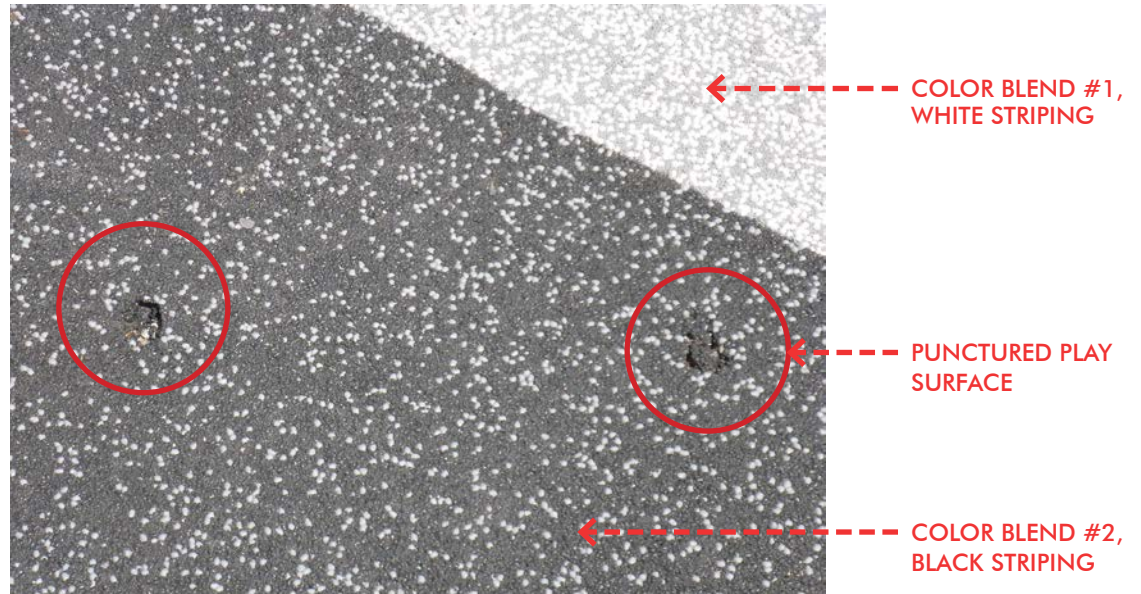
Power wash with up to a 2800-PSI pressure washer with a fan tip only. (Household or commercial cleaning agents containing odor suppressants and disinfectants may be used with your power washer; neutral cleaners are recommended). See list of recommended cleaning agents below

- Steam Vacuum

Using a steam vacuum with or without cleaning agents is an ideal method of maintenance. Follow steam vacuum manufacturers' instructions.

- Cleaning Agents

Some recommended cleaning agents are: Simple Green, Purple power, Bleach 30% to 70% water, Simple Green 20%-Water 70%-Chlorine 5%, For heavy soiled areas Simple Green 10%-Chlorine 20%-Water 70%. IN ALL CASES RINSE surface thoroughly, within 10 minutes after cleaning.



FILLING PUNCTURES

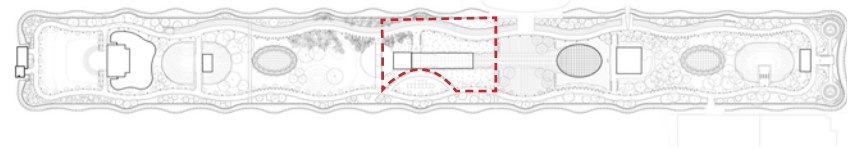
Patch holes to match the existing stripe color using the following mixtures from Pebble-Flex.

- Color Blend #1 (White Stripping) - 50% small black, 15% large grey, 35% large black
- Color Blend #2 (Black Stripping)- 50% small grey, 15% large black

NO FURNITURE ON PLAY SURFACE

ARRIVAL GROVE

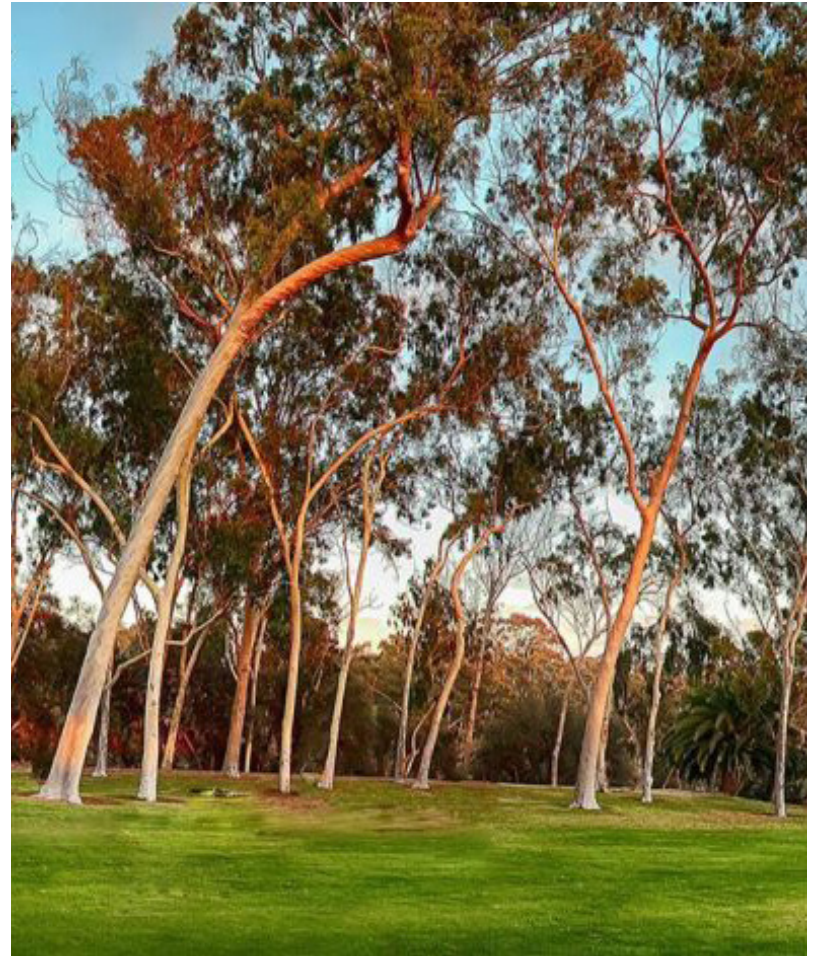
The arrival grove is intended to become a grove of very high branched, clear trunked trees. Over time, the tree branching should be raised and thinned to allow dappled light through. The native Fescue below should be mown to allow for pedestrians to move beneath the trees.



2019 CONDITION



DESIRED EFFECT



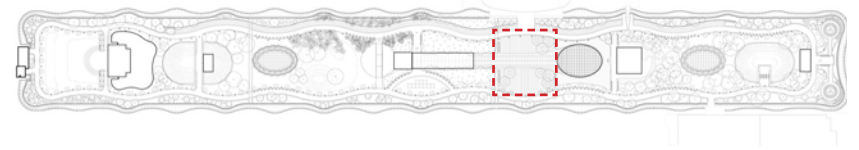
Monitor Lophostemon in the Arrival Grove and behind the Bus Jet Fountain Glass. When appropriate, selectively remove the lower branches to increase visibility beneath the trunks and thin limbs to allow light and air to move through the canopies.

LOPHOSTEMON CONFERTUS | Brisbane Box



CAFE PLAZA

The Central Plaza is meant to be the main gathering place for visitors to engage in social activity, eating/drinking. Eight mature trees will punctuate the plaza and provide dappled shade in the summer. Sycamore trees should be pruned up, but allowed to spread their branches over time. Lophostemon trees in the arrival grove at the edge of the plaza should also be allowed to spread over the plaza and benches there.

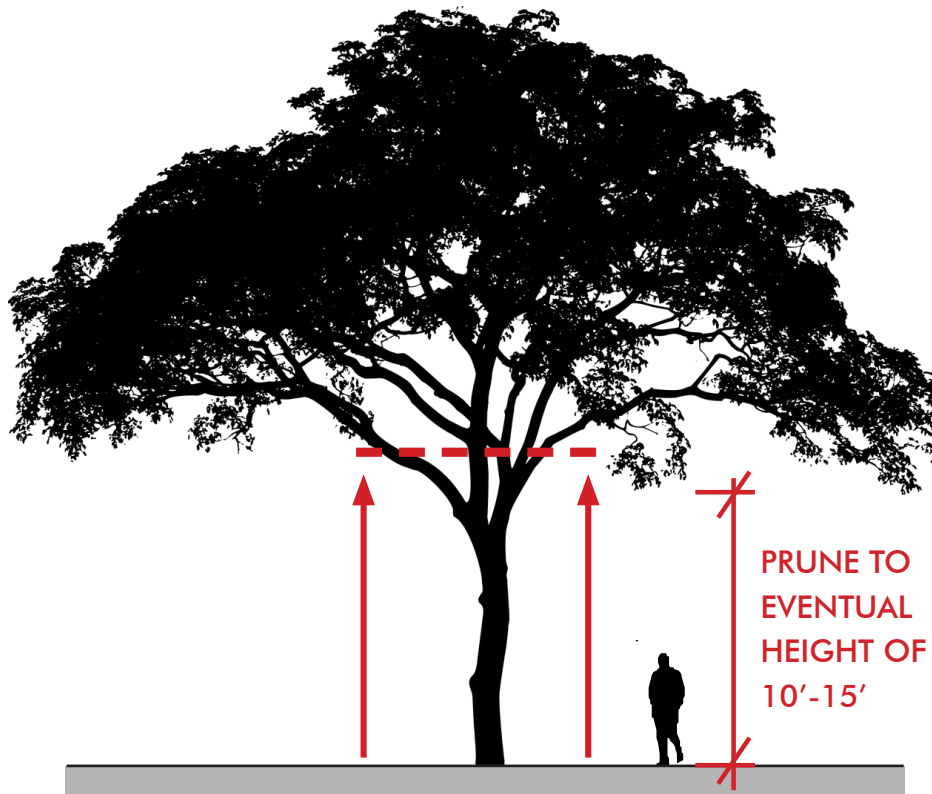


FOUNDATION EXTENT
OF THE FUTURE CAFE
STRUCTURE

FUTURE EXTENT OF TREE
CANOPY

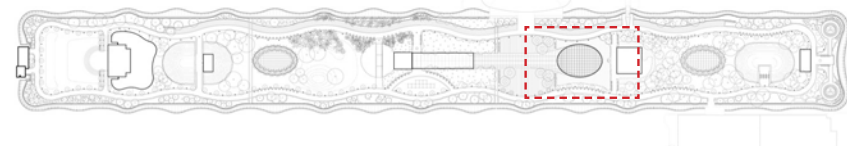
PLATANUS RACEMOSA 'ROBERTS' | California Sycamore

Sycamore trees should be pruned to an eventual height of 10-15' but foliage should be allowed to spread creating full coverage shade in the cafe plaza.



BAMBOO GROVE

The grove of giant Japanese timber bamboo (*Phyllostachys bambusoides*) is a stunning horticultural statement in the park. Japanese timber bamboo was selected because it allows for transparency and translucency. Filtered light is visible through the foliage and stems while you are in the Grand Hall looking up at the park; similarly, up on the roof, the bamboo provides a transparent scrim of green. The bamboo is planted in a concrete basin, which sequesters the bamboo's rhizomes so they cannot stray.



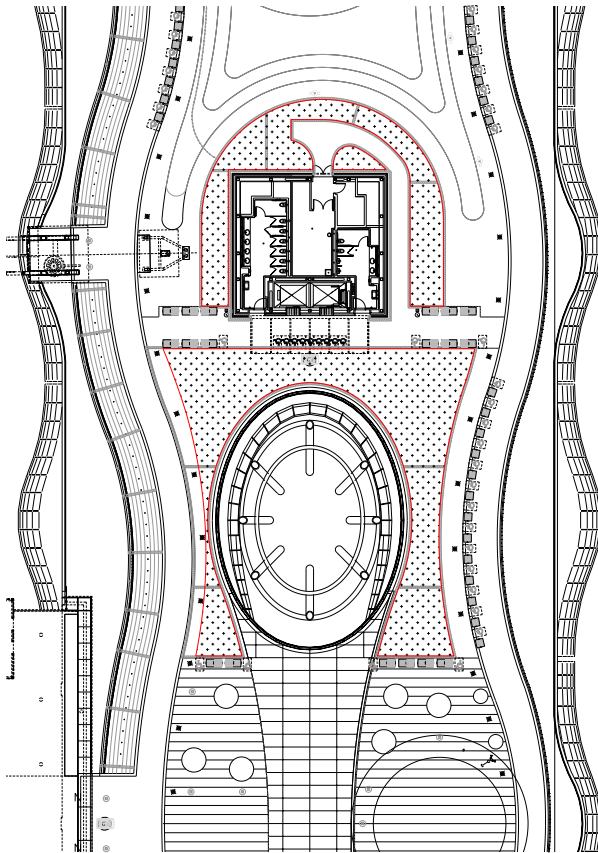
DESIRED EFFECT AND SPACING

The bamboo is designed to be a translucent grove and maintain dappled light through the culms over time. The bamboo should never be so dense that it feels like a thicket. The bamboo should be selectively pruned to remove the oldest culms, and allow the younger culms to mature and grow up through the grove. Approximately 25% of culms should be removed each year to create air and space in the manner that is customary for bamboo growers in Asia.



The bamboo basin perimeter needs to be monitored regularly and runners should not be allowed to escape over the header and out of the basin.

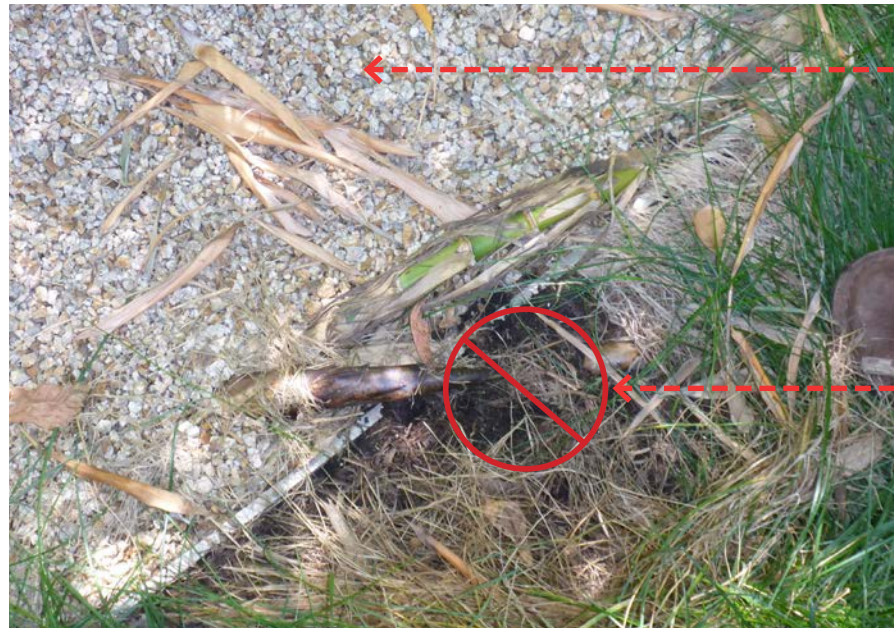
Garden maintenance should consider keeping pedestrians out of bamboo grove during the spring and fall when new culms emerge, allowing them to mature to grow without being trampled.



Bamboo Header



BAMBOO RUNNER
JUMPING BARRIER
INTO MEADOW
GRASSES



MAINTAIN
AGGREGATE
MULCH

ANY RUNNERS
THAT JUMP THE
METAL HEADER
MUST BE REMOVED

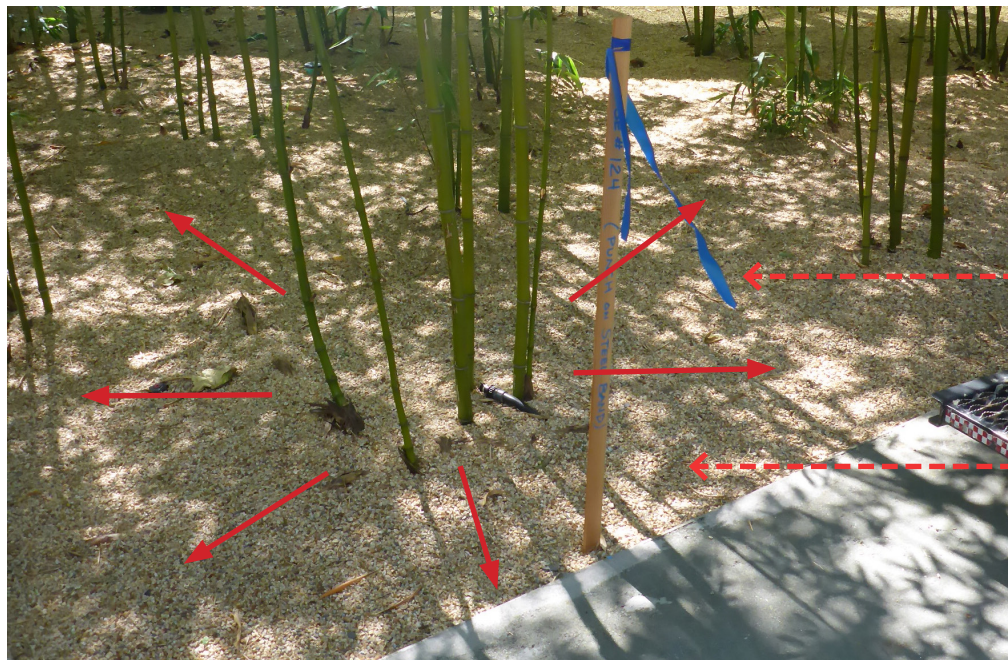


BAMBOO BRACING
-REMOVE AS POSSIBLE

MAINTAIN BAMBOO 6"
CLEAR FROM CANOPY

REMOVE CULMS THAT GROW
UP BENEATH THE BUILDING
OR REDWOOD TREE
CANOPIES

AT BAMBOO BASIN, ALLOW THE
REDWOODS TO GROW WITH
FOLIAGE DOWN TO 2' ABOVE
GROUND TO DISCOURAGE
PEDESTRIAN TRAFFIC THROUGH
THE CORNER OF THE BAMBOO
BASIN

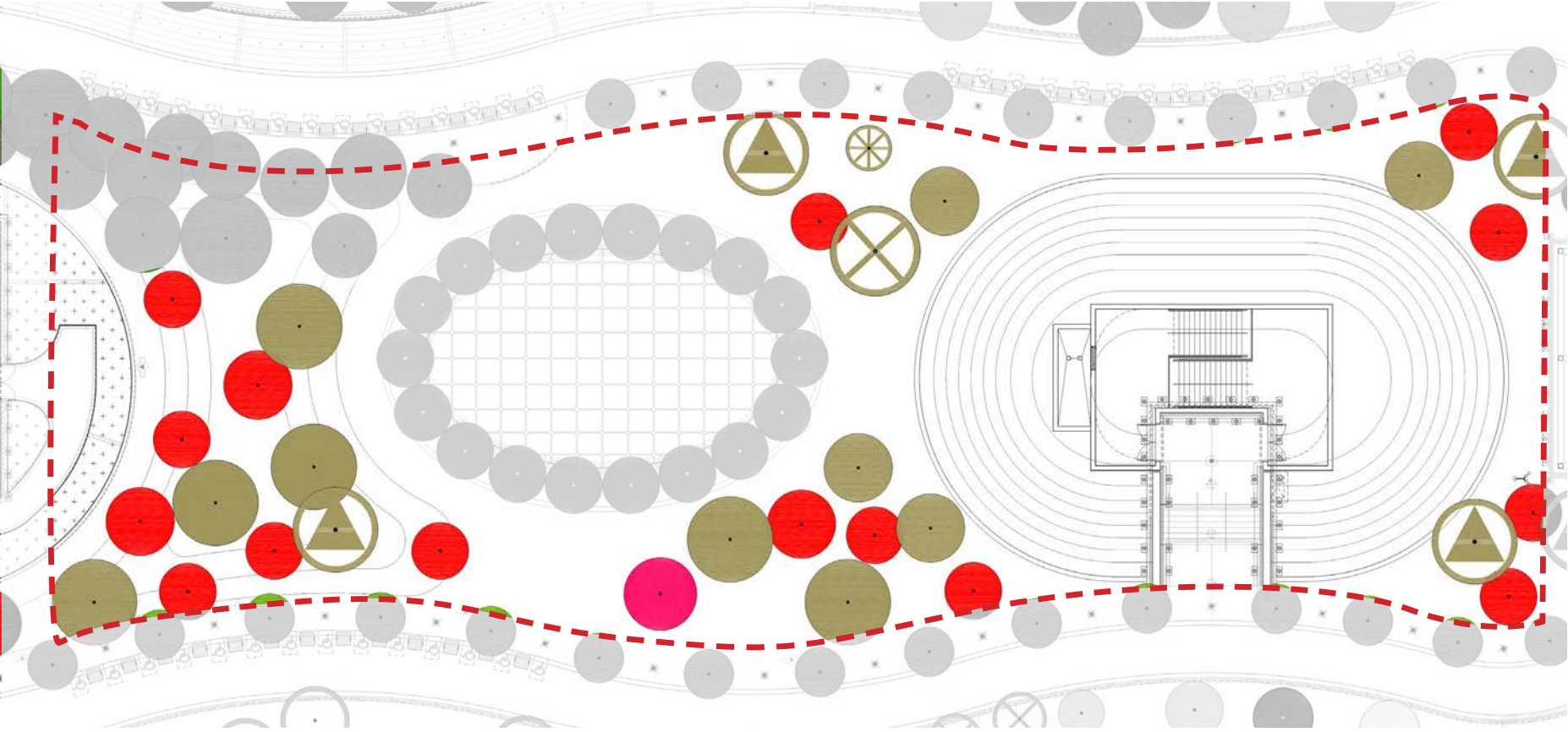
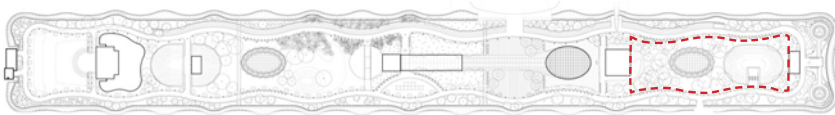


RHIZOMES WILL RUN AND
SHOULD ACHIEVE
CONTINUOUS BAMBOO
COVERAGE ACROSS THE BASIN

ALL EXPOSED IRRIGATION
SHOULD BE FULLY COVERED BY
AGGREGATE MULCH

CALIFORNIA OAK MEADOW

The oak meadow celebrates the native oak species found in the state of California, as well as acclimatized oaks from Mexico and the Mediterranean. The gentle topography in the meadow mimics that of the rolling California hills and provides a place for small informal gatherings and quiet respite.



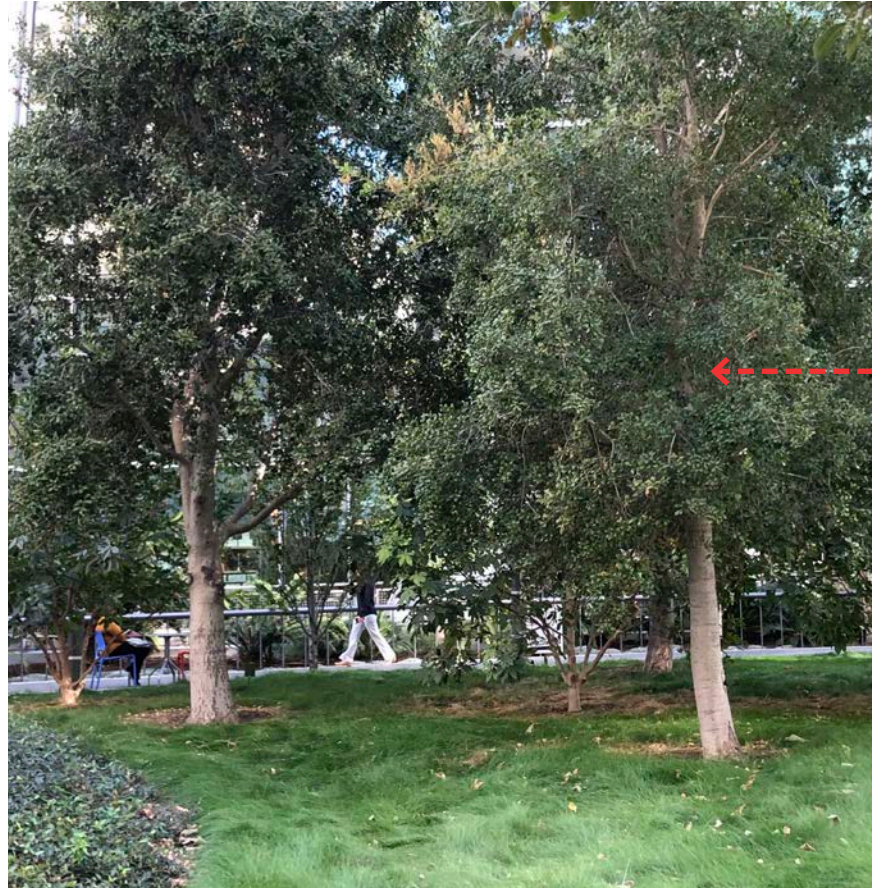
- | | | |
|---|--|---|
|  <i>Aesculus californica</i> |  <i>Quercus agrifolia</i> |  <i>Quercus tomentella</i> |
|  <i>Parrotia persica</i> |  <i>Quercus engelmannii</i> |  <i>Quercus virginiana</i> |

QUERCUS SPECIES

There is a mix of Oak species planted for resilience and diverse habitat. The canopy must be thinned periodically to allow filtered light to meadow below.



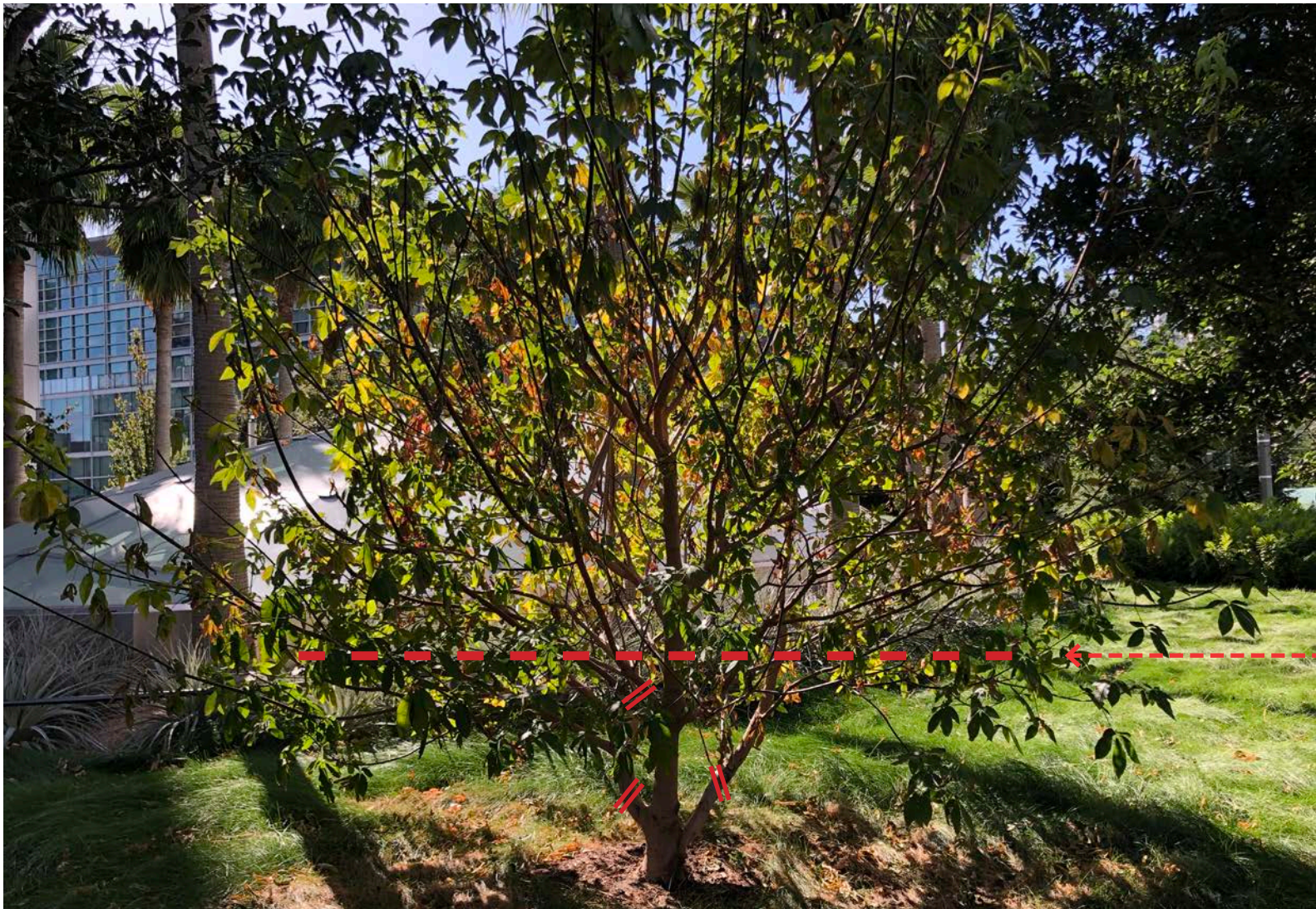
DESIRED EFFECT- Mature Live Oak grove with open branching that allows for dappled light below



← SELECTIVELY THIN CANOPY TO ALLOW FILTERED LIGHT TO MEADOW BELOW. PROVIDE STRUCTURAL PRUNING ANNUALLY

AESCULUS CALIFORNICA | California Buckeye

When appropriate, selectively remove the lower branches to 3-4' over time to increase visibility beneath the trunks.



PRUNE UP SIDE
BRANCHING TO
ALLOW VIEWS
THROUGH THE
MEADOW,
LIMB 3'-4'

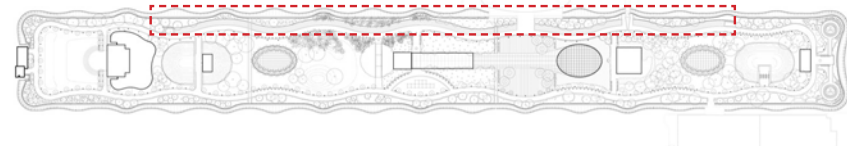
DESIRED EFFECT

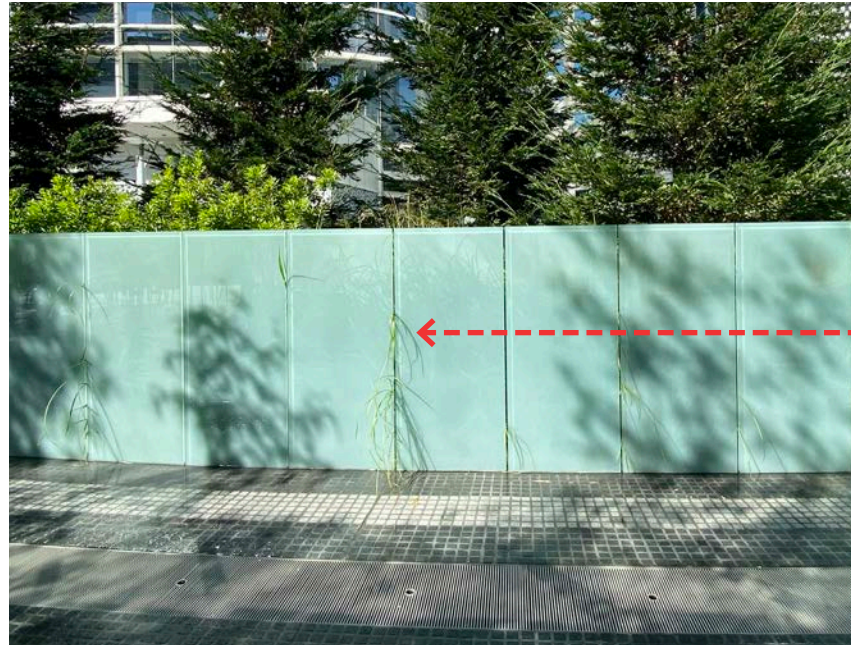
When appropriate, selectively remove the lower branches to increase visibility beneath the trunks and thin limbs to allow light and air to move through the canopies.



BUS FOUNTAIN

Located along the entire 4-block length of the north side of the park, the Bus Fountain is a 1000-foot long water sculpture that is animated by the passage of buses through the bus deck below. Plants behind glass all have interesting silhouettes and texture that is meant to be visible through the glass and in silhouette. Planting behind the bus fountain glass is meant to grow above the height of the glass.





PLANTS BEHIND THE BUS
JET FOUNTAIN RAIL CAN
BE ALLOWED TO 'PEAK
THROUGH' THE GLASS
UP TO 6"

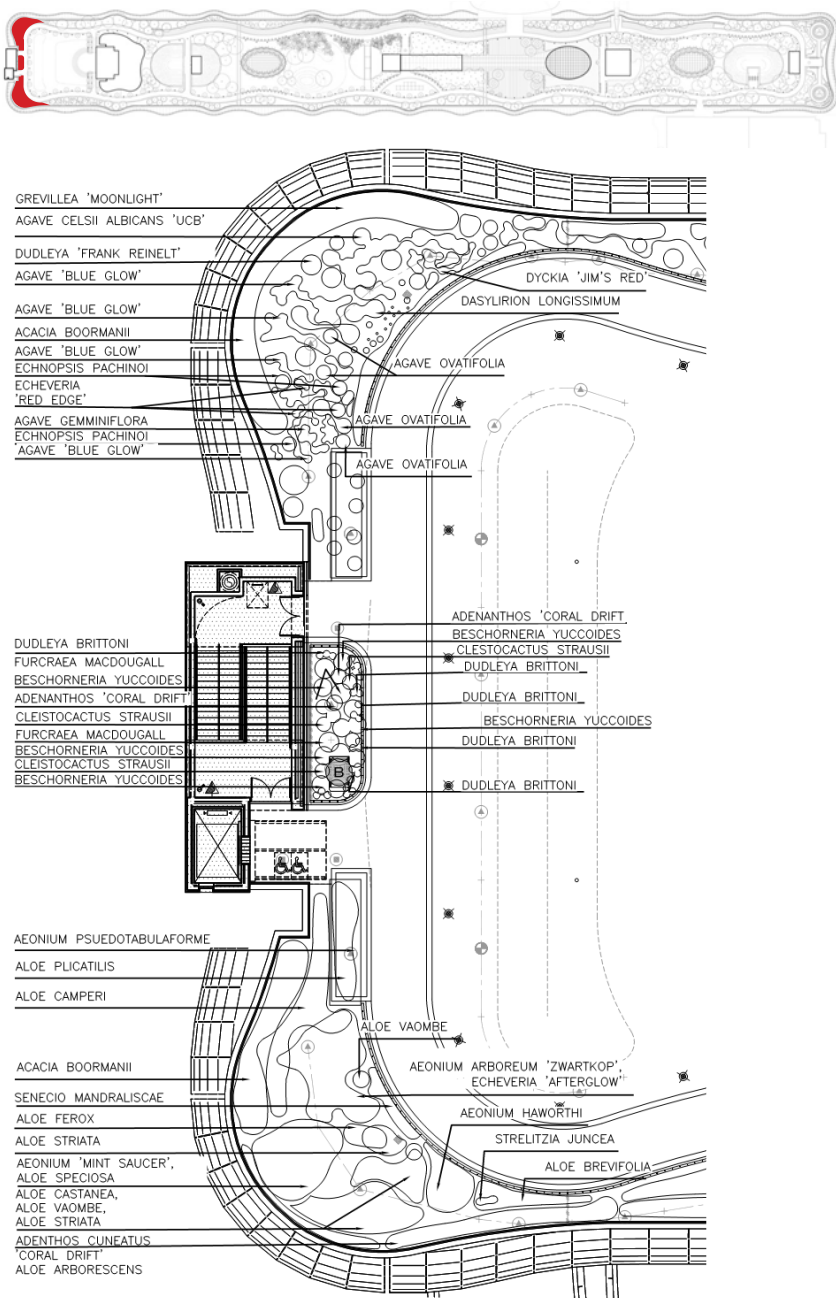
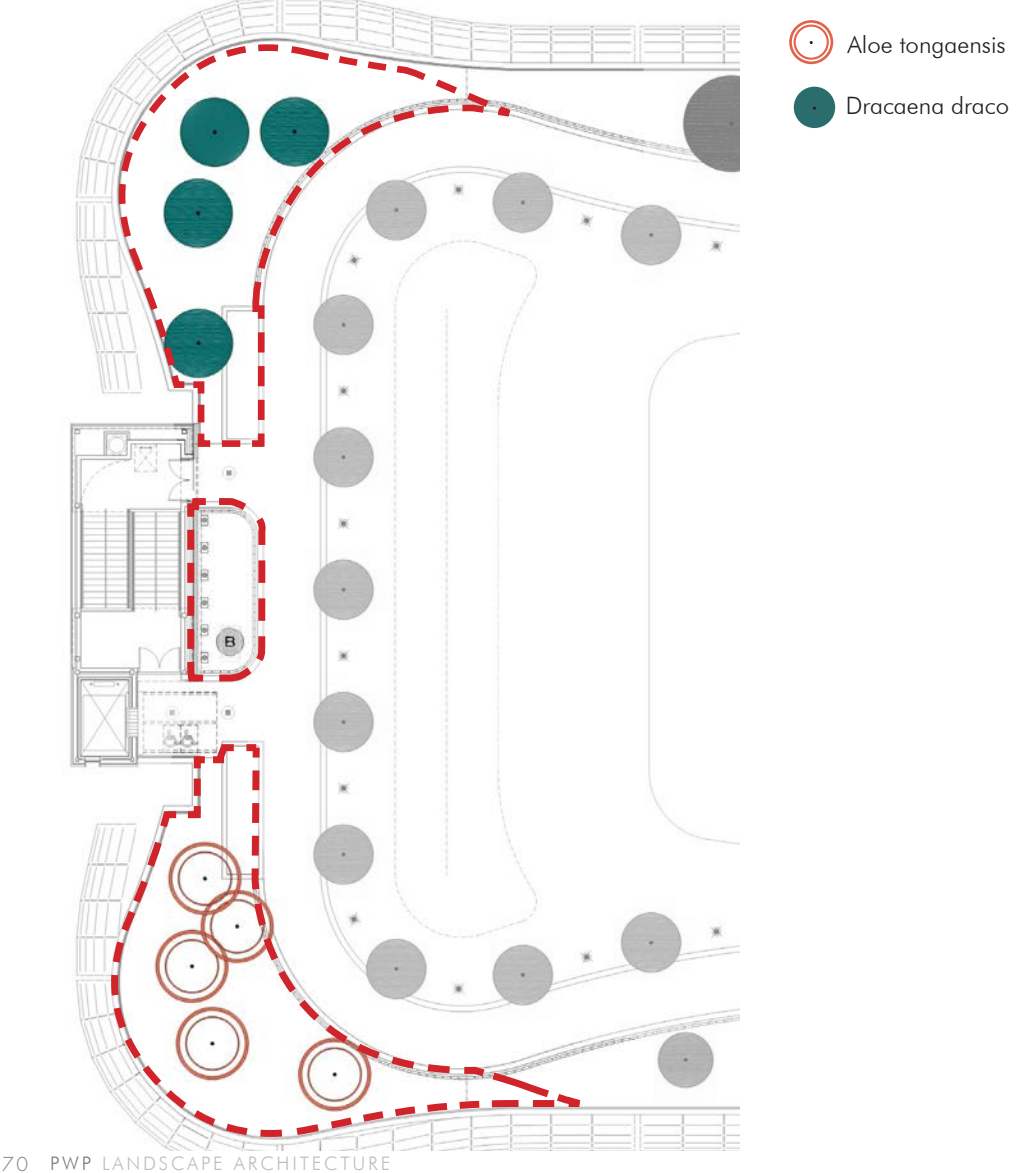


ALLOW PLANTS TO
HANG OVER
GLASS WALL, BUT TRIM
IF PROTRUSION IS
UNSAFE OR UNSIGHTLY

3.0 FEATURE GARDENS

DESERT GARDEN

The Desert Garden features plants from around the world that grow in the desert biome. Many species selected are native to the Americas and Africa. We envision that the composition of the garden will evolve and grow over time. Replacement plants or additions to the garden should be from a similar biome and comparable form to contribute to the overall design intent.



PLANTING

TREES:

- Aloe tongaensis
- Dracaena draco

UNDERSTORY:

- Acacia boormanii
- Adenanthos cuneatus 'Coral Drift'
- Aeonium arboreum 'Zwartkop'
- Aeonium 'Mint Saucer'
- Aeonium pseudotabulaforme
- Agave 'Blue Glow'
- Agave celsii albicans 'UCB'
- Agave gemminiflora
- Agave ovatifolia
- Aloe camperi
- Aloe castanea
- Aloe ferox
- Aloe plicatilis
- Aloe striata
- Aloe vaombe
- Beschorneria yuccoides
- Cleistocactus strausii
- Dasylirion longissimum
- Dudleya brittonii
- Dudleya 'Frank Reinelt'
- Dyckia 'Jim's Red'
- Echnopsis pachinoi
- Furcraea macdougallii
- Heuchera 'Santa Ana Cardinal'
- Senecio mandraliscae

KEY MAINTENANCE FEATURES AND TASKS

1. Grevillea and Acacia are meant to provide a back drop to the cactus succulents. They can be hard pruned or sheared and do not need to be allowed to flower.
2. The design intent is for the perimeter plants to conceal the guard rail beyond. Allow acacia and grevillia to grow to 3' above the guard rail, then selectively cut back 30-50% of the stems to the top of rail. After cut stems show significant foliage cut remaining stems to top rail.
3. In the Desert Garden, maintain gravel in even application. The gravel level should not conceal the root crown of the plants.
4. If required, selectively remove perimeter plants to prevent crowding of foreground understory plant material.
5. Plant material between the board form planters and adjacent plant rail (near the elevator and egress stair) should be maintained to prevent park visitors from wandering into the garden.
6. Deadhead flowering plant material regularly.
7. Prune flower stalks of Aeonium and Dyckia after flowering.
8. Do not prune back groundcover plants in the concrete planters. Allow plants to trail down over time.
9. Agaves closest to Grevillea or Acacia can be removed or relocated if necessary.

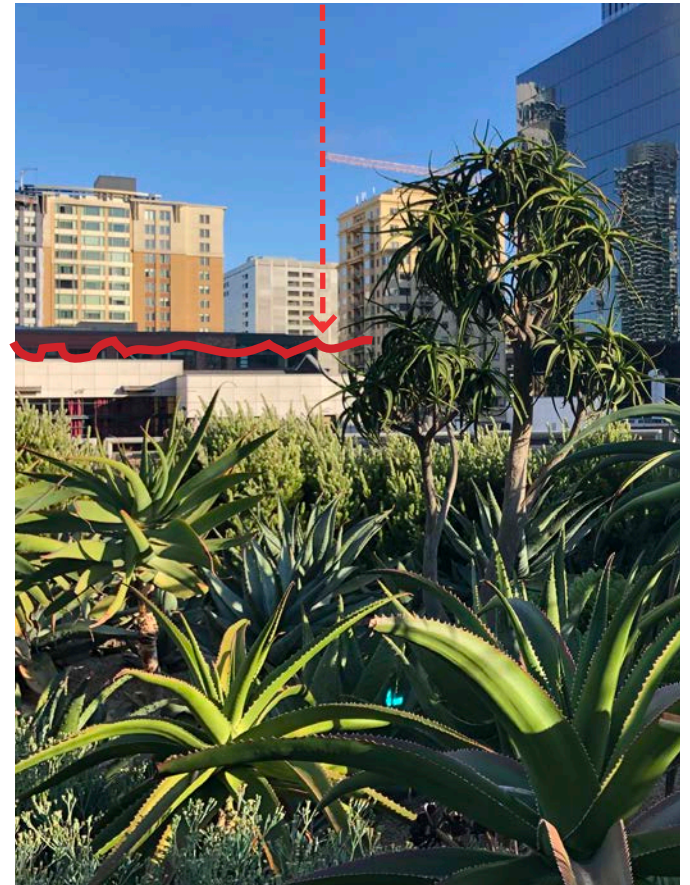
ALLOW PLANTS TO
DRAPE DOWN THE
BOARD FORM PLANTERS



AGAVES CLOSEST TO
GREVILLEA OR ACACIA
CAN BE REMOVED OR
RELOCATED IF
NECESSARY



ADENANTHOS
SHOULD BE
MAINTAINED AT +/- 2'
ABOVE GUARDRAIL





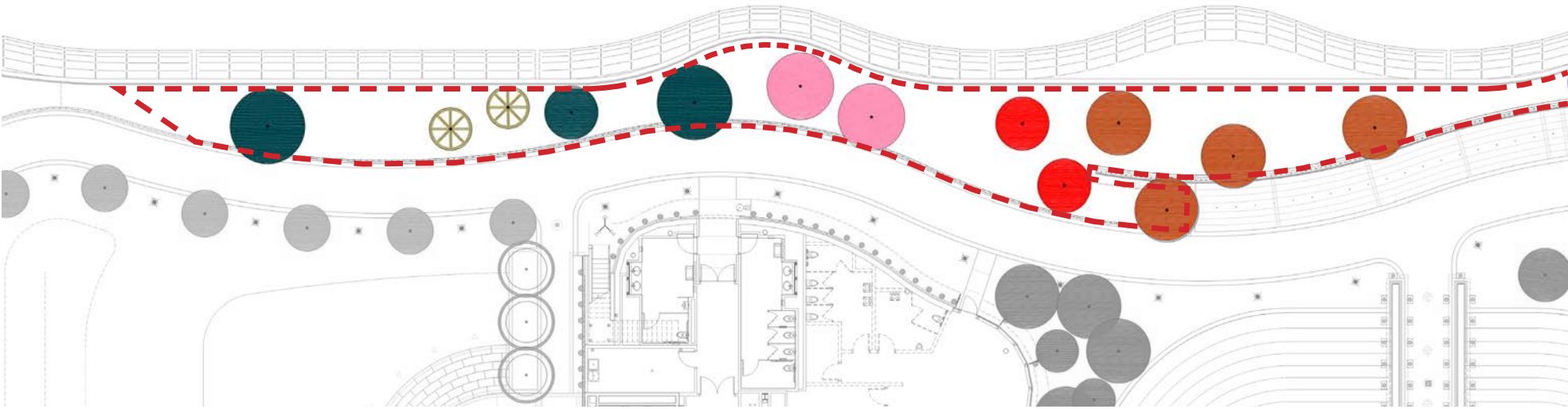
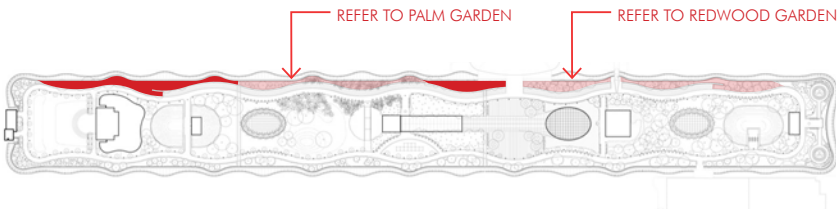
SELECTIVELY PRUNE GREVILLEA AT PERIMETER TO BOTH CONCEAL GUARDRAIL AND PREVENT OVERCROWDING OF ADJACENT PLANTING
-DO NOT SACRIFICE PRUNED SHAPE TO ALLOW FOR BLOOM

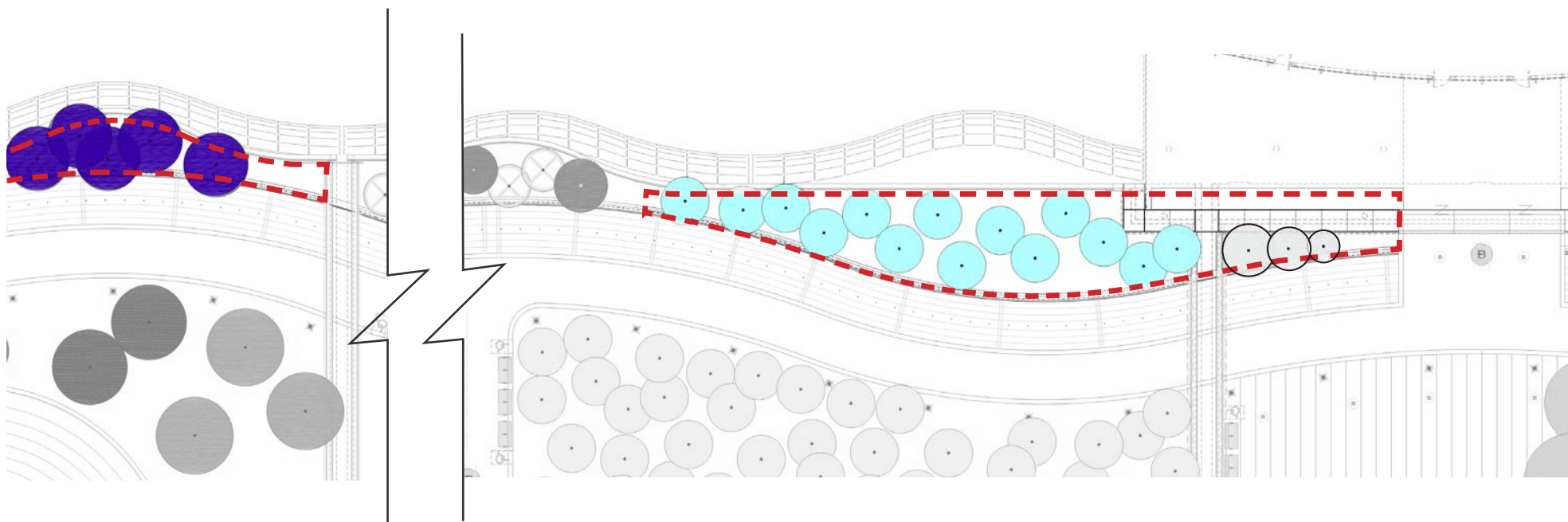
DO NOT PRUNE OFF LEAVES OF DRACEANA DRACO, ALLOW THEM TO FALL OFF NATURALLY
-IF PRUNED TRUNK WILL SCAR

MAINTAIN AGGREGATE MULCH BELOW BASE OF UNDERSTORY MATERIAL
-DO NOT BURY CROWN

CALIFORNIA GARDEN

The California Garden is most diverse in the coastal sage scrub and chapparral plant associations at the west end of the park. However, iconic California species also punctuate the entire northern edge of the park where Washingtonia Palms, Sequoias, and Catalina Ironwoods are featured among others. The California Garden ends at the Redwood Grove at the east end of the Bus Fountain.





● Aesculus californica

● Cupressus macrocarpa

● Lyonothamnus floribundus

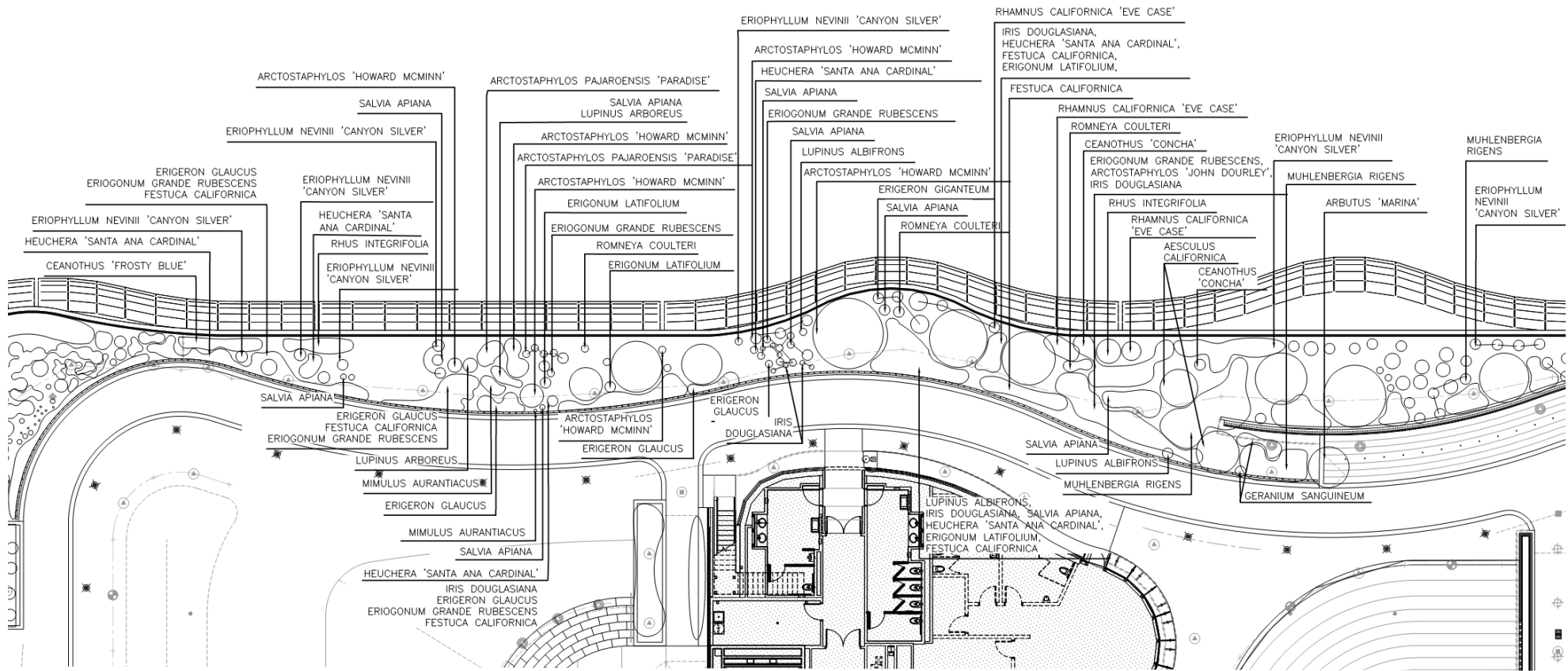
● Sequoiadendron giganteum 'Pendulum'

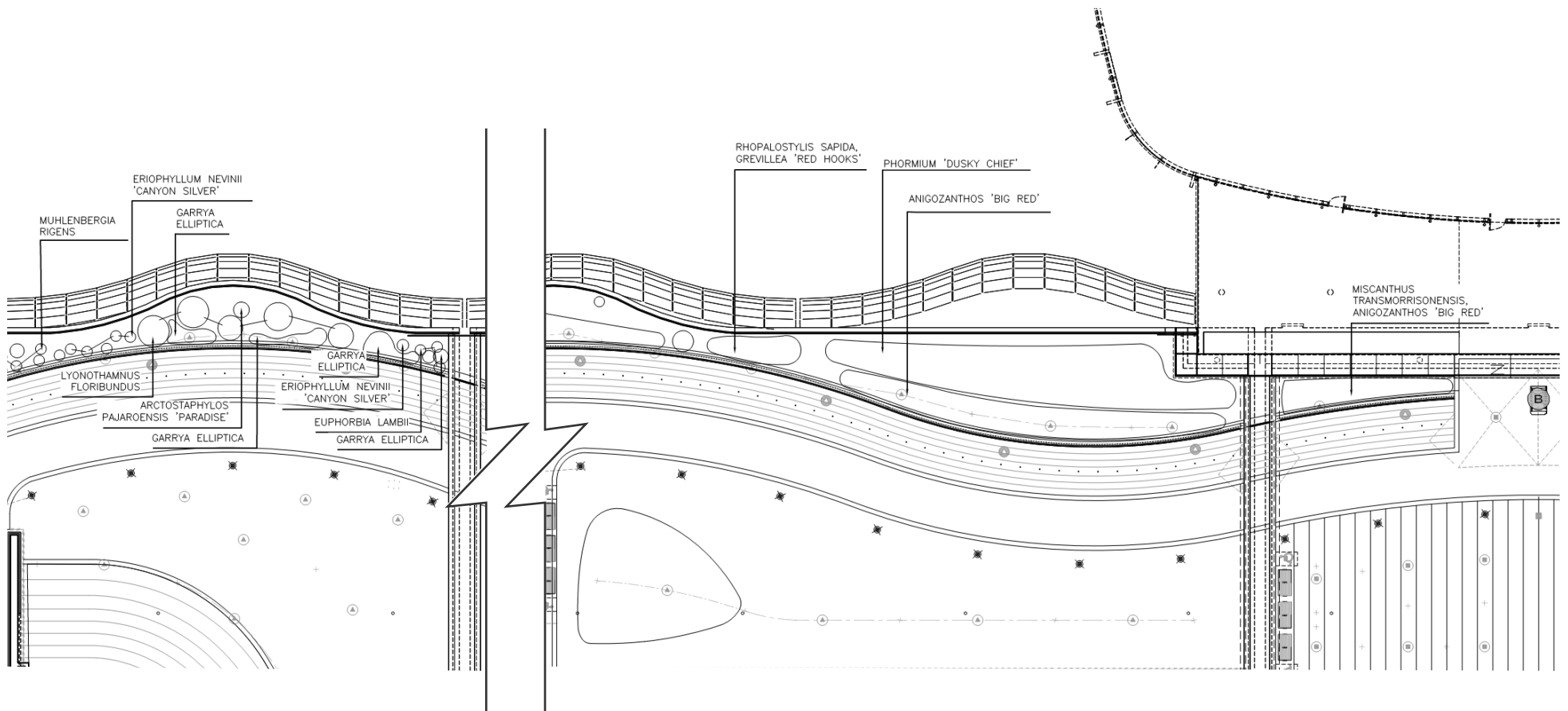
● Arbutus 'Marina'

● Lophostemon confertus

● Pinus torreyana

● Quercus tomentella





PLANTING

TREES:

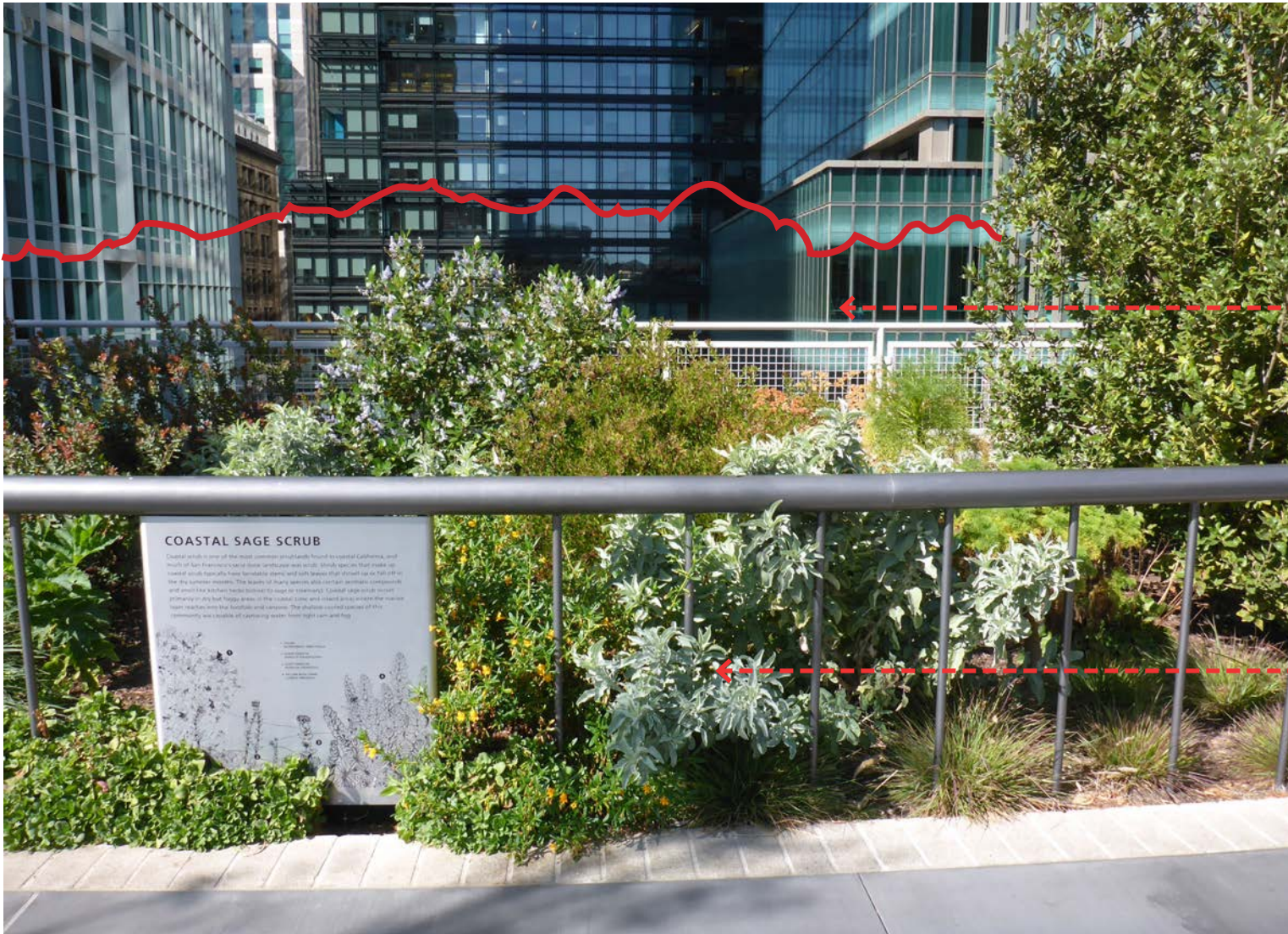
- *Aesculus californica*
- *Arbutus* 'Marina'
- *Brahea* 'Clara'
- *Brahea edulis*
- *Cupressus macrocarpa*
- *Lophostemon concertus*
- *Lyonothamnus floribundus*
- *Pinus torreyana*
- *Quercus tomentella*
- *Sequoiadendron giganteum* 'Pendulum'
- *Washingtonia robusta* x *filifera*

UNDERSTORY:

- *Anigozanthos* 'Big Red'
- *Arctostaphylos* 'Howard McMinn'
- *Arctostaphylos* 'Joun Dourley'
- *Arctostaphylos pajaricensis* 'Paradise'
- *Ceanothus* 'Concha'
- *Ceanothus* 'Frosty Blue'
- *Erigeron glaucus*
- *Eriogonum grande rubescens*
- *Eriogonum latifolium*
- *Eriophyllum nevinii* 'Canyon Silver'
- *Festuca californica*
- *Garrya elliptica*
- *Geranium sanguineum*
- *Heuchera* 'Santa Ana Cardinal'
- *Iris douglasiana*
- *Lupinus albifrons*
- *Lupinus arboreus*
- *Mimulus aurantiacus*
- *Miscanthus transmorrisonensis*
- *Muhlenbergia rigens*
- *Phormium* 'Dusky Chief'
- *Rhamnus californica* 'Eve Case'
- *Rhus integrifolia*
- *Romneya coulteri*
- *Rhus integrifolia*
- *Salvia apiana*

KEY MAINTENANCE FEATURES AND TASKS

1. The perimeter plants should conceal the guard rail beyond. Allow *Ceanothus*, *Arctostaphylos*, *Rhamnus*, and *Rhus* to grow to 3' above the guard rail, then selectively cut back 30-50% of the stems to the top of rail. After cut stems show significant foliage growth cut remaining stems to top rail.
2. The extent of the California Garden includes one of the building's two seismic joints. Plants and trees adjacent to the seismic joint should be allowed to overhang and grow over the seismic joint. There is no need to prune them back.
3. If required, selectively remove perimeter plants to prevent crowding of foreground understory plant material. Before disposing of any material, consider relocating material to fill in empty areas.
4. Trees behind the bus fountain glass should be selectively pruned up to 3' to allow light and air to move through the canopy. Prune trees behind plant rail symmetrically (i.e., do not prune only the plant rail side of the tree)
5. Prune shrubs for shape after flowering
6. *Aesculus*: limb up to 3'-4' over time and prune back small side branches to highlight sculptural form.
7. *Arbutus*: prune small side branching off major limbs and trunks to highlight sculptural form and bark.
8. *Torrey Pines*: limb up to 8'-10' over time
9. *Monterey Cypress*: limb up to +/- 5' and thin to show branch structure over time
10. ALL TREES: After reaching maximum size by consulting arborist, maintain tree silhouettes and overall height through annual pruning



ENCOURAGE
PLANT MATERIAL
TO CONCEAL
GUARDRAIL

ALLOW PLANT
MATERIAL TO
GROW THROUGH
PLANT RAIL

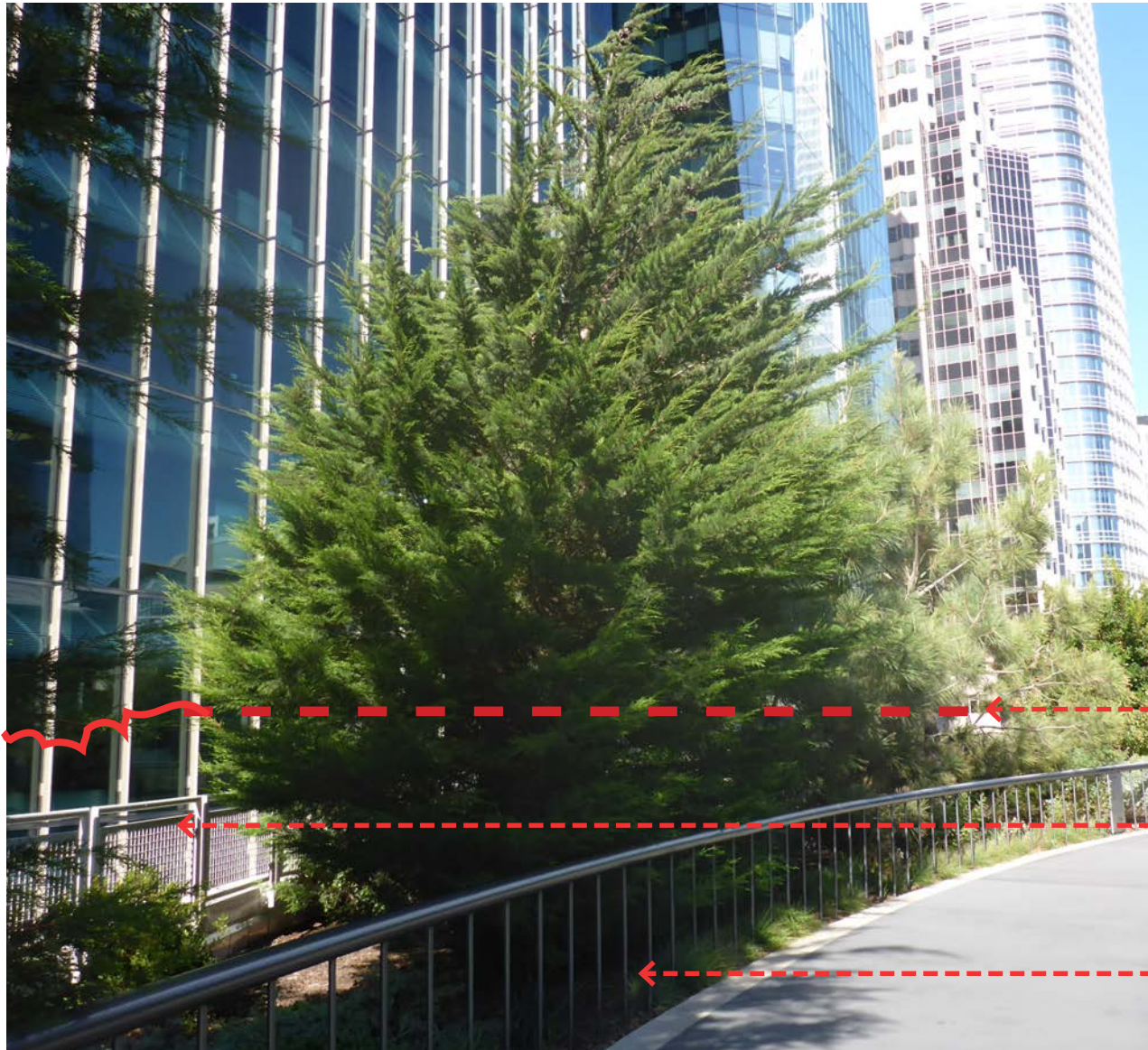


IT IS ACCEPTABLE TO MAINTAIN A PATH IN THIS AREA, +/- 24" WIDE FOR ACCESS

BEHIND BUS FOUNTAIN ALLOW PLANTS TO MATURE AND FILL IN OVER THE TOP OF GLASS. REFER TO BUS FOUNTAIN SECTION OF THIS MANUAL



TO ENSURE SHADOWS AND LEAF SILHOUETTES, ALLOW PLANTING TO GROW ALONG THE BACK OF THE GLASS



LIMB UP MONTEREY
CYPRESS TO +/- 4-5' OVER
TIME

ENCOURAGE
PLANT MATERIAL
TO CONCEAL
GUARDRAIL

ALLOW PLANT
MATERIAL TO
GROW THROUGH
PLANT RAIL

LIMB UP TORREY PINE TO 5-8'
OVER TIME



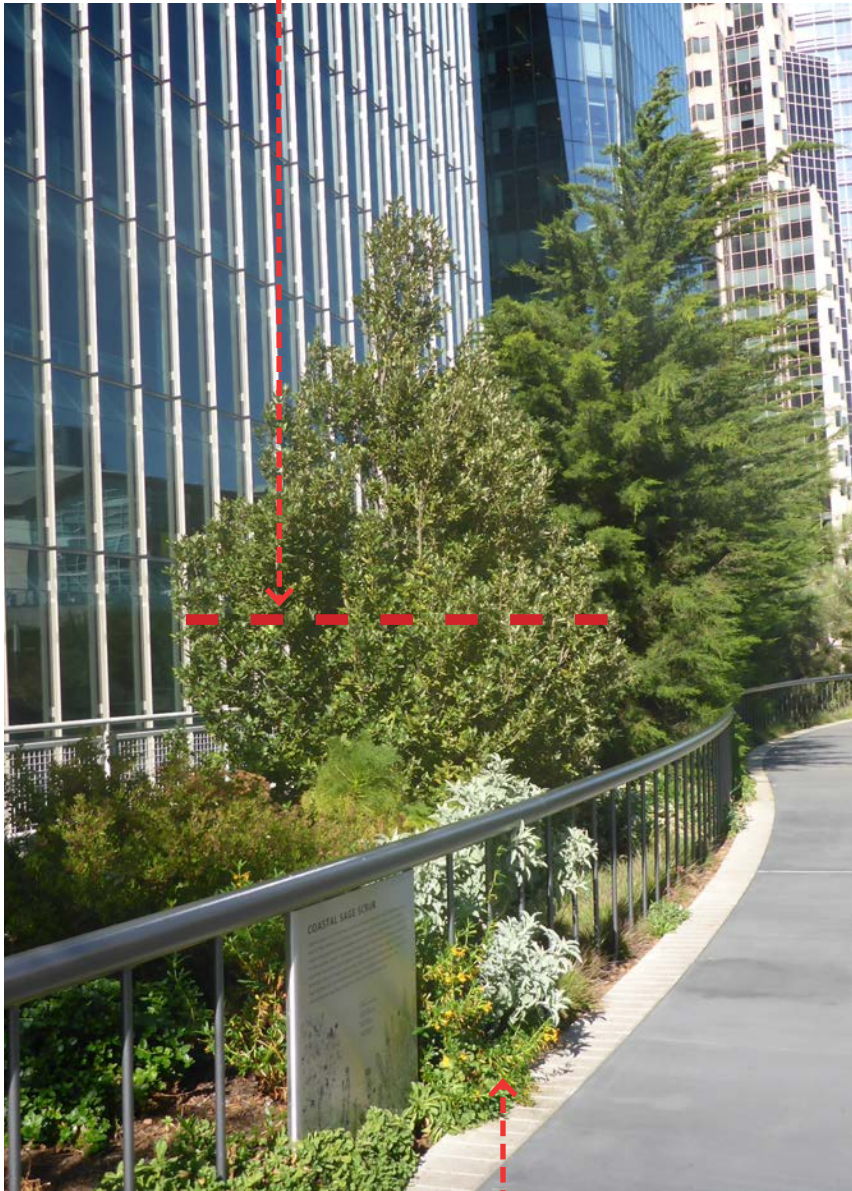
PRUNE DEER GRASS
FLOWER STALKS OFF IN
FALL

ARBUTUS 'MARINA'
LIMB UP +/-5'



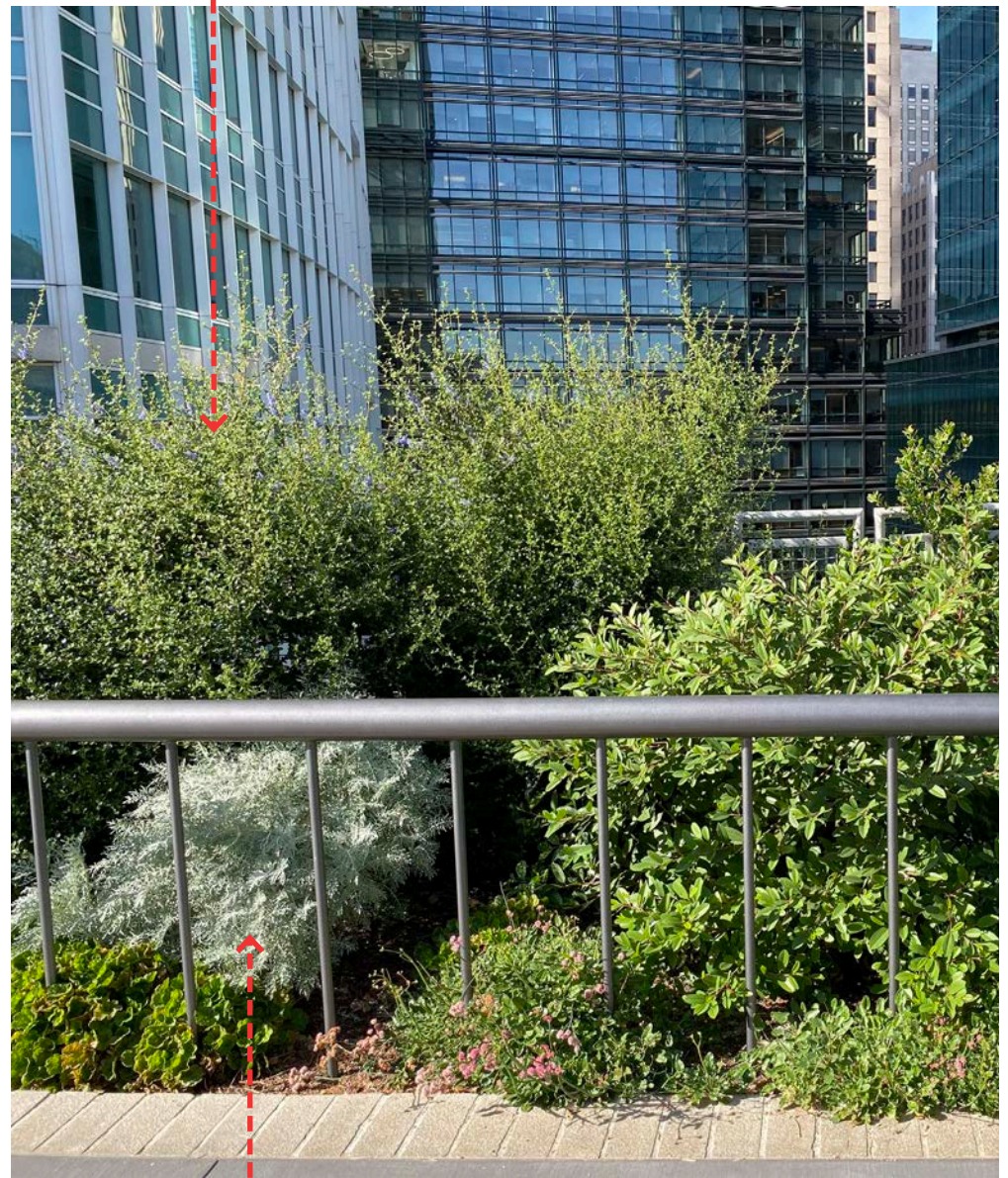
REMOVE FOLIAGE AND SMALL
SIDE BRANCHING TO SHOW
SCULPTURAL MAIN BRANCH
STRUCTURE

QUERCUS TOMENTELLA,
LIMB UP 4'-5' OVER TIME



ALLOW PLANT MATERIAL
TO GROW THROUGH
PLANT RAIL (TYP)

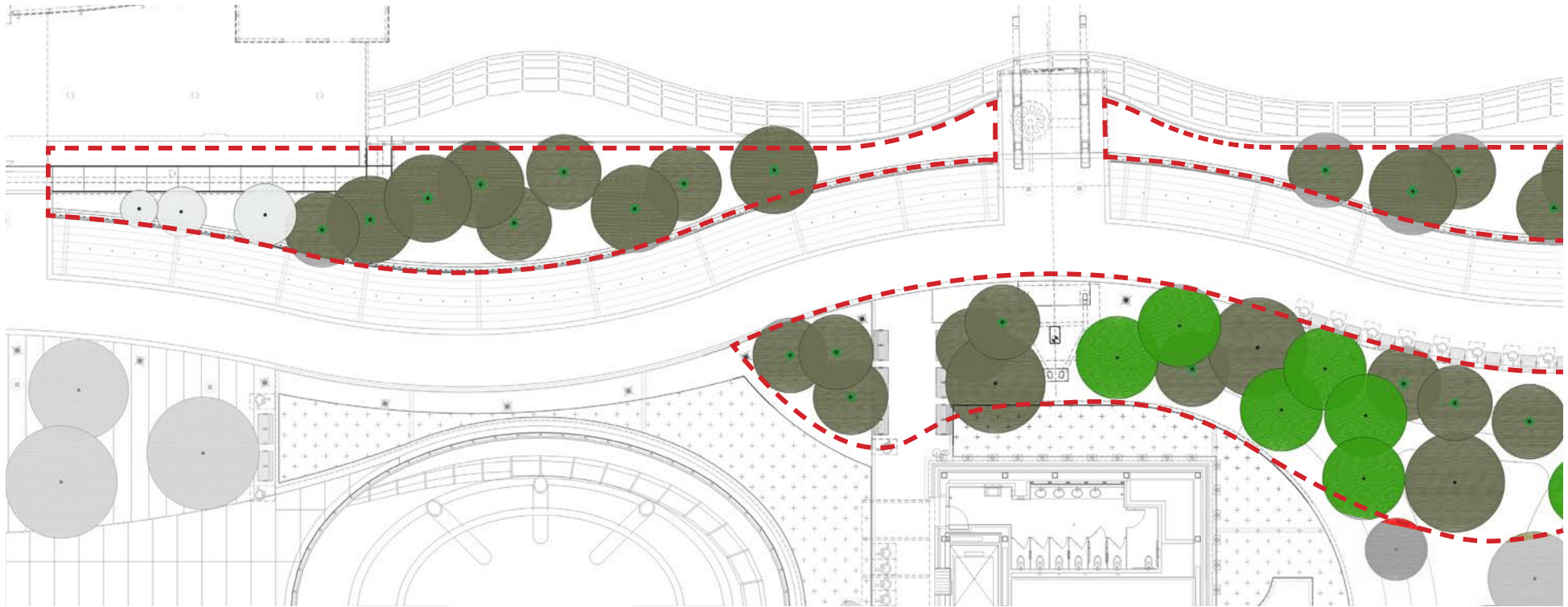
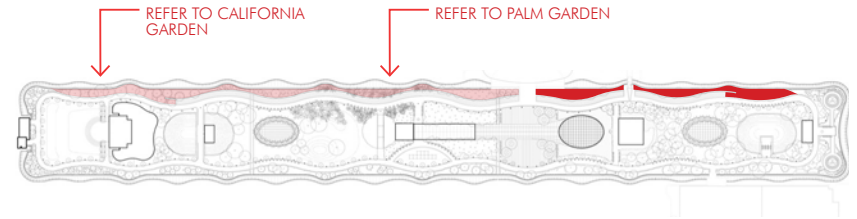
DESIRED LOOK AND EFFECT
AT GUARDRAIL



ERIOPHYLLUM NEVINII PRUNE BACK
HARD ANNUALLY

REDWOOD GROVE

The Redwood Grove is one of the few urban Redwood gardens in San Francisco, and features the state tree of California, and other coniferous trees that are often found adjacent to natural redwood stands. The more whimsical, and unique *Sequoia giganteum* 'Pendulum', are featured at the threshold to the Salesforce Tower bridge, while the grove behind the bus jet fountain and on the opposite side of the path include redwoods, cedars, and pines. Understory vegetation includes a variety of ferns, grasses and *Heuchera*, which is often found growing in the shade of a natural redwood grove.



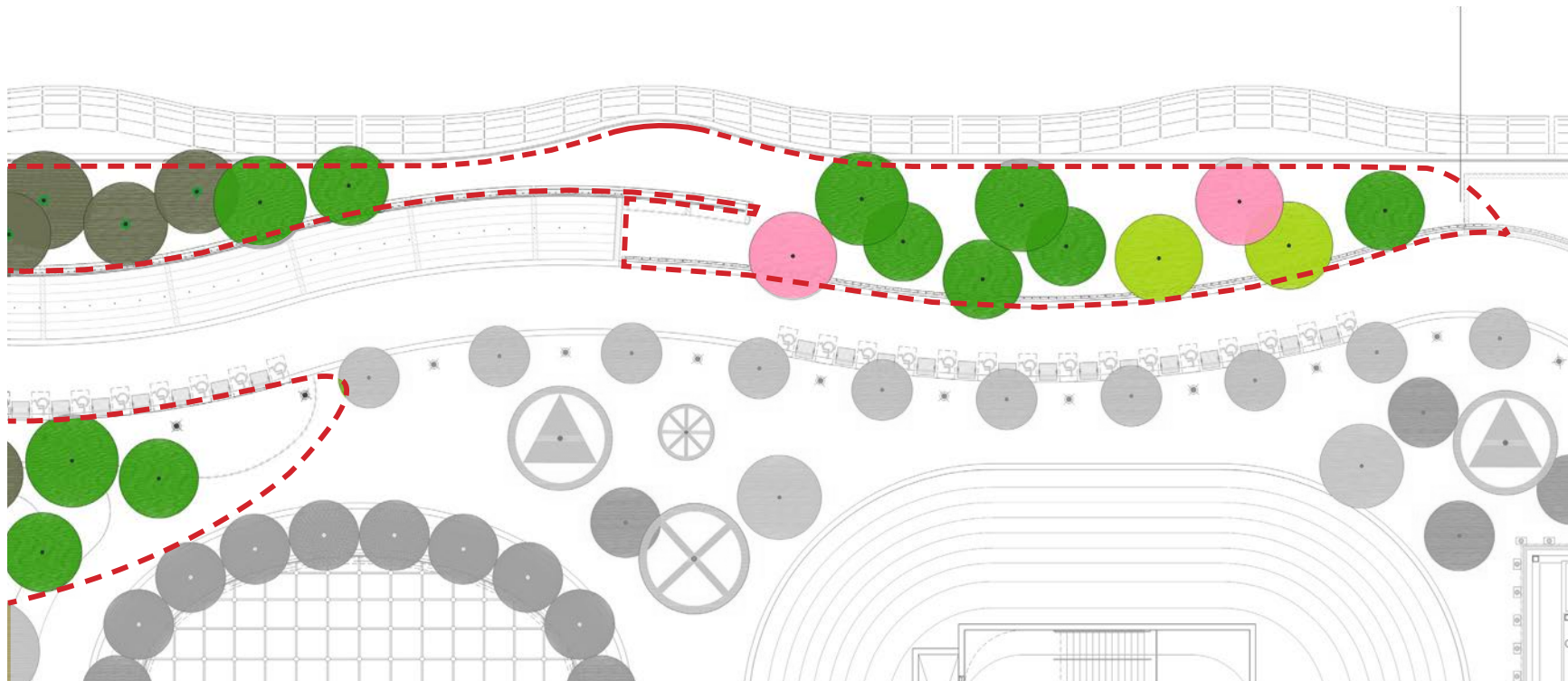
• Sequoiadendron giganteum 'Pendulum'

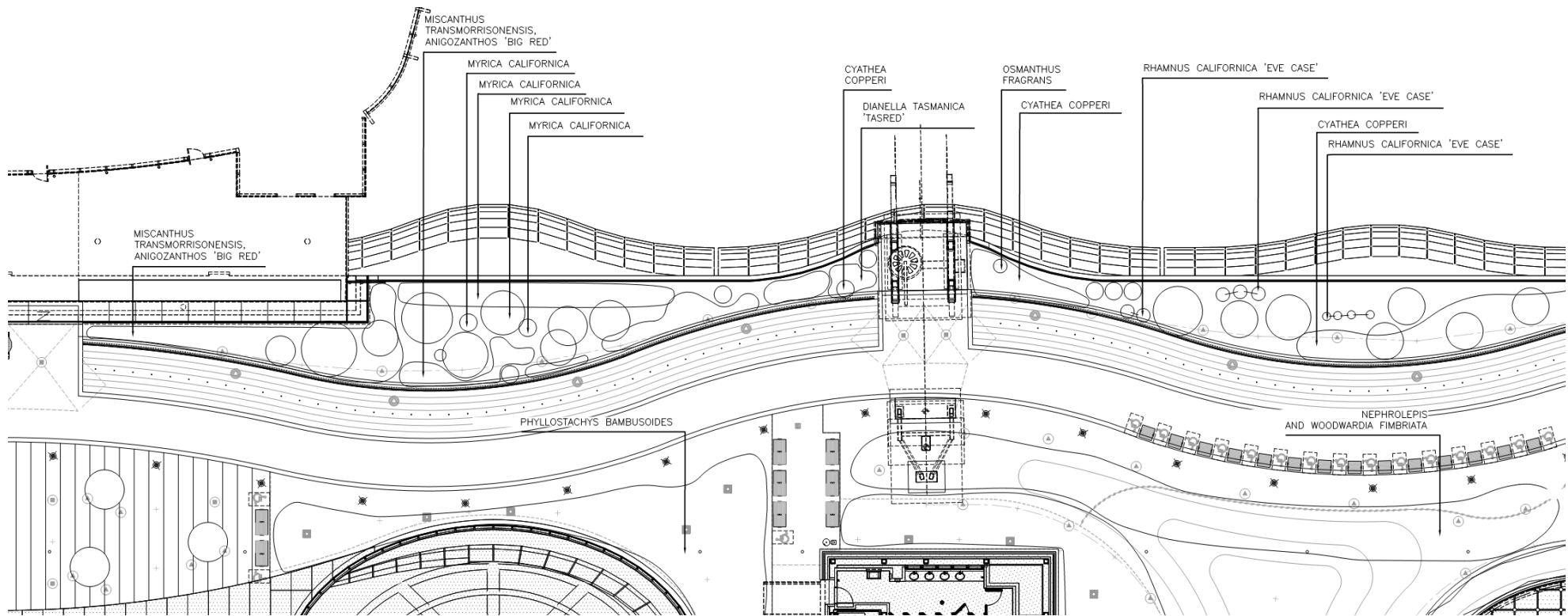
• Cedrus deodara

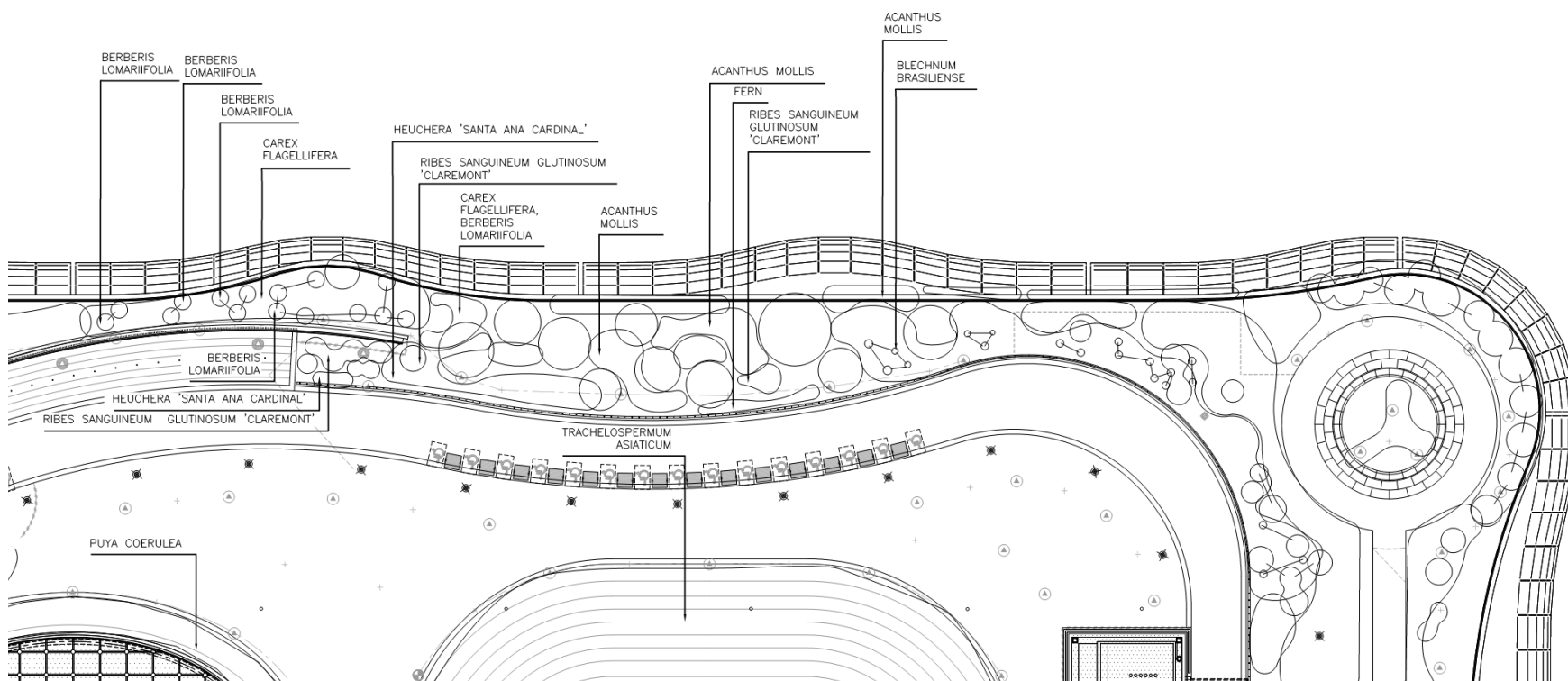
• Pinus torreyana

• Sequoia sempervirens 'Aptos Blue'

• Calocedrus decurrens







PLANTING

TREES:

- Calocedrus decurrens
- Cedrus deodara
- Pinus torreyana
- Sequoia sempervirens 'Aptos Blue'
- Sequoiadendron giganteum 'Pendulum'

UNDERSTORY:

- Acanthus mollis
- Anigozanthos 'Big Red'
- Berberis lomariifolia
- Blechnum brasiliense
- Carex flagellifera
- Cyathea copperi
- Dianella tasmanica 'Tasred'
- Heuchera 'Santa Ana Cardinal'
- Miscanthus transmorrisonensis
- Myrica californica
- Olea europea 'Montra'
- Osmanthus fragrans
- Rhamnus californica 'Eve Case'
- Ribes sanguineum glutinosum 'Claremont'

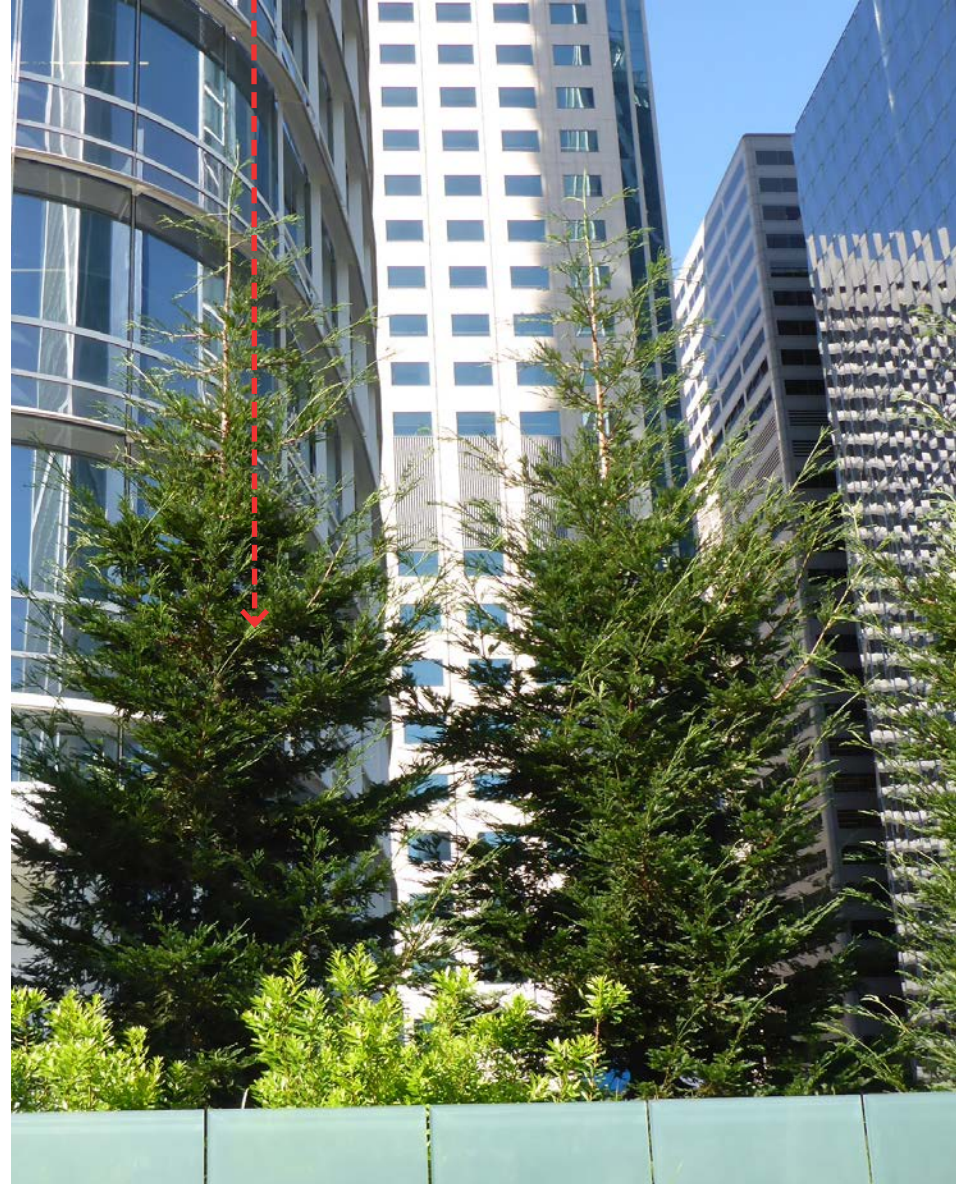
KEY MAINTENANCE FEATURES AND TASKS

1. Allow perimeter plants to conceal the guard rail beyond. Allow Myrica and Rhamnus to grow to 3' above the guard rail, then selectively cut back 30-50% of the stems to the top of rail. After cut stems show significant foliage cut remaining stems to top rail.
2. The extent of the Redwood garden includes the seismic joint adjacent to the Salesforce Tower. Plants and trees adjacent to this seismic joint should be allowed grow over the seismic joint. There is no need to prune them back.
3. If required, selectively remove perimeter plants to prevent crowding of foreground understory plant material. Before disposing of any material, considered relocating material to fill in empty areas.
4. Trees in the Redwood Grove, should be selectively pruned up to 3'-4' to allow understory to receive light and air. Prune trees behind plant rail symmetrically (i.e., do not prune only the plant rail side of the tree)
5. Trees south of the fountain should have lower branches removed up to 3'-4' to prevent crowding of ferns. A few fern plants could be removed around the base of the trees if found to be necessary after lower limb removal.
6. Prune Miscanthus down to base of plant in late winter just before new growth
7. Prune Acanthus back hard if leaves are tattered
8. Limb Torrey Pine up to 5'-8'
9. Redwoods and Cedars behind glass at northern edge can be topped/pinched back once they reach max desired height

REDWOODS, CEDRUS DEODARA, AND
CALOCEDRUS SHOULD ALL BE LIMBED
3-4' FROM THE BASE

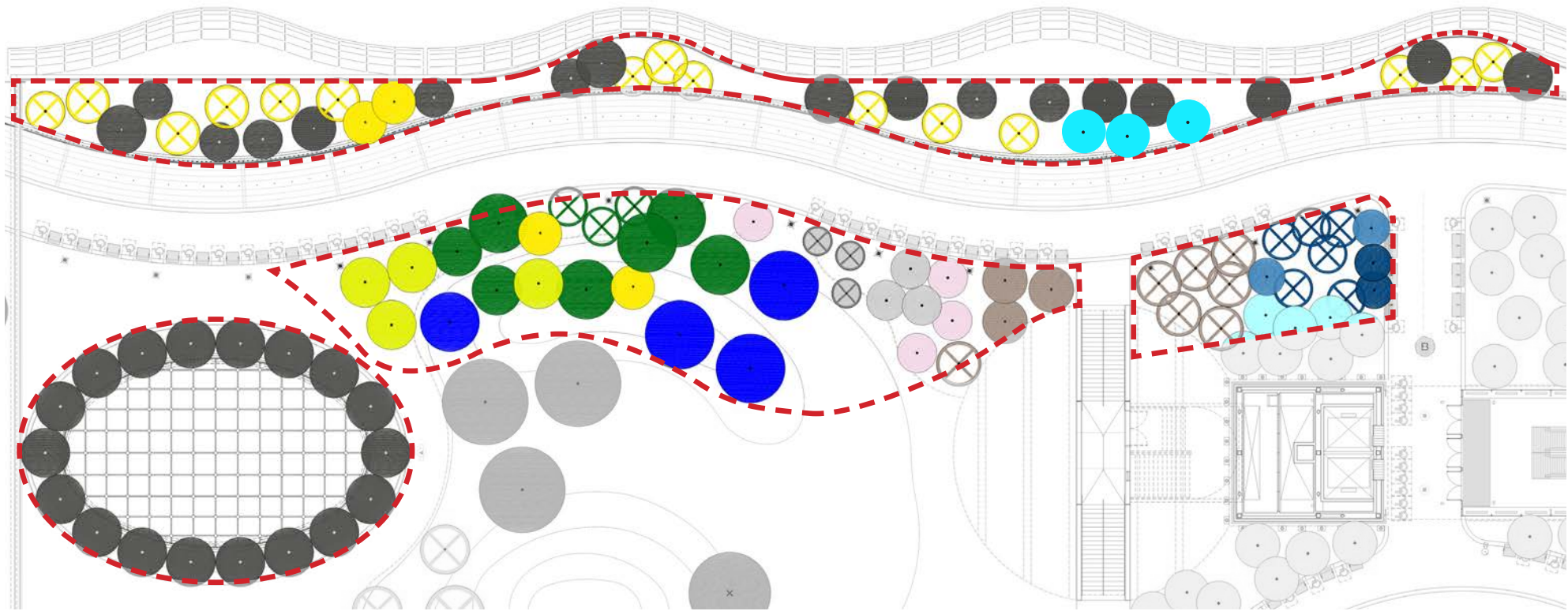
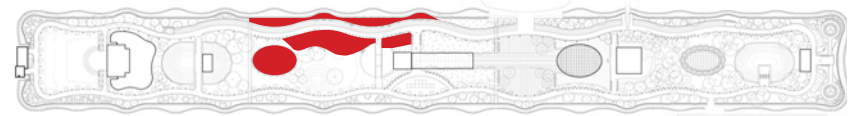


WHEN THESE REDWOODS REACH
MAXIMUM DESIRED HEIGHT, NEW
GROWTH CAN BE TOPPED OR PINCHED
BACK TO MAINTAIN HEIGHT OVER TIME

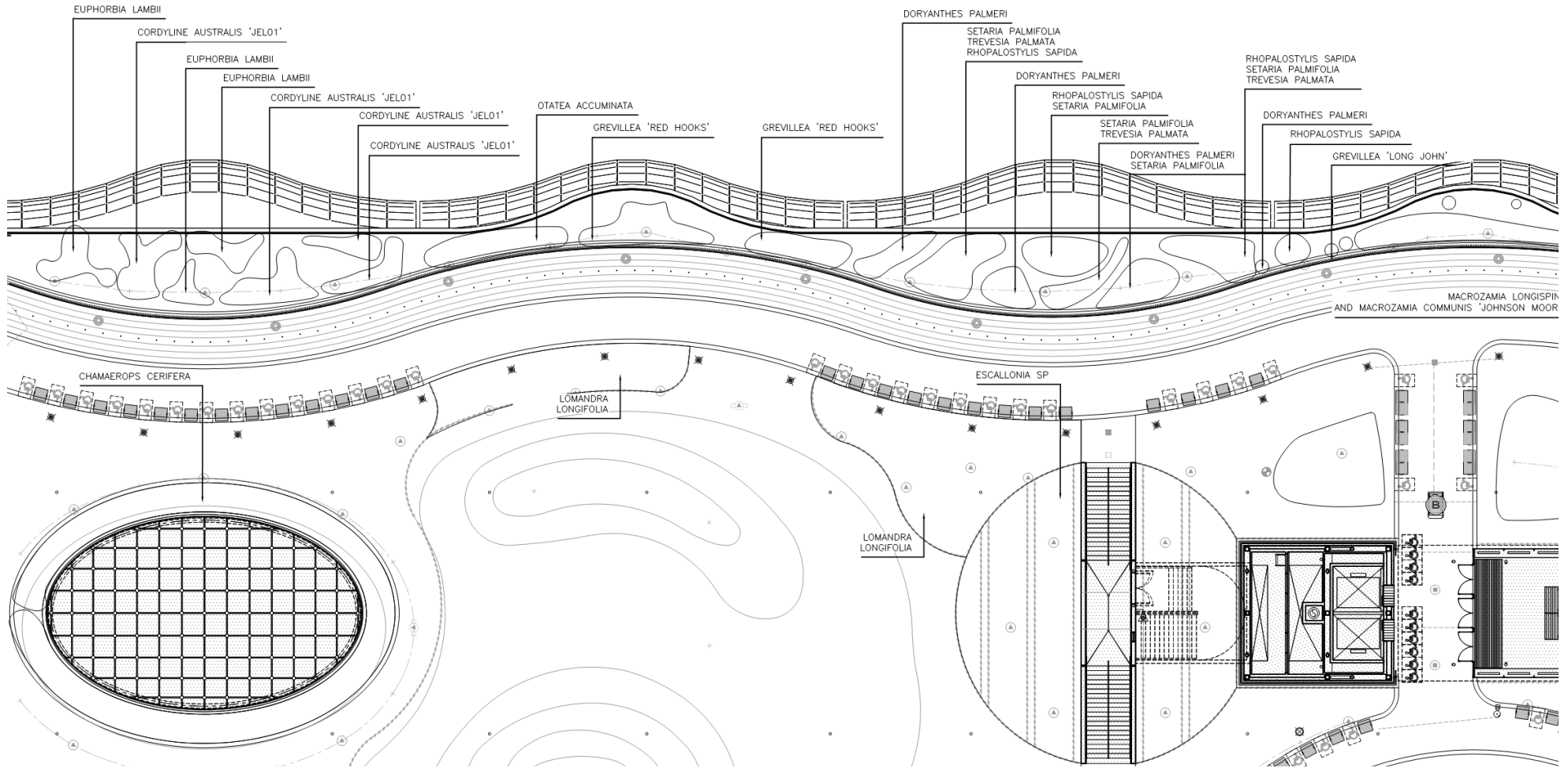


PALM GARDEN

The palm garden features a variety of palm species native to cool and warm Mediterranean climates and tropical high altitude regions of Europe, Asia, Australia, Africa and the Americas. One palm in this garden is native to California - the California Fan Palm - and it is featured around the base of each of the skylights.



- | | | | | | |
|------------------|----------------------------------|-----------------------|----------------------------|----------------------------|-----------------------------------|
| ● Brahea 'Clara' | ● Chamaerops humilis | ⊗ Howea forsteriana | ● Lepidozamia peroffskyana | ● Rhopalostylis baueri | ● Washingtonia robusta x filifera |
| ⊗ Brahea edulis | ⊗ Chamaerops humilis v. Cerifera | ● Jubaea chilensis | ● Parajubaea cocoides | ⊗ Rhopalostylis sapida | |
| ● Butia capitata | ● Howea belmoreana | ● Livistona decipiens | ● Trachycarpus takil | ⊗ Trachycarpus wagnerianus | |





BRAHEA CLARA



CHAMAEROPS HUMILIS



JUBAEA CHILENSIS



JUBAEA CHILENSIS -SILVER FORM



LIVISTONA DECIPIENS



RHOPALOSTYLIS BAUERI



RHOPALOSTYLIS SAPIDA



PARAJUBAEA COCOIDES



TRACHYCARPUS WAGNERIANUS



BUTIA CAPITATA



HOWEA BELMOREANA



HOWEA FORESTERIANA

PLANTING

PALMS:

- Brahea 'Clara'
- Brahea edulis
- Butia capitata
- Chamaerops humilis
- Chamaerops humilis v. Cerifera
- Howea belmoreana
- Howea forsteriana
- Jubaea chilensis
- Livistona decipiens
- Lepidozamia peroffskyana
- Parajubia cocoides
- Trachycarpus takil
- Trachycarpus wagnerianus
- Rhopalostylis baueri
- Rhopalostylis sapida
- Washingtonia robusta x filifera

UNDERSTORY:

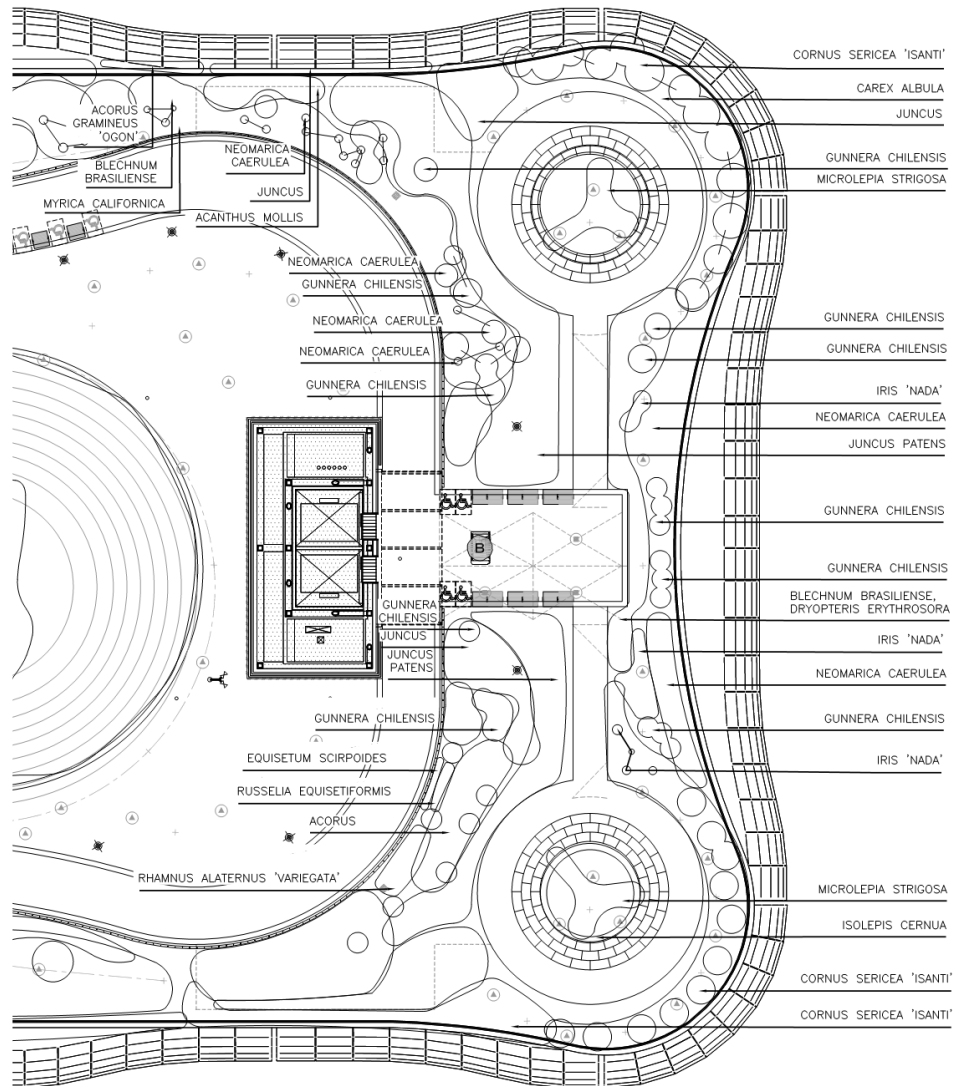
- Cordyline australis 'Jel01'
- Doryanthes palmeri *
- Euphorbia lambii *
- Grevillea 'Red Hooks' *
- Grevillea 'Long John' *
- Lomandra longifolia *
- Macrozamia longispina *
- Macrozamia communis 'Johnson Moore' *
- Otatea accuminata
- Rhopalostylis sapida
- Setaria palmifolia
- Trevesia palmata

* Plants Behind Glass

KEY MAINTENANCE FEATURES AND TASKS

1. General notes for palms: prune broken, dead, or dying fronds regularly.
2. Do not remove green fronds growing horizontally, or pointing up. Do not overprune. Ensure all pruning equipment is well-cleaned and sterilized prior to pruning to prevent spread of fungal diseases.
3. Palms located on the north side of the bus fountain should be maintained to allow their fronds to hang over the edge of the bus fountain glass and should be pruned back only when they are broken, dead, or dying.
4. Mulch rings at the base of the palms in the Picnic Meadow should be maintained to protect the base of the trunk from regular mowing and string trimming.
5. Brahea clara: Self pruning, no need to cut fronds
6. Chamaerops humilis: Remove sucker babies. Prune off dead leaves annually
7. Jubaea chilensis + Silver Form: Self pruning, no need to cut fronds
8. Rhopalostylis baueri and sapida -Self pruning, no need to cut fronds
9. Parajubaea cocoides: When pruning, leave fuzzy trunk fiber in place. Prune dead leaves annually.
10. Trachycarpus wagnerianus: When pruning, leave fuzzy trunk fiber in place. Prune off dead leaves annually.
11. Butia capitata: Prune off dead leaves annually.
12. Howea species: self pruning, no need to cut fronds

The wetland garden was designed to polish grey water and will temporarily store, filter, and clean runoff water. This garden will require regular irrigation, whether from the building's greywater system, or supplemental irrigation. Replacement plants, or additions to the garden should be compatible with a greywater system. Because the plants within the garden should be allowed to spread and fill the entire area, ultimately, no gravel mulch should be visible.



PLANTING

TREES:

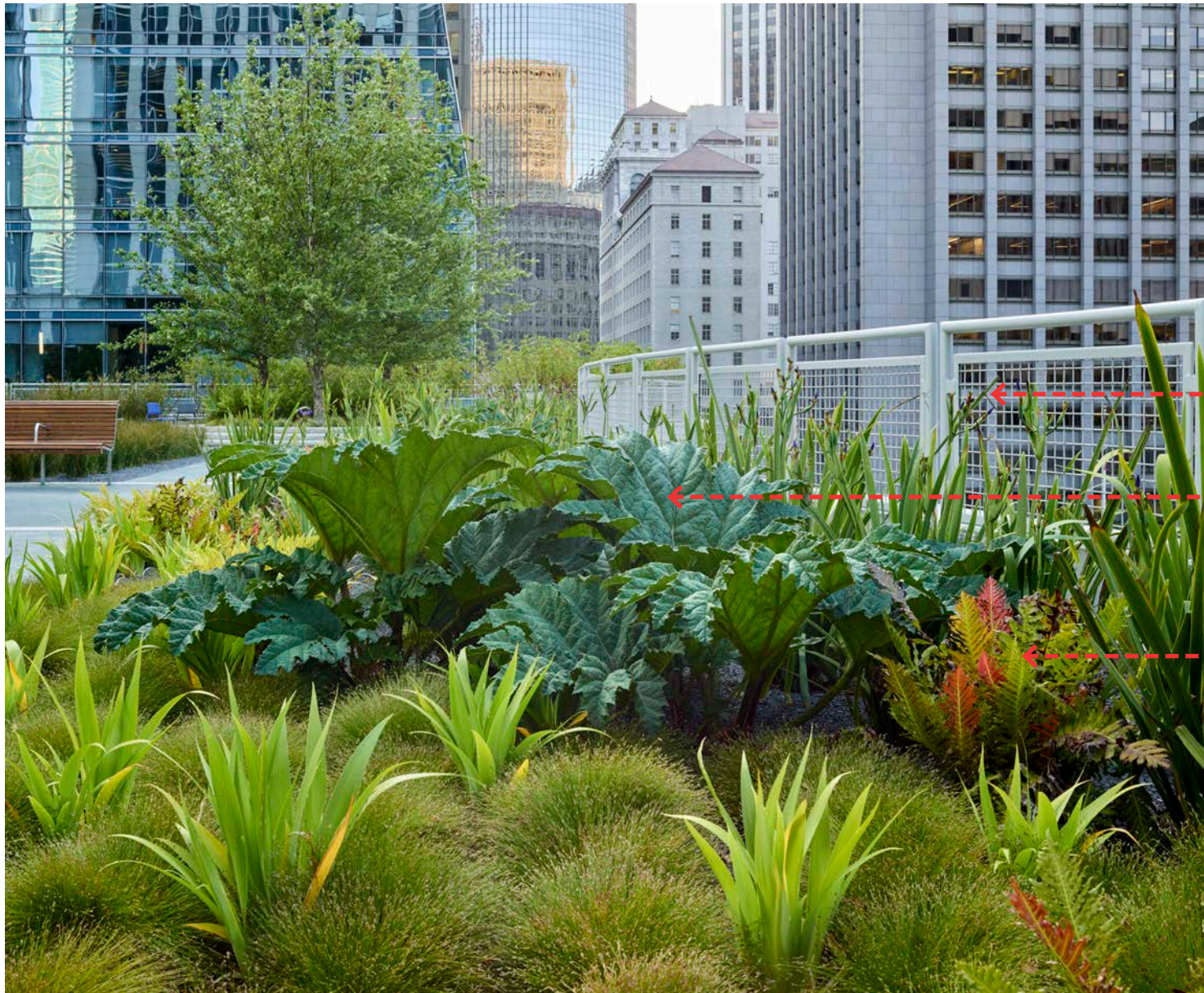
- *Betula nigra*

UNDERSTORY:

- *Acorus gramineus* 'Ogon'
- *Acanthus mollis*
- *Blechnum brasiliense*
- *Carex albula*
- *Chondropetalum*
- *Cornus sericea* 'Isanti'
- *Dryopteris erythrosora*
- *Gunnera chilensis*
- *Iris* 'Nada'
- *Isolepis cernua*
- *Juncus effusus* 'Quartz Creek'
- *Juncus pallidus*
- *Juncus patens* 'Elk Blue'
- *Microlepia strigosa*
- *Myrica californica*

KEY MAINTENANCE FEATURES AND TASKS

1. Perimeter plants should conceal the guard rail beyond. Allow cornus to grow to 3' above the guard rail, then selectively cut back 30-50% of the stems to the top of rail. After cut stems show significant foliage cut remaining stems to top rail.
2. Maintain water level in the wetland garden to the designed level.
3. *Betula nigra*: Limb up to 6-8' over time and thin branches to highlight bark
4. Any replacement/supplemental plant material in this garden should be grown in the wetland plant potting medium.
5. Only prune *Juncus* to ground if it is all brown.
6. Metal header indicates boundary of wetland basin. The intent is for material both in, and immediately outside the basin to appear as one massing. It is important to note any material replaced within the basin will have different planting requirements than material outside of the basin.
7. *Gunnera* should be allowed to grow in natural form to conceal the rail; brown foliage should be cut to the base in the winter. *Gunnera* may die back completely in Winter, but will come back in the Spring.
8. Prune *Acanthus* back hard when the foliage is brown and tattered.
9. Prune *Cornus* for shape and overall height up to 6'-8' tall. It should be maintained as a dense stemmy shrub that blocks views to guardrail.
10. DO NOT hard prune back *Chondropetalum*, stems should be selectively removed when brown

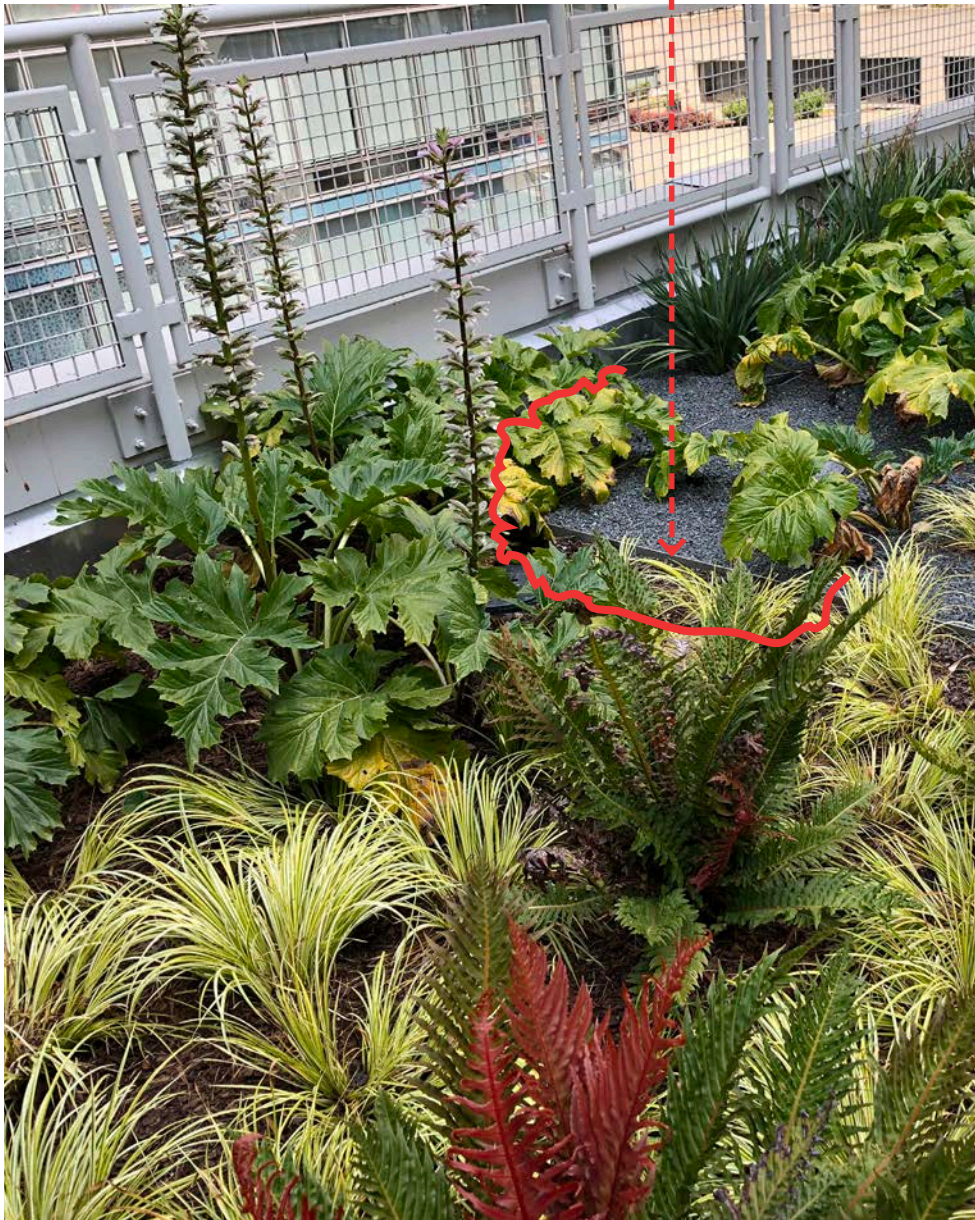


ENCOURAGE
PLANT MATERIAL
TO CONCEAL
GUARDRAIL (TYP.)

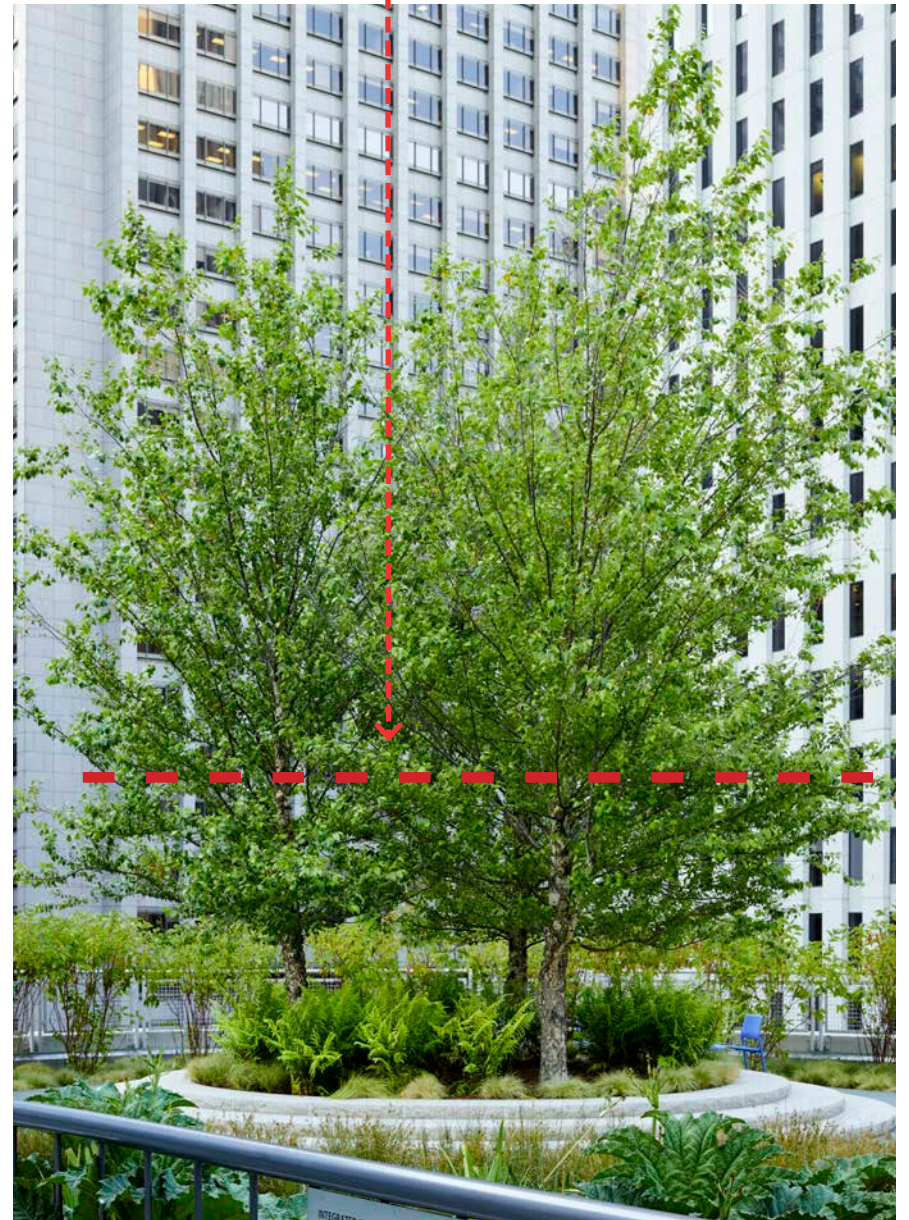
PRUNE BACK
GUNNERA
CHILENSIS IN THE
WINTER TO
ALLOW FOR NEW
GROWTH

ALLOW
BLECHNUM
BRASILIENSE TO
BECOME SMALL
TREE FERN

METAL HEADER INDICATES BOUNDARY OF
WETLAND BASIN. PLANTING ON BOTH SIDES
OF HEADER SHOULD BLEND AS ONE MASS

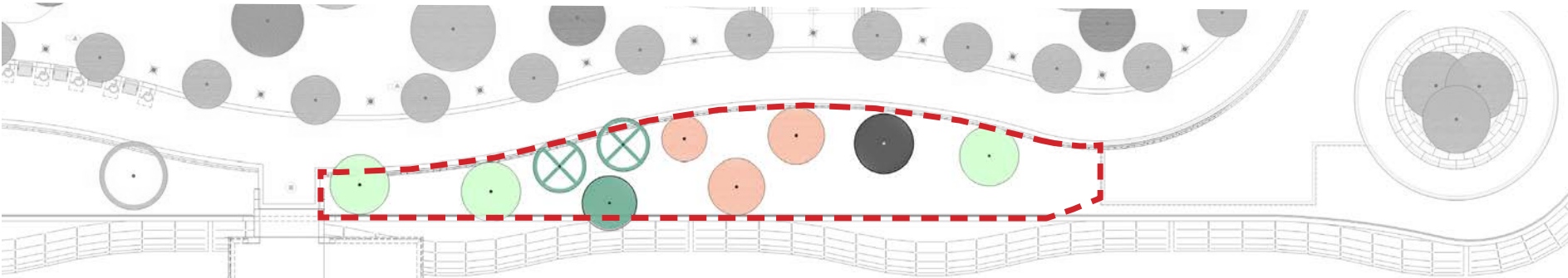
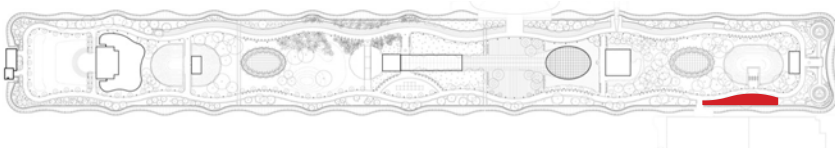


BETULA NIGRA,
LIMB UP TO 8' OVER TIME

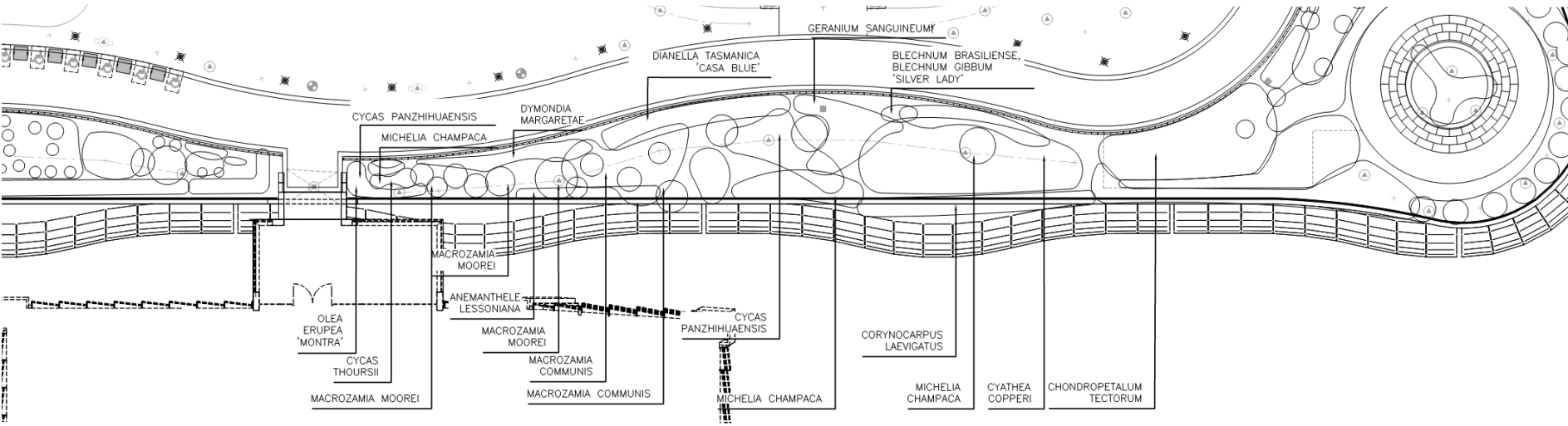


PREHISTORIC GARDEN

This garden exhibits many plants that have existed for over 200 million years. The Conifers, Cycads, and Ferns in this garden grow well in the temperate San Francisco climate, and would have provided a food source for taller dinosaurs, such as brontosaurus, and shorter dinosaurs, such as Stegosaurus. The location of this garden highlights the approximate location where the Transbay Mammoth tooth was excavated during construction of the facility.



-  *Araucaria araucana*
-  *Encephalartos natalensis*
-  *Wollemia nobilis*
-  *Ginkgo biloba* varieties
-  *Encephalartos altenstenii*



PLANTING

TREES:

- *Araucaria araucana*
- *Ginkgo biloba*
- *Encephalartos natalensis*
- *Encephalartos altenstenii*
- *Woollemia nobilis*
- *Michalia champaca*

UNDERSTORY:

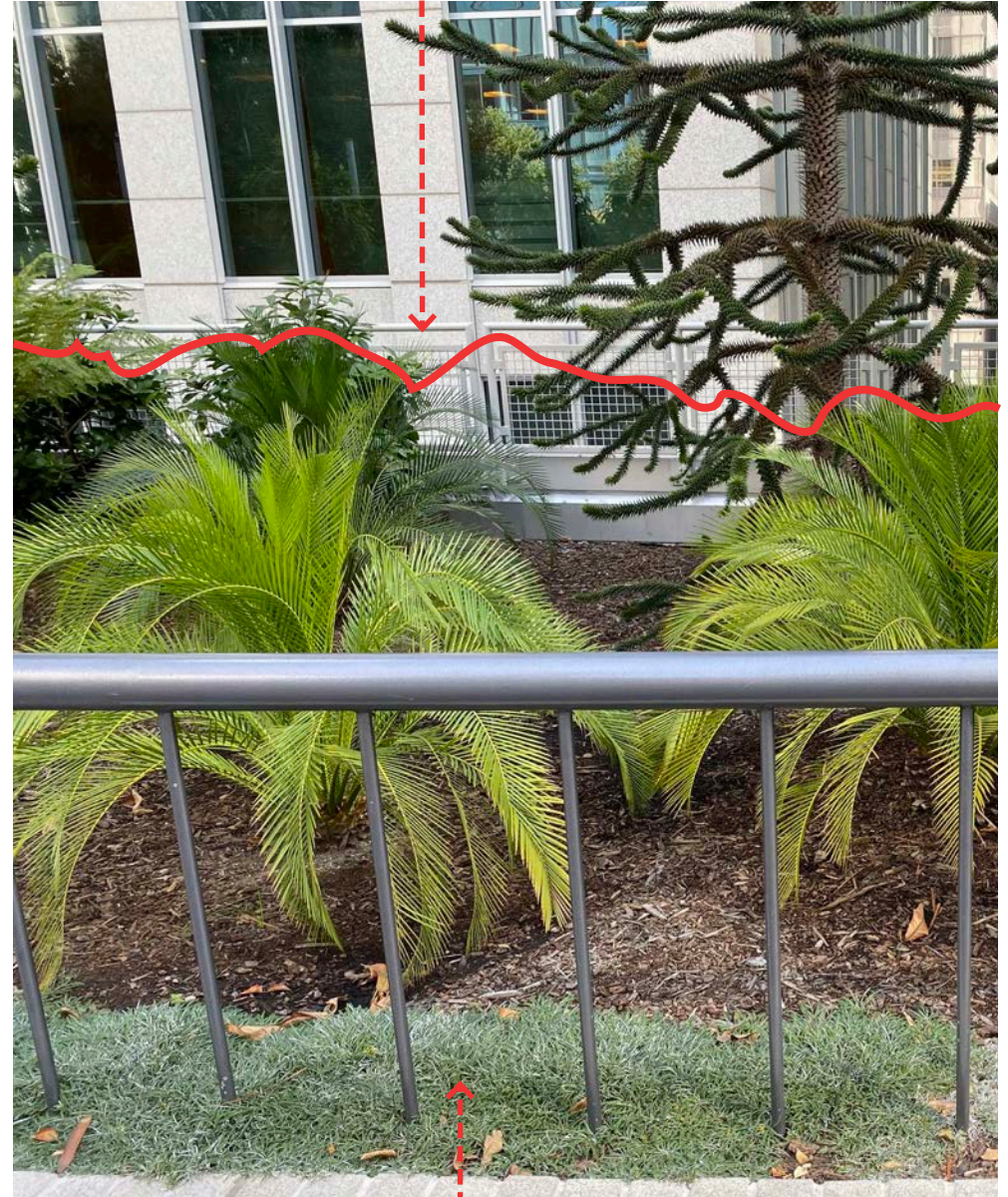
- *Anemanthele lessonian*
- *Blechnum brasiliense*
- *Blechnum gibbum* 'Silver Lady'
- *Chondropetalum tectorum*
- *Corynocarpus laevigatus*
- *Cyathea copperi*
- *Cycas panzhihuaensis*
- *Cycas thoursii*
- *Dianella tasmanica* 'Casa Blue'
- *Dymondia margaretae*
- *Geranium sanguineum*
- *Macrozamia communis*
- *Macrozamia moorei*
- *Michelia champaca*
- *Olea europea* 'Montra'
- *Wollemia nobilis*

KEY MAINTENANCE FEATURES AND TASKS

1. *Encephalartos* have stiff, spiny-toothed leaflets that should be monitored as the plants grow. Maintain fronds behind plant rail. Do not accidentally over water *Encephalartos*.
2. All Cycads: Cycads have special roots at the top of their rootball that need some contact with air. These "coralloid roots" should not be covered with soil if visible.
3. Monkey Puzzle Trees - maintain full branches to ground. Do not cover the roots too deeply with soil, or mulch. Lower branches up to 3' can be removed to allow for access.
4. *Ginkgo* - remove lower limbs of canopy to 4'-6' to allow light and air below the canopy.
5. *Michelia* in this garden should be maintained as tall shrubs.
6. *Wollemia nobilis*- maintain full branches to ground
7. Tree Ferns - remove brown fronds regularly, as they appear.
8. Prune off dead or yellow leaves on all Cycads
9. *Anemanthele* grass: Additional plants can be added to fill in gaps along the guardrail. Plants should be cut to ground in spring just as new growth begins.



MONKEY PUZZLE, LIMB UP BRANCHES 2'-3' FROM GROUND, AS NEEDED TO ALLOW FOR ACCESS.



ADD PHEASANTS TAIL GRASS ALONG RAIL TO CONCEAL GUARDRAIL

ALLOW PLANT MATERIAL TO GROW THROUGH PLANT RAIL (TYP.)

PRUNE REGULARLY TO REMOVE
DEAD FRONDS

MAINTAIN FULL BRANCHING OF
WOLLEMIA TO THE GROUND

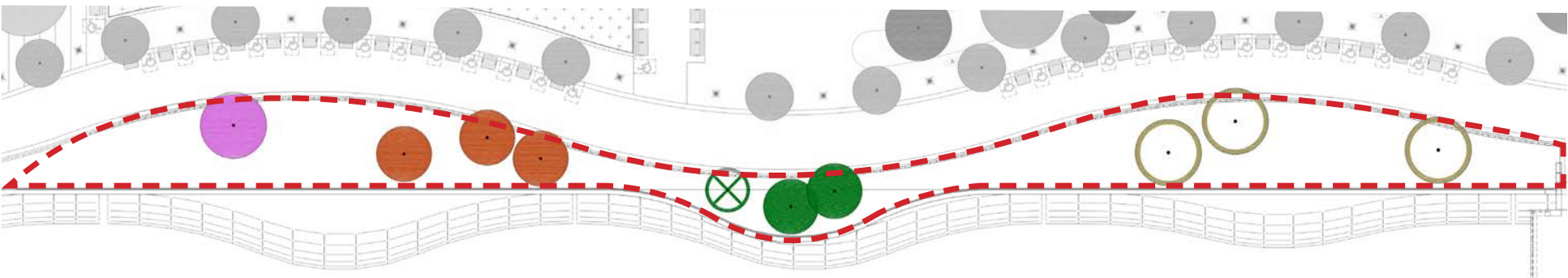
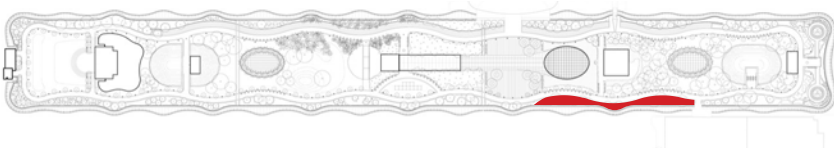
PRUNE MICHELIA TO
MAINTAIN LARGE SHRUB
FORM



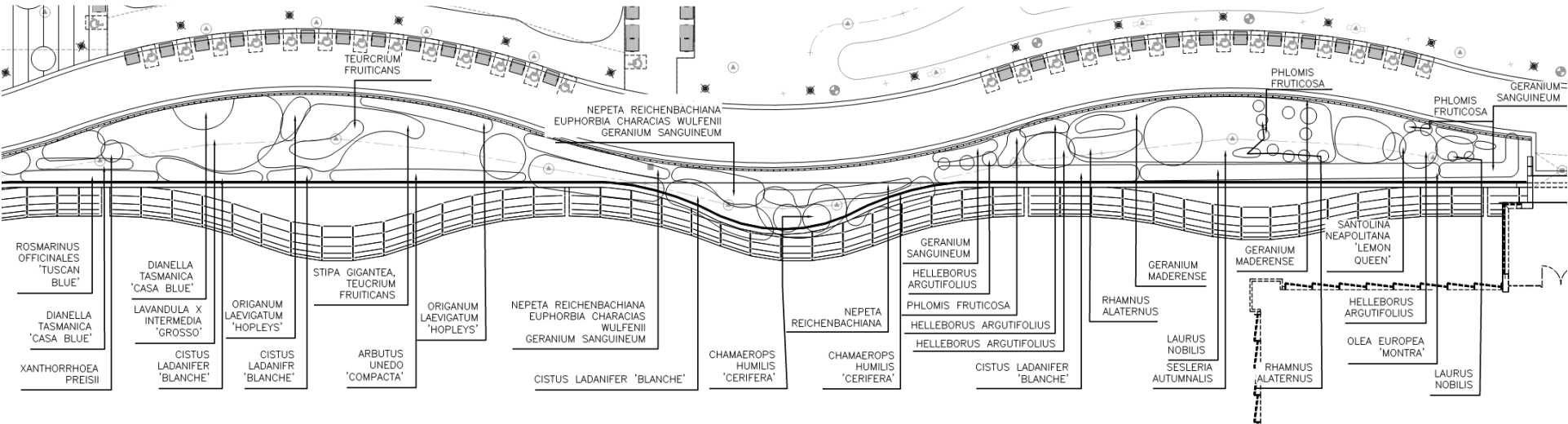
MAINTAIN UNDERSTORY FERNS TO
CONCEAL GUARDRAIL BEYOND

MEDITERRANEAN GARDEN

This Mediterranean garden contains plants from the countries surrounding the Mediterranean sea which are well adapted to the San Francisco climate. Plants in this garden are arranged in informal drifts, and feature a tranquil color palette of grays, purples, and blue-greens as well as bright colored flowers and fragrant leaves.



-  Olea europaea 'Swan Hill'
-  Chamaerops humilis
-  Quercus suber
-  Arbutus 'Marina'
-  Chamaerops humilis v. Cerifera



PLANTING

TREES:

- *Arbutus* 'Marina'
- *Chamaerops humilis*
- *Chamaerops humilis* 'Cerifera'
- *Olea europaea* 'Swan Hill'
- *Quercus suber*

UNDERSTORY:

- *Arbutus unedo* 'Compacta'
- *Cistus ladanifer* 'Blanche'
- *Dianella tasmanica* 'Casa Blue'
- *Euphorbia characias wulfenii*
- *Geranium maderense*
- *Geranium sanguineum*
- *Helleborus argutifolius*
- *Laurus nobilis*
- *Lavandula x intermedia* 'Grosso'
- *Nepeta reichenbachiana*
- *Olea europea* 'Montra'
- *Origanum laevigatum* 'Hopleys'
- *Phlomis fruticosa*
- *Rhamnus alaternus*
- *Rosmarinus officinalis* 'Tuscan Blue'
- *Santolina neapolitana* 'Lemon Queen'
- *Sesleria autumnalis*
- *Stipa gigantea*
- *Teucrium fruiticans*
- *Xanthorrhoea preisii*

KEY MAINTENANCE FEATURES AND TASKS

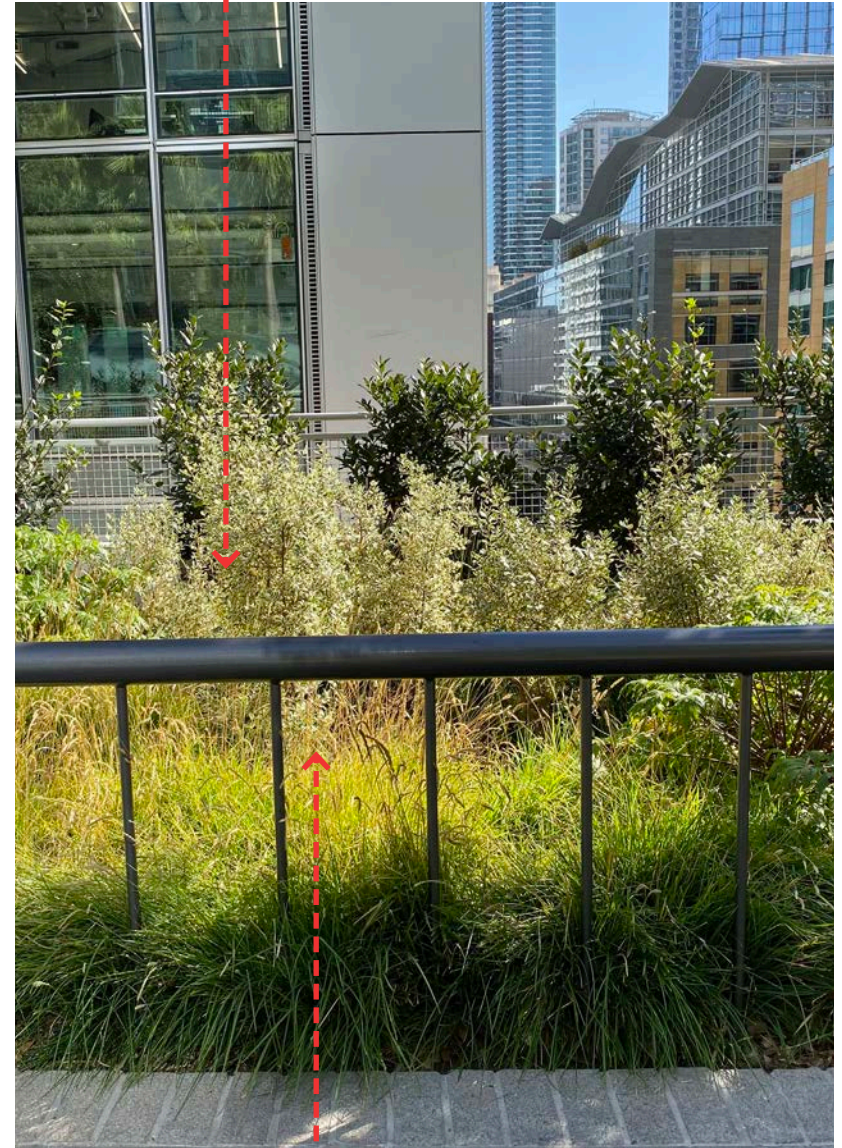
1. The perimeter plants should conceal the guard rail beyond. Allow rosemary, cistus, rhamnus and laurus to grow to 3' above the guard rail, then selectively cut back 30-50% of the plant to the top of rail. After cut stems show significant foliage growth, cut remaining stems to top of rail.
2. Prune Rosemary to maintain natural form.
3. If required, selectively remove perimeter plants to prevent crowding of foreground understory plant material.
4. *Arbutus* 'Marina' and Olive tree foliage should be pruned to expose the lower portion of the multi-branched trunk. Taller upper branches (above 7-8') should be allowed to hang over the path. Note that *Arbutus unedo* 'Compacta' is intended to be maintained in shrub form to conceal the guard rail beyond.
5. For *Chamaerops* in this area, allow new heads to grow and do not remove them to maintain as a mounded shrub
6. Limb up *Quercus suber* over time to 8'-10' clear trunk
7. Prune back *Euphorbia* stems to base of plant immediately following spring and summer bloom period to prevent overcrowding and ensure that the plant flowers consistently.
8. Hard prune *Dianella* every five years to re-stimulate the growth of healthy foliage. Cut all foliage to about 6" above the ground. Divide plants as required.
9. Remove plants as needed to allow for growth
10. Prune back *Euphorbia* stems to their base immediately following bloom through Spring and Summer.
11. *Cotinus*: Prune up lower limbs of *Cotinus* to create small tree-like shrubs that allow for understory to grow beneath them. Thin branching structure to allow for filtered light below.

--- ALLOW NEW HEADS TO GROW ON CHAMAEROPS IN THIS AREA. MAINTAIN DENSITY OF PLANTING TO BLOCK VIEW TO GUARDRAIL BEYOND



--- PRUNE OFF EUPHORBIA STEMS TO GROUND AFTER FLOWERING

--- RHAMNUS INTENDED TO BE THE 'MID LEVEL' PLANTING BETWEEN THE SESLERIA AND LAURUS AND SHOULD BE MAINTAINED AS SUCH



--- REMOVE PLANTS AS NEEDED TO ALLOW FOR GROWTH



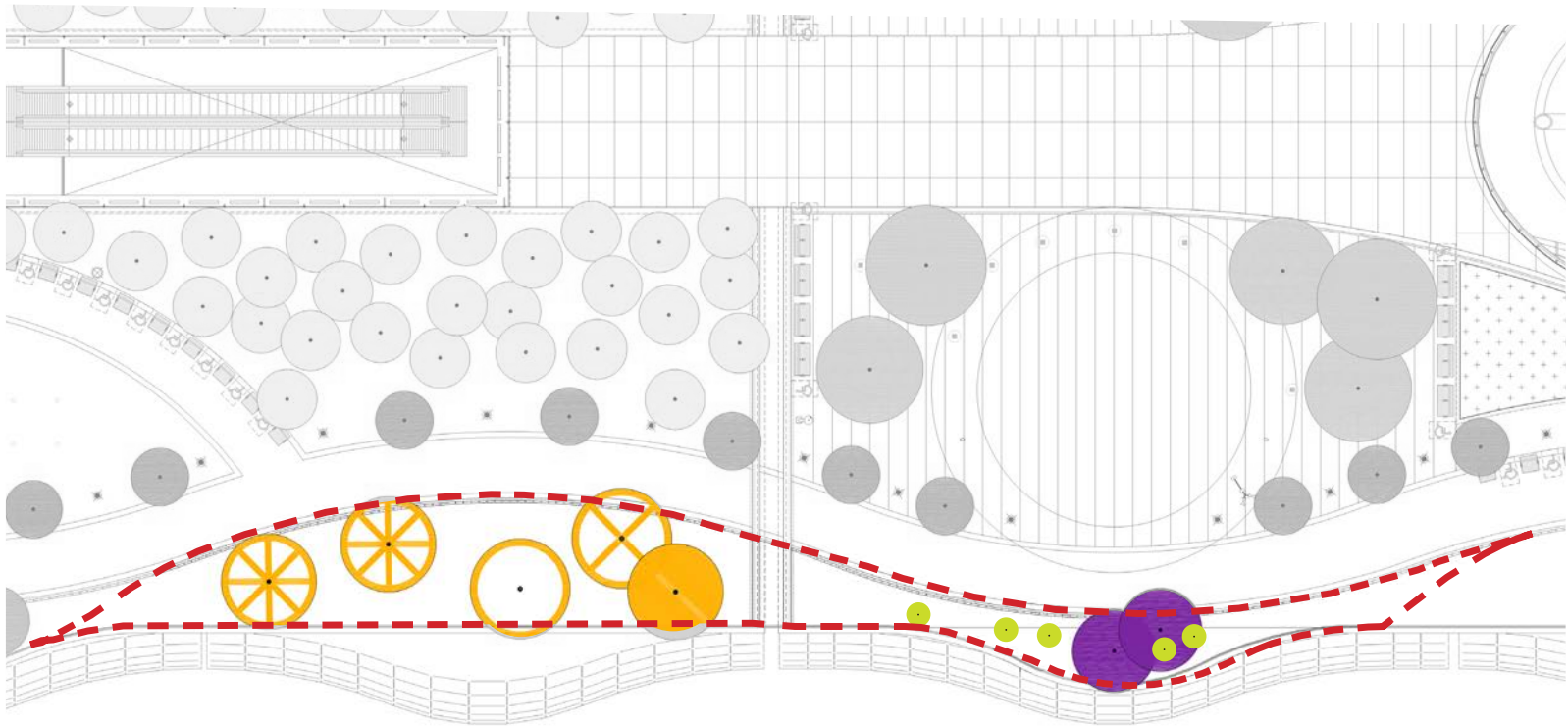
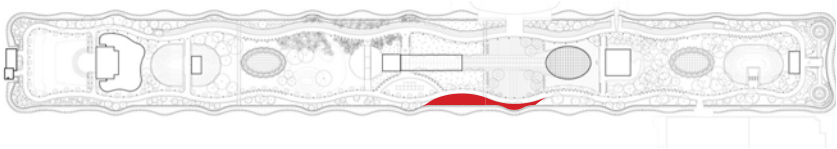
ENCOURAGE
PLANT MATERIAL
TO CONCEAL
GUARDRAIL (TYP.)



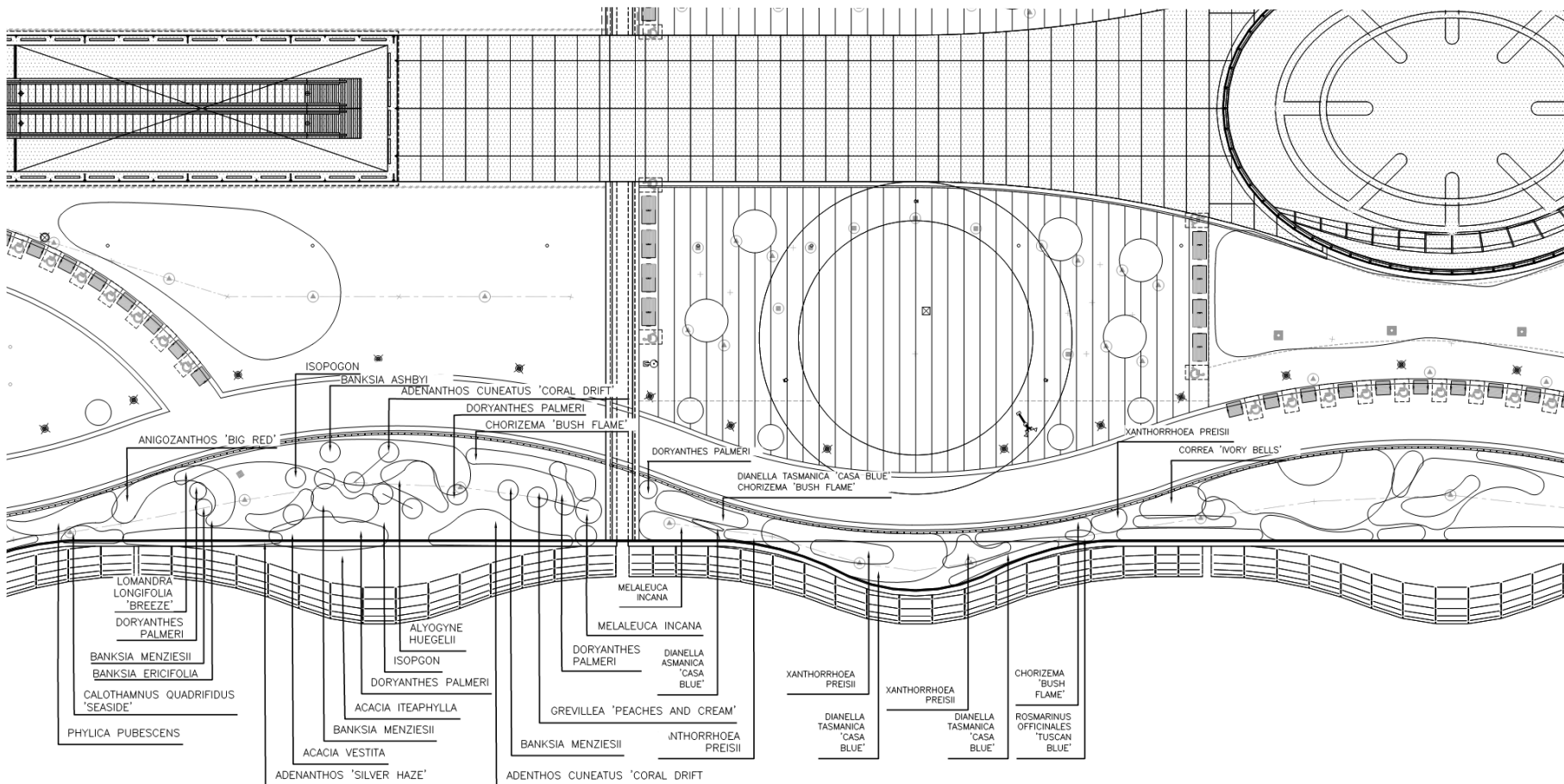
ALLOW PLANT
MATERIAL TO
GROW THROUGH
PLANT RAIL (TYP.)

AUSTRALIAN GARDEN

Many Australian plants - from the familiar to the otherworldly - grow well in San Francisco. A number of these species have drought resistant adaptations that include the flat leaf-like stems on Acacia species to the gray sunlight-reflecting foliage on Melaleuca and the needle-like water conserving leaves on Banksia.



-  *Brachychiton acerifolium*
-  *Brachychiton populneus*
-  *Michelia champaca* 'Alba'
-  *Brachychiton discolor*
-  *Brachychiton rupestris*
-  *Xanthorrhoea preisii*



PLANTING

TREES:

- *Brachychiton acerifolium*
- *Brachychiton discolor*
- *Brachychiton rupestris*
- *Brachychiton populneus*
- *Michelia champaca* 'Alba'
- *Xanthorrhoea preisii*

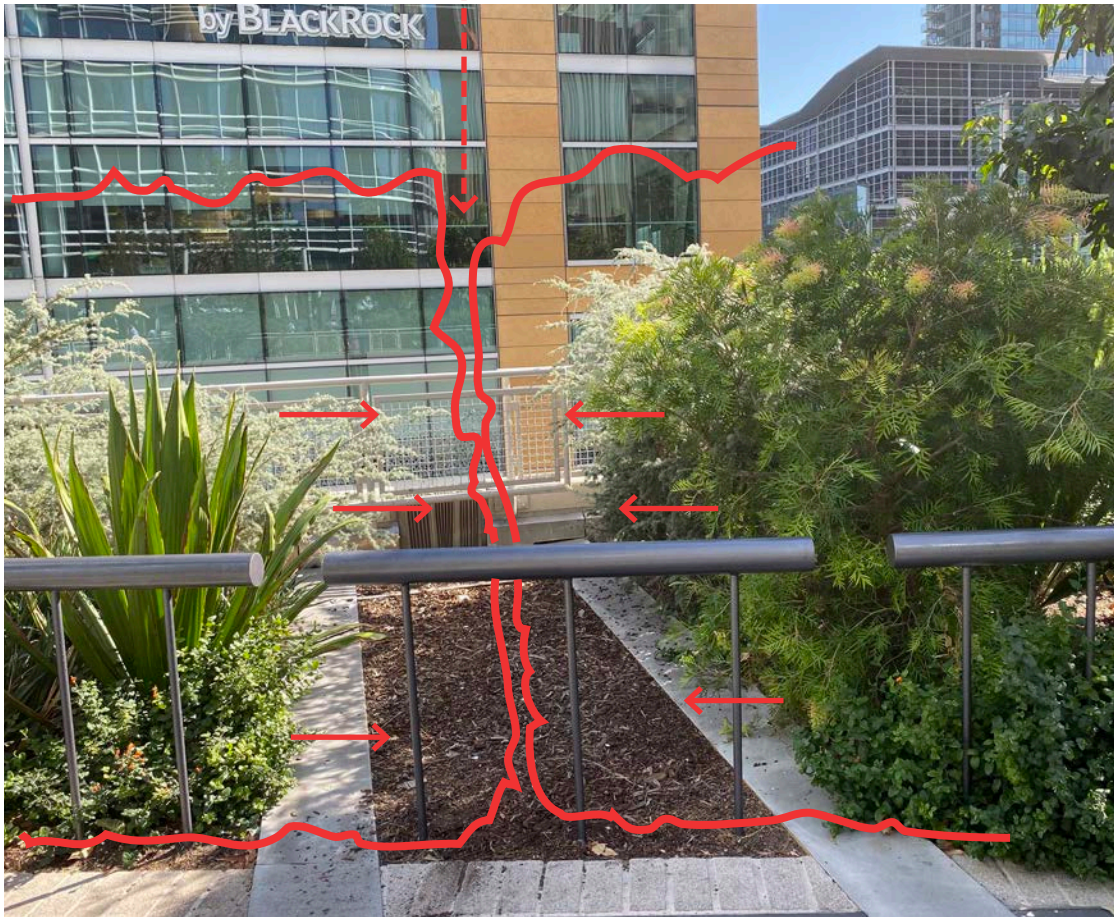
UNDERSTORY:

- *Acacia iteaphylla*
- *Acacia vestita*
- *Adenanthos cuneatus* 'Coral Drift'
- *Adenanthos* 'Silver Haze'
- *Alyogyne huegelii*
- *Anigozanthos* 'Big Red'
- *Banksia ashbyi*
- *Banksia ericifolia*
- *Banksia menziesii*
- *Calothamnus quadrifidus* 'Seaside'
- *Chorizema* 'Bush Flame'
- *Dianella tasmanica* 'Casa Blue'
- *Doryanthes palmeri*
- *Grevillea* 'Peaches and Cream'
- *Isopogon*
- *Lomandra longifolia* 'Breeze'
- *Melaleuca incana*
- *Phylica pubescens*
- *Rosmarinus officinalis* 'Tuscan Blue'

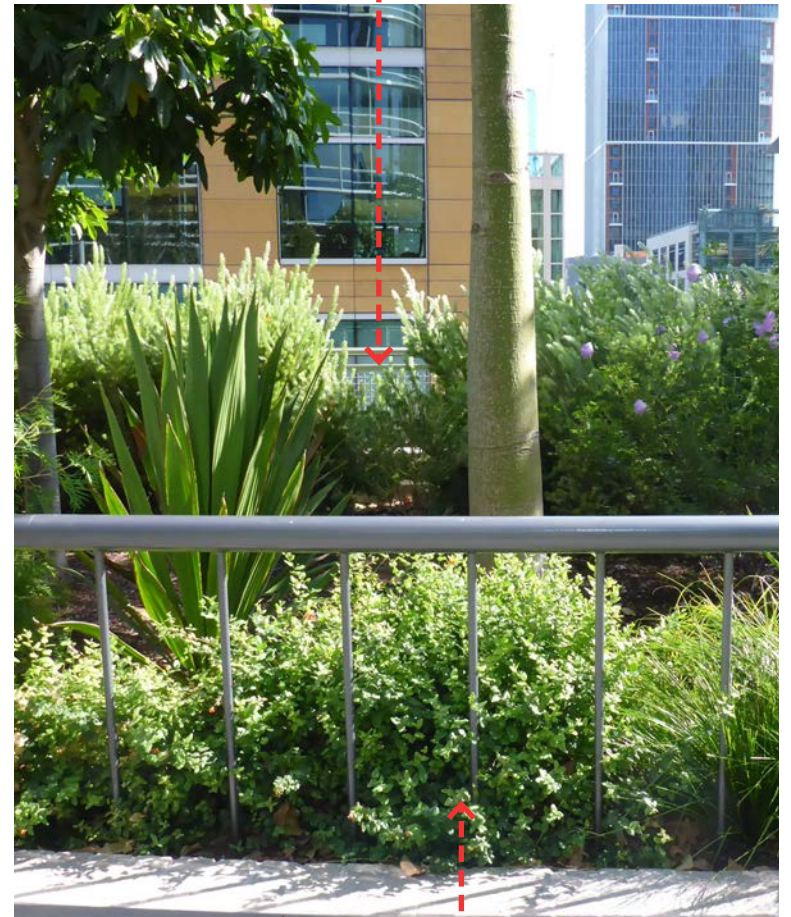
KEY MAINTENANCE FEATURES AND TASKS

1. The perimeter plants should conceal the guard rail beyond. Allow *Adenanthos*, *Acacia*, and *Calothamnus* to grow to 3' above the guard rail, then selectively cut back 30-50% of the stems to the top of rail. After cut stems show significant foliage cut remaining stems to top rail.
2. The Australian garden includes one of the building's two seismic joints. Plants and trees adjacent to the seismic joint should be allowed to grow over the seismic joint. There is no need to prune them back.
3. If required, selectively remove perimeter plants to prevent crowding of foreground understory plant material.
4. After flowering, cut back *anigozanthos* flower stems to the base of the plant. Periodically cut all browning foliage off to base of the plant.
5. Only use low phosphorus fertilizers in this garden. It will harm the Proteaceous species, such as *Grevillea* and *Banksia*.
6. *Doryanthes*: remove flower stalk after flowers have turned brown
7. *Banksia*: Allow to become tree like in form
8. *Alyogyne*: Prune in Spring for shape.
9. *Dianella*: Hard prune every five years to re-stimulate the growth of healthy foliage. Cut all foliage to about 6" above the ground. Divide plants as required.

--- ALLOW PLANTS TO
GROW OVER SEISMIC
JOINT



--- ENCOURAGE
PLANT MATERIAL
TO CONCEAL
GUARDRAIL (TYP.)

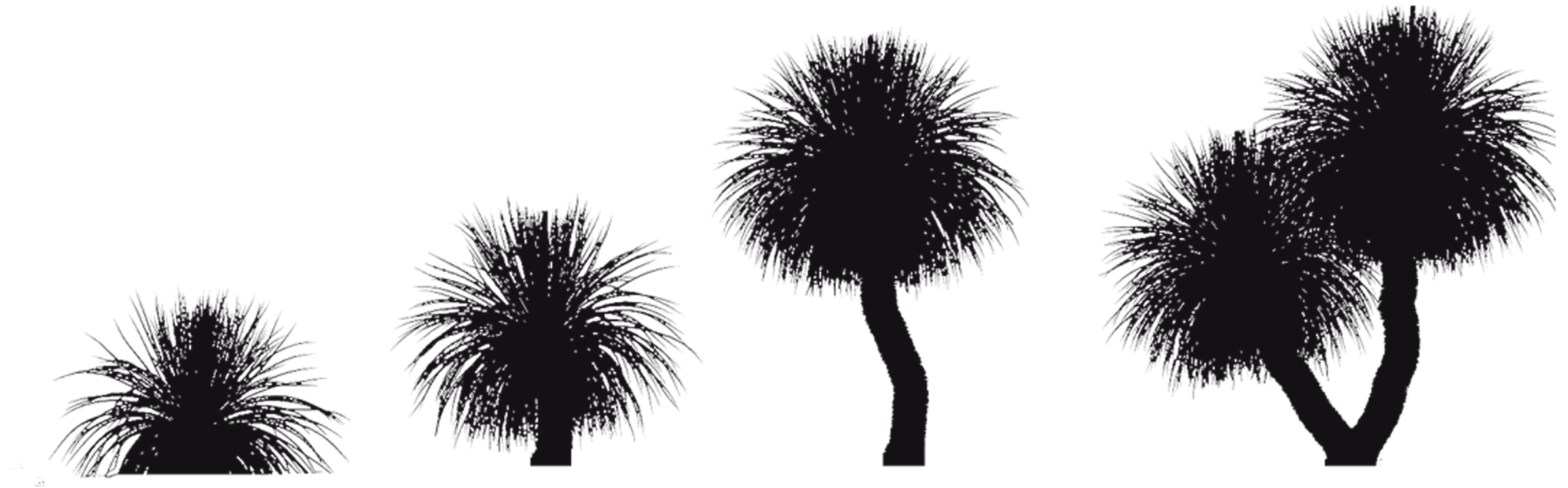


--- ALLOW PLANT
MATERIAL TO
GROW THROUGH
PLANT RAIL (TYP.)

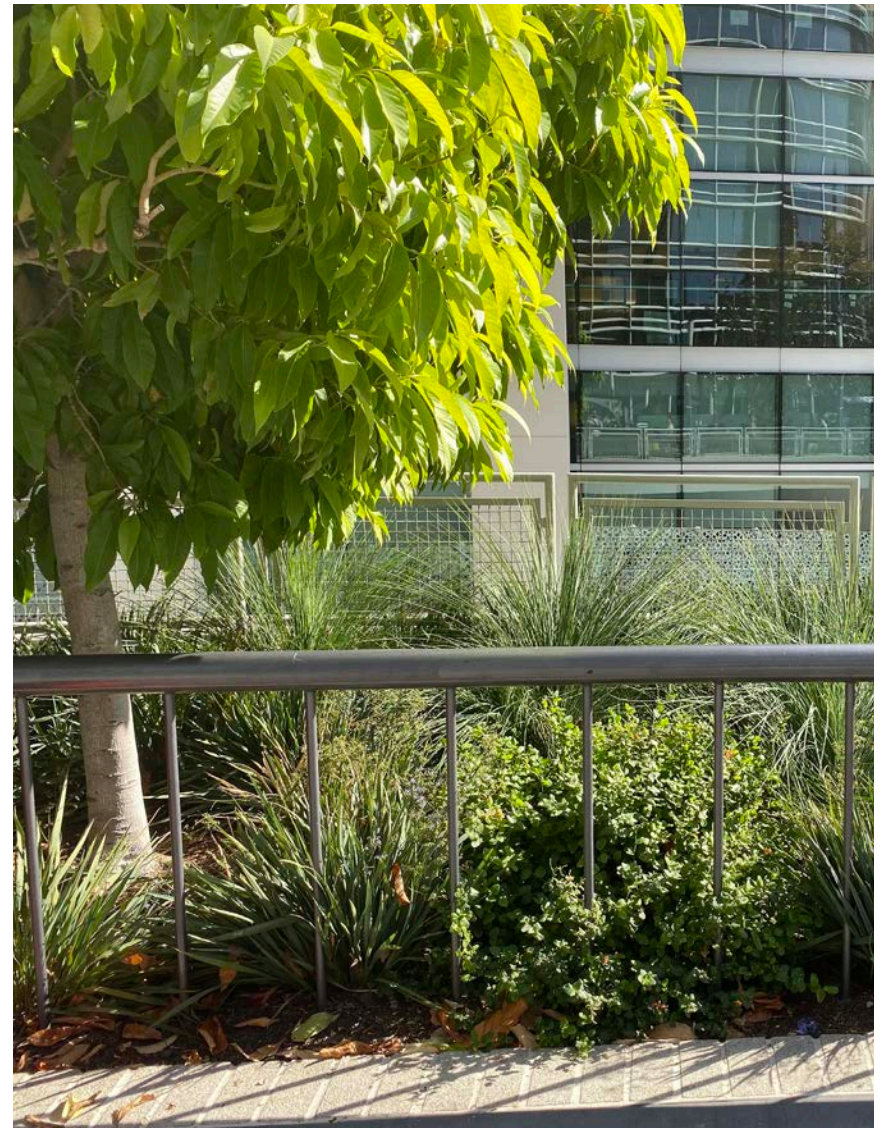
GRASS TREE

The Grass Tree garden is part of the Australian Garden and features and features Xanthorrhoea, commonly known as Grass Trees.' Grass trees are medium sized trees, with grass like leaves, palm-like stems, and a spike of small white flowers. The growth rate of grass trees is very slow. Because mature grass tree specimen are rare in America, the species planted here are smaller, and still in a 'shrub like' form. Over time, these trees should be cultivated to expose the palm like stem.

1. Other plant material should be removed if it grows into or crowds the very slow growing Xanthorrhoea.
2. Grass trees should be checked biannually for scale and other pests. If scale is found on the grass tree, apply horticultural oil, but not during hot weather.
3. Mulch should not be applied too close to the base of the grass tree as this could harbor anthracnose, or root rot.



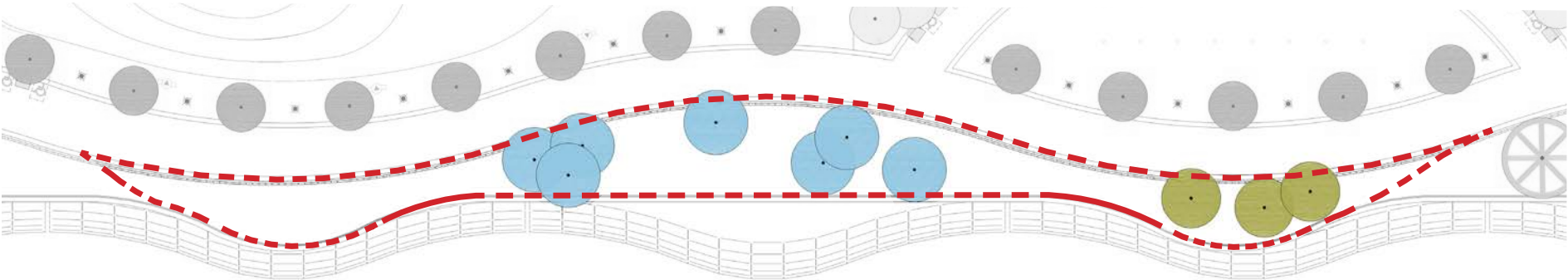
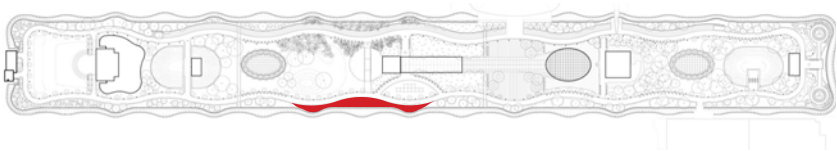
Xanthorrhoea Lifecycle



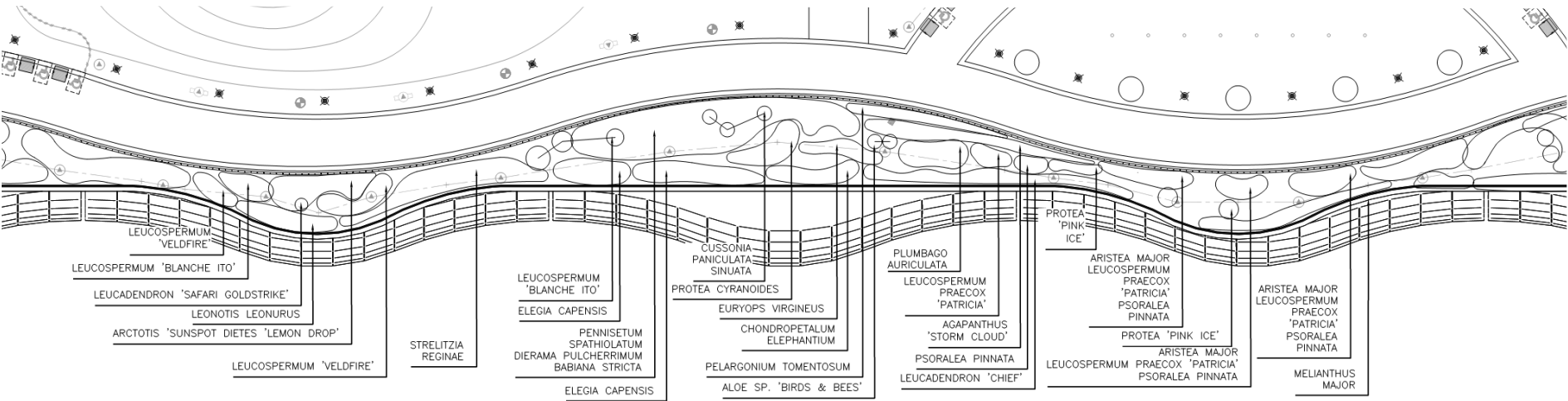
--- AS GRASS TREE MATURES AND TRUNK IS VISIBLE, ALLOW ADJACENT UNDERSTORY MATERIAL TO FILL IN BENEATH THE BASE OF THE TRUNK

SOUTH AFRICAN GARDEN

The South African garden showcases the wide variety of plants that grow in that region of the world. This garden highlights both the common - Agapanthus and Strelitzia - to the more unique - Protea and Melianthus. Any plants selected to supplement/replace the existing plant pallet should maintain this balance of more unique to more common species mix.



● Leucadendron argenteum ● Podocarpus henkeli



PLANTING

TREES:

- *Leucadendron argenteum*
- *Podocarpus henkeli*

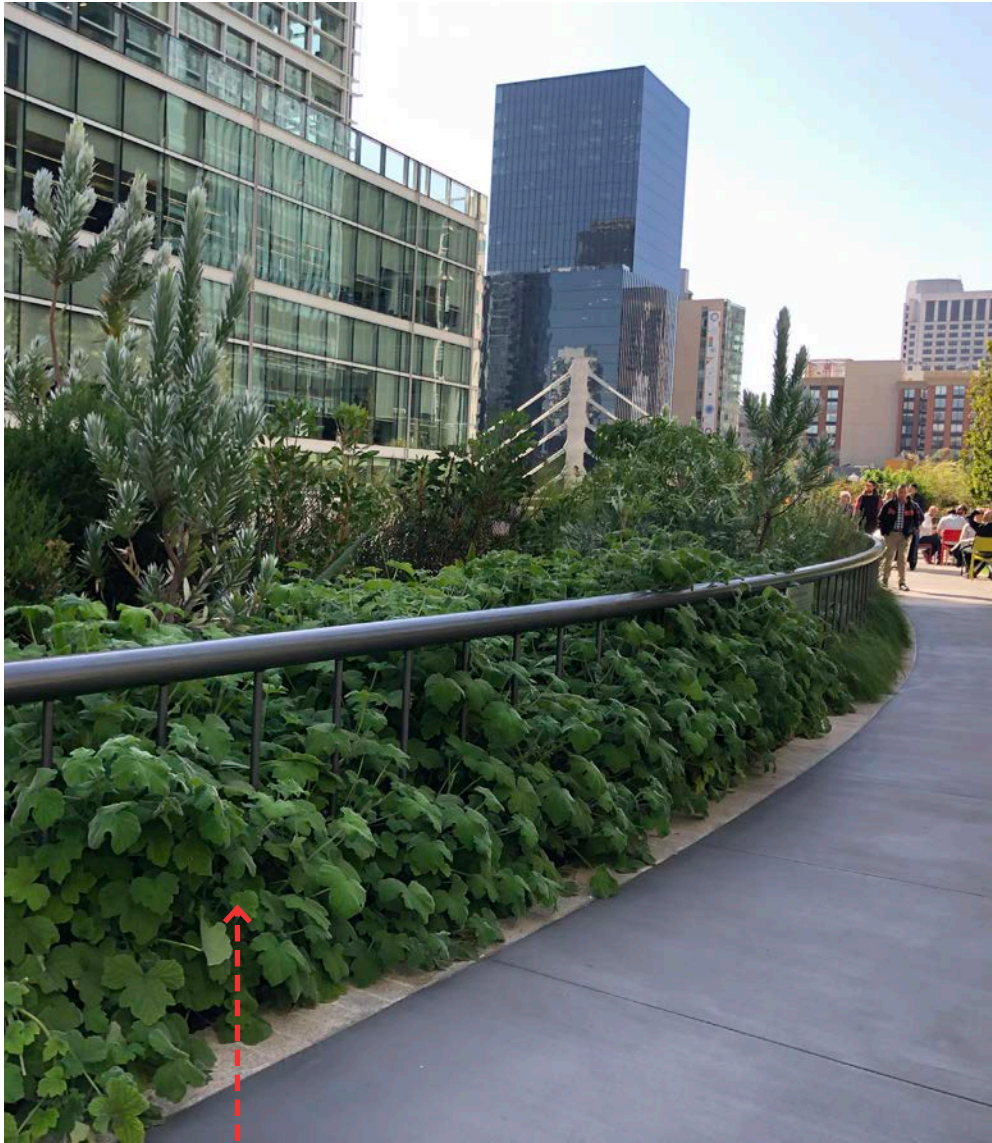
UNDERSTORY:

- *Aloe* sp. 'Birds & Bees'
- *Arctotis* 'Sunspot'
- *Aristea major*
- *Babiana stricta*
- *Chondropetalum elephantium*
- *Cussonia paniculata sinuata*
- *Dierama pulcherrimum*
- *Dietes* 'Lemon Drop'
- *Elegia capensis*
- *Euryops virgineus*
- *Leonotis leonurus*
- *Leucadendron* 'Chief'
- *Leucadendron* 'Safari Goldstrike'
- *Leucospermum* 'Blanche Ito'
- *Leucospermum praecox* 'Patricia'
- *Leucospermum* 'Veldfire'
- *Melianthus major*
- *Pelargonium tomentosum*
- *Pennisetum spathiolatum*
- *Protea cyranoides*
- *Protea* 'Pink Ice'
- *Psoralea pinnata*
- *Strelitzia reginae*

KEY MAINTENANCE FEATURES AND TASKS

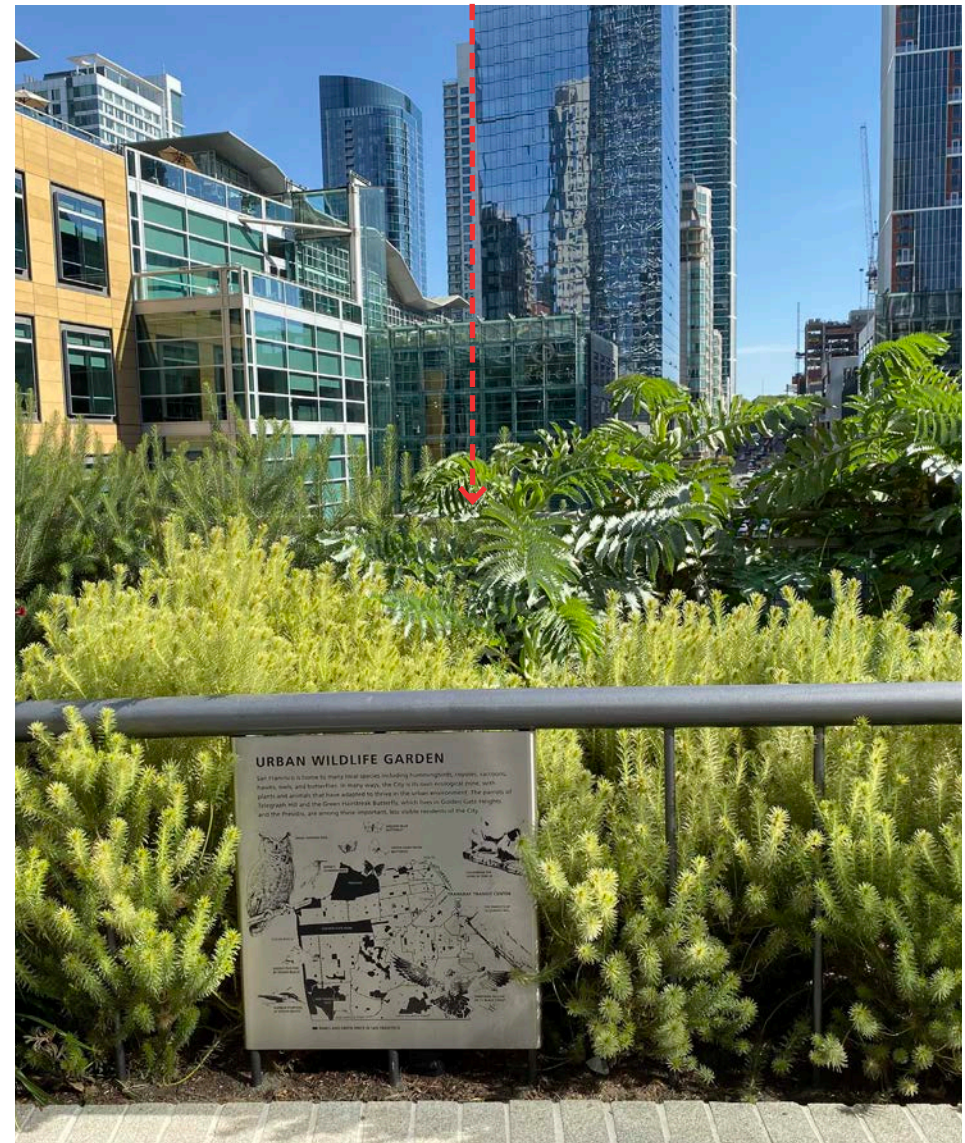
The basic design idea in this garden is to allow for a tiered garden where larger shrubs can be allowed to grow into a small tree-like shape by removing lower foliage from taller stems to allow for the other low growing species to fill in below. Tree-like *Protea* and *Leucodendron* species should be encouraged to grow taller by removing lower branches, whereas smaller *Protea* and *Leucospermum* should be pruned to create loose mounding shrubs. The grasses should be cut back annually well after flowering but prior to new growth. Grasses and rhizomatic species should be divided or partially removed as needed (annually or every two to three years) to allow room for continued growth.

1. *Proteacea* species: Prune for shape on all after flowering.
2. *Agapanthus*: Divide and/or remove excess annually.
3. *Plumbago*: Prune back severely once or twice a year for shape. *Plumbago* is intended to be the 'mid level' planting between the *Agapanthus* and *Leucadendron* and should be maintained as such.
4. *Mint Geranium*: Prune back hard to allow it to regrow once or twice annually and to make sure that it does not shade out other plants around it.
5. *Pennisetum*: Remove a portion or divide clumps so that the species does not overtake all other plants.
6. The perimeter plants should conceal the guard rail beyond. Allow *Leonotis*, *Elegia*, *Euryops*, and shrub shaped *Leucodendron* to grow to 3' above the guard rail, then selectively cut back 30-50% of the stems to the top of rail. After cut stems show significant foliage cut remaining stems to top of rail.
7. *Lion's Tail* (*Leonotis*)- cut overgrown branches back to the ground level after blooming. Remove 1/3 of the bush annually to allow for new growth.
8. Do not use phosphorus fertilizers in this garden. It will harm the *Protea*.
9. *Melianthus*: Cut back hard to 3" above base as growth starts in Spring
10. *Arctotis*: Deadhead when flowers turn brown.
11. *Podocarpus* should be limbed up 3' to allow light and air to move through the canopy
12. *Cussonia*: Do not prune. Remove plants around *Cussonia* as needed.



CUT MINT GERANIUM BACK HARD ANNUALLY TO KEEP IT UNDER CONTROL. PRUNE REGULARLY FOR SHAPE THROUGH THE YEAR.

CUT MELIANTHUS BACK HARD TO 3" ABOVE BASE AS GROWTH STARTS IN SPRING



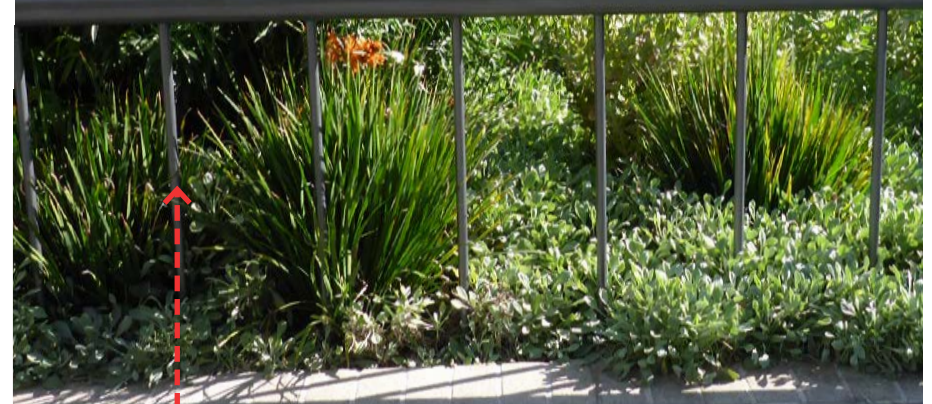
PLUMBAGO IS INTENDED TO BE THE
'MID LEVEL' PLANTING BETWEEN THE
AGAPANTHUS AND LEUCADENDRON



THE LION'S TAIL IS INTENDED TO BE THE
'PERIMETER EDGE' PLANTING
CONCEALING THE GUARDRAIL.



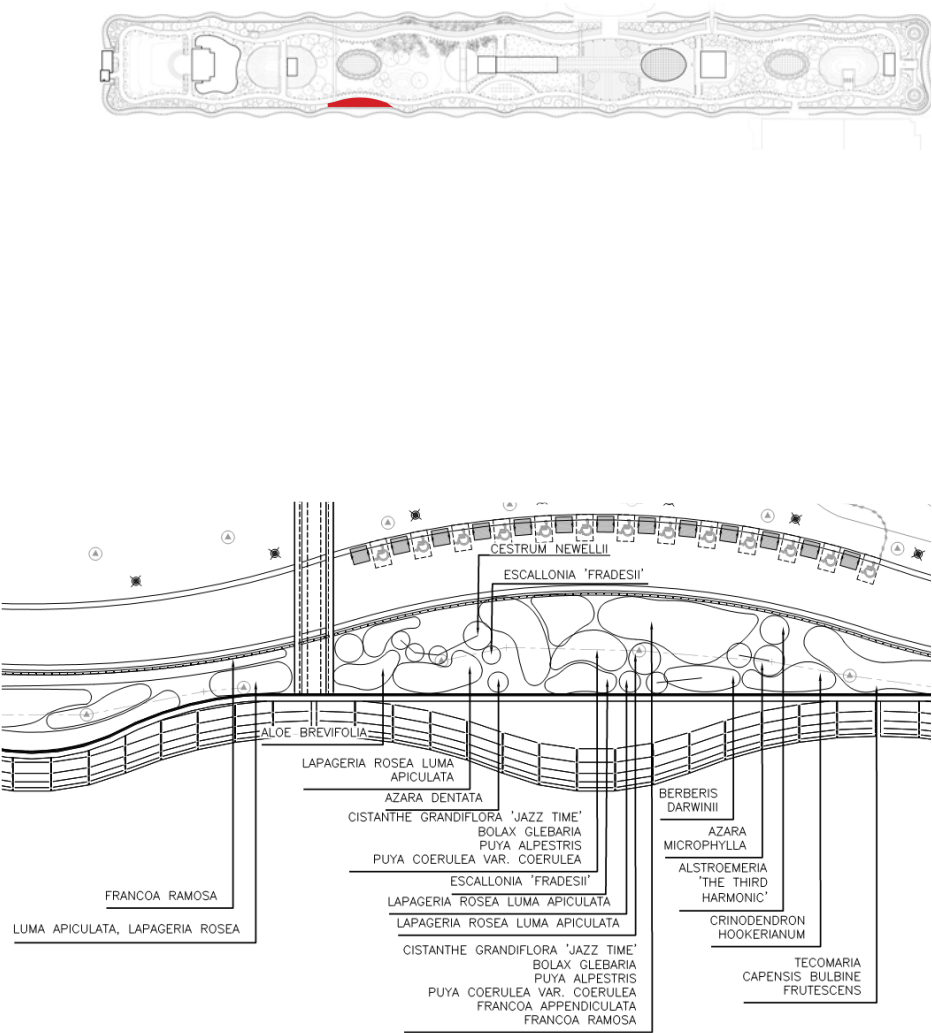
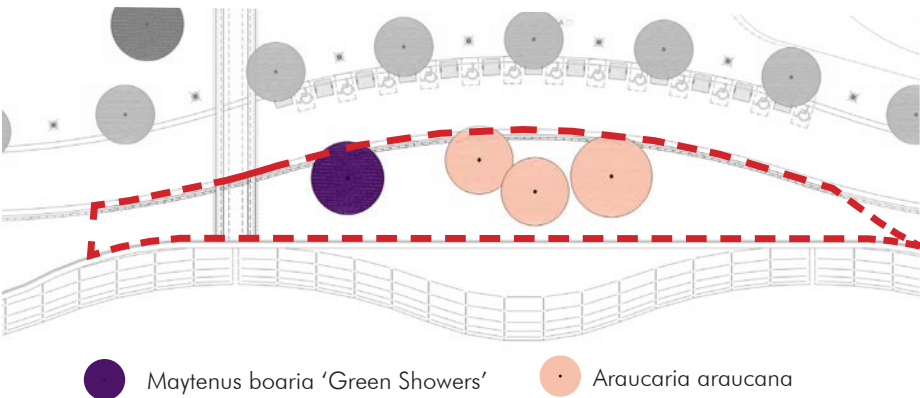
SOME AGAPANTHUS SHOULD BE
REMOVED PERIODICALLY TO ALLOW
FOR GROWTH OVER TIME



THE PLANTING IN THIS AREA SHOULD ALSO BE LAYERED-
PRUNE BACK HARD ANNUALLY TO MAINTAIN THE
LAYERING WITH ARCOTIS AND LEUCOSPERMUM

CHILEAN GARDEN

The Chilean Garden showcases the diverse flora found in the cloud forest of Chile. Plant material in this garden includes broadleaf and coniferous trees, and brightly colored flowering shrubs beneath. Like the south African Garden, this garden highlights both the common - Escallonia and Leptospermum - to the more unique - Griselinia and Lapageria. Any plants selected to supplement/replace the existing plant palette should maintain this balance of more unique to more common species mix.



PLANTING

TREES:

- Araucaria araucana
- Maytenus boaria 'Green Showers'

UNDERSTORY:

- Aloe brevifolia
- Alstroemeria 'The Third Harmonic'
- Azara dentata
- Azara microphylla
- Berberis darwinii
- Bolax glebaria
- Bulbine frutescens
- Cistanthe grandiflora 'Jazz Time'
- Crinodendron hookerianum
- Escallonia 'Fradesii'
- Francoa appendiculata
- Francoa ramosa
- Lapageria rosea
- Luma apiculata
- Puya alpestris
- Puya coerulea
- Tecomaria capensis

KEY MAINTENANCE FEATURES AND TASKS

This garden is intended to become a tiered garden of special small tree-like shrubs with clear trunks, featuring their bark and delicate climbing plants growing on them. Lower foliage and branches should be removed from taller stems on specific species such as Luma, and Azara as they mature to allow for the other low growing species to fill in. Fast spreading flowering perennials should be deadheaded after they flower and divided or selectively thinned annually to allow for continued growth. Where cages have been left in, the cages could be removed if the vines are carefully unwound from the cage, otherwise they can be left in for the life of the vine.

1. Prune back secondary limbs on lower stems of the Luma and Azara to reveal graceful branching structure. Prune for sculptural shape of those shrubs regularly. Thin and prune to create small tree-like forms as they grow.
2. Deadhead Cistanthe grandiflora after flowering and cut back hard annually in the late summer. Remove or thin plants annually.
3. Deadhead Alstroemeria and Francoa regularly. On Alstroemeria pull out full flowering stems after flowering. Thin and remove excess plants annually.
4. Deadhead Puya after flowering. Thin and remove excess Puya over time.
5. Remove lower limbs of the Araucaria to 2-3' to allow light and air to move through the canopy.' Do not cover the roots too deeply with soil, or mulch.
6. The extent of the Chilean Garden includes one of the building's two seismic joints. Plants and trees adjacent to the seismic joint should be allowed to encroach on and appear to be growing over the seismic joint. There is no need to prune them back.
7. Mayten - limb them up to 8' overtime allow light and air to move through the canopy.
8. Allow escallonia to grow to 3' above the guard rail, then selectively cut back 30-50% of the stems to the top of rail. After cut stems show significant foliage cut remaining stems to top rail.
9. The Lapageria vines that are planted adjacent to large shrubs should be allowed to grow onto the trunks and branching of those shrubs so that they use the shrubs as their support structure.



PRUNE AZARA FOR
SCULPTURAL SHAPE AND
TO ALLOW UNDERSTORY
TO FILL IN BELOW

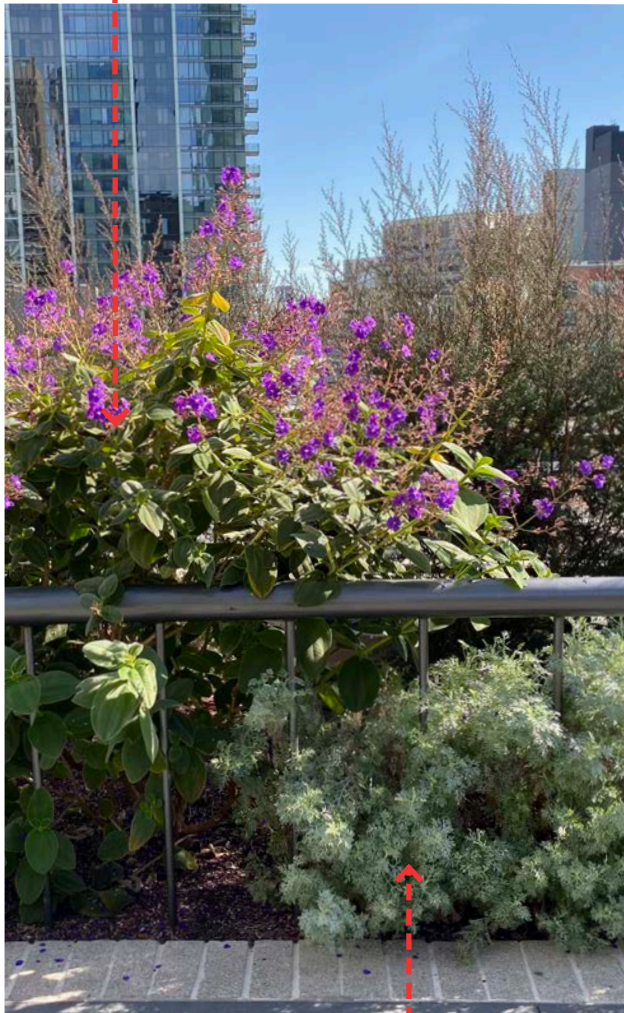


REMOVE AURUCARIA LIMBS
2'-3' FROM THE GROUND

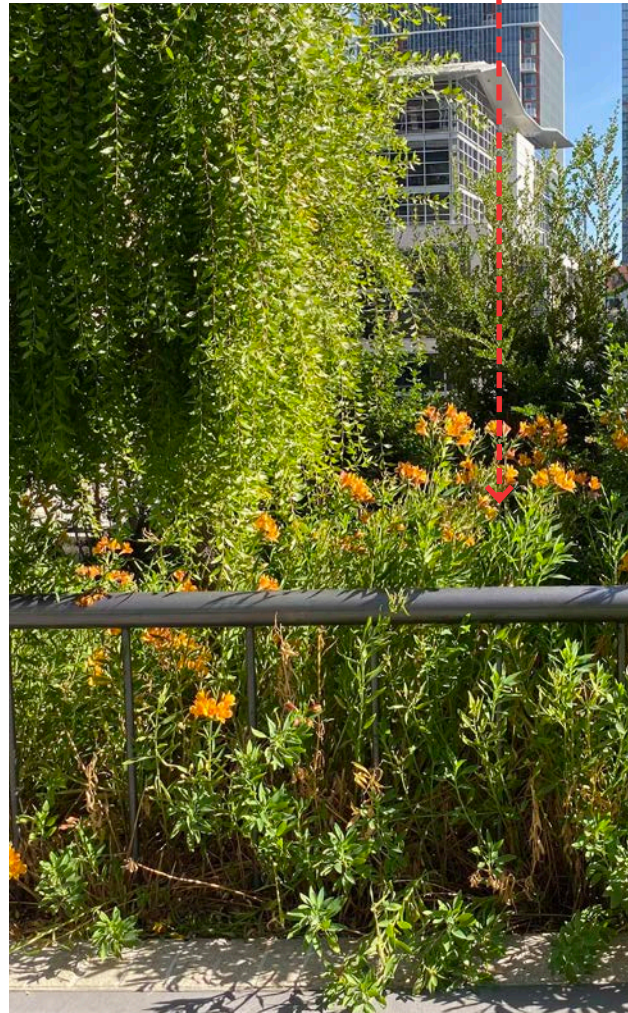
DEADHEAD AND PRUNE
CISTANTHE HARD AFTER
FLOWERING

ALLOW PLANT MATERIAL
TO GROW THROUGH
PLANT RAIL (TYP)

PRUNE TIBOUCHINA FOR
SHAPE IN SPRING



PULL ALSTROMERIA STEMS
OUT AFTER FLOWERING
-REMOVE/THIN CLUMPS
PERIODICALLY



PRUNE ARTEMESIA HARD
ANNUALLY

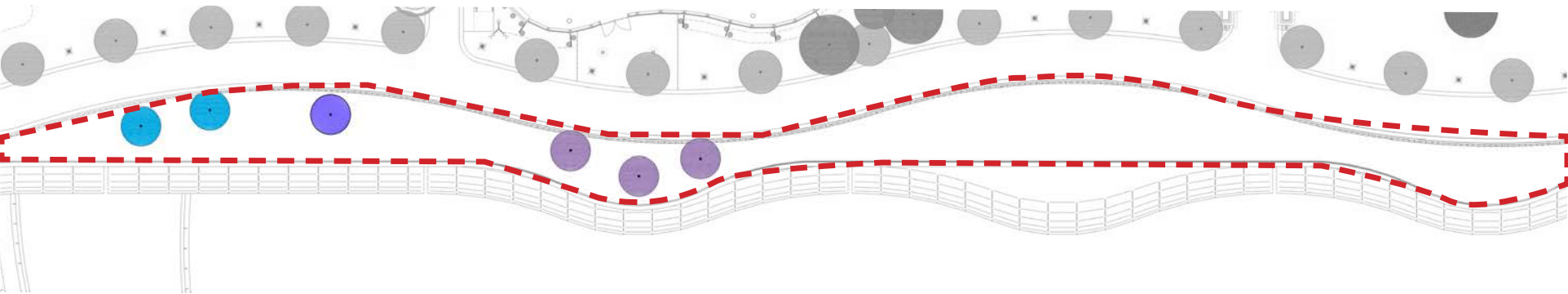
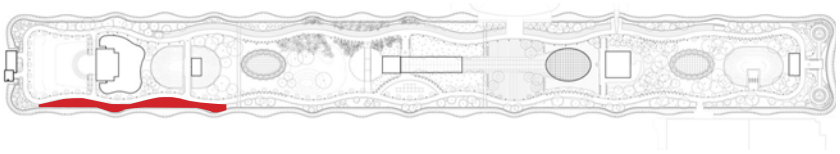


ALLOW LAPAGERIA ROSEA
TO GROW AROUND
AZARA AND LUMA

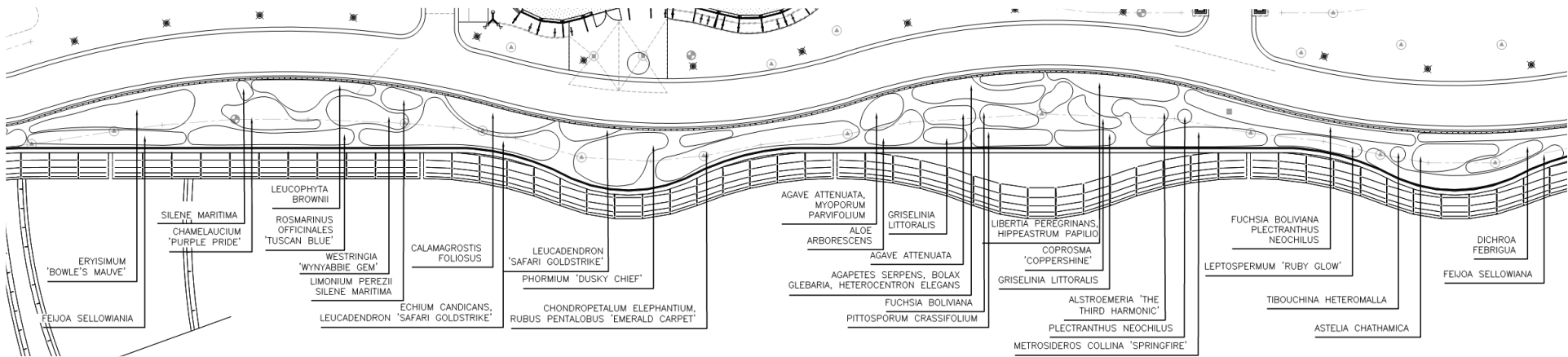


FOG + WIND GARDEN

The plants in this garden are specifically suited to and benefit from the fog and wind in SF. Many wind tolerant tree species have densely spaced leaves that deflect wind around the tree when they are young. As they grow, plants such as the Australian Tea Tree and Monterey Cypress develop gnarled and twisted trunks in response to the wind. Plants in this garden should be allowed to grow in response to this unique microclimate, and take on the form of wind sculpted species, not necessarily standard tree form species. The trees should be encouraged to grow in a contorted and almost horizontal orientation.



- Leptospermum laevigatum
- Melaleuca nesophila
- Metrosideros excelsa



PLANTING

TREES:

- *Leptospermum laevigatum*
- *Metrosideros excelsa*
- *Melaleuca nesophila*

UNDERSTORY:

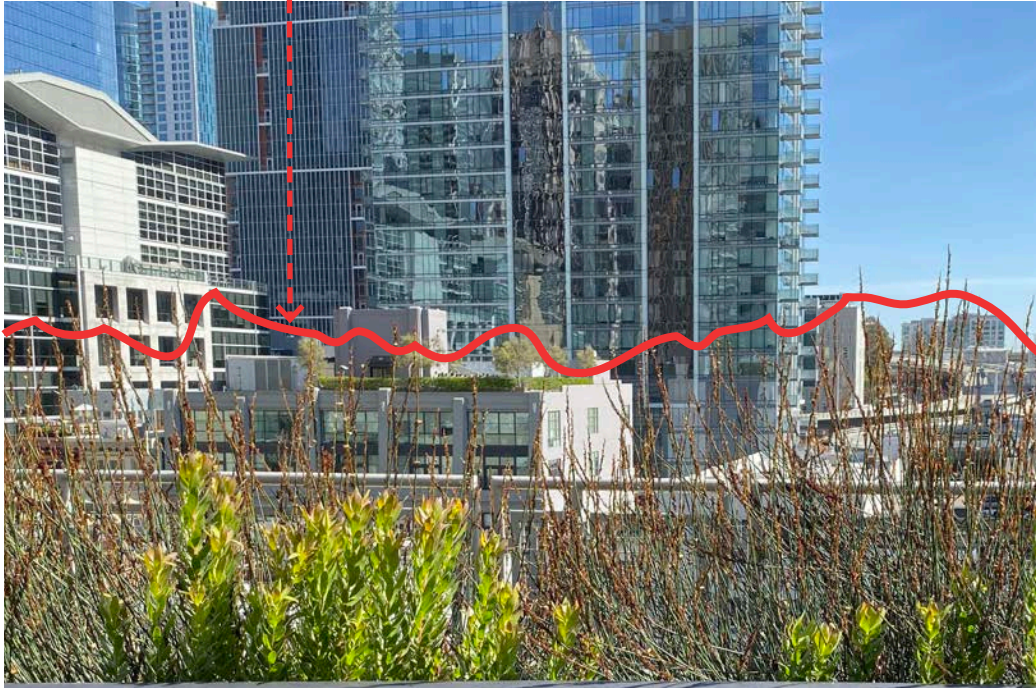
- | | |
|--|---|
| • <i>Agapetes serpens</i> | • <i>Phormium 'Dusky Chief'</i> |
| • <i>Agave attenuata</i> | • <i>Rosmarinus officinalis 'Tuscan Blue'</i> |
| • <i>Aloe arborescens</i> | • <i>Rubus pentalobus 'Emerald Carpet'</i> |
| • <i>Astelia chathamica</i> | • <i>Silene maritima</i> |
| • <i>Calamagrostis foliosus</i> | • <i>Tibouchina heteromalla</i> |
| • <i>Chamelaucium 'Purple Pride'</i> | • <i>Westringia 'Wynabbie Gem'</i> |
| • <i>Chondropetalum elephantium</i> | |
| • <i>Coprosma 'Coppershine'</i> | |
| • <i>Dichroa febrigua</i> | |
| • <i>Echium candicans</i> | |
| • <i>Erysimum 'Bowler's Mauve'</i> | |
| • <i>Feijoa sellowiana</i> | |
| • <i>Fuchsia boliviana</i> | |
| • <i>Griselinia littoralis</i> | |
| • <i>Heterocentron elegans</i> | |
| • <i>Hippeastrum papilio</i> | |
| • <i>Leptospermum 'Ruby Glow'</i> | |
| • <i>Leucadendron 'Safari Goldstrike'</i> | |
| • <i>Leucophyta brownii</i> | |
| • <i>Leucospermum praecox 'Patricia'</i> | |
| • <i>Libertia peregrinans</i> | |
| • <i>Limonium perezii</i> | |
| • <i>Metrosideros collina 'Springfire'</i> | |
| • <i>Myoporum parvifolium</i> | |
| • <i>Pittosporum crassifolium</i> | |
| • <i>Plectranthus neochilus</i> | |

KEY MAINTENANCE FEATURES AND TASKS

This garden is meant to become tiered with the large twisted gnarled trunks of the fog loving trees and shrubs rising above the lower plantings. Lower plantings of *Artemesia* and *Leucophyta brownii* should be maintained so that they appear like billowing mounds of fog. Pineapple Guava, *Melaleuca*, *Leucospermum* and *Metrosideros* shrubs/trees should be limbed up to reveal their trunks as they mature over time. Many of these large shrubs/small trees tend to grow horizontally as they mature. Horizontal growth should be allowed and the smaller foliage and limbs on the trunks should be cleared to show the mature horizontal structure where it occurs.

1. Prune large shrubs/small trees for sculptural shape etc.
2. Hard prune back *Artemesia* to the ground annually in early spring so that it does not grow woody or mound higher than the plant rail.
3. *Leucophyta brownii* should be sheared or clipped to maintain height
4. Deadhead Sea Lavender after flowering and selectively remove some plants as they grow to allow for continued growth.
5. Selectively remove/split *Silene* plants to allow for continued growth.
6. Allow *Westringia* to grow taller than the guardrail at the back of the garden and prune it to create the appearance of a loose, but dense shrub, but not a hedge.
7. *Feijoa sellowiana* and *Metrosideros* - should be pruned up to expose more of the lower portion of the trunk.
8. NEVER hard prune *Chondropetalum*
9. Do regular selective pruning on *Cantua buxifolia* (Sacred Flower of the Incas) for form. *Cantua* can be pruned up to create clear space below and to allow tall arching stems to arch over lower growing plants below. 50% of *Cantua* specimens should be removed over time.
10. *Feijoa sellowiana* and *Metrosideros* - should be pruned up to expose more of the lower portion of the trunk.
11. Allow *Escallonia* and *Pittosporum* to grow to 3' above the guard rail, then selectively cut back 30-50% of the stems to the top of rail. After cut stems show significant foliage cut remaining stems to top rail.

ENCOURAGE PLANT
MATERIAL TO CONCEAL
GUARDRAIL



PRUNE LEUCADENDRON FOR
SHAPE AFTER FLOWERING



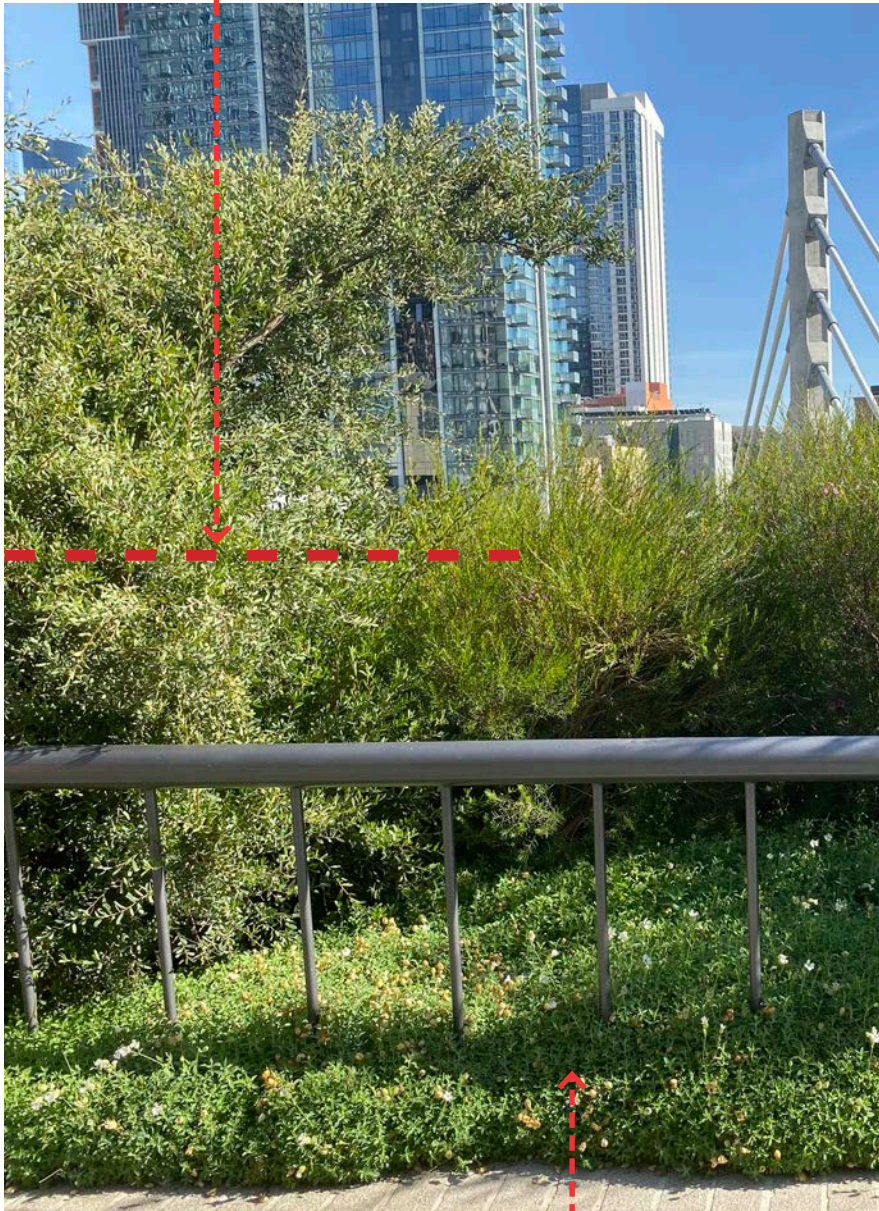
PRUNE MELALEUCA TO
REVEAL CONTORTED
TRUNKS OVER TIME



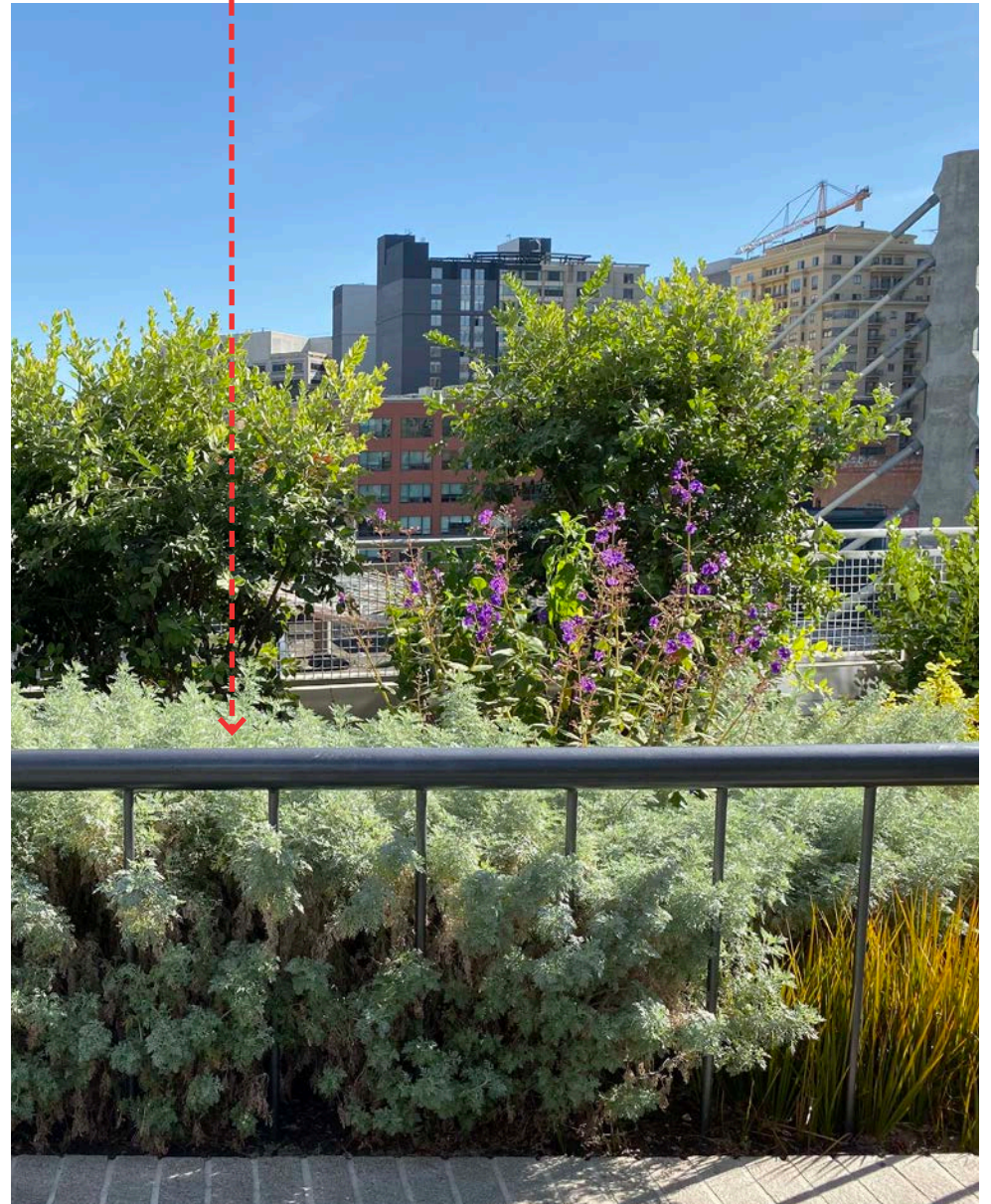
CLIP TO MAINTAIN BILLOWING
HEIGHT BELOW RAIL



PRUNE LEPTOSPERMUM
TO REVEAL CONTORTED
TRUNKS



HARD PRUNE BACK ARTEMESIA TO THE
GROUND ANNUALLY SO THAT IT DOES NOT
GROW WOODY

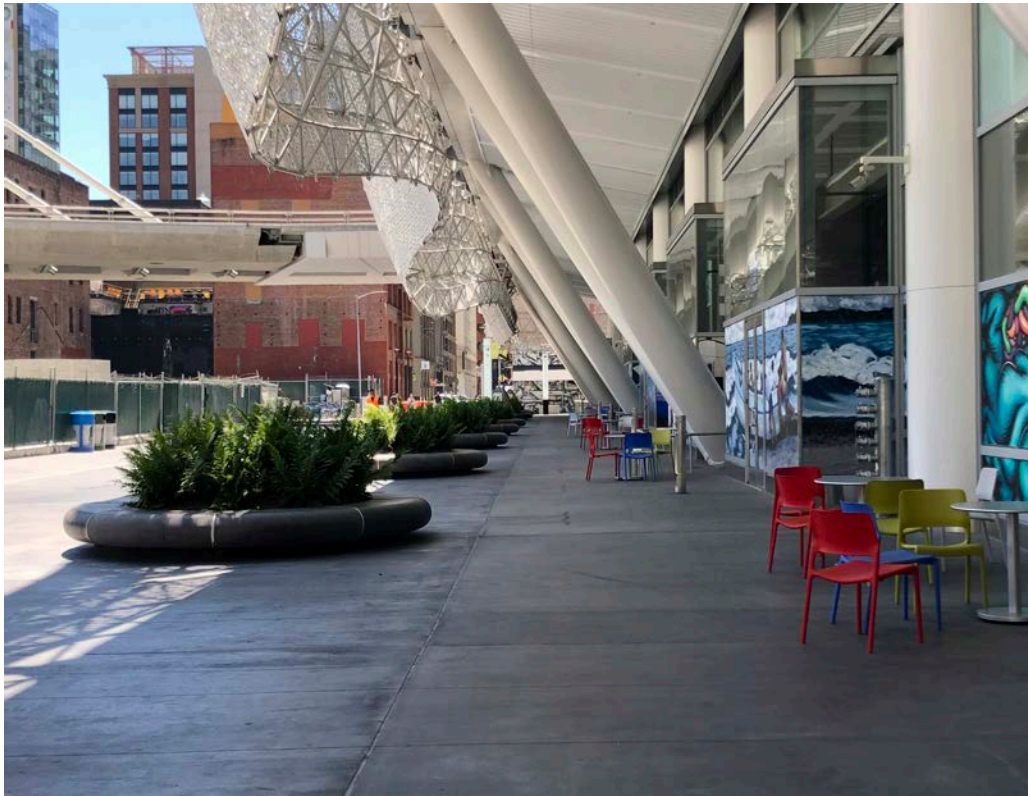


ALLOW PLANT MATERIAL TO GROW
THROUGH PLANT RAIL, PRUNE BACK
PERIODICALLY

4.0 GROUND LEVEL

PLANTERS

The Natoma Pedestrian Way extension from Second Street to the Transit Center is one of the primary east/west pedestrian connections downtown, connecting people to SF MOMA, the Moscone Center, and Yerba Buena Gardens to the west, and the Embarcadero to the east. With the increased number of residential and office units downtown, the wider, protected pedestrian promenade adjacent to the Transit Center has become a vibrant streetscape with retail, restaurants, and pop-up programming throughout the year. Utilities and the shallow depth of the train box made conventional streetscape planting impossible; instead, six planters along the base of the building provide contained gardens and seating for passersby.



MAINTAIN NATURAL FORM OF *WOODWARDIA FIMBRIATA*

-IRRIGATION IN PLANTERS SHOULD BE CHECKED REGULARLY

-WHEN FOODTRUCKS ARE PRESENT, REMOVE GARBAGE FROM PLANTERS DAILY TO DETER RODENTS FROM NESTING IN PLANTERS

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