

The City of SAN DIEGO

SCHMIDT DESIGN GROUP

MISSION BAY PARK

MISSION BAY TRAFFIC ISLAND **BEAUTIFICATION**

DESIGN GUIDELINES

CITY OF SAN DIEGO

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Note: Dashed outlines reflect the contextual study areas within each District.

SCALE: NTS N



INTRODUCTION



KEY MAP

INTRODUCTION

PROJECT LIMITS OF WORK

The project area encompasses the medians and right-of-way landscape areas along portions of Mission Bay Park indicated on the map. The limits of work include De Anza Cove at the north to South Shores and around West Mission Bay Drive across the bridges that span both to the north towards Vacation Island and Crown Point, and to the west towards Mission Beach.

CHARACTER

The vision for the Mission Bay Traffic Island Corridor is rooted in celebrating Mission Bay's history as a tourist destination with resort style planting themes mixed with climate appropriate coastal planting. The overall planting intent is to liven up Mission Beach with durable, colorful, and beautiful plant communities throughout the 11 districts that unify the overall Mission Bay aesthetic together.

Climate appropriate Mediterranean plants are introduced adjacent to high impact areas such as the Mission Bay Resort and Sea World. These areas should include durable, colorful, and beautiful plant communities that provide year round interest. As areas transition away from the high impact areas, climate appropriate native plant species are also introduced to reflect a more local and authentic aesthetic.

A combination of Mediterranean and local native plants will promote habitat, pollinator pathways, and biodiversity within the corridors with the city's important Climate Action Plan. By introducing native plantings we envision a green belt corridor throughout Mission Bay with select under story planting along with an emphasis on diverse groves of tree species while maintaining the existing palms.

THE VISION OF MISSION BAY PARK

PLANTING

The introduction of the new plant aesthetic indicated in the 'Character' includes planting tree groves as successors to the older Eucalyptus and Melaleuca tree plantings along this corridor. Additionally, there are certain areas that include existing decorative turf that provides minimal or no usable play value. Recommendations will include removal of these underutilized turf areas to be replaced with native tree groves and potentially under story plant materials when appropriate. Thinning of overly dense pine groves in certain locations may provide for better health and longevity of these plantings while generating mulch for under story use. For areas that require a more enhanced aesthetic such as at the Hilton Hotel and Sea World for example, a mix of Mediterranean and succulent plants can be mixed in with the native plantings to provide additional color, texture, and visual interest. Each park district will have a unique experience through accent planting and branding. Planting and lighting will be coordinated with the new park signage.

Key view sheds of the bay should be taken into consideration while implementing this new aesthetic. In high visibility corridors, trees can be clustered in strategic locations instead of being uniformly planted along long stretches of the bay. Where applicable, durable plant material should be used to screen exposed utility appurtenances and pump stations. Plants should be thoughtfully placed to avoid blocking signage.

At enhanced areas, plant communities should include a mix of colorful blooms and textural contrast to create visual interest. Planting types should include a mix of tree species with an emphasis on Coast Live Oaks and Torrey Pines, mid-level under story accent trees, and drought tolerant under story planting where suitable. Existing trees, palms, and under story planting should be pruned and thinned out as necessary. Recommendations will include planting density guidelines based on width of median landscape area. General plant selection and maintenance guidelines for pest control and low water usage will also be included.

Throughout the 11 Districts, plant species should follow the minimum percentage allocations below:

15% -20% recommended California natives at high impact planting areas near key stakeholders, and 30% -50% recommended California natives at low impact areas.

Planting design and massing should also vary based on whether it's adjacent to pedestrian walkways or vehicular drive lanes. The vehicular planting experience results in much grander, larger scale gestures while the pedestrian planting experience is at a much more granular, human scale.

IRRIGATION

The irrigation systems within Mission Bay Park primarily utilize the Calsense Central Control System. All existing Irrigation systems within the Mission Bay Traffic Island Beautification areas will be upgraded to utilize Cal sense controllers compatible with the current Cal sense Central Control hardware. The use of conventional and 2-wire controllers will be evaluated based on the size and need for potential future expansion. Small systems of 15-20 stations should utilize conventional wiring with radio or GPS/Cellular communication and systems with more than 20 stations or may require future expansion should consider the use of a 2-wire control system with radio or GPS/Cellular communications. All systems will utilize electrically operated control valves and water efficient irrigation heads, bubblers, and drip equipment suited to the individual planting area and selected plant material types. All irrigation systems will be designed to avoid runoff, low head drainage, overspray, or other similar conditions where water could flow onto adjacent property, non-irrigated areas, walks, roadways, or structures. All irrigation equipment specified should be in compliance with the City of San Diego Consultants Guide section 2.18 Irrigation, Appendix B, sample Irrigation legend, and Appendix C, Approved Manufacturers and Products List.

HARDSCAPE

The hardscape aesthetic also has the opportunity to reflect the materiality, color, and texture of the Mission Bay Park and traffic corridors. Where medians are less than 3'-0" wide, integral color stamped concrete can be utilized with select patterns inspired by the bay. Decomposed granite and locally sourced boulders should be implemented into the Mission Bay corridor at strategic locations. Pathways and walkways should be upgraded to meet accessibility and safety requirements.

SIGNAGE + WAYFINDING

Signage and wayfinding should be coordinated with the Signage Master Plan Project being developed by others for each district. Accent planting should be incorporated around existing and new entry monument signs and wayfinding signs.

CULTURAL REPRESENTATION

As projects are developed, cultural inspiration and placemaking opportunities should be considered during the design process to pay homage to the local native communities.

LIGHTING

The overall lighting aesthetic is to compliment the enhanced planting areas while providing safe light levels for pedestrians and drive areas at key locations. Accent lighting should be implemented at designated canopy trees and existing palm trees. Each improvement area should upgrade existing site lighting fixtures with approved LED fixtures and proper BUG ratings. For future improvement areas, the power supply should be evaluated to ensure new pedestrian lighting and accent lighting can be accommodated. Enhanced lighting should be coordinated at existing and new entry monuments and wayfinding signage locations, and should be coordinated with the signage master plan. The historical light fixtures at the Sunset Cliffs Bridge are to be replicated and replaced to reflect the original lighting design but with LED light technology. Existing lighting will be evaluated to determine re-usability and upgrades for new accent lighting opportunities.

GRADING + DRAINAGE

The general topography of Mission Bay is relatively flat with the exception of areas around some of the roadway interchanges. Improvements should maintain existing drainage patterns and limit additional impervious area to the extent feasible. Existing storm drain infrastructure is generally old, shallow, and subject to tidal influence and sea level rise.

Roadway condition should be a consideration for all median improvements. This general area shows signs of roadway settling and some of the roadways are in poor condition. In some cases it may be best to address roadway deficiencies either before or in conjunction with median enhancements.

Permanent Stormwater Quality requirements will vary depending on the size and nature of the improvements. Limiting the amount of proposed impervious by using alternative materials, such as decomposed granite, can help projects maintain "Standard Project" status. Projects that exceed Priority Development Project thresholds should be designed per Local PDP Exemptions in Section 1.4.3 of Part 1 of the City Stormwater Standards. Proximity to groundwater will likely preclude the use of infiltration Best Management Practices (BMPs) in most locations. The feasibility of connecting subdrain pipes to the existing storm drain will also make traditional biofiltration difficult. Proprietary biofiltration may be the only feasible option for some projects. Such BMPs can be installed relatively easily if they are in close proximity to existing storm drain inlets. If capturing direct runoff from proposed impervious areas is infeasible, equivalent alternative areas could be treated instead.



DISTRICT GUIDELINES

DE ANZA DISTRICT

AREA 1 : MISSION BAY DRIVE AT DE ANZA COVE

EXISTING CONDITIONS



KEY MAP **NTS**



View from Mission Bay Drive facing west towards fitness station in De Anza Cove Park.



View from Mission Bay Drive facing east towards entry road and center medians.



View from turf area facing north towards Mission Bay Golf Course.



Image shows damage to the existing pedestrian sidewalk running alongside North Mission Bay Road.



Existing irrigation controller operates open turf area adjacent to golf course.



Existing Cork Oak tree at park entry.



Existing medians within this scope area consist of AC paving.

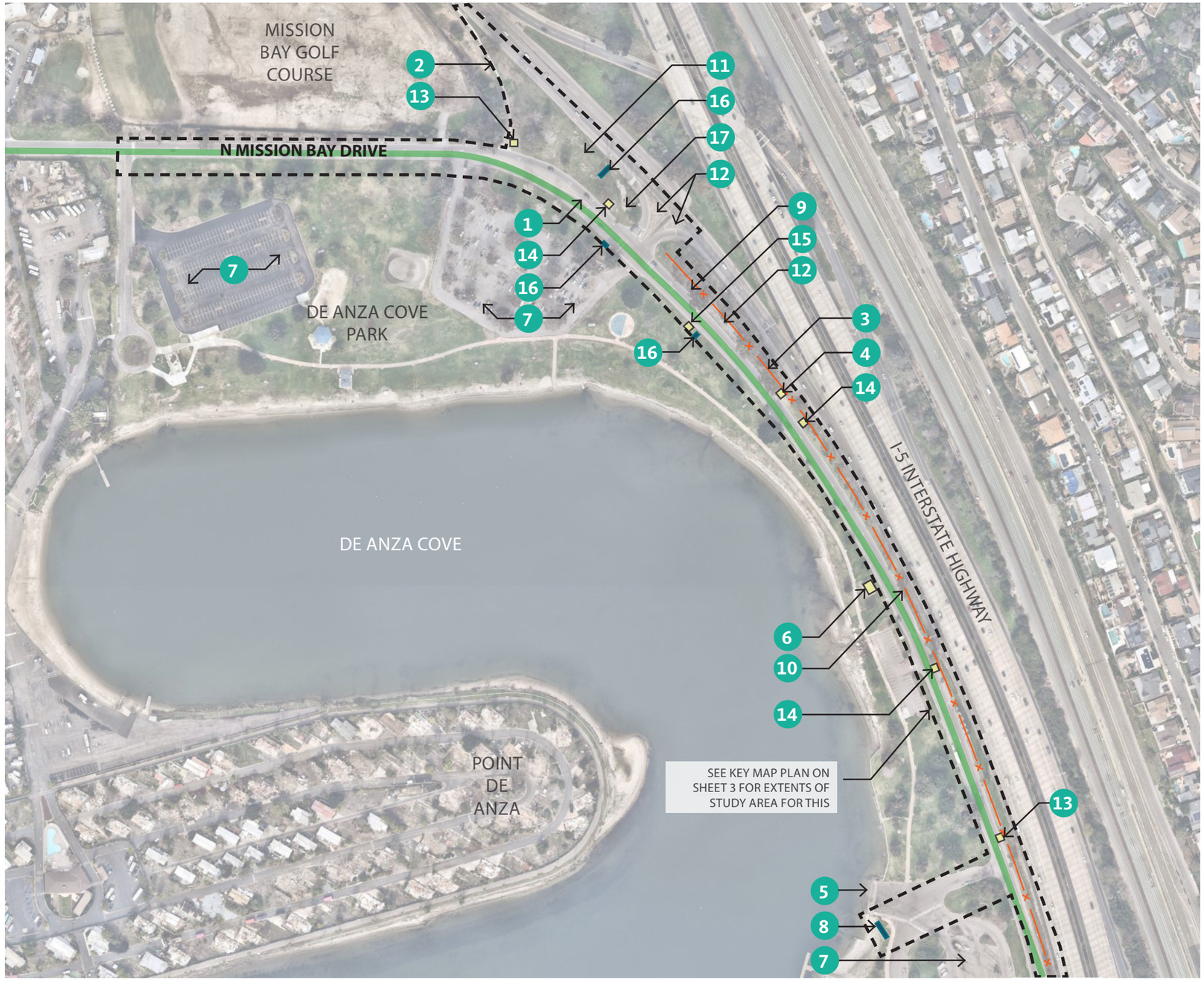


Existing backflow preventer for streetscape irrigation system.



Existing Palms and Eucalyptus trees along Cal trans fence.

MISSION BAY TRAFFIC ISLAND **BEAUTIFICATION**



SITE MAP

0′ 150′ 300′ 450′
SCALE: 1″ = 300′-0″

N

EXISTING CONDITIONS LEGEND:

1. Damaged and unsightly AC paving in medians
2. Pedestrian pathway
3. Cal trans fence
4. Pump house
5. Boat launch
6. Pump station
7. Parking lot
8. Deteriorated large information panel
9. Clusters of mature canopy trees such as Eucalyptus, Cork Oak and Ficus
10. Clusters of mature palms such as *Washingtonia robusta*
11. Large expanse of high water use underutilized turf area
12. Inconsistent patches of mulch and bare dirt understory
13. Irrigation controller
14. Irrigation backflow (streetscape irrigation)
15. Irrigation backflow (park irrigation)
16. Roadway direction signage
17. Landscape mow curb

ADDITIONAL NOTES:

1. **Pedestrian paths of travel are disconnected and should be unified for safety and continuity.**
2. **As an overall observation, climate appropriate trees should be planted to succeed the existing exotic eucalyptus and palm species as they degrade overtime.**
3. **This report recommends large swaths of underutilized turf should be removed and selectively replaced with drifts of low water use plant species. View corridors of the bay should be maintained.**

GRAPHIC LEGEND:

- Cal trans fence
- Class III bike route
- Limit of study

DE ANZA DISTRICT

AREA 1 : MISSION BAY DRIVE AT DE ANZA COVE

DESIGN STATEMENT

The De Anza District is a key entry point into Mission Bay Park. The goal is to provide a grand introduction through accent paving, flowering accent trees and landscape while being sensitive to the sight lines to the bay. Planting should be added along the existing fencing to create a more vibrant edge. Planting should also be used to selectively screen existing utility appurtenances.

PLANTING

1. Planting should include pops of color for year round interest.
2. Crime Prevention Through Environmental Design (CPTED) practices should be utilized to avoid creating hidden areas for encampments and allow visibility throughout all planting areas.
3. Drift planting to be 36" tall or less to allow visibility for CPTED.
4. Screening shrubs along Cal trans fence/ property line and existing pump station.
5. Container planting shall be planted in drifts of Mediterranean and native plants with vines along Cal trans fence.
6. Trim, prune, and/or skin existing palm trees and thin out vegetation along Cal trans fence line.
7. Reduce amount of under-utilized turf grass within streetscape Mission Bay Park Corridor.
8. All existing trees shown at current condition, all proposed trees shown at 75% maturity.
9. 24" concrete maintenance band around median and 24" hardwood mulch maintenance path between landscape.
10. Planting design along Mission Bay Drive and adjacent to the fencing should be large massings to be noticeable from vehicles.

HARDSCAPE

1. Enhanced concrete with meandering paving bands to emulate the tidal flow of mission bay. The meandering bands shall be made up of two alternating textures of concrete.
   - Band 1: Davis color "San Diego Buff" with Grace Top Cast #100 surface retarder or equal.
   - Band 2: Davis color "San Diego Buff" with Grace Top Cast #5 surface retarder or equal.
2. 18" wide concrete band for maintenance access along inside of median 6" curb; for a total of 24" maintenance curb.

IRRIGATION

1. Existing controller to be upgraded to City standard and expanded to accommodate new planters.
2. New accent planters to receive drip irrigation with drip control valves.
3. Proposed streetscape trees within median to receive bubbler system with dedicated valve.

GRADING + DRAINAGE

1. Grading should maintain existing general drainage pattern.
2. Design as "Standard Project" if feasible. If Priority Development Project (PDP) thresholds are exceeded, design per Local PDP Exemptions in Section 1.4.3 of Part 1 of the City Storm water Standards.
3. If required, install proprietary biofiltration adjacent to existing storm drain inlet on N Mission Bay Dr.

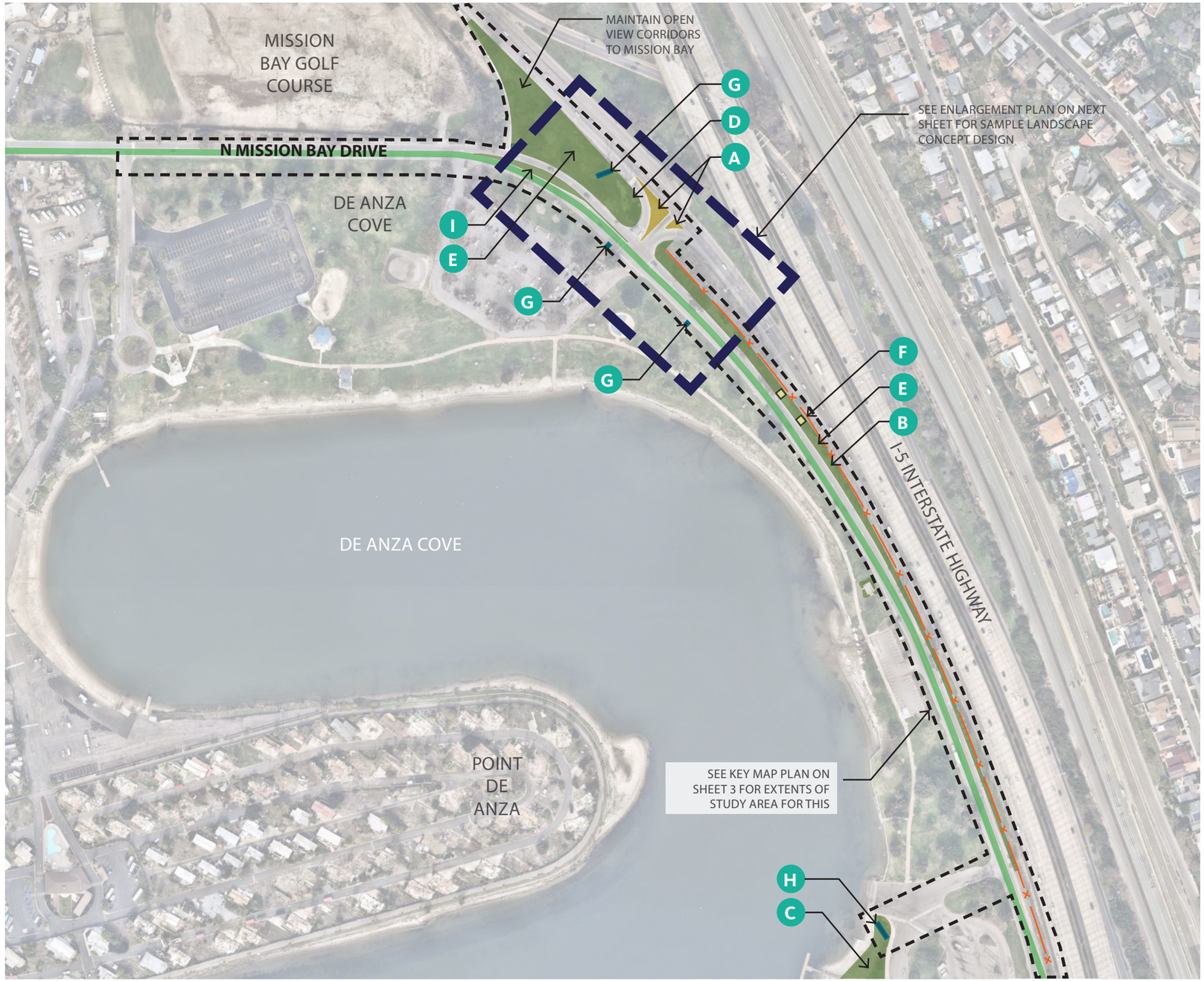
LIGHTING

1. All pole mounted luminaries along the main road should reference the city of San Diego Street Lighting Design Requirements.
2. Tree lighting at select trees to provide additional visual enhancement to the area.

SIGNAGE + WAYFINDING

1. New signage to include replacement of existing roadway directional signs and large information panels to be removed and replaced with new signage per Mission Bay Park PEIR.

MISSION BAY TRAFFIC ISLAND **BEAUTIFICATION**



SITE MAP

0′ 150′ 300′ 450′ N

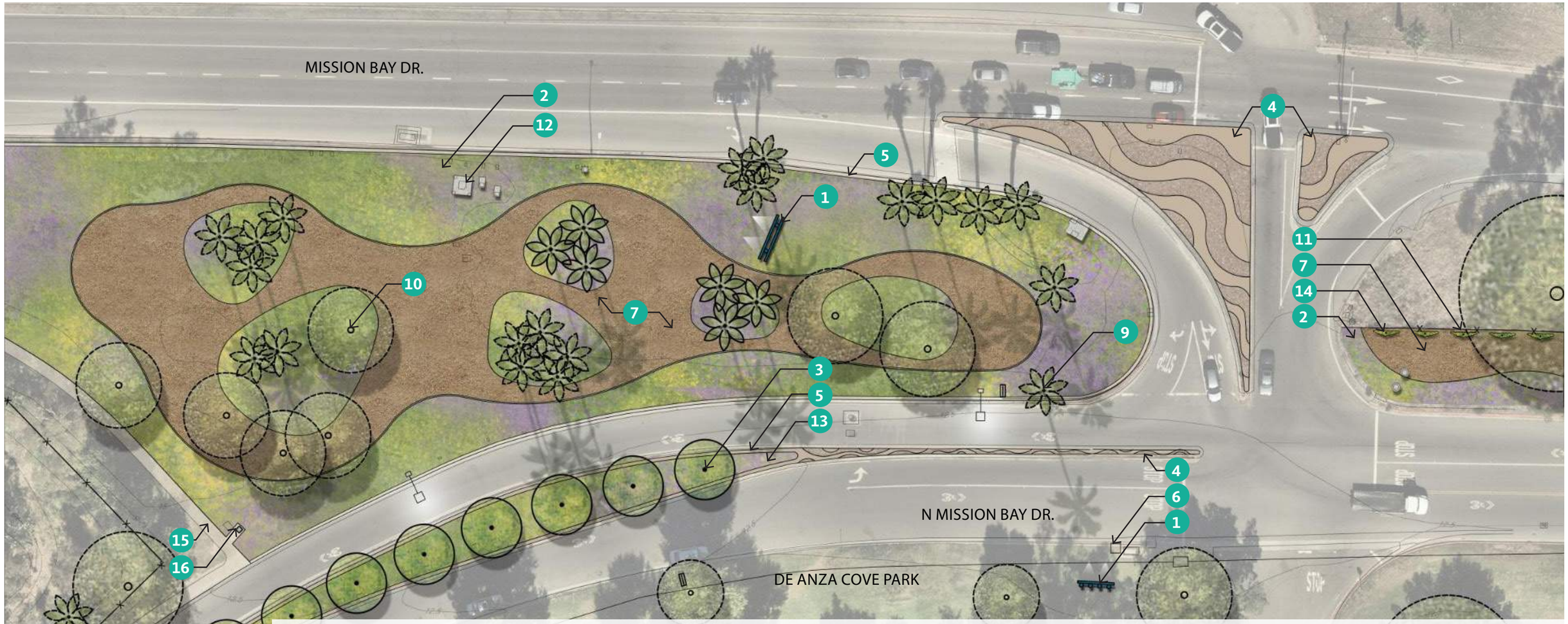
SCALE: 1″ = 300′-0″

SITE IMPROVEMENTS LEGEND:

- **A** Replace existing AC paving in median with enhanced paving
- **B** Shade canopy and accent trees. understory to be a combination of low accent planting drifts and wood chips. Wood chips to be harvested from the removal of existing eucalyptus and other tree species.
- **C** Accent planting at boat launch signage
- **D** Remove underutilized areas of turf and add accent shrubs and groundcover. View corridors to Mission Bay should be maintained.
- **E** Palm/tree maintenance, typ.
- **F** Vegetative screening at Cal trans fence and pump station
- **G** New roadway directional signage per Mission Bay Park PEIR
- **H** New large format information panel per Mission Bay Park PEIR
- **I** Proposed planting in median with proposed accent trees. Understory to be a combination of accent planting and enhanced paving. View corridors should be maintained.

GRAPHIC LEGEND:

- Cal trans fence
- Class III bike route
- Limit of study
- Planting area
- Enhanced medians



LEGEND:

1. New roadway directional signage per Mission Bay Park PEIR
2. Proposed accent planting, typ.
3. Proposed accent trees, typ.
4. Proposed enhanced concrete paving in medians, typ.
5. Proposed 18" enhanced concrete paving maintenance band
6. Recommended location for proprietary BMP
7. Proposed hardwood mulch
8. Proposed streetlight, typ
9. Existing palm trees to remain, typ.
10. Existing shade trees to remain, typ.
11. Existing Cal trans fence to remain
12. Existing utilities to remain, typ.
13. Proposed 24" hardwood mulch maintenance path, typ.
14. Proposed screening vine planting, typ.
15. Existing sidewalk to remain
16. Existing irrigation controller



KEY MAP NTS

0' 20' 40' 60' N
SCALE: 1" = 40'-0"

Trees such as:



Coast Live Oak| *Quercus agrifolia*



Torrey Pine| *Pinus torreyana*



California Palm| *Washingtonia filifera*



Gold Medallion| *Cassia leptophylla*



Senegal Date Palm | *Phoenix reclinata*



Coast Coral tree| *Erythrina caffra*

Planting such as:



Bougainvillea| *Bougainvillea* 'Barbara Karst'



Orange Clock Vine| *Thunbergia gregorii*



Cape Honeysuckle | *Tecoma capensis*



Yellow Bells| *Tecoma stans*



Agave sp.



Aloe sp.

Ground Cover such as:



Purple Trailing Lantana| *Lantana montevidensis*

Hardscape Material such as:



Concrete Paving Color
San Diego Buff



Concrete Paving Texture
Grace Top Cast #5



Concrete Paving Texture
Grace Top Cast #100



Hardwood Mulch

Lighting Fixtures such as:



Light Pole
Per City of San Diego Streets Division

EAST MISSION BAY DISTRICT

AREA 2 : EAST MISSION BAY DRIVE AT CLAIREMONT DRIVE

EXISTING CONDITIONS



KEY MAP **NTS**



View from Mission Bay Drive facing west towards the Mission Bay Beach Club.



View of failed planting area along Clairemont Drive facing east towards I-5.



View of existing planting area at Clairemont / Mission Bay Drive intersection.



Existing parking conditions along Mission Bay Drive.



Existing pump station along Mission Bay Drive to be screened with plant material.



Existing palm tree condition in landscape areas along Mission Bay Drive.



Existing drainage culvert at Mission Bay Drive.

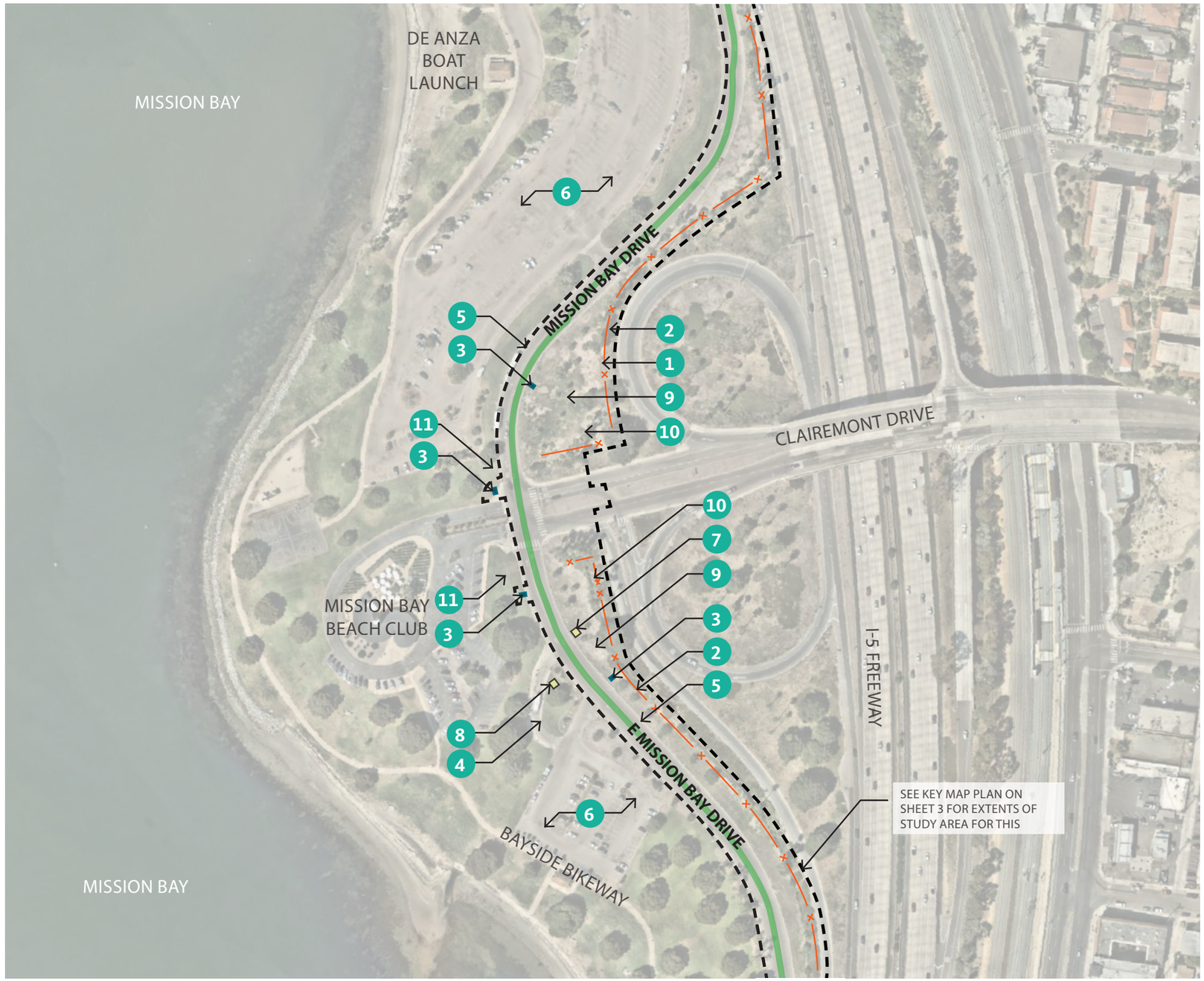


Existing sewer line running along east side of Mission Bay Drive under existing palm trees.



Existing Palm tree drip ring irrigation in landscape areas along Mission Bay Drive.

MISSION BAY TRAFFIC ISLAND **BEAUTIFICATION**



SITE MAP

0′ 100′ 200′ 300′
SCALE: 1″ = 200′-0″

N

EXISTING CONDITIONS LEGEND:

1. Landscape mow curb
2. Cal trans fence
3. Roadway direction signage
4. Recreational vehicle dump station
5. Street parking
6. Parking lot
7. Irrigation point of connection
8. Irrigation backflow
9. Inconsistent patches of mulch and bare dirt understory
10. Clusters of mature palms such as *Washingtonia robusta*
11. Turf grass, typ.

ADDITIONAL NOTES:

1. **As an overall observation, climate appropriate trees should be planted to succeed the existing exotic eucalyptus and palm species as they degrade overtime.**
2. **Bare planting areas should be replaced with drifts of low water use plant species. View corridors of the bay should be maintained.**
3. **Bare planting provides an opportunity to enhance this intersection and entrance into the Mission Bay Beach Club.**

GRAPHIC LEGEND:

- Cal trans fence
- Class III bike route
- Limit of study

EAST MISSION BAY DISTRICT
AREA 2 : EAST MISSION BAY DRIVE AT CLAIREMONT DRIVE

DESIGN STATEMENT

The landscape vision for Area 2 of the East Mission Bay District is a continuation of De Anza District. In addition, the intersection of Mission Bay Drive and Clairemont Drive is a main point of entry in the Mission bay area and should have a more enhanced aesthetic with plants clustered in drifts as shown in the plan enlargement. Climate appropriate trees should be planted to succeed the existing exotic eucalyptus and palm species as they degrade overtime.

PLANTING

1. **Planting design for this District should be a continuation of District 1.**
2. **Planting should include pops of color for year round interest.**
3. **Crime Prevention Through Environmental Design (CPTED) practices should be utilized to avoid creating hidden areas for encampments and allow visibility throughout all planting areas.**
4. **Drift planting to be 36" tall or less to allow visibility for CPTED.**
5. **Incorporate new accent landscaping flanking Clairemont Drive intersection and within median.**
6. **Landscape island north of Clairemont provides opportunity for storm water treatment basin.**
7. **Supplement existing tree groves with accent and shade canopy trees where space allows.**
8. **Trim, prune, and/or skin existing palm trees to remain and remove any dead or invasive species.**
9. **Vines and screening plants to be placed near Cal trans fence to provide screening.**
10. **Accent landscape areas separated by hardwood mulch to be strategically placed to provide visibility corridors to Mission Bay.**
11. **All existing trees shown at current condition, all proposed trees shown at 75% maturity.**
12. **Reference Appendix A for Plant Palette**
13. **For the drift style planting areas within the mulch areas, the intent of the planting is to spread out organically and not be bound by mow curbs.**

HARDSCAPE

1. **Median to include 18" wide natural gray concrete band for maintenance access.**
2. **Repair sections of existing mow curb as needed and provide new mow curb at accent planters.**

IRRIGATION

1. **Existing controller to be upgraded to City standard and expanded to accommodate new planters.**
2. **Irrigation upgrades to include conversion of old system to drip system and tree bubblers.**
3. **Proposed street trees within median to receive bubbler system with dedicated valve.**

GRADING + DRAINAGE

1. **Grading should maintain existing general drainage pattern.**
2. **Area should qualify as a"Standard Project" and structural BMPs should not be required.**
3. **Consider improvements to existing storm drain located within landscaping.**

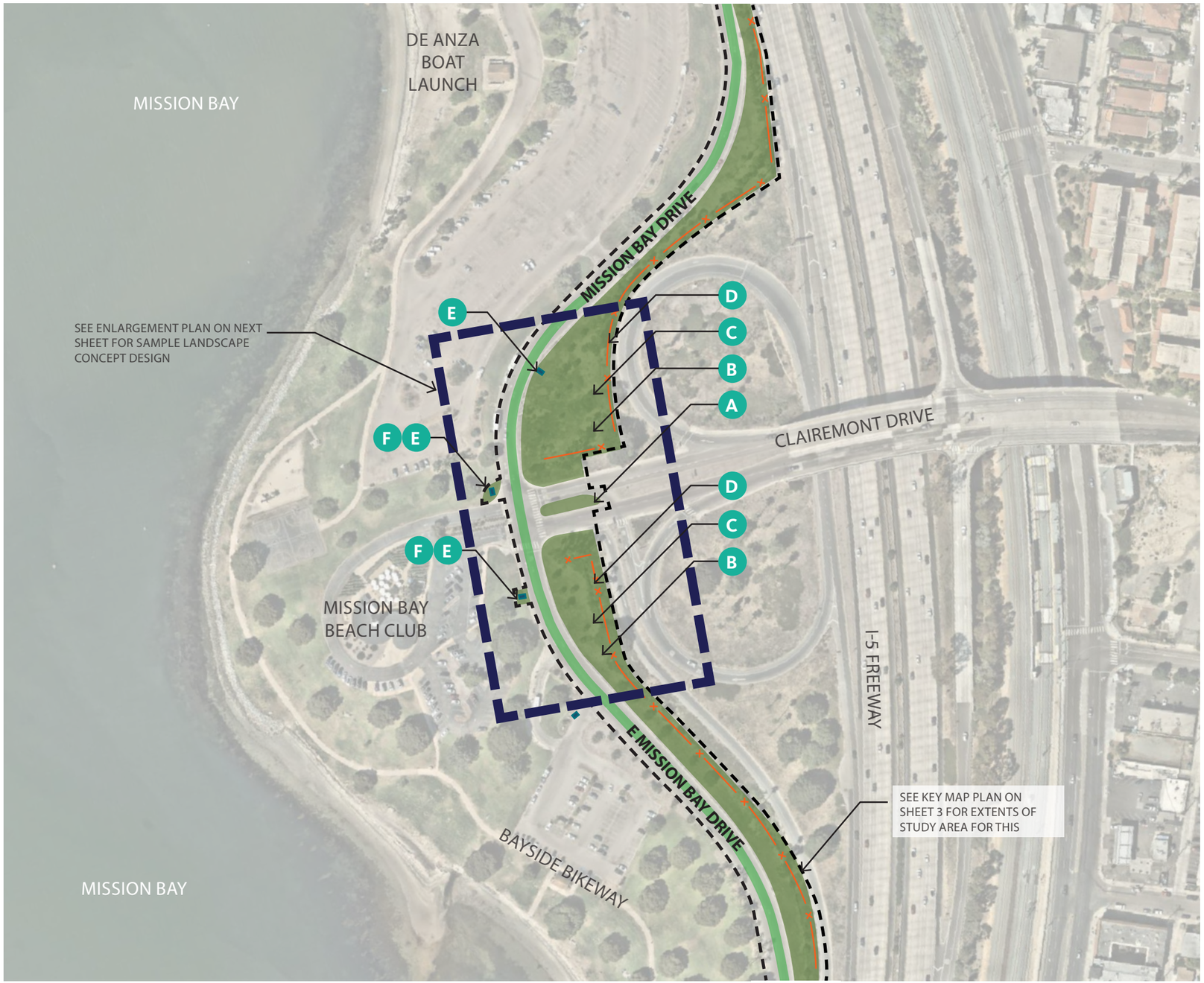
LIGHTING

1. **All pole mounted luminaries along the main road should reference the city of San Diego Street Lighting Design Requirements.**

SIGNAGE + WAYFINDING

1. **New signage to include replacement of existing roadway directional signs to be removed and replaced with new signage per Mission Bay Park PEIR.**

MISSION BAY TRAFFIC ISLAND **BEAUTIFICATION**



SITE MAP

0′ 100′ 200′ 300′
SCALE: 1″ = 200′-0″

N

SITE IMPROVEMENTS LEGEND:

- **A** Replace existing AC paving in median with landscaping
- **B** Drift style planting areas to include trees, palms, and low ground cover style planting to allow visibility, security, and ease of maintenance throughout the planting areas.
- **C** Palm/tree maintenance, typ.
- **D** Vegetative screening at Cal trans fence
- **E** New roadway directional signage per Mission Bay Park PEIR
- **F** Accent planting at signage

GRAPHIC LEGEND:

- Cal trans fence
- Class III bike route
- Limit of study
- Planting area

EAST MISSION BAY DISTRICT

AREA 2 : EAST MISSION BAY DRIVE AT CLAIREMONT DRIVE



LEGEND:

1. Existing sidewalk to remain, typ.
2. Existing curb ramp and accessible crossing to remain, typ.
3. Existing palm trees to remain, typ.
4. Existing Cal trans fence to remain, typ.
5. Existing turf grass at park to remain
6. Existing mow curb to remain
7. Existing shade tree to remain, typ.
8. Existing LED streetlight, typ.
9. Proposed screening planting, typ.
10. Proposed accent planting, typ.
11. Proposed hardwood mulch maintenance path, typ.
12. Proposed screening vines, typ.
13. Proposed 18" enhanced concrete paving maintenance band
14. Proposed accent trees, typ.
15. Proposed canopy trees, typ.
16. Proposed planting areas
17. Proposed hardwood mulch, typ.
18. Boulders, to be exposed 30" max.



KEY MAP NTS

0' 20' 40' 60' N

SCALE: 1" = 40'-0"

Trees such as:



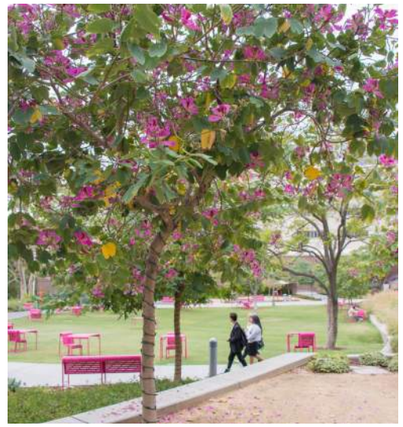
Coast Live Oak| *Quercus agrifolia*



Torrey Pine| *Pinus torreyana*



Tipu Tree| *Tipuana tipu*



Purple Orchid Tree| *Bauhinia purpurea*



Bismark Palm| *Bismarckia nobilis*



Coast Coral Tree| *Erythrina caffra*

Planting such as:



Bougainvillea| *Bougainvillea* 'Barbara Karst'



Giant Bird of Paradise| *Strelitzia nicolai*



Cape Honeysuckle | *Tecoma capensis*



Agave sp.



Aloe sp.



Deer Muhly | Muhlenbergia rigens

Ground Covers such as:



Coyote Brush | *Baccharis pilularis 'Pigeon Point'*



Carpet Rose| *Rosa x 'Morpapplay'*



Prostrate Rosemary| *Rosmarinus officinalis 'Prostratus'*



African Daisy| *Gazania rigens*

Hardscape Material such as:



'Forest Fines' Mulch

Lighting Fixtures such as:



Light Pole
Per City of San Diego Streets Division

EAST MISSION BAY DISTRICT

AREA 3 : EAST MISSION BAY DRIVE AT TECOLOTE SHORES

EXISTING CONDITIONS



KEY MAP **NTS**



View from Mission Bay Drive facing west towards Playa Pacifica Park.



View from Mission Bay Drive facing south towards Mission Bay Resort entrance.



View of bare planting areas across the street from the Mission Resort.



View from Mission Bay Drive facing south towards Mission Bay Resort entrance.



Existing uplighting located in turf areas west of Mission Bay Drive.



Existing Tulip tree on east side of Mission Bay Drive.



Existing backflow on west side of Mission Bay Drive facing towards the bay.

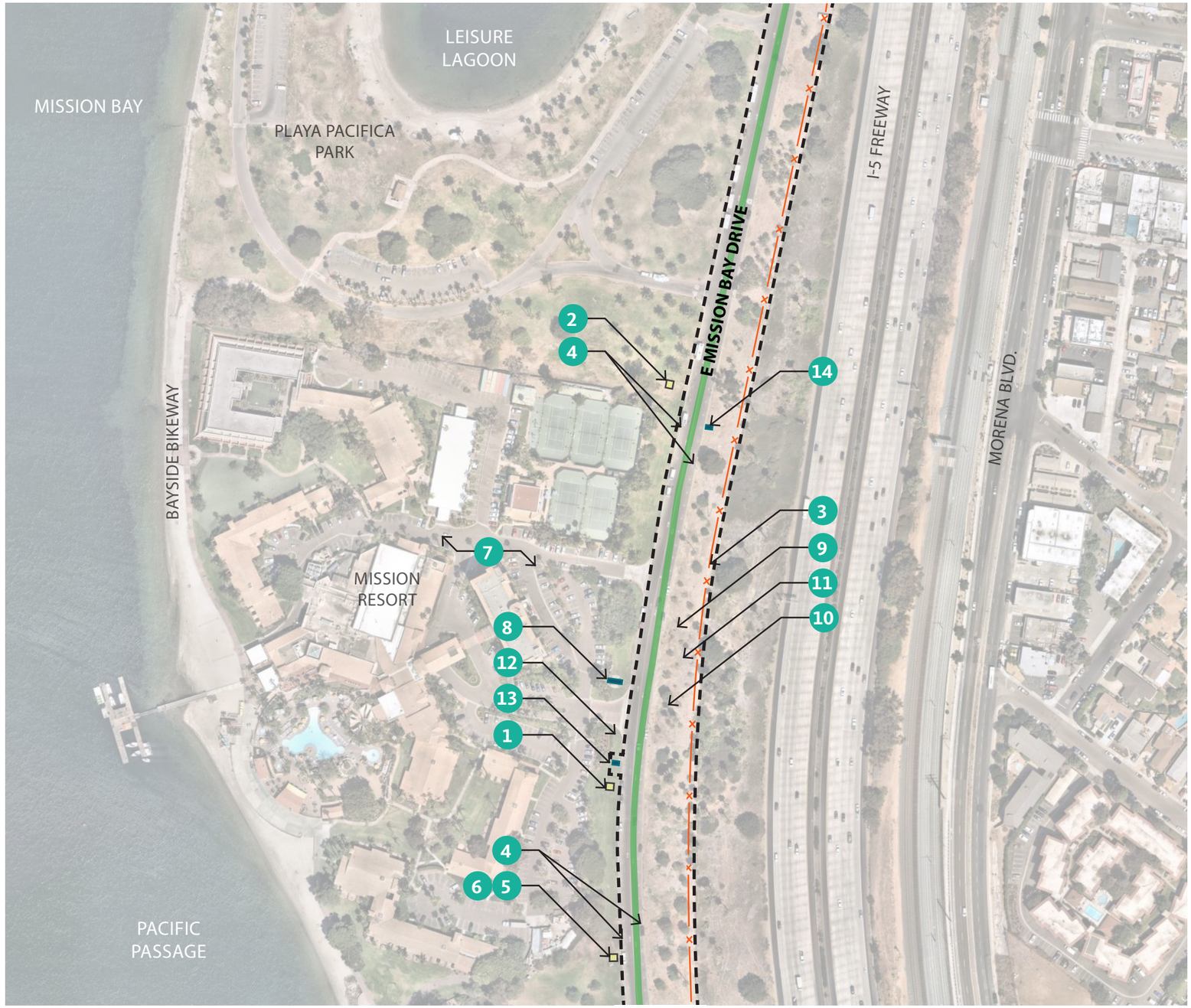


Existing manhole and utilities on west side of Mission Bay Drive



Existing irrigation system overgrown by palms east side of Mission Bay Drive .

MISSION BAY TRAFFIC ISLAND **BEAUTIFICATION**



SITE MAP

0′ 100′ 200′ 300′
SCALE: 1″ = 200′-0″

N

EXISTING CONDITIONS LEGEND:

1. SDGE vault, typ.
2. Electrical box
3. Cal trans fence
4. Street parking
5. Irrigation backflow
6. Irrigation point of connection
7. Resort parking lot
8. Resort entrance monument sign
9. Clusters of young canopy trees such as Jacaranda, Bauhinia & Spathodea
10. Clusters of mature palms such as *Washingtonia robusta*
11. Inconsistent patches of mulch and bare dirt understory
12. Turf grass, typ.
13. Undersized direction blade sign
14. Mission Bay Park roadway direction signage

ADDITIONAL NOTES:

1. **As an overall observation, climate appropriate trees should be planted to succeed the existing exotic eucalyptus and palm species as they degrade overtime.**
2. **Bare planting areas should be replaced with drifts of low water use plant species. View corridors of the bay should be maintained.**
3. **Bare planting provides an opportunity to enhance this entry/exit experience adjacent to the Mission Bay Resort.**

GRAPHIC LEGEND:

- Cal trans fence
- Class III bike route
- Limit of study

EAST MISSION BAY DISTRICT
AREA 3 : EAST MISSION BAY DRIVE AT TECOLOTE SHORES

DESIGN STATEMENT

The landscape vision for Area 3 is a continuation of Area 2 of the East Mission Bay District and Area 4 of the South Shore District. Planting should be designed to have a more enhanced aesthetic adjacent to the resorts. The freeway should be screened with flowering vines and large shrubs for year round interest. Trees should be planted to succeed the existing exotic eucalyptus and palm species as they degrade overtime.

PLANTING

1. **Planting design for this District should be a continuation of District 2.**
2. **Planting should include pops of color for year round interest.**
3. **Crime Prevention Through Environmental Design (CPTED) practices should be utilized to avoid creating hidden areas for encampments and allow visibility throughout all planting areas.**
4. **Drift planting to be 36" tall or less to allow visibility for CPTED.**
5. **Incorporate new understory planting around canopy trees.**
6. **Provide focal points of denser planting opposite entry accent drives to resort.**
7. **Trim, prune, and/or skin existing palm trees to remain and remove any dead or invasive species.**
8. **Provide Bougainvillea vines to screen along fence line.**
9. **All existing trees shown at current size, all proposed trees are shown at 75% maturity.**

HARDSCAPE

1. **Incorporate concrete sidewalk adjacent to the parallel parking stalls along the east side of Mission Bay Drive.**

IRRIGATION

1. **Existing controller to be upgraded to City standard and expanded to accommodate new planters.**
2. **Irrigation upgrades to include repair and expansion of drip system around tree groves.**

GRADING + DRAINAGE

1. **Grading should maintain existing general drainage pattern.**
2. **Stabilized decomposed granite pathway should be graded to be ADA compliant.**
3. **Perviousness of DG Pathway is critical to storm water compliance.**
4. **Area should qualify as a"Standard Project" and structural BMPs should not be required.**

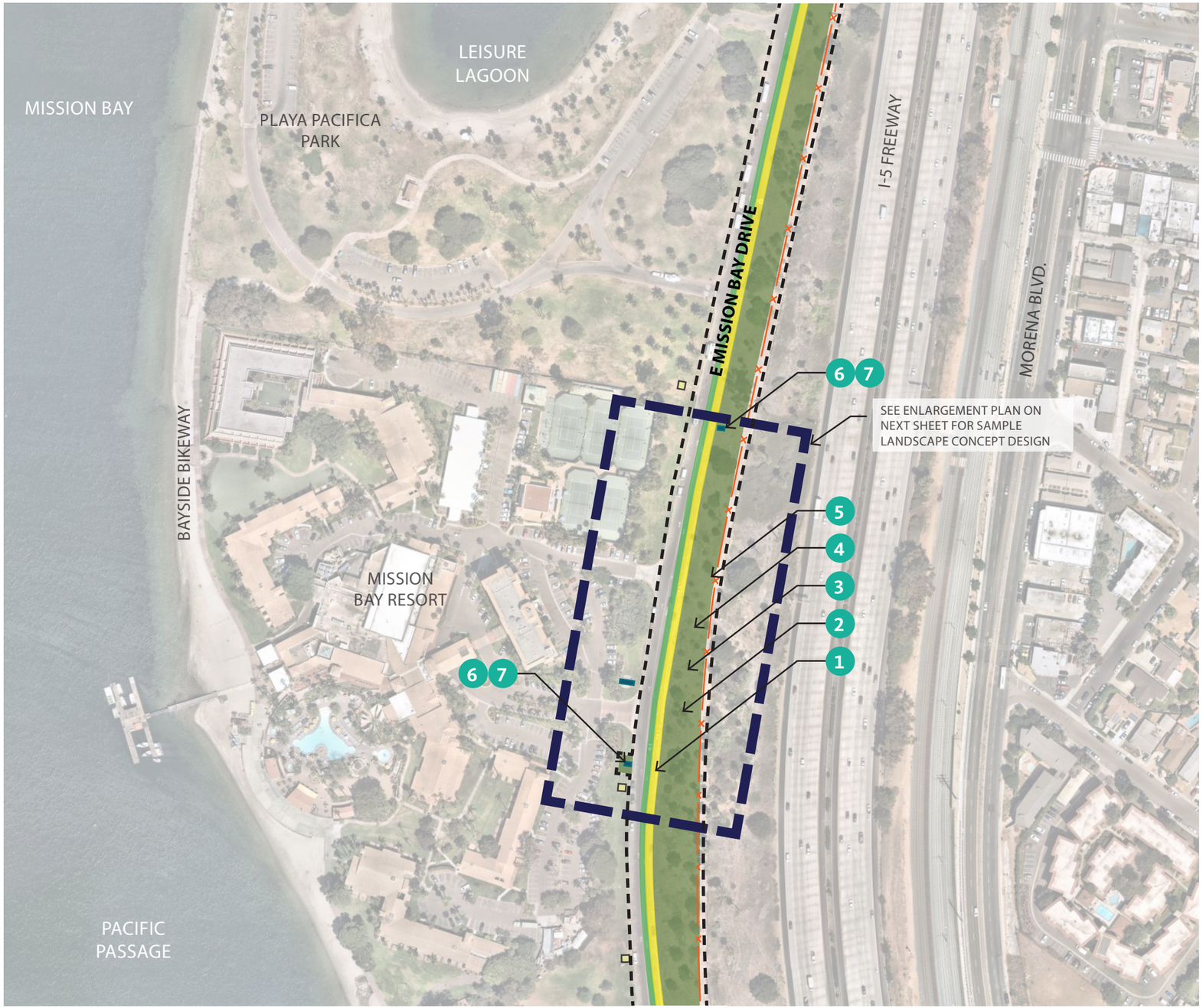
LIGHTING

1. **All pole mounted luminaries along the main road should reference the city of San Diego Street Lighting Design Requirements.**
2. **Incorporate new accent uplighting at select tree groves.**
3. **Add additional new pole mounted luminaries along main road to connect areas 1 and 2.**

SIGNAGE + WAYFINDING

1. **New signage to include replacement of existing roadway wayfinding signs, park monument signage, and interpretive panels to be placed along pedestrian pathway in park as designated in Mission Bay Branding and Wayfinding Signage per Mission Bay Park PEIR.**
2. **Provide larger signage for memorial tree groves that is legible from roadway.**

MISSION BAY TRAFFIC ISLAND **BEAUTIFICATION**



SITE MAP

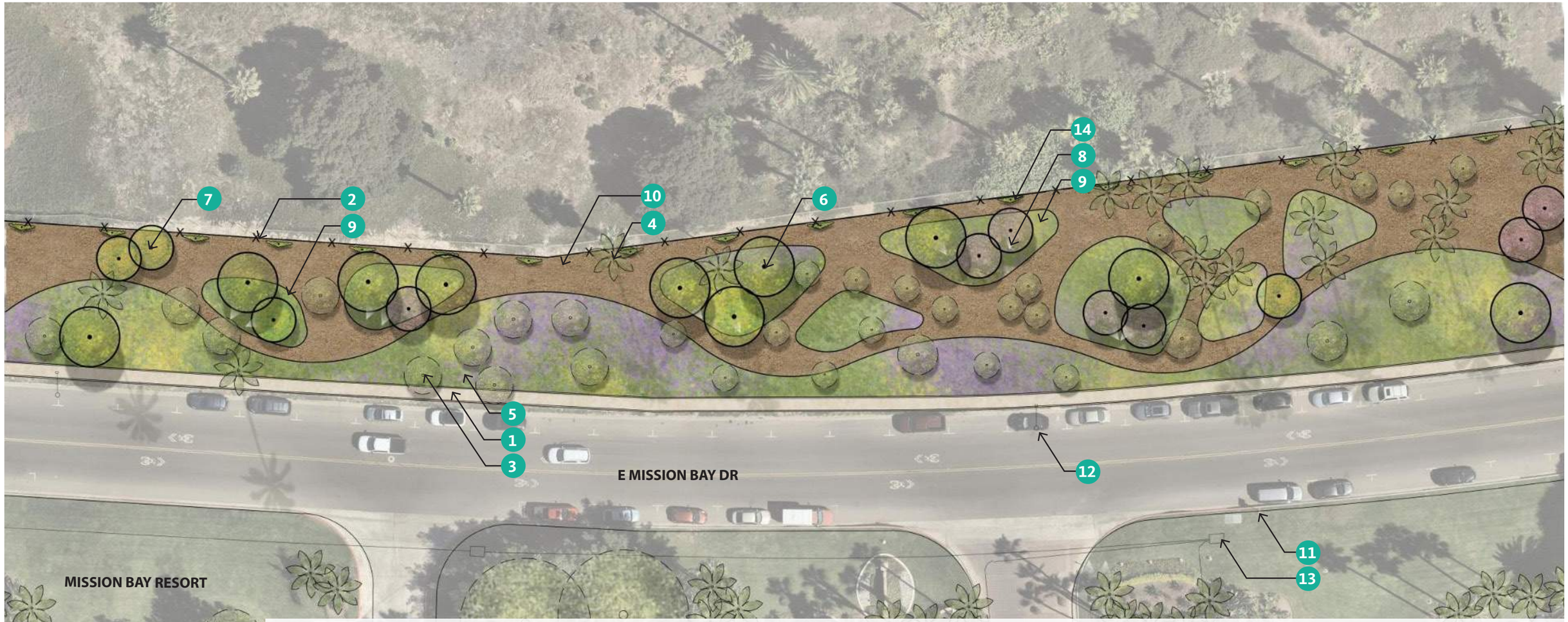
0′ 100′ 200′ 300′
SCALE: 1″ = 200′-0″
N

SITE IMPROVEMENTS LEGEND:

1. Concrete sidewalk along east side of Mission Bay Drive at street parking
2. Shade canopy and accent trees. understory to be a combination of accent planting drifts and wood chips. Wood chips to be harvested from the removal of existing eucalyptus and palm species.
3. Planting at resorts with accent shrubs, groundcover, and succulents
4. Palm/ tree maintenance
5. Vegetative screening at Cal trans fence
6. Accent planting at roadway directional signage
7. New roadway directional signage per Mission Bay Park PEIR

GRAPHIC LEGEND:

- Cal trans fence
- Class III bike route
- Concrete sidewalk
- Planting area
- Limit of study



LEGEND:

1. Proposed 5'-0" concrete sidewalk
2. Existing Cal trans fence to remain
3. Existing canopy trees to remain, typ.
4. Existing palms to remain, typ.
5. Proposed planting along E. Mission Bay Drive
6. Proposed shade trees, typ.
7. Proposed accent trees, typ.
8. Proposed accent lighting at select tree groves, typ.
9. Drift style accent planting outside of resort entrance, typ.
10. Proposed hardwood mulch, typ.
11. New roadway directional signage per Mission Bay Park PEIR
12. Existing LED streetlight, typ.
13. Existing electrical pull box
14. Proposed screening vine planting, typ.



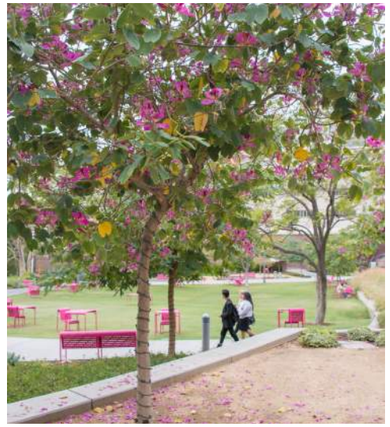
KEY MAP NTS

0' 20' 40' 60' N
SCALE: 1" = 40'-0"

Trees such as:



Jacaranda| *Jacaranda mimosifolia*



Purple Orchid Tree| *Bauhinia purpurea*



Coast Live Oak| *Quercus agrifolia*



New Zealand Christmas Tree| *Metrosideros excelsa*



Gold Medallion| *Cassia leptophylla*

Planting such as:



Bougainvillea| *Bougainvillea* 'Barbara Karst'



Giant Bird of Paradise| *Strelitzia nicolai*



Mauritius Hemp| *Furcraea foetida 'Mediopicata'*



New Zealand Flax | *Phormium tenax*



Natal Plum | *Carissa macrocarpa*



Coast Sunflower | *Encelia californica*

Groundcovers such as:



African Daisy| *Gazania rigens*



Purple Sage | *Salvia leucophylla 'Pt Sal'*

Hardscape Material such as:



Standard Concrete Paving



'Forest Fines' Mulch

Lighting Fixtures such as:



Light Pole
Per City of San Diego Streets Division

SOUTH SHORES DISTRICT
AREA 4 : SEAWORLD DRIVE CORRIDOR

EXISTING CONDITIONS



View of median facing west along Sea World Drive.


View of median continuing west along Sea World Drive.


View of existing Palm trees in median along Sea World Drive.

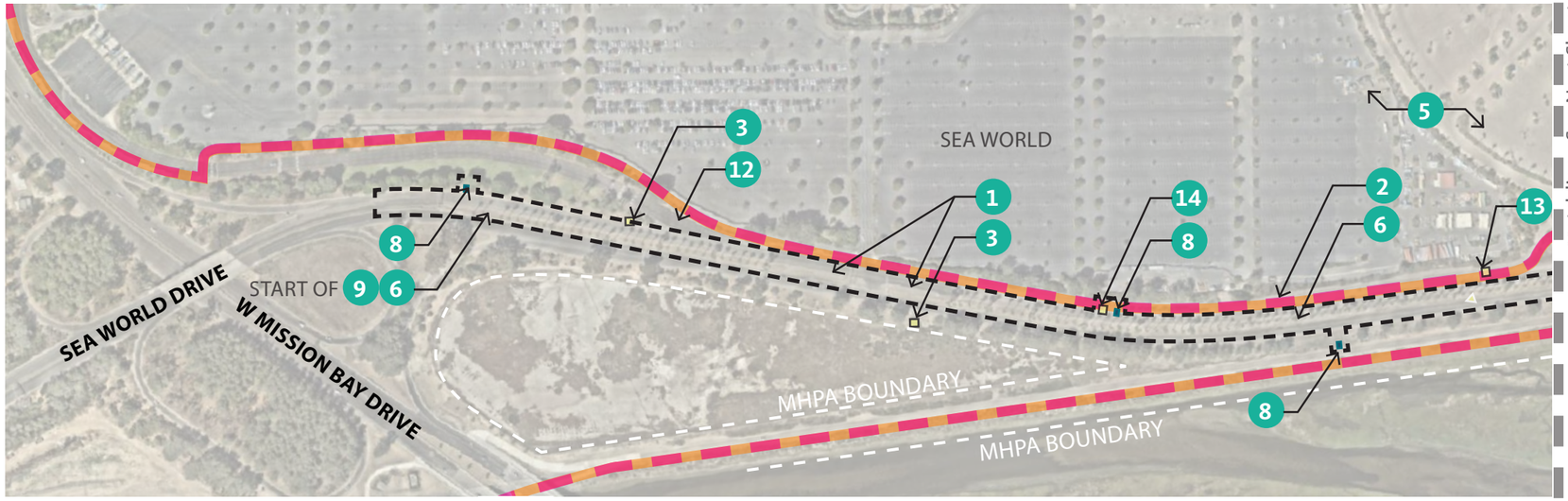

Existing irrigation valve boxes in median.


Damaged and undulating curb along the medians on Sea World Drive.


Existing median soil blend with shells from riverbed.

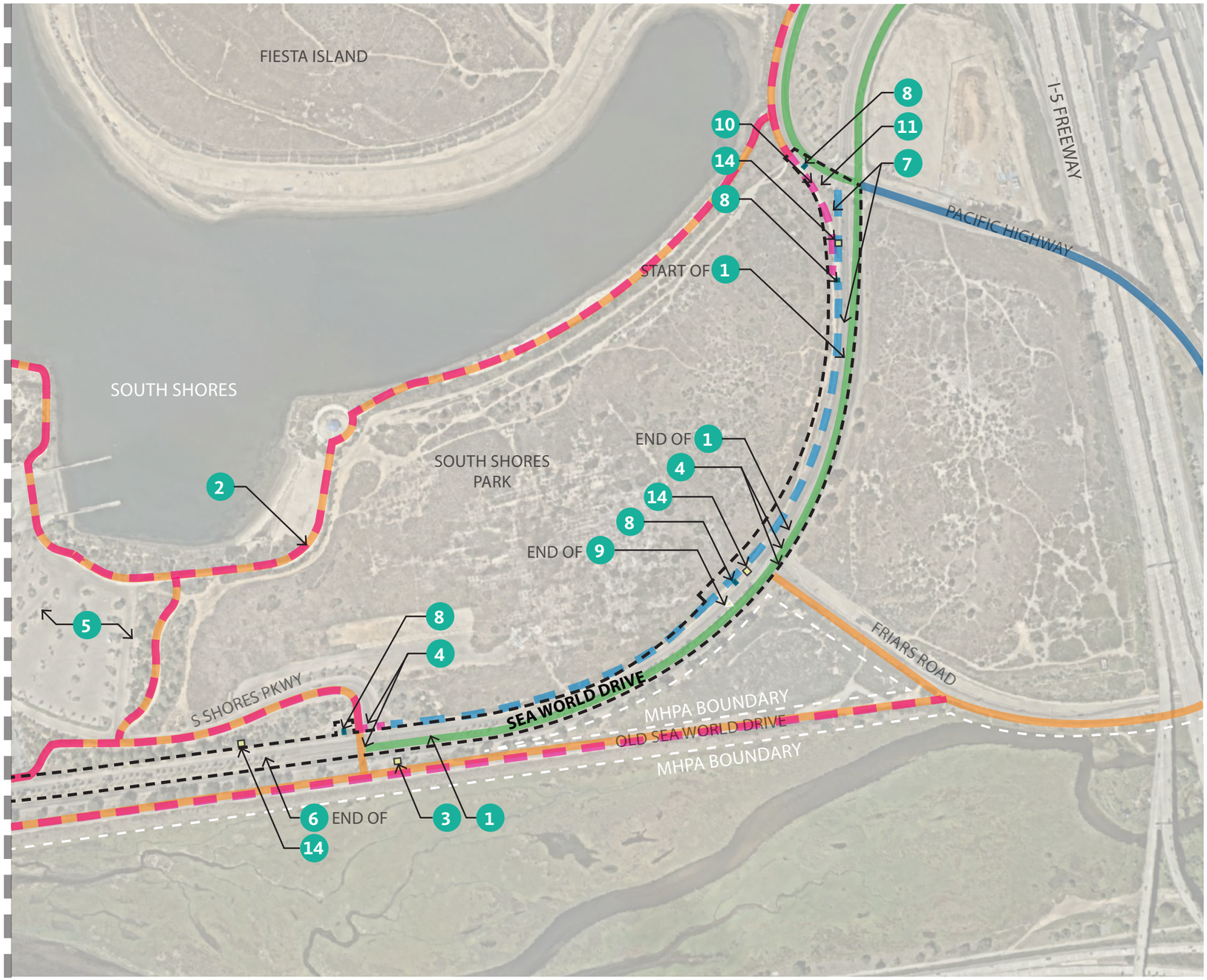


KEY MAP **NTS**



SITE MAP

MISSION BAY TRAFFIC ISLAND **BEAUTIFICATION**



SITE MAP

0′ 200′ 400′ 600′
SCALE: 1″ = 400′-0″

N

EXISTING CONDITIONS LEGEND:

1. Damaged and unsightly AC paving in medians
2. AC paved bike lane
3. Transformers
4. Crosswalk
5. Parking lot
6. Damaged and unsightly AC paving in medians with palm trees
7. Extent of disconnected and damaged AC paving and dirt pathway
8. Roadway direction signage
9. Uplighting
10. Concrete pedestrian path
11. Grove of mature *Washingtonia robusta*
12. Sea World main entrance
13. Irrigation controller
14. Irrigation backflow

GRAPHIC LEGEND:

- Concrete pedestrian access
- Disconnected and damaged AC paving and dirt pathway
- Limit of study
- Class I bike path
- Class II bike lane
- Class III bike route

SOUTH SHORES DISTRICT
AREA 4 : SEAWORLD DRIVE CORRIDOR

DESIGN STATEMENT

Implementation for this district should be focused on pedestrian mobility and median repairs. Within the medians, the existing palms should be protected in place and accent flowering trees should be added. The medians should be planted with low accent planting to allow visibility and add pops of color for year round interest. Enhanced lighting should be installed with sensitivity to the adjacent MPHA.

PLANTING

1. **Plant visibility to vehicular views (50 mph speeds) and for foot traffic to ensure color and design are noticeable.**
2. **Crime Prevention Through Environmental Design (CPTED) practices should be utilized to avoid creating hidden areas for encampments and allow visibility throughout all planting areas.**
3. **Drift planting to be 36" tall or less to allow visibility for CPTED.**
4. **Incorporate new accent landscaping flanking Clairemont Drive intersection and within median.**
5. **Incorporate flowering accent trees located between existing palm trees as indicated in the enlarged plan.**
6. **Provide general pruning and cleanup of existing palm trees. Remove dead trees.**
7. **Throughout medians incorporate planting pockets within the existing palms. The planting intent is to provide color accents and seasonal interest.**
8. **Add accent planting at intersections along Sea World Drive.**
9. **Planting palette to include species that reflect river typology.**

GRADING + DRAINAGE

1. **Grading should maintain existing general drainage pattern.**
2. **Design as "Standard Project" if feasible. If Priority Development Project (PDP) thresholds are exceeded, design per Local PDP Exemptions in Section 1.4.3 of Part 1 of the City Storm water Standards.**
3. **If required, install biofiltration basin or proprietary biofiltration adjacent to existing storm drain inlets.**
4. **Pavement along Sea World Drive is in poor condition and has significant settling in some locations along the median. The roadway should be evaluated for replacement. The existing AC berms that line the median are in poor condition and create ponding within the roadway. Improvements to the median will require special attention to ensure ponding in the roadway is not perpetuated.**

HARDSCAPE

1. **Incorporate accessible DG pathway along the north side of Sea World Dr. to connect Sea World to Fiesta Island.**
2. **Within the central median, incorporate designated hardscape areas for City maintenance trucks to safely access.**
3. **Provide concrete or vegetated drainage swale along curb to capture runoff within planter landscape.**
4. **The roadway should be evaluated for replacement prior to adding the contiguous hardscape improvements inside the medians.**
5. **Central median to have an 18" wide concrete band around the perimeter.**
6. **Medians to include proposed decorative concrete wave pattern for all planting areas less than 30" wide.**
7. **Enhanced concrete with meandering paving bands to emulate the tidal flow of mission bay. The meandering bands shall be made up of two alternating textures of concrete.**
   - **Band 1: Davis color "San Diego Buff" with Grace Top Cast #100 surface retarder or equal.**
   - **Band 2: Davis color "San Diego Buff" with Grace Top Cast #5 surface retarder or equal.**

IRRIGATION

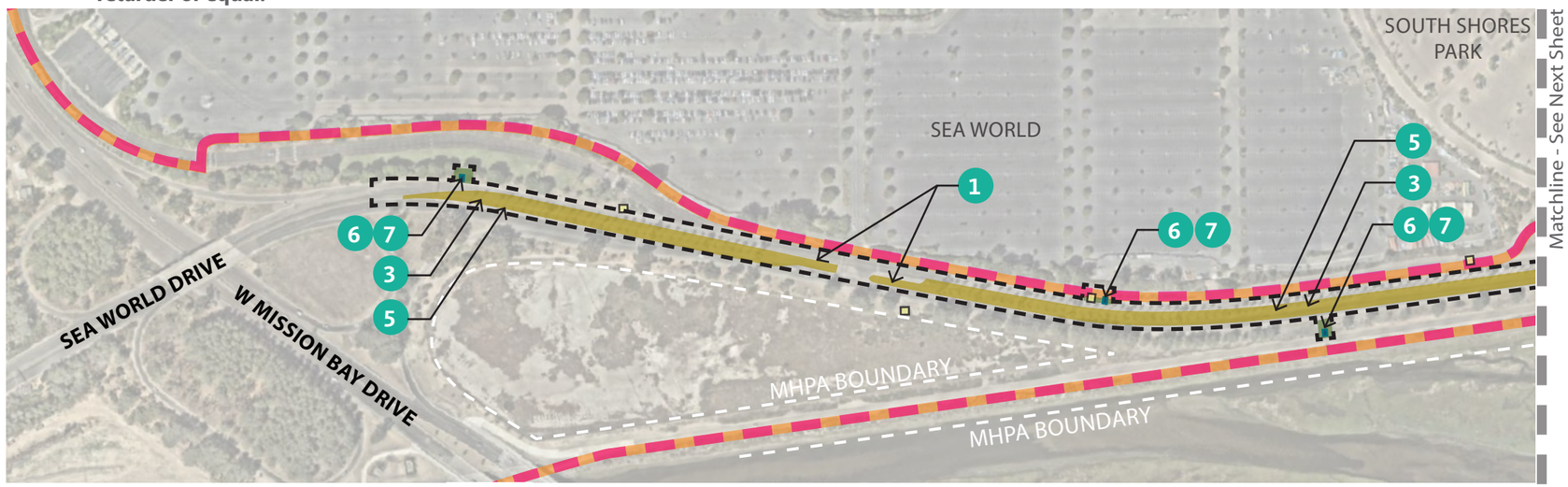
1. **Irrigation upgrades to include existing system repairs.**
2. **Existing controller to be upgraded and expanded to accommodate new landscape and trees within medians.**

LIGHTING

1. **New pole mounted luminaries along main road for enhanced security and general illumination per the city of San Diego Street Lighting Design Requirements.**
2. **Tree lighting at select trees to provide additional visual enhancement to the area.**

SIGNAGE + WAYFINDING

1. **New signage to include replacement of existing roadway wayfinding signs, park monument signage, and interpretive panels to be placed along pedestrian pathway in park as designated in Mission Bay Branding and Wayfinding Signage per Mission Bay Park PEIR.**

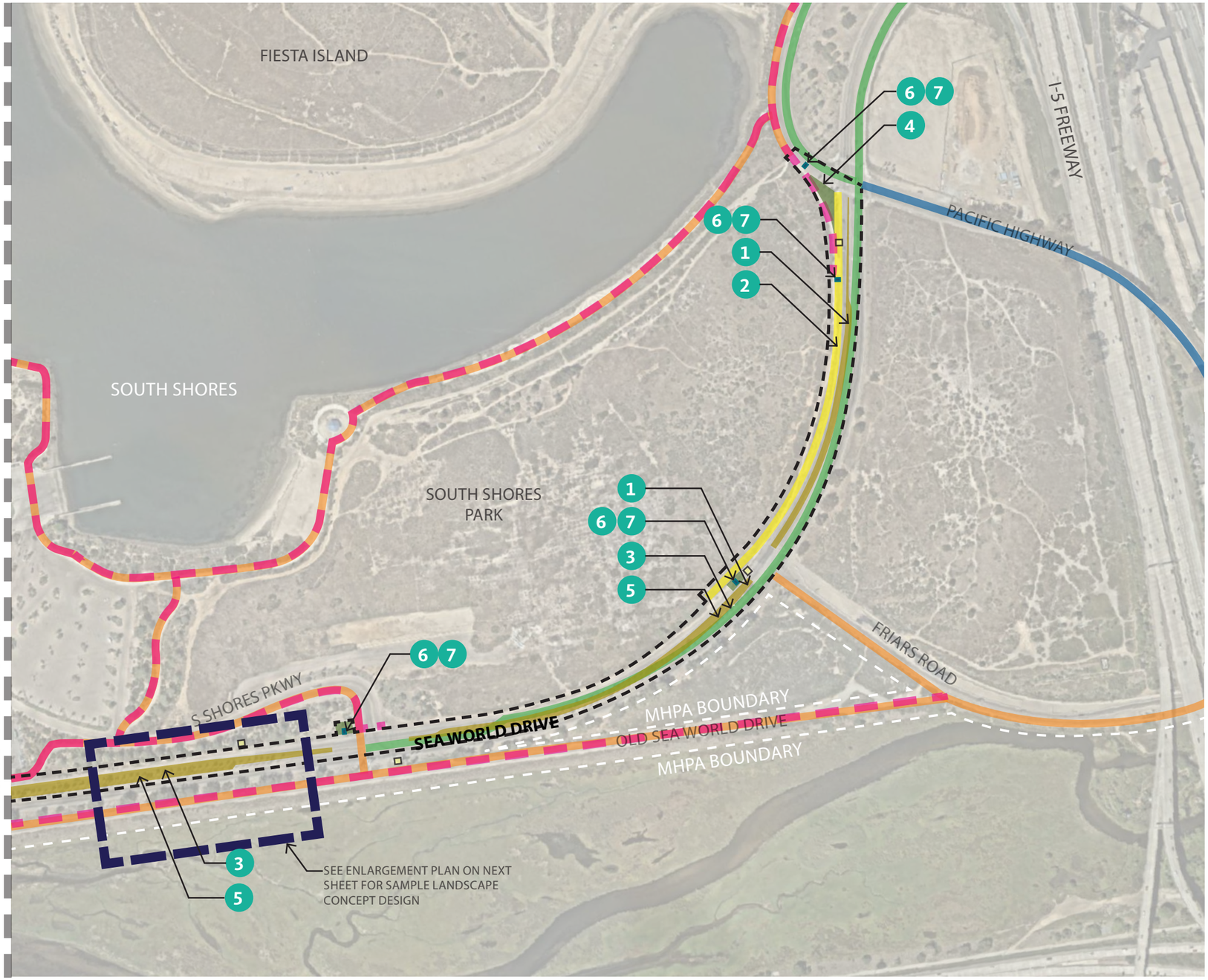


SITE MAP

0' 200' 400' 600'
SCALE: 1" = 400'-0"

N

MISSION BAY TRAFFIC ISLAND **BEAUTIFICATION**



SITE MAP

0′ 200′ 400′ 600′
SCALE: 1″ = 400′-0″

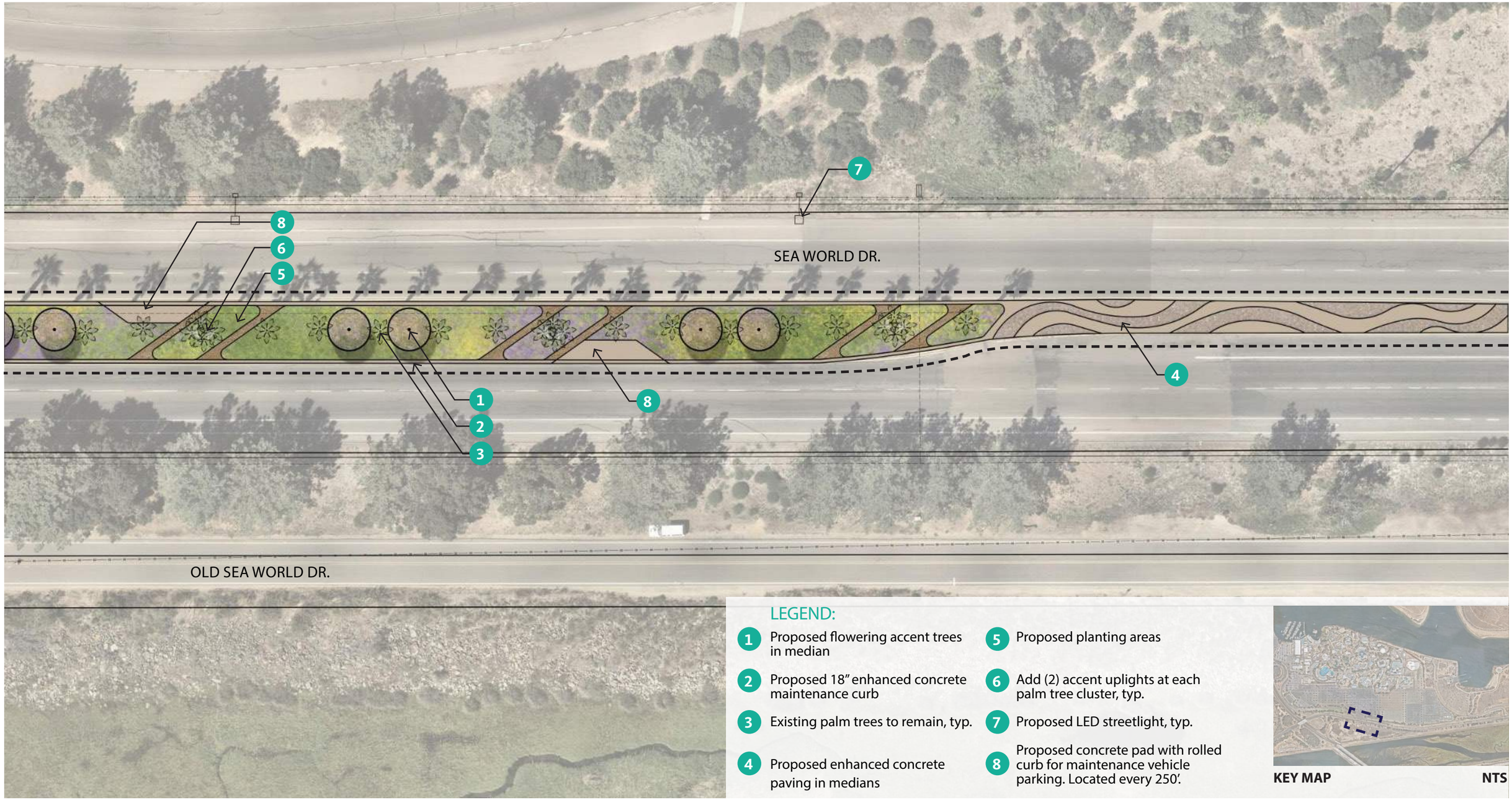
N

SITE IMPROVEMENTS LEGEND:

1. Replace existing AC paving in median with enhanced paving
2. Stabilized decomposed granite pathway along Sea World Drive to connect South Shores Park and Fiesta Island.
3. Existing palms in median with proposed accent trees. understory to be a combination of accent planting and enhanced paving. View corridors should be maintained.
4. Accent planting at Sea World Drive and East Mission Bay Drive intersection. View corridors to Mission Bay should be maintained.
5. Palm tree maintenance
6. Accent planting at roadway directional signage.
7. New roadway directional signage per Mission Bay Park PEIR

GRAPHIC LEGEND:

- Class I bike path
- Class II bike lane
- Class III bike route
- Concrete pedestrian access
- Planting area
- Enhanced medians
- Decomposed granite pathway
- Limit of study



LEGEND:

1. Proposed flowering accent trees in median
2. Proposed 18" enhanced concrete maintenance curb
3. Existing palm trees to remain, typ.
4. Proposed enhanced concrete paving in medians
5. Proposed planting areas
6. Add (2) accent uplights at each palm tree cluster, typ.
7. Proposed LED streetlight, typ.
8. Proposed concrete pad with rolled curb for maintenance vehicle parking. Located every 250'.

KEY MAP NTS

0' 20' 40' 60'
SCALE: 1" = 40'-0"

N

Trees such as:



California Palm| *Washingtonia filifera*



Eastern Redbud| *Cercis canadensis*



Purple Orchid Tree| *Bauhinia purpurea*



Gold Medallion| *Cassia leptophylla*



Silk Floss Tree| *Ceiba speciosa*

Planting such as:



Agave sp.



Aloe sp.



De La Mina Verbena | *Verbena lilacina 'De La Mina'*



Deer Muhly | Muhlenbergia rigens



Coast Sunflower | *Encelia californica*



California Buckwheat | *Eriogonum fasciculatum*

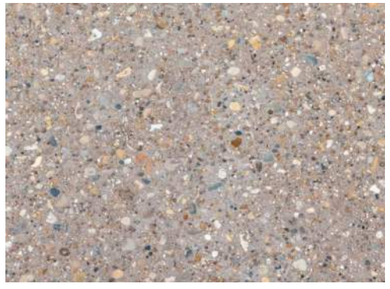
Hardscape Material such as:



Concrete Paving Color
San Diego Buff



Concrete Paving Texture
Grace Top Cast #5



Concrete Paving Texture
Grace Top Cast #100



Stabilized Decomposed Granite "California Gold"



'Forest Fines' Mulch

Lighting Fixtures such as:



Light Pole
Per City of San Diego Streets Division

QUIVIRA BASIN

AREA 5 : WEST MISSION BAY DRIVE AT SUNSET CLIFFS BOULEVARD

EXISTING CONDITIONS



KEY MAP **NTS**



View from Mission Bay Drive facing northwest towards utility building.



Existing irrigation and degraded landscape area facing north towards Mission Bay Drive.



View from area facing northwest towards I-5 highway. Existing planting area.



Existing bridge abutment .



Existing transformer for streetscape irrigation system.



Existing unsightly planting area north of the bridge.



Existing irrigation and debris in landscape area.

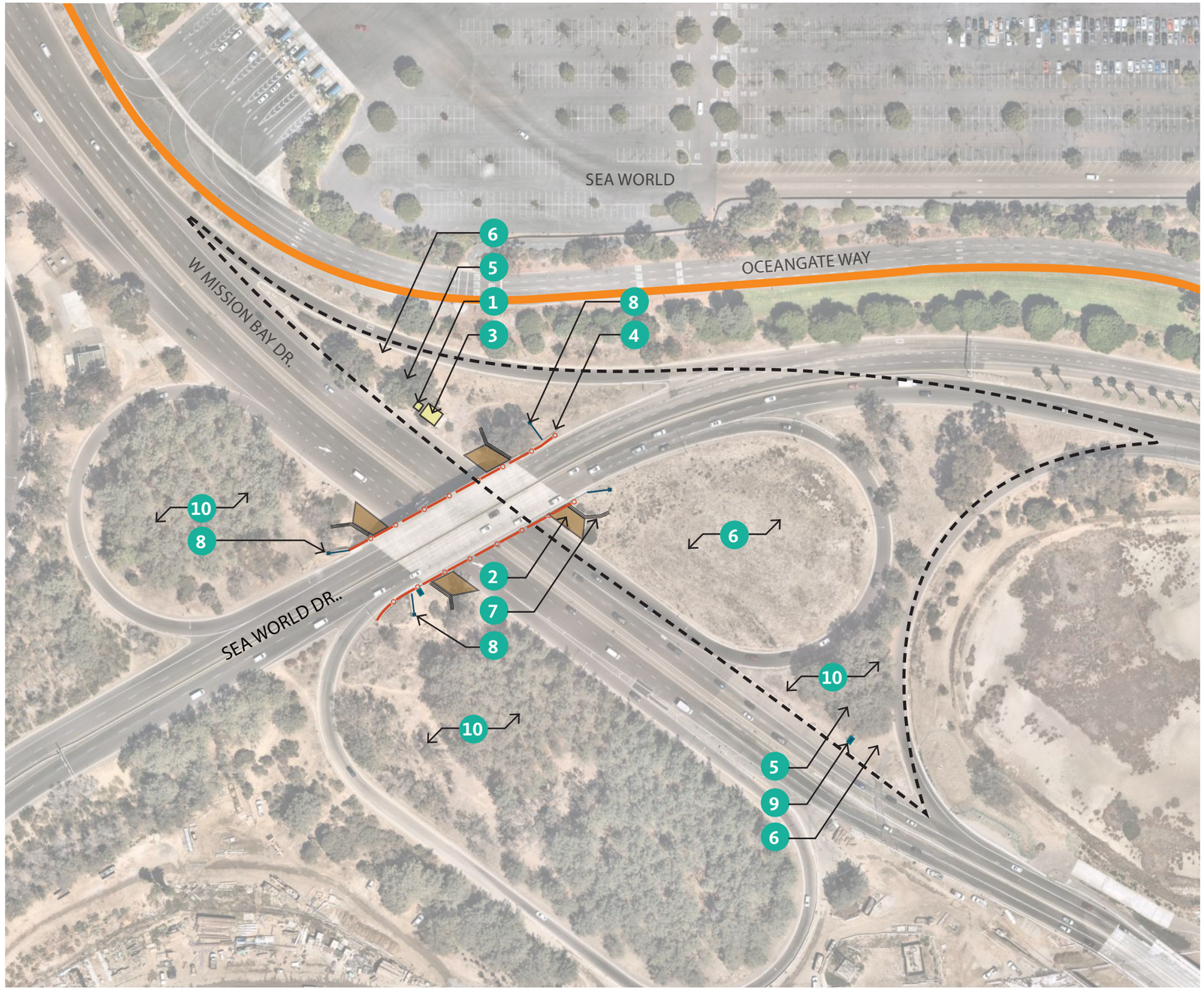


Existing City of San Diego Corrosion test station.



Existing irrigation piping and spray heads within landscape area.

MISSION BAY TRAFFIC ISLAND **BEAUTIFICATION**



SITE MAP

0′ 75′ 150′ 225′
SCALE: 1″ = 150′-0″
N

EXISTING CONDITIONS LEGEND:

1. Transformer
2. Bridge abutment slope
3. Utility building
4. Guardrail
5. Clusters of mature canopy trees such as: Eucalyptus and Pines
6. Inconsistent patches of mulch and bare dirt understory
7. Concrete retaining wall
8. Decorative wall with historical lanterns, See Area 6
9. Roadway directional signage
10. Existing stand of Pine trees

ADDITIONAL NOTES:

1. **Planting is generally unsightly within the study area and could use an upgrade to match pine trees in the surrounding clover leaves.**

GRAPHIC LEGEND:

- Class I bike path
- Guardrail
- Retaining wall
- Decorative wall with lanterns
- Limit of study

QUIVIRA BASIN

AREA 5 : WEST MISSION BAY DRIVE AT SUNSET CLIFFS BOULEVARD INTERCHANGE

DESIGN STATEMENT

The vision for Quivira Basin District includes creating vibrant planting areas at key areas adjacent to Sea World and along Sea World Drive and West Mission Bay Drive. In addition, the existing pine grove aesthetic west of West Mission Bay Drive should be carried across the road into this District to create continuity between the two areas. The existing Pine Grove should be selectively thinned to allow the current Pine's to be more successful.

PLANTING

1. **Planting design for this District should be a continuation of District 4.**
2. **Planting should include pops of color for year round interest.**
3. **Crime Prevention Through Environmental Design (CPTED) practices should be utilized to avoid creating hidden areas for encampments and allow visibility throughout all planting areas.**
4. **Drift planting to be 36" tall or less to allow visibility for CPTED.**
5. **Incorporate pine trees to compliment accent planting.**
6. **Hardwood mulch understory to be incorporated.**
7. **Prune existing mature eucalyptus trees and remove any dead or invasive plant material.**
8. **Provide screening shrubs at pump station.**
9. **Hardwood mulch area to be provided for maintenance truck parking at pump station.**

GRADING + DRAINAGE

1. **Grading should maintain existing general drainage pattern.**
2. **Area should qualify as a"Standard Project" and structural BMPs should not be required.**

HARDSCAPE

1. **Enhanced concrete with meandering paving bands to emulate the tidal flow of mission bay. The meandering bands shall be made up of two alternating textures of concrete.**
   - **Band 1: Davis color "San Diego Buff" with Grace Top Cast #100 surface retarder or equal.**
   - **Band 2: Davis color "San Diego Buff" with Grace Top Cast #5 surface retarder or equal.**

LIGHTING

1. **All pole mounted luminaries along the main roads should reference the city of San Diego Street Lighting Design Requirements.**
2. **Accent lighting to be coordinated with historic lantern restoration on bridge.**
3. **Tree lighting at select trees to provide additional visual enhancement to the area.**

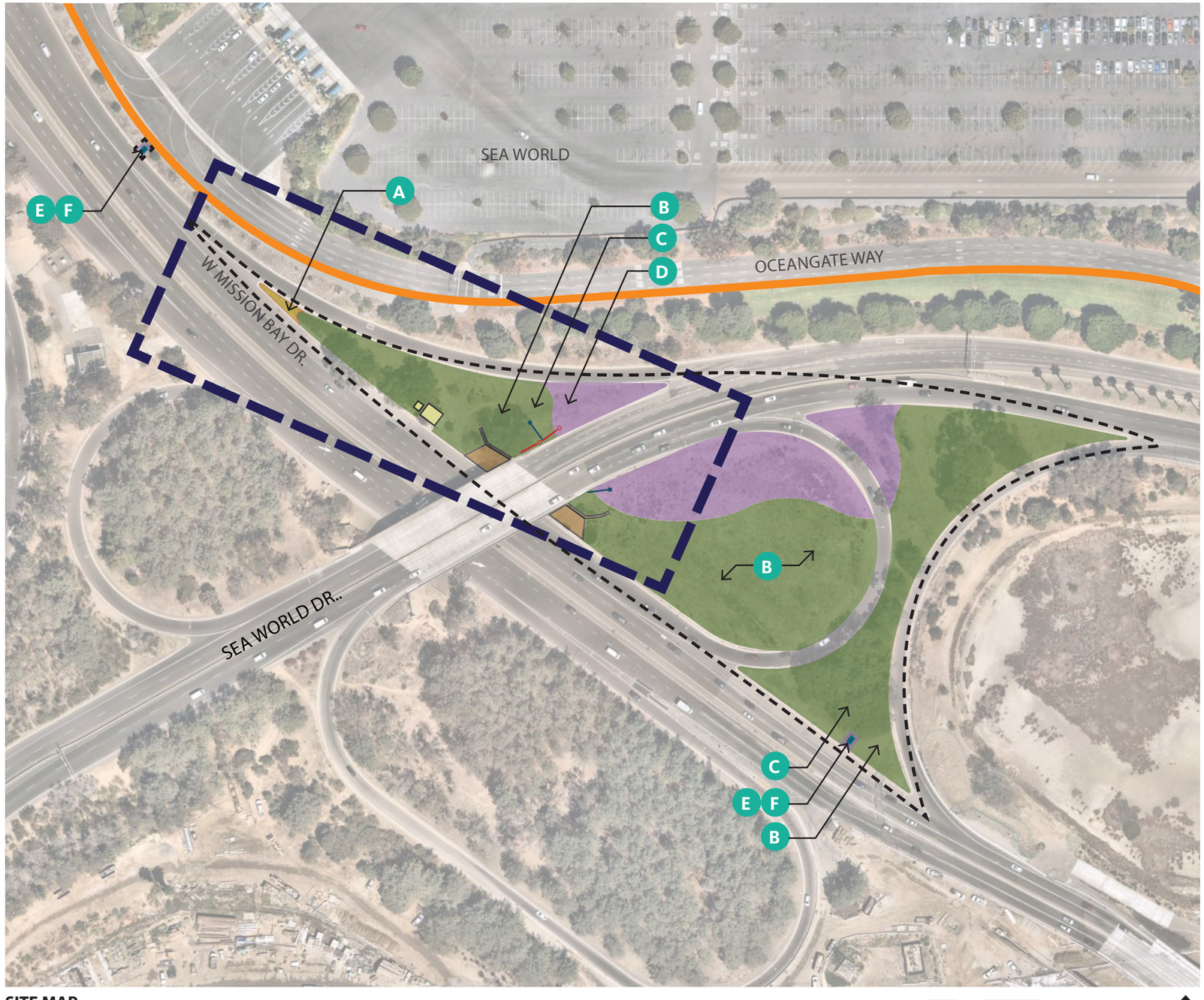
IRRIGATION

1. **Existing irrigation equipment and controls to be upgraded to accommodate any new planting.**

SIGNAGE + WAYFINDING

1. **New signage to include replacement of existing roadway wayfinding signs, park monument signage, and interpretive panels to be placed along pedestrian pathway in park as designated in Mission Bay Branding and Wayfinding Signage per Mission Bay Park PEIR.**

MISSION BAY TRAFFIC ISLAND **BEAUTIFICATION**



SITE MAP

0′ 75′ 150′ 225′
SCALE: 1″ = 150′-0″
N

SITE IMPROVEMENTS LEGEND:

- **A** Replace existing AC paving in median with enhanced paving
- **B** Remove areas of underutilized landscape material such as weeds and replace with pine grove. Wood chips to be harvested from the removal of existing trees and reused as hardwood mulch understory.
- **C** Tree maintenance
- **D** Accent planting at gateway entrances
- **E** Accent planting at roadway directional signage
- **F** New roadway directional signage per Mission Bay Park PEIR
- **G** Historical lighting - see area 6

GRAPHIC LEGEND:

- Class I bike path
- Guardrail
- Limit of study
- Pine grove with mulch understory
- Enhanced medians
- Accent landscape

QUIVIRA BASIN
AREA 5 : WEST MISSION BAY DRIVE AT SUNSET CLIFFS BOULEVARD

LEGEND:

1. Proposed pine tree grove, typ.
2. Proposed accent trees, typ.
3. Proposed hardwood mulch, typ.
4. Proposed accent planting area with shrubs and groundcover, typ.
5. Proposed enhanced concrete paving
6. Existing shade canopy tree to remain, typ.
7. Existing decorative wall and lantern
8. Existing guardrail to remain
9. Existing utilities to remain
10. Existing led streetlight, typ.
11. Bridge abutment
12. Existing utility building to remain



KEY MAP NTS

0′ 20′ 40′ 60′
SCALE: 1″ = 40′-0″

N

Trees such as:

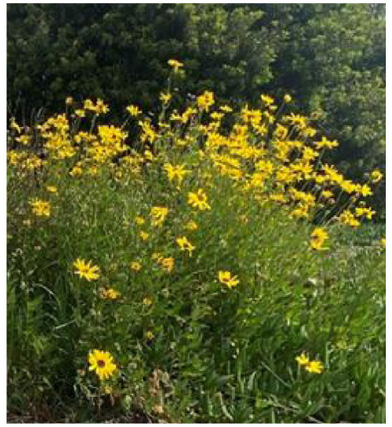


Torrey Pine| *Pinus torreyana*



Jacaranda| *Jacaranda mimosifolia*

Planting such as:



Coast Sunflower | *Encelia californica*



Aloe sp.



Purple-Flowered Rock Rose | *Cistus purpureus*



Agave sp.

Planting such as:



Salvia Point Sal | *Salvia leucophylla 'Point Sal'*



African Daisy| *Gazania rigens*



Coyote Brush | *Baccharis pilularis 'Pigeon Point'*



De La Mina Verbena | *Verbena lilacina 'De La Mina'*

Hardscape Material such as:



Concrete Paving Color
San Diego Buff



Concrete Paving Texture
Grace Top Cast #5

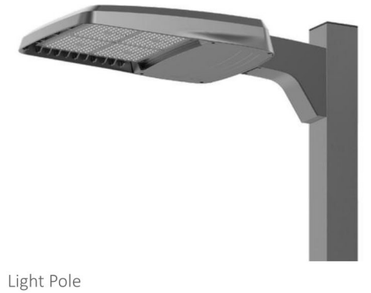


Concrete Paving Texture
Grace Top Cast #100



'Forest Fines' Mulch

Lighting Fixtures such as:



Light Pole
Per City of San Diego Streets Division

QUIVIRA BASIN
AREA 6 : SUNSET CLIFFS BOULEVARD BRIDGE

EXISTING CONDITIONS



KEY MAP **NTS**



View of historic lantern on Sunset Cliffs Bridge.



View planting and mulch landscape area.

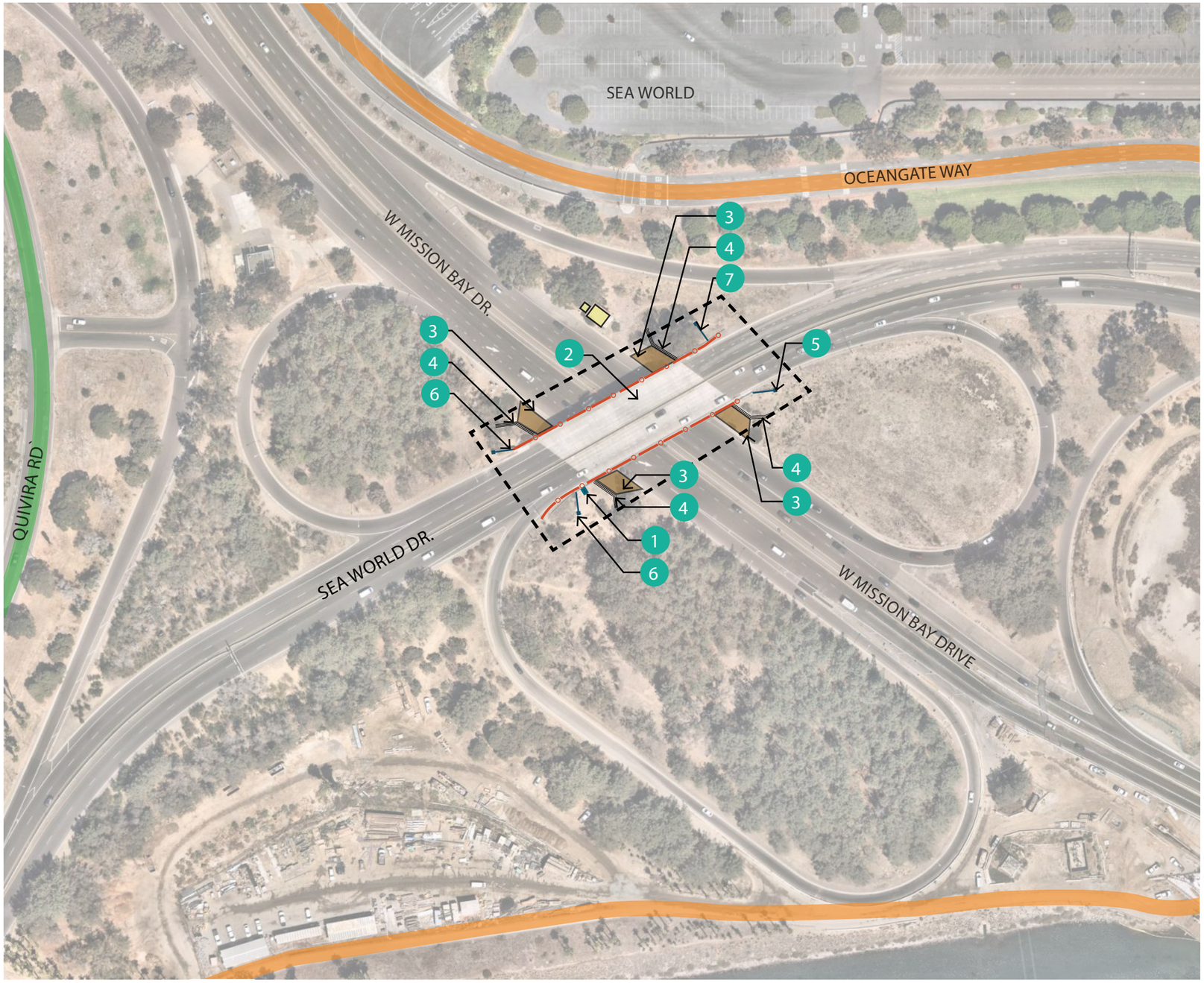


View of existing hardscape and dirt pedestrian path.



View of signage.

MISSION BAY TRAFFIC ISLAND **BEAUTIFICATION**



SITE MAP

0′ 75′ 150′ 225′
SCALE: 1″ = 150′-0″

N

EXISTING CONDITIONS LEGEND:

1. Roadway directional signage
2. Concrete paving on bridge
3. Bridge abutment slope
4. Retaining wall
5. Decorative wall with lantern
6. Decorative wall with broken lantern
7. Decorative wall with missing lantern

GRAPHIC LEGEND:

- Class I bike path
- Class III bike route
- Limit of study
- Guardrail
- Decorative wall with lanterns

QUIVIRA BASIN
AREA 6 : SUNSET CLIFFS BOULEVARD BRIDGE

DESIGN STATEMENT
This area is focused on repairing and restoring the historical lanterns off the bridge. Surrounding planting and irrigation will be per Area 5.

PLANTING

1. None.

GRADING + DRAINAGE

1. None.

HARDSCAPE

1. None.

LIGHTING

1. Repair existing historical lanterns.
2. Replace missing historical lantern in kind.

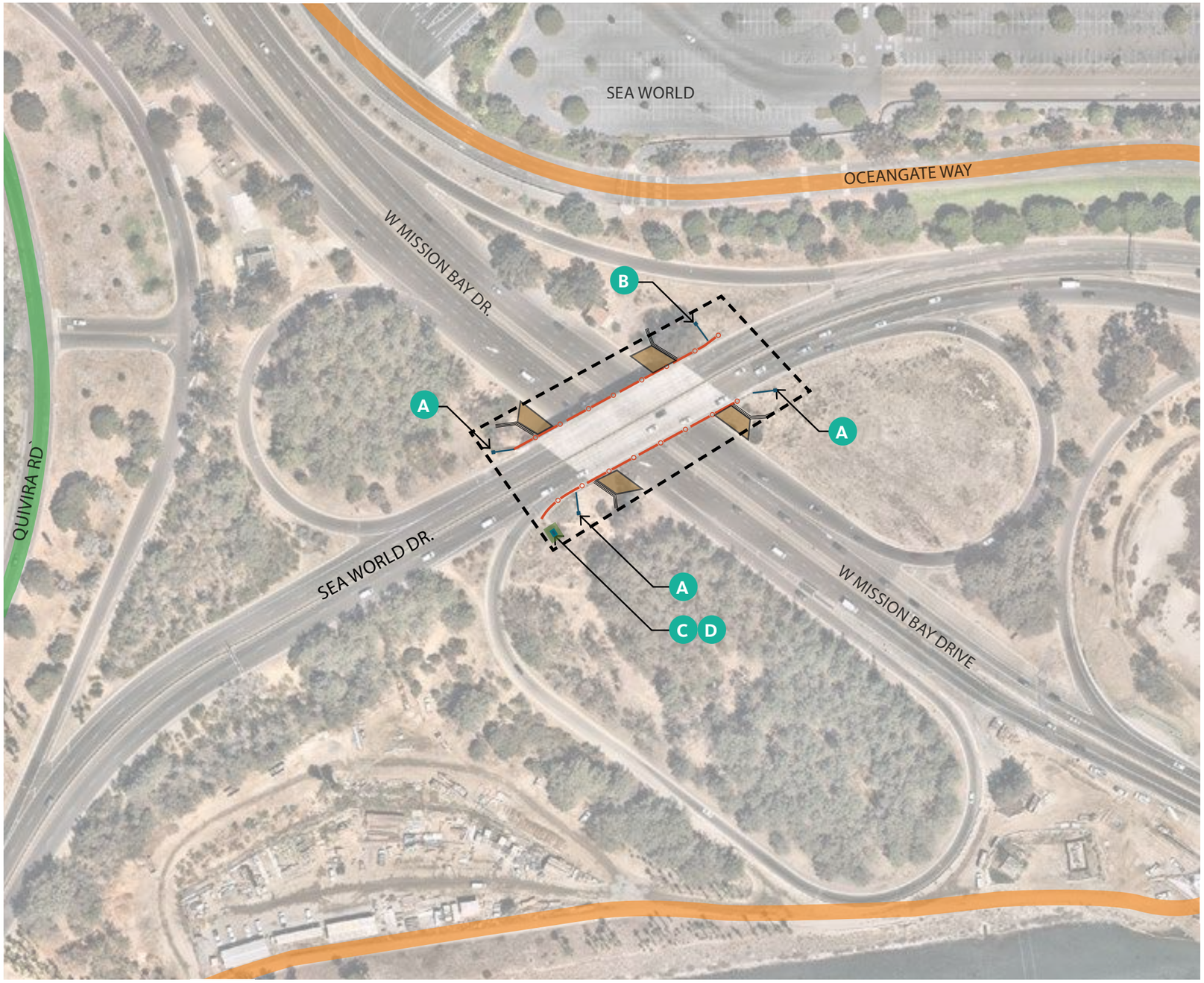
IRRIGATION

1. None.

SIGNAGE + WAYFINDING

1. New signage to include replacement of existing roadway wayfinding signs, park monument signage, and interpretive panels to be placed along pedestrian pathway in park as designated in Mission Bay Branding and Wayfinding Signage per Mission Bay Park PEIR.

MISSION BAY TRAFFIC ISLAND **BEAUTIFICATION**



SITE MAP

0′ 75′ 150′ 225′
SCALE: 1″ = 150′-0″
N

SITE IMPROVEMENTS LEGEND:

- **A** Repair historical lanterns as required
- **B** Replace historical lantern as needed
- **C** New roadway direction signage per Mission Bay Park PEIR
- **D** Accent planting at new signage

GRAPHIC LEGEND:

- Class I bike path
- Class III bike route
- Limit of study
- Planting area
- Guardrail
- Decorative wall with lanterns

QUIVIRA BASIN

AREA 7 : WEST SEAWORLD DRIVE & SUNSET CLIFFS DRIVE



KEY MAP **NTS**



View from Sea World Drive facing north towards median.



View from Sea World Drive facing southwest towards existing signage.



Existing planting from Sea World Drive facing southwest towards San Diego River.



Existing degraded AC pedestrian path.



Existing metro wastewater pump station controls.



Existing adjacent pedestrian path and landscaped area with irrigation.



Existing degraded AC paving adjacent to pine grove.

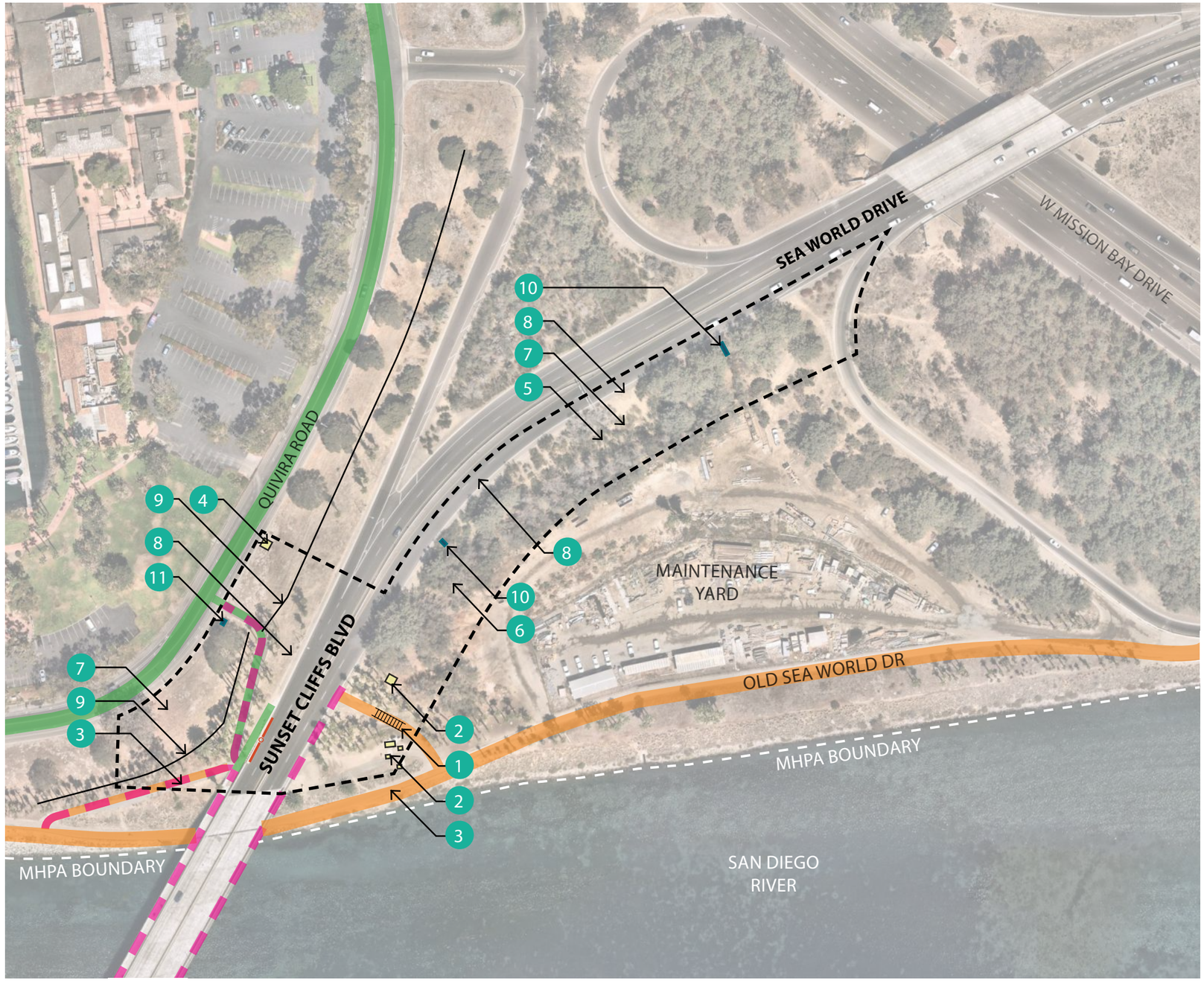


Existing deteriorating irrigation control boxes.



Existing palm trees grove.

MISSION BAY TRAFFIC ISLAND **BEAUTIFICATION**



SITE MAP

0′ 75′ 150′ 225′
SCALE: 1″ = 150′-0″

N

EXISTING CONDITIONS LEGEND:

1. Wooden bridge
2. Utilities
3. AC pedestrian/bike pathway
4. Irrigation backflows
5. Clusters of mature pine trees
6. Clusters of mature palms such as *Washingtonia robusta*
7. Inconsistent patches of mulch and bare dirt understory
8. Damaged and unsightly AC pedestrian path
9. Mow curb
10. Roadway directional signage
11. Undersized directional blade sign

ADDITIONAL NOTES:

1. Landscape areas are generally bare on either side of Sea World Drive and Sunset Cliffs Boulevard. The dense root network of the palms will make it difficult to plant around them without damaging the palms.

GRAPHIC LEGEND:

- Class I bike path
- Class III bike route
- Concrete pedestrian access
- Mow curb
- Guardrail
- Limit of study

QUIVIRA BASIN
AREA 7 : WEST SEAWORLD DRIVE & SUNSET CLIFFS DRIVE

DESIGN STATEMENT

The landscape strategy for Area 7 intends to provide accent planting at focused locations, provide a maintained understory beneath the existing palms, and expand on the existing tree grove in the open space area between Sunset Cliffs Boulevard and Quivira Way. Flowering accent trees and canopy trees are to be added in clusters to contribute to the Urban Tree Canopy while being sensitive to avoid blocking site lines to the water.

PLANTING

1. **The planting intent for this district is to provide accent shrub planting adjacent to the bridge and other high impact pedestrian areas. Given the existing palms extensive surface roots, areas underneath existing palms should be mulched as shown on the plans.**
2. **Planting should include pops of color for year round interest.**
3. **Crime Prevention Through Environmental Design (CPTED) practices should be utilized to avoid creating hidden areas for encampments and allow visibility throughout all planting areas.**
4. **Drift planting to be 36" tall or less to allow visibility for CPTED.**
5. **Trim, prune, and/or skin existing palm trees and pine trees. Remove dead trees.**
6. **Add low water use accent planting along West Mission Bay Drive and Quivira Way.**
7. **Existing pine and palm groves to receive hardwood mulch understory.**
8. **All existing trees shown at current condition. All proposed trees shown at 75% maturity.**
9. **Provide additional shade trees in the planting area between W. Sunset Cliffs and Quivira Way to blend with Area 8 at Quivira road.**

GRADING + DRAINAGE

1. **Grading should maintain existing general drainage pattern.**
2. **Design as "Standard Project" if feasible. If Priority Development Project (PDP) thresholds are exceeded, design per Local PDP Exemptions in Section 1.4.3 of Part 1 of the City Stormwater Standards.**
3. **If required, install proprietary biofiltration adjacent to existing storm drain inlet.**
4. **3:1 max slope in planting areas.**
5. **Perviousness of concrete pathway is critical to storm water compliance.**

HARDSCAPE

1. **Remove and replace existing asphalt concrete pathways on both sides of Sea World Drive with 4'-0" concrete paving.**
2. **Provide concrete drainage swale along curb to capture runoff within planter landscape.**

LIGHTING

1. **Upgrade existing pole mounted luminaries to the city of San Diego Street Lighting Design Requirements.**
2. **Tree lighting at select trees to provide additional visual enchantment to the area.**

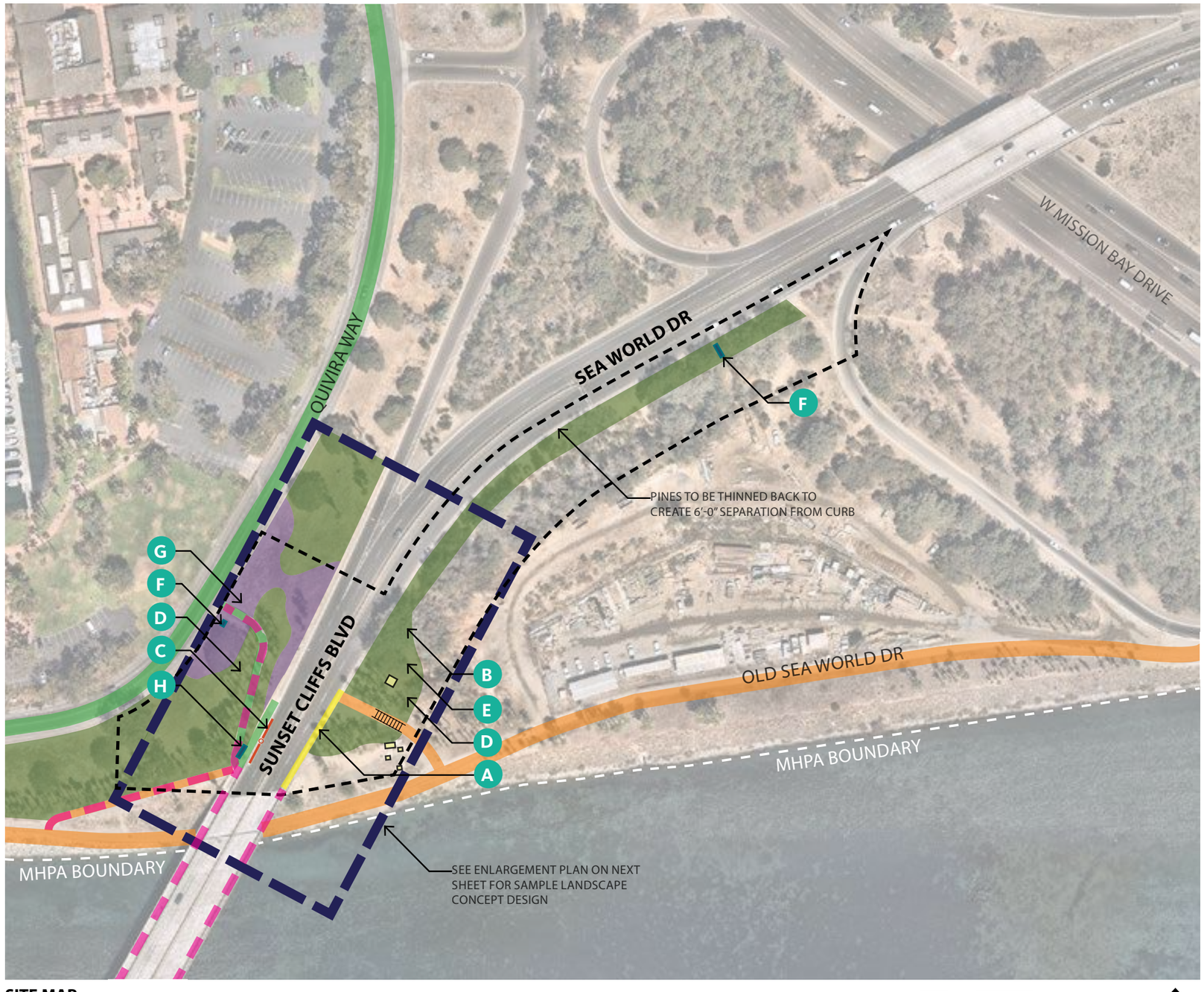
IRRIGATION

1. **Irrigation upgrades to include existing system repairs.**

SIGNAGE + WAYFINDING

1. **New signage to include replacement of existing roadway wayfinding signs, park monument signage, and interpretive panels to be placed along pedestrian pathway in park as designated in Mission Bay Branding and Wayfinding Signage per Mission Bay Park PEIR.**

MISSION BAY TRAFFIC ISLAND **BEAUTIFICATION**



SITE MAP

0′ 75′ 150′ 225′
SCALE: 1" = 150'-0"

N

SITE IMPROVEMENTS LEGEND:

- **A** Proposed 4′-0" wide concrete walkway to replace damaged AC paving
- **B** Pine tree grove
- **C** Guardrail to be repaired and straightened
- **D** Palm grove
- **E** Palm/tree maintenance
- **F** New roadway directional signage per Mission Bay Park PEIR
- **G** Remove areas of underutilized areas of turf and add accent shrubs and groundcover. View corridors to Mission Bay should be maintained.
- **H** Signage to direct pedestrians to Quivira Road

GRAPHIC LEGEND:

- Class I bike path
- Class III bike route
- Concrete pedestrian access
- Limit of study
- Tree groves with mulch understory
- Accent planting
- Proposed concrete pathway along Sunset Cliffs Blvd.
- Guardrail

QUIVIRA BASIN

AREA 7 : WEST SEAWORLD DRIVE & SUNSET CLIFFS DRIVE

QUIVIRA WAY

SUNSET CLIFFS BLVD

OLD SEA WORLD DR

IF NECESSARY, INSTALL PROPRIETARY BIOFILTATION ADJACENT TO EXISTING INLET.

LEGEND:

1. Existing shade tree to remain, typ.
2. Existing palm trees to remain with proposed hardwood mulch understory
3. Flowering accent trees and canopy trees
4. Proposed concrete pathway
5. Existing wooden bridge to remain
6. Existing bike ramp to remain



KEY MAP NTS

0′ 20′ 40′ 60′

SCALE: 1″ = 40′-0″

N

Trees such as:



California Palm | *Washingtonia filifera*



Torrey Pine| *Pinus torreyana*



Jacaranda| *Jacaranda mimosifolia*



Purple Orchid Tree| *Bauhinia purpurea*



New Zealand Christmas Tree| *Metrosideros excelsa*



Coast Live Oak| *Quercus agrifolia*

Planting such as:



San Diego Sunflower| *Bahiopsis laciniata*



California Buckwheat| *Eriogonum fasciculatum*



Verbena | *Verbena lilacina 'De la Mina'*



Island Snapdragon| *Galvezia speciosa*



Pine Muhly| *Muhlenbergia rigens*



Coast Prickly Pear| *Opuntia littoralis*

Groundcovers such as:

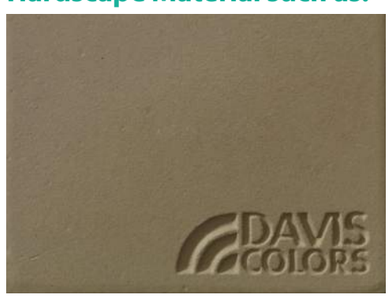


Point Sal Spreader | *Salvia leucophylla 'Pt Sal'*



Coyote Bush| *Baccharis pilularis 'Pigeon Point'*

Hardscape Material such as:



Concrete Paving Color
San Diego Buff



Concrete Paving Texture
Grace Top Cast #5



'Forest Fines' Mulch

Lighting Fixtures such as:



Light Pole
Per City of San Diego Streets Division

QUIVIRA BASIN
AREA 8 : MARINA VILLAGE & QUIVIRA WAY

EXISTING CONDITIONS



KEY MAP **NTS**



View from Quivira Road facing north east towards center median.



View from Quivira Road facing east towards center median.



View from Quivira Road facing south east towards center median.



Existing Marina Village sign in parking lot.



Existing transformer.



Existing trees in center median.



Parallel parking and bike lane along Quivira Road adjacent to Marina Village.



Existing Floss Silk Tree and dead tree in center median.



Existing wayfinding signage along Quivira Road.

MISSION BAY TRAFFIC ISLAND **BEAUTIFICATION**



SITE MAP

0′ 150′ 300′ 450′
SCALE: 1″ = 300′-0″

N

EXISTING CONDITIONS LEGEND:

1. Transformer
2. Mission Bay roadway directional signage
3. Canopy trees such as floss silk, eucalyptus, and carrotwood.
4. Irrigation backflow
5. Established canopy trees such as Italian stone pine and jacaranda.
6. Inconsistent patches of mulch, turf, and bare dirt understory
7. Degraded AC pedestrian paving along the side of the ramp

GRAPHIC LEGEND:

- Class I bike path
- Class III bike route
- Concrete pedestrian access
- Limit of study

QUIVIRA BASIN
AREA 8 : MARINA VILLAGE & QUIVIRA WAY

DESIGN STATEMENT

The vision for Area 8 is focused on creating a more vibrant aesthetic at the Marina District along Quivira Way. Existing tree groves are to be pruned and maintained while adding complimentary flowering accent and canopy trees. A mix of evergreen and deciduous trees will provide seasonal beauty and natural mulch. Accent planting should be designed at key points of entry or intersections in drifts of low growing species.

PLANTING

1. **Planting design for this District should be a continuation of District 1.**
2. **Planting should include pops of color for year round interest.**
3. **Crime Prevention Through Environmental Design (CPTED) practices should be utilized to avoid creating hidden areas for encampments and allow visibility throughout all planting areas.**
4. **Drift planting to be 36" tall or less to allow visibility for CPTED.**
5. **Incorporate flowering accent trees and shade trees in median planting areas.**
6. **Trim, prune, and/or skin existing trees. Remove dead trees.**
7. **Incorporate low water use planting drifts of Mediterranean and native plants.**
8. **Tree understory to be filled with hardwood mulch harvested from removal of existing trees.**

GRADING + DRAINAGE

1. **Grading should maintain existing general drainage pattern.**
2. **Perviousness of concrete pathway is critical to storm water compliance.**
3. **Area should qualify as a"Standard Project" and structural BMPs should not be required.**

HARDSCAPE

1. **Remove AC paving and replace with concrete paving along the ramp to Sea World Drive.**

LIGHTING

1. **Upgrade existing pole mounted luminaries to the city of San Diego Street Lighting Design Requirements.**
2. **Tree lighting at select trees to provide additional visual enchantment to the area.**

IRRIGATION

1. **Irrigation upgrades to include existing system repairs.**

SIGNAGE + WAYFINDING

1. **New signage to include replacement of existing roadway wayfinding signs, park monument signage, and interpretive panels to be placed along pedestrian pathway in park as designated in Mission Bay Branding and Wayfinding Signage per Mission Bay Park PEIR.**

MISSION BAY TRAFFIC ISLAND **BEAUTIFICATION**



SITE MAP

0′ 150′ 300′ 450′
SCALE: 1″ = 300′-0″

N

SITE IMPROVEMENTS LEGEND:

- **A** Shade canopy and accent trees. Understory to be a combination of low accent planting drifts and wood chips. Wood chips to be harvested from the removal of dead trees
- **B** Tree maintenance throughout the limit of study
- **C** Remove areas of underutilized turf and provide flowering accent shrubs and groundcover. View corridors to San Diego River should be maintained.
- **D** New roadway directional signage per Mission Bay Park PEIR

GRAPHIC LEGEND:

- Class I bike path
- Class III bike route
- Concrete pedestrian access
- Tree groves with mulch understory
- Accent planting
- Limit of study



LEGEND:

1. Proposed canopy shade tree, typ.
2. Proposed flowering accent tree, typ.
3. Proposed accent planting, typ.
4. Proposed hardwood mulch, typ.
5. Existing wayfinding sign with accent lighting
6. Existing tree to remain, typ.
7. Existing utilities to remain
8. Existing utilities
9. Existing light pole

KEY MAP NTS

0′ 20′ 40′ 60′
SCALE: 1″ = 40′-0″
N

Trees such as:



Tipu Tree| *Tipuana tipu*



Torrey Pine| *Pinus torreyana*



California Sycamore| *Platanus racemosa*



Purple Orchid Tree| *Bauhinia purpurea*



Silk Floss Tree| *Ceiba speciosa*



Coast Live Oak| *Quercus agrifolia*

Planting such as:



San Diego Sunflower| *Bahiopsis laciniata*



Chaparral Yucca |*Hesperoyucca whipplei*



Verbena |*Verbena lilacina 'De la Mina'*



Island Snapdragon| *Galvezia speciosa*



Pine Muhly| *Muhlenbergia rigens*



Indian Mallow| *Abutilon palmeri*



Aloe sp.



Rockrose |*Cistus purpureus*

Groundcovers such as:



Point Sal Spreader | *Salvia leucophylla 'Pt Sal'*



Coyote Bush| *Baccharis pilularis 'Pigeon Point'*

Hardscape Material such as:



'Forest Fines' Mulch

Lighting Fixtures such as:



Light Pole
Per City of San Diego Streets Division

WEST MISSION BAY DISTRICT

AREA 9 - EAST & WEST MISSION BAY DRIVE



KEY MAP **NTS**

EXISTING CONDITIONS



View from West Mission Bay Drive facing south west towards Bonita Cove.



View from West Mission Bay Drive facing east towards Bahia Resort and center median.



View from West Mission Bay Drive facing south east towards Bahia Resort.



Existing medians within this scope area consist of AC paving.



Existing irrigation valve boxes.



Existing ficus trees adjacent to Bahia Resort. Tree roots have overtaken landscape area.



Existing median within this scope area consists of stamped concrete paving.



Existing backflow preventer.



Existing pines and turf along Bonita Cove.

MISSION BAY TRAFFIC ISLAND **BEAUTIFICATION**



SITE MAP

0′ 150′ 300′ 450′
SCALE: 1″ = 300′-0″

N

WEST EXISTING CONDITIONS LEGEND:

1. Damaged and unsightly AC paving in medians
2. Parking lot
3. Bus stop
4. Cluster of juvenile trees such as: jacaranda
5. Clusters of mature trees such as: eucalyptus, pine, and ficus
6. Turf grass
7. Mulch landscape area
8. Irrigation backflow
9. Transformer
10. Roadway direction signage

GRAPHIC LEGEND:

- Class II bike lane
- Limit of study

WEST MISSION BAY DISTRICT
AREA 9 : EAST & WEST MISSION BAY DRIVE

DESIGN STATEMENT

The vision for Area 9 is to include accent concrete and planting in the medians. Planting should be designed for speeds around 45 mph to ensure the designs are visibly at vehicular speeds. Low growing landscape Flowering trees should be single trunk to provide clear views to the adjacent bay.

PLANTING

1. **Planting should include pops of color for year round interest.**
2. **Crime Prevention Through Environmental Design (CPTED) practices should be utilized to avoid creating hidden areas for encampments and allow visibility throughout all planting areas.**
3. **Drift planting to be 36" tall or less to allow visibility for CPTED.**
4. **Incorporate flowering accent trees located within medians.**
5. **All proposed trees shown at 75% maturity**
6. **24" wide hardwood mulch maintenance path between landscape.**

GRADING + DRAINAGE

1. **Grading should maintain existing general drainage pattern.**
2. **Design as "Standard Project" if feasible. If Priority Development Project (PDP) thresholds are exceeded, design per Local PDP Exemptions in Section 1.4.3 of Part 1 of the City Storm water Standards.**
3. **If required, install proprietary biofiltration adjacent to existing storm drain inlet**

HARDSCAPE

1. **Modify existing median curb to allow for vehicular access and provide sections of pavement for maintenance vehicle parking.**
2. **Provide concrete drainage swale along curb to capture runoff within planter landscape.**
3. **18" wide concrete band for maintenance access along inside of median 6" curb; for a total of 24" wide maintenance curb.**
4. **Enhanced concrete with meandering paving bands to emulate the tidal flow of mission bay. The meandering bands shall be made up of two alternating textures of concrete.**
   - **Band 1: Davis color "San Diego Buff" with Grace Top Cast #100 surface retarder or equal.**
   - **Band 2: Davis color "San Diego Buff" with Grace Top Cast #5 surface retarder or equal.**

LIGHTING

1. **Upgrade existing pole mounted luminaries to the city of San Diego Street Lighting Design Requirements.**

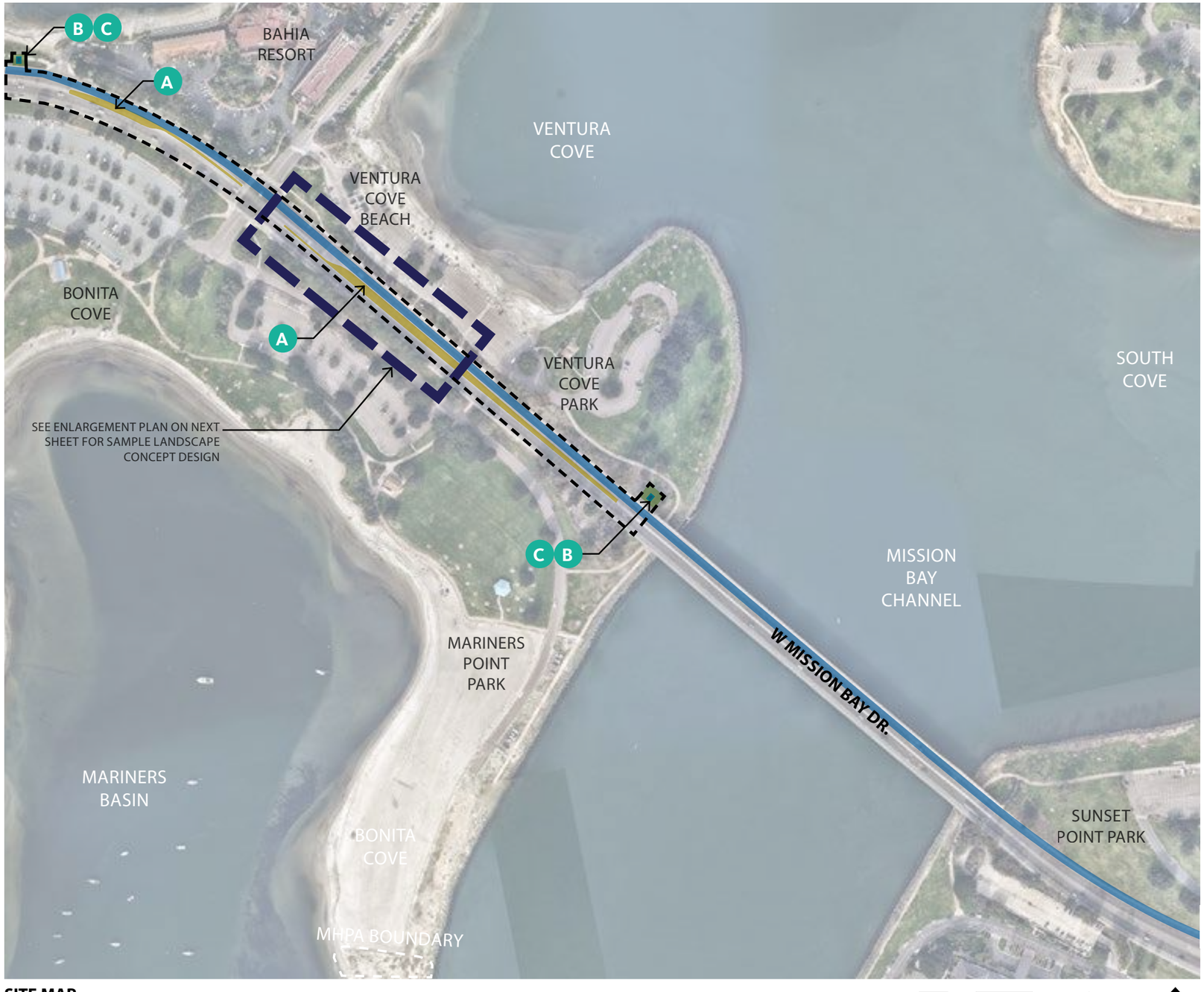
IRRIGATION

1. **Irrigation upgrades to include existing system repairs.**
2. **Proposed street scape trees within median to receive bubbler system with dedicated valves.**
3. **New accent planters to receive low pressure bubblers.**

SIGNAGE + WAYFINDING

1. **New signage to include replacement of existing roadway wayfinding signs, park monument signage, and interpretive panels to be placed along pedestrian pathway in park as designated in Mission Bay Branding and Wayfinding Signage per Mission Bay Park PEIR.**

MISSION BAY TRAFFIC ISLAND **BEAUTIFICATION**



SITE MAP

0′ 150′ 300′ 450′
SCALE: 1″ = 300′-0″

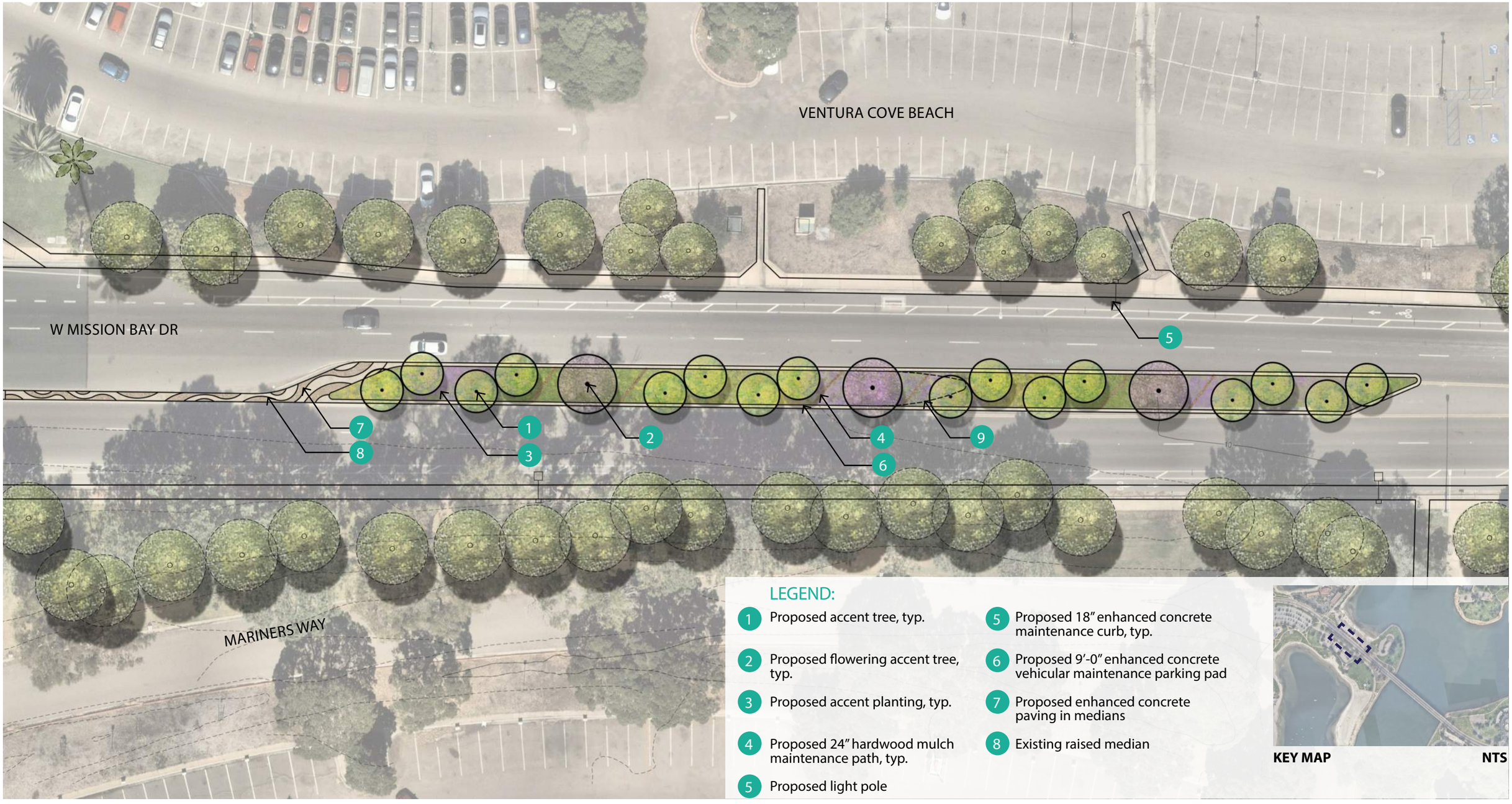
N

SITE IMPROVEMENTS LEGEND:

- **A** Replace existing AC paving in median with enhanced paving, flowering trees and accent planting
- **B** New roadway directional signage per Mission Bay Park PEIR
- **C** Accent planting at new signage

GRAPHIC LEGEND:

- Class II bike lane
- Limit of study
- Planting area
- Enhanced medians



LEGEND:

1. Proposed accent tree, typ.
2. Proposed flowering accent tree, typ.
3. Proposed accent planting, typ.
4. Proposed 24" hardwood mulch maintenance path, typ.
5. Proposed light pole
5. Proposed 18" enhanced concrete maintenance curb, typ.
6. Proposed 9'-0" enhanced concrete vehicular maintenance parking pad
7. Proposed enhanced concrete paving in medians
8. Existing raised median

KEY MAP NTS

0' 20' 40' 60'
SCALE: 1" = 40'-0"

N

Trees such as:



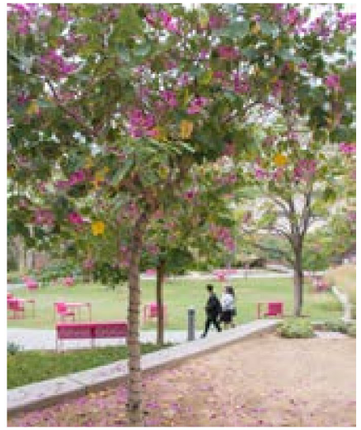
Gold Medallion| *Cassia leptophylla*



Strawberry Tree| *Arbutus 'Marina'*



Carrotwood Tree| *Cupaniopsis anacardiodes*



Purple Orchid Tree| *Bauhinia purpurea*



California Redbud| *Cercis occidentalis*

Planting such as:



Agave sp.



Aloe sp.



Rockrose |*Cistus purpureus*



Pozo Blue Sage |*Salvia clevelandii 'Pozo Blue'*



Latin American Fleabane |*Erigeron karviskianus*

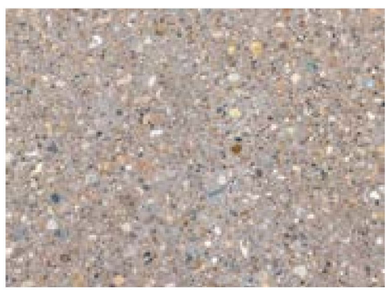
Hardscape Material such as:



Concrete Paving Color
San Diego Buff



Concrete Paving Texture
Grace Top Cast #5

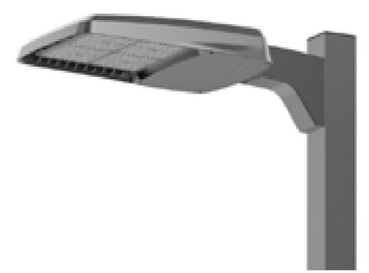


Concrete Paving Texture
Grace Top Cast #100



'Forest Fines' Mulch

Lighting Fixtures such as:



Light Pole
Per City of San Diego Streets Division

VACATION ISLAND DISTRICT
AREA 10 : INGRAHAM STREET



KEY MAP **NTS**

EXISTING CONDITIONS



View from south of the bridge facing east towards center medians.



View from south of the bridge facing northwest towards center median.



View from north of the bridge facing south towards the median.



Existing stamped concrete within median.



Existing enclosed backflow preventer adjacent to Ingraham Street



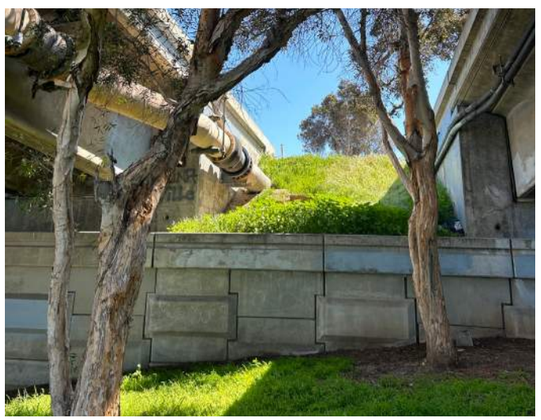
Existing melaleuca trees and unmanaged landscape south of the bridge.



Existing pedestrian walkway along Ingraham Street Bridge.



Existing melaleuca tree and drip ring irrigation in landscape along Ingraham Street.



Existing melaleuca trees and unmanaged landscape south of the bridge.

MISSION BAY TRAFFIC ISLAND **BEAUTIFICATION**



SITE MAP

EXISTING CONDITIONS LEGEND:

1. Cracked And degraded stamped concrete In median
2. Crosswalk
3. Pedestrian sidewalk
4. Parking lot
5. Mature eucalyptus trees, tree maintenance required
6. Roadway directional signage
7. Retaining wall

GRAPHIC LEGEND:

- Class I bike path
- Class II bike lane
- Class III bike route
- Guardrail
- Retaining wall
- Limit Of study

VACATION ISLAND DISTRICT
AREA 10 : INGRAHAM STREET

DESIGN STATEMENT

Similar to Area 9, the landscape strategy for this area includes adding accent concrete and planting in the medians of this district. Planting should be designed for speeds around 45 mph to ensure the designs are visibly at vehicular speeds. Low growing landscape Flowering trees should be single trunk to provide clear views to the adjacent bay.

PLANTING

1. **Planting design for this District should be a continuation of District 1.**
2. **Planting should include pops of color for year round interest.**
3. **Crime Prevention Through Environmental Design (CPTED) practices should be utilized to avoid creating hidden areas for encampments and allow visibility throughout all planting areas.**
4. **Drift planting to be 36" tall or less to allow visibility for CPTED.**
5. **Incorporate flowering accent trees in median.**
6. **24" wide hardwood mulch maintenance path between landscape.**
7. **All proposed trees shown at 75% maturity.**

GRADING + DRAINAGE

1. **Grading should maintain existing general drainage pattern.**
2. **Design as "Standard Project" if feasible. If Priority Development Project (PDP) thresholds are exceeded, design per Local PDP Exemptions in Section 1.4.3 of Part 1 of the City Storm water Standards.**
3. **If required, install proprietary biofiltration adjacent to existing storm drain inlet**

HARDSCAPE

1. **Modify existing median curb to allow for vehicular access and provide sections of pavement for maintenance vehicle parking.**
2. **Provide concrete drainage swale along curb to capture runoff within planter landscape.**
3. **18" wide concrete maintenance band for maintenance access along inside of median. 6" curb, for a total of 24" wide maintenance curb.**
4. **Enhanced concrete with meandering paving bands to emulate the tidal flow of mission bay. The meandering bands shall be made up of two alternating textures of concrete.**
   - **Band 1: Davis color "San Diego Buff" with Grace Top Cast #100 surface retarder or equal.**
   - **Band 2: Davis color "San Diego Buff" with Grace Top Cast #5 surface retarder or equal.**

LIGHTING

1. **Upgrade existing pole mounted luminaries to the city of San Diego Street Lighting Design Requirements.**

IRRIGATION

1. **Existing controller to be upgraded to City standard and expanded to accommodate new planters.**
2. **New accent planters to receive drip irrigation with drip control valves.**
3. **Proposed street scape trees within median to receive bubbler system with dedicated valve.**

SIGNAGE + WAYFINDING

1. **New signage to include replacement of existing roadway wayfinding signs, park monument signage, and interpretive panels to be placed along pedestrian pathway in park as designated in Mission Bay Branding and Wayfinding Signage per Mission Bay Park PEIR.**

MISSION BAY TRAFFIC ISLAND **BEAUTIFICATION**



SITE MAP

SITE IMPROVEMENTS LEGEND:

- **A** Replace existing stamped concrete in median with enhanced paving, flowering trees and accent planting
- **B** Tree maintenance, typ.
- **C** New roadway direction signage per Mission Bay Park PEIR
- **D** Accent planting at new signage

GRAPHIC LEGEND:

- Class I bike path
- Class II bike lane
- Class III bike route
- Limit of study
- Planting area
- Enhanced medians
- Guardrail
- Retaining wall

INGRAHAM ST

LEGEND:

1. Existing tree to remain, typ.
2. Proposed flowering accent tree, typ.
3. Proposed accent planting, typ.
4. Proposed 24" hardwood mulch maintenance path, typ.
5. Proposed enhanced concrete paving in medians
6. Proposed 18" enhanced concrete maintenance curb, typ.
7. Proposed 9'-0" enhanced concrete vehicular maintenance route
8. Existing road sign to remain
9. Existing guardrail
10. New roadway direction signage per Mission Bay Park PEIR
11. Light poles

KEY MAP NTS

0' 20' 40' 60'
SCALE: 1" = 40'-0"
N

Trees such as:



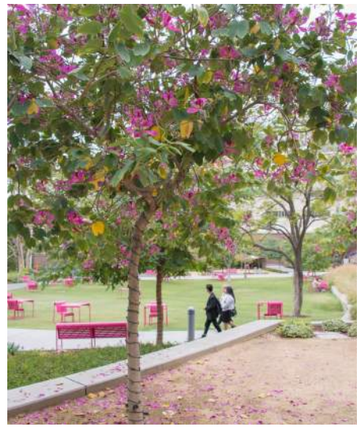
Gold Medallion| *Cassia leptophylla*



Strawberry Tree| *Arbutus 'Marina'*



Jacaranda| *Jacaranda mimosifolia*



Purple Orchid Tree| *Bauhinia purpurea*



California Redbud| *Cercis occidentalis*

Planting such as:



Indian Mallow| *Abutilon palmeri*



Chaparral Yucca |*Hesperoyucca whipplei*



Island Snapdragon| *Galvezia speciosa*



Pozo Blue Sage |*Salvia clevelandii 'Pozo Blue'*



Latin American Fleabane |*Erigeron karviskianus*



Coyote Bush| *Baccharis pilularis 'Pigeon Point'*

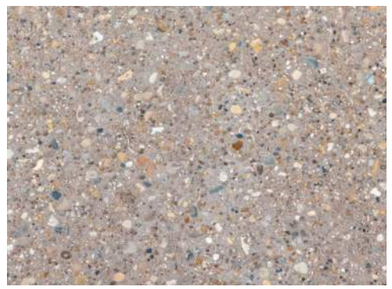
Hardscape Material such as:



Concrete Paving Color
San Diego Buff



Concrete Paving Texture
Grace Top Cast #5



Concrete Paving Texture
Grace Top Cast #100



'Forest Fines' Mulch

Lighting Fixtures such as:



Light Pole
Per City of San Diego Streets Division

CROWN POINT DISTRICT
AREA 11 : CROWN POINT DRIVE



KEY MAP **NTS**

EXISTING CONDITIONS


View from Crown Point Drive facing southeast.


View from Crown Point Drive facing east towards Mission Bay.


View from planting area facing north. Image shows existing pedestrian sidewalk running alongside Crown Point Drive.


Existing succulent garden.


View of northwest corner of existing utility building.


Existing backflow preventer.


Existing concrete curb.


View from turf area at existing narrowing shelf facing east towards Corona Oriente Road .


Existing overgrown sloped planting area.

MISSION BAY TRAFFIC ISLAND **BEAUTIFICATION**



SITE MAP

0′ 175′ 350′ 525′
SCALE: 1″ = 350′-0″

N

EXISTING CONDITIONS LEGEND:

1. Utility building
2. Concrete sidewalk
3. Boat launch
4. Parking lot
5. Irrigation backflow
6. Mature canopy trees such as carrotwood
7. Clusters of mature palms such as *Washingtonia robusta*
8. Turf grass
9. Inconsistent patches of mulch And bare dirt understory
10. Crosswalk
11. Non-ADA compliant concrete stairs and ramp
12. Concrete stairs and handrail with uneven concrete path
13. Concrete retaining wall with graffiti
14. Succulent garden

GRAPHIC LEGEND:

- Class I bike path
- Class II bike lane
- Existing pedestrian access
- Limit of study

CROWN POINT DISTRICT
AREA 11 : CROWN POINT DRIVE

DESIGN STATEMENT

The vision for Area 11 is to provide a safe pedestrian edge along Crown Point Drive by utilizing dredged spoils to regrade the slope and take this as an opportunity to enhance the existing community park open space along the bay. To stabilize the slope, we recommend utilizing dredged bay material to extend and reshape the slope as shown in the enlargement. New slopes will provide an accessible pathway with shade structures and seating to connect the park and provide additional gathering areas. The new amenity space will be framed with flexible turf grass and native planting to blend with the wildlife preserve on the north of Crown Point Park.

PLANTING

1. **Planting design for this District should be a continuation of District 1.**
2. **Planting should include pops of color for year round interest.**
3. **Crime Prevention Through Environmental Design (CPTED) practices should be utilized to avoid creating hidden areas for encampments and allow visibility throughout all planting areas.**
4. **Drift planting to be 36" tall or less to allow visibility for CPTED.**
5. **Trim, prune, and/or skin existing Palm Trees. Remove dead trees.**
6. **Utilize dredging for new slope and avoid impacts to any existing tree species.**
7. **Reference MHPA and SDMC for grading.**
8. **Planting should be resistant to rodents/pests.**

GRADING + DRAINAGE

1. **Grading should maintain existing general drainage pattern.**
2. **DG Pathway should be graded to be ADA compliant.**
3. **Perviousness of DG Pathway is critical to storm water compliance.**
4. **Area should qualify as a"Standard Project" and structural BMPs should not be required.**
5. **3:1 max slope in planting areas.**
6. **Soil dredged and reused needs to be tested and leached by Geotech and Structural Engineer prior to use to determine suitability as slope inflill material.**

HARDSCAPE

1. **Incorporate accessible DG pathway to connect SeaWorld to Fiesta Island.**
2. **Modify existing median curb to allow for vehicular access and provide sections of pavement for maintenance vehicle parking.**
3. **Provide concrete drainage swale along curb to capture runoff within planter landscape.**

LIGHTING

1. **Low Sodium or similar lighting to apply with MHPA Land Use Manual. Lighting of all developed areas adjacent to the MHPA should be directed away from the MHPA. Where necessary, development should provide adequate shielding with non-invasive plant materials (preferably native), berming, and/or other methods to protect the MHPA and sensitive species from night lighting.**
2. **Upgrade existing pole mounted luminaries to the city of San Diego Street Lighting Design Requirements.**

IRRIGATION

1. **Irrigation upgrades to include existing system repairs.**
2. **Existing controller to be upgraded and expanded to accommodate new landscape and trees within medians.**

SIGNAGE + WAYFINDING

1. **New signage to include replacement of existing roadway wayfinding signs, park monument signage, and interpretive panels to be placed along pedestrian pathway in park as designated in signage master plan.**

MISSION BAY TRAFFIC ISLAND **BEAUTIFICATION**



SITE MAP

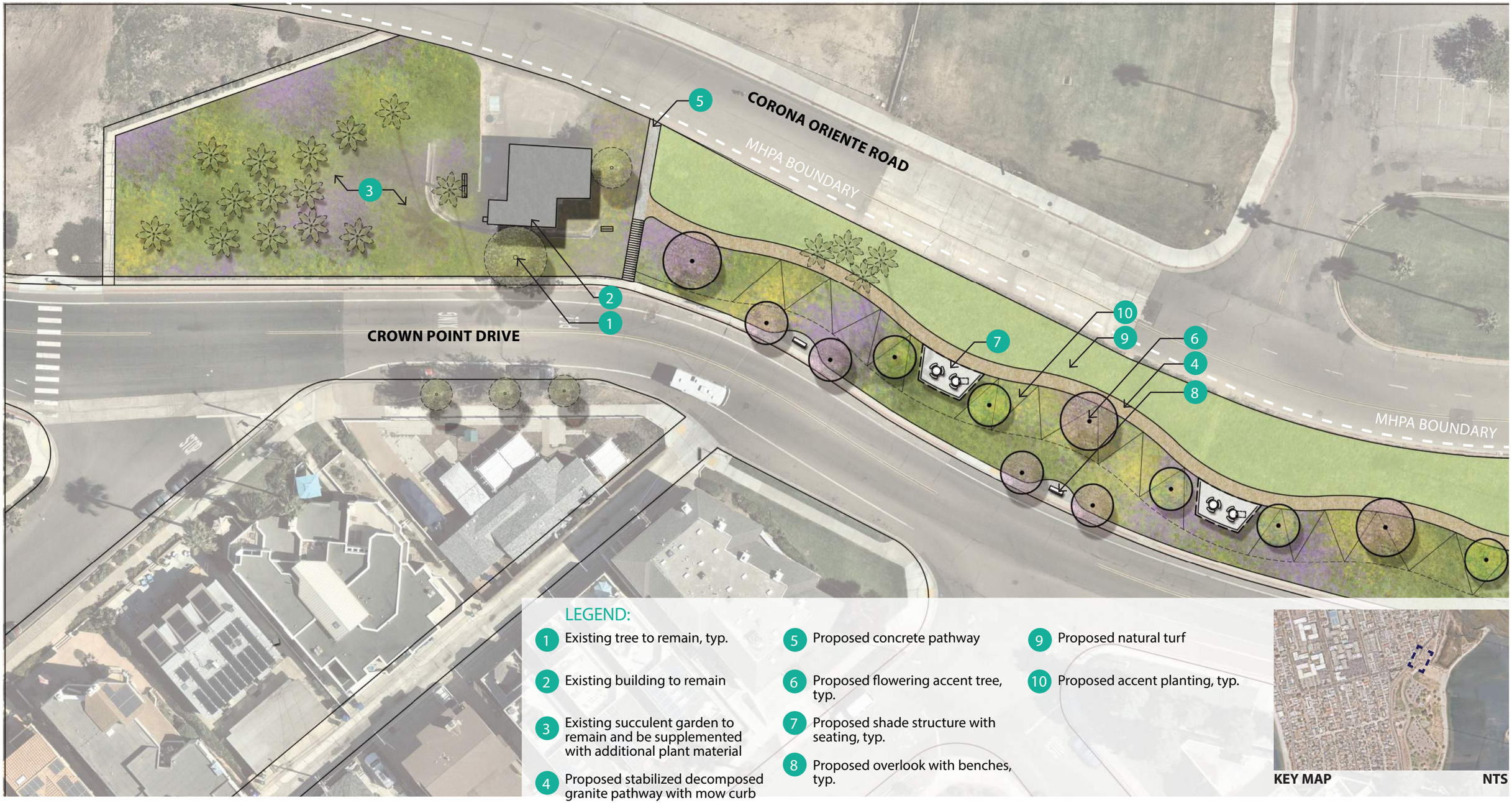
0′ 175′ 350′ 525′
SCALE: 1″ = 350′-0″
N

SITE IMPROVEMENTS LEGEND:

- **A** Stabilized decomposed granite pathway
- **B** Accent trees on upper street located to frame bench seating areas and maintain view corridors to the bay
- **C** Revegetated turf area for passive recreation
- **D** Palm/ tree maintenance
- **E** Concrete overlook with bench seating, typ.
- **F** Shade structure with picnic tables, typ.
- **G** ADA accessible ramp
- **H** Refurbished concrete ramp and handrailing
- **I** Due to the existing limited walkway, the intent is to extend the width of the upper walkway and shoulder by reshaping the slope utilizing dredging fill. View corridors are to be maintained.

GRAPHIC LEGEND:

- Class I bike path
- Class II bike lane
- Decomposed granite pathway
- Proposed sidewalk to Crown Point Drive
- Existing pedestrian access
- Planting area
- Turf repair and seed
- Limit of study



LEGEND:

1. Existing tree to remain, typ.
2. Existing building to remain
3. Existing succulent garden to remain and be supplemented with additional plant material
4. Proposed stabilized decomposed granite pathway with mow curb
5. Proposed concrete pathway
6. Proposed flowering accent tree, typ.
7. Proposed shade structure with seating, typ.
8. Proposed overlook with benches, typ.
9. Proposed natural turf
10. Proposed accent planting, typ.

KEY MAP NTS

0′ 20′ 40′ 60′
SCALE: 1″ = 40′-0″

N

MISSION BAY TRAFFIC ISLAND **BEAUTIFICATION**

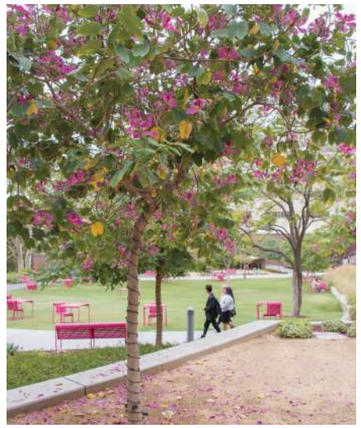
Trees such as:



Gold Medallion| *Cassia leptophylla*



Strawberry Tree| *Arbutus 'Marina'*



Purple Orchid Tree| *Bauhinia purpurea*



California Redbud| *Cercis occidentalis*

Planting such as:



Aloe sp.



Coast Sunflower |*Encelia californica*



Chaparral Yucca |*Hesperoyucca whipplei*



Sage Brush| *Artemisia california*



Pozo Blue Sage |*Salvia clevelandii 'Pozo Blue'*



Pine Muhly| *Muhlenbergia rigens*



Coast Prickly Pear| *Opuntia littoralis*

Ground Covers such as:



Coyote Bush| *Baccharis pilularis 'Pigeon Point'*

Hardscape Material such as:



Standard Concrete Paving



Stabilized Decomposed Granite "California Gold"



'Forest Fines' Mulch

Lighting Fixtures such as:



Light Pole
Per City of San Diego Streets Division



APPENDICES

APPENDIX A

Master Plant List

Trees plants such as:
Aloe thraskii sp. + cvs. / Tree Aloe
Arbutus 'Marina' / Strawberry Tree
Bauhinia purpurea / Purple Orchid Tree
Bismarckia nobilis / Bismark Palm
Brahea armata / Mexican Blue Palm
Cassia leptophylla / Golden Medallion Tree
Ceiba speciosa / Silk Floss Tree
Cercis canadensis/ Eastern Redbud^
Cercis occidentalis/ Western Redbud^
Corymbia ficifolia / Red Flowering Gum Eucalyptus
Erythrina coralloides / Coast Coral Tree
Eucalyptus deglupta / Rainbow Eucalyptus
Handroanthus impetiginosus / Pink Trumpet Tree
Lophostemon confertus / Brisbane Box Tree
Metrosideros excelsa / New Zealand Christmas Tree
Pinus torreyana / Torrey Pine^
Quercus agrifolia / Coast Live Oak^
Quercus ilex/ Holly Oak
Sambucus mexicana / Blue Elderberry^
Washingtonia filifera / California Palm^

Screening plants such as:
Bougainvillea sp. / Bougainvillea
Distictis buccinatoria / Trumpet Vine
Lonicera confusa /Soft Leafed Honeysuckle
Hardenbergia violacea / Purple Vine Lilac
Plumbego auriculata / Cape Plumbago

Basin plants such as:
Carex pansa / Dune Sedge^
Carex praegracilis / California Field Sedge^
Carex spissa / San Diego Sedge^
Iva hayesiana / San Diego Povertyweed^
Juncus effusus/ Soft Rush^
Juncus patens + cvs. / California Gray Rush^
Mulenbergia dubia / Pine Muhly
Muhlenbergia rigens / Deer Grass^
Pulchea odorata / Marsh Fleabane

Shrubs plants such as:
Abutilon palmeri / Indian Mallow^
Agave sp. + cvs. / Agave
Aloe sp. + cvs. / Aloe
Alyogyne huegelii / Blue Hibiscus
Arctostaphylos sp. + cvs. / Manzanita^
Artemisia californica / California Sagebrush^
Bahiposis laciniata / San Diego Sunflower^
Callistemon 'Little John' / Dwarf Bottlebrush
Cistus purpureus + cvs. / Rock Rose
Dianella + cvs./ Flax Lily
Dietes iridoides / Fortnight Lily
Galvezia speciosa / Island Snapdragon^
Encelia californica / Coast Sunflower^
Eriogonum fasciculatum / California Buckwheat^
Furcraea foetida 'Mediopicata' / Mauritis Hemp
Hesperoyucca whipplei / Chaparral Yucca^
Gambelia speciosa 'Firecracker' / Island Snapdragon^
Lomandra longifolia + cvs. / Mat Rush
Hesperoaloe parviflora / Red Yucca
Mulenbergia dubia / Pine Muhly
Muhlenbergia rigens / Deer Grass^
Opuntia littoralis / Coast Prickly Pear^
Phormium tenax / New Zealand Flax
Pittosporum tobira 'Shima' / Cream De Mint Pittosporum
Rhmanus californica 'Eve Case' / California Coffeeberry^
Rhaphiolepis sp. + cvs. / Indian Hawthorn
Rosa floribunda 'Floral Carpet' / Carpet Rose
Rosemarinus officinalis / Rosemary
Salvia clevelandii + cvs. / Cleveland Sage^
Salvia microphylla 'Hot Lips' / Hot Lips Sage
Strelitzia nicolai / Giant Bird of Paradise
Strelitzia reginae / Bird of Paradise
Tecoma capensis / Cape Honeysuckle
Tecoma stans / Yellow Bells
Westringia fruticosa / Coast Rosemary
Verbena lilacina 'De la Mina' / De la Mina Verbena^
Vinca minor / Periwinkle
Yucca pallida / Pale Leaf Yucca

Ground Cover plants such as:
Baccharis pilularis 'Pigeon Point' / Coyote Brush^
Carex pansa / Dune Sedge^
Carex praegracilis / California Field Sedge^
Carissa macrocarpa + cvs. / Natal Plum Groundcover
Dianella sp. + cvs. / Flax Lily
Erigeron karviskianus / Latin American Fleabane
Lantana sp. + cvs. / Lantana
Arctotis stoechadifolia / South African Daisy
Osteospermum fruticosum / Trailing African Daisy
Rosemarinus officinalis + cvs. / Rosemary
Rosa x 'Morpapplay' / Ralph's Creeper Groundcover Rose
Salvia leucophylla + cvs. / Purple Sage^

^ Native California Plants

Note: Final plant selection will be influenced by community input during future project development

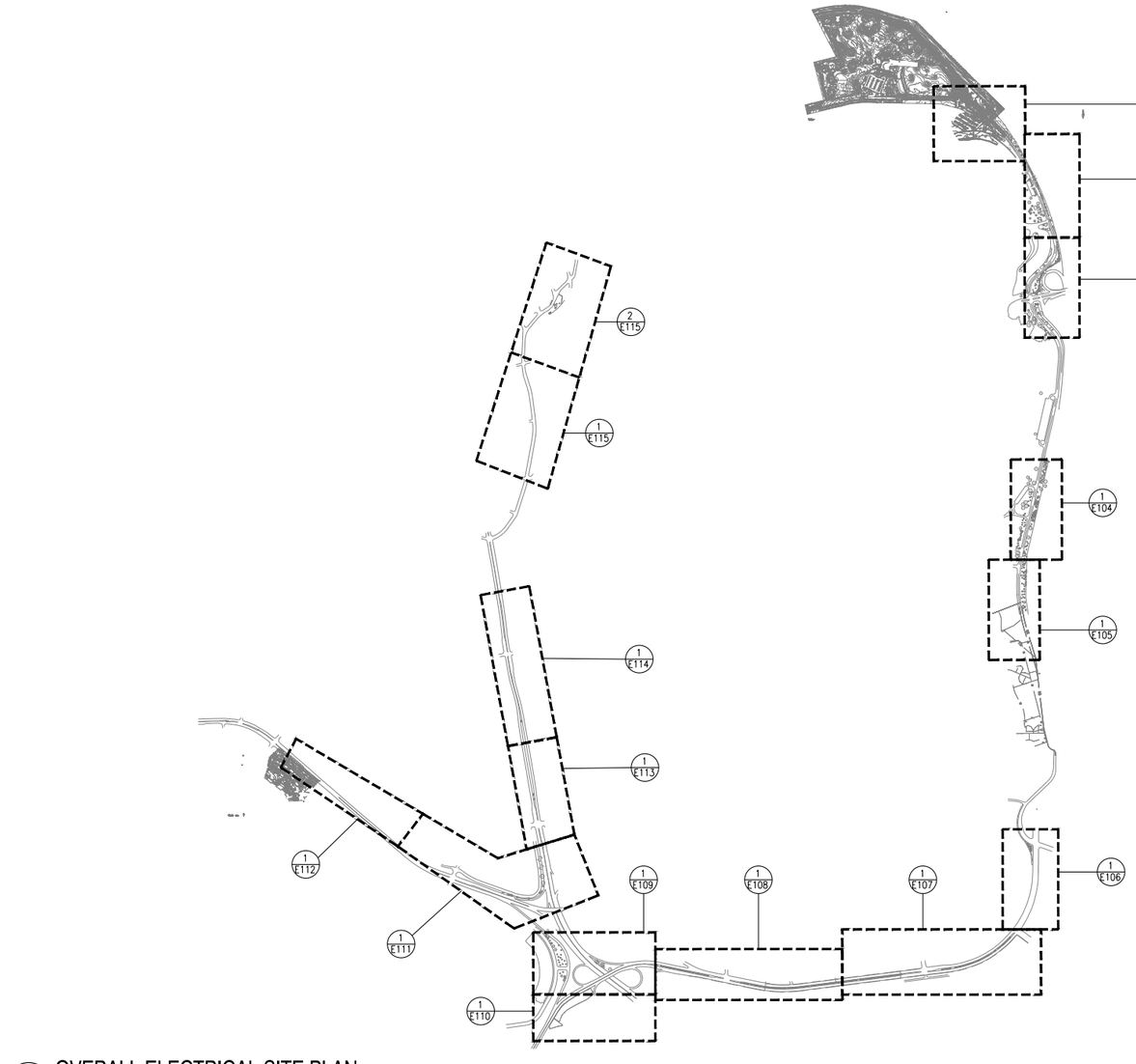
APPENDIX B
Lighting Schedule

LUMINAIRE SCHEDULE					
CALLOUT	SYMBOL	LAMP	DESCRIPTION	MOUNTING	MODEL
A		(1) 34W LED 3000K MIN. 5223 LUMENS	LED COBRA HEAD ROADWAY LUMINAIRE WITH HEAVY-DUTY CAST ALUMINUM HOUSING AND TYPE 2 DISTRIBUTION. 26'-6" ROUND CONCRETE POLE, BASE PLATE STYLE. 8' STEEL MAST ARM WITH 42" RISE.	POLE	LEOTEK GCJ J-SERIES: GCJ1-30J-MV-30K-2R-GY-050 OR EQUAL AMERON CENTRECON M-SERIES: MBR08 OR EQUAL AMERON CENTRECON ARMS: MR-SP OR EQUAL
B		(1) 35W LED	AVCC POST TOP LED LUMINAIRE WITH TYPE III DISTRIBUTION	SURFACE	LITHONIA LIGHTING: FM-AVCC22-T3-4Q1-70-4000K-120-277
C		(1) 50W LED	HEXLYTE TREE RING LED UPLIGHT/DOWNLIGHT	SURFACE	TESLYTE: HL-10R-50W-30-40-B-M

*** Refer to City of San Diego Light Requirements for updates to this schedule.**

GENERAL NOTES:

1. REFER TO E701-E706 FOR PHOTOMETRICS.



1 E100 OVERALL ELECTRICAL SITE PLAN
SCALE: N.T.S.

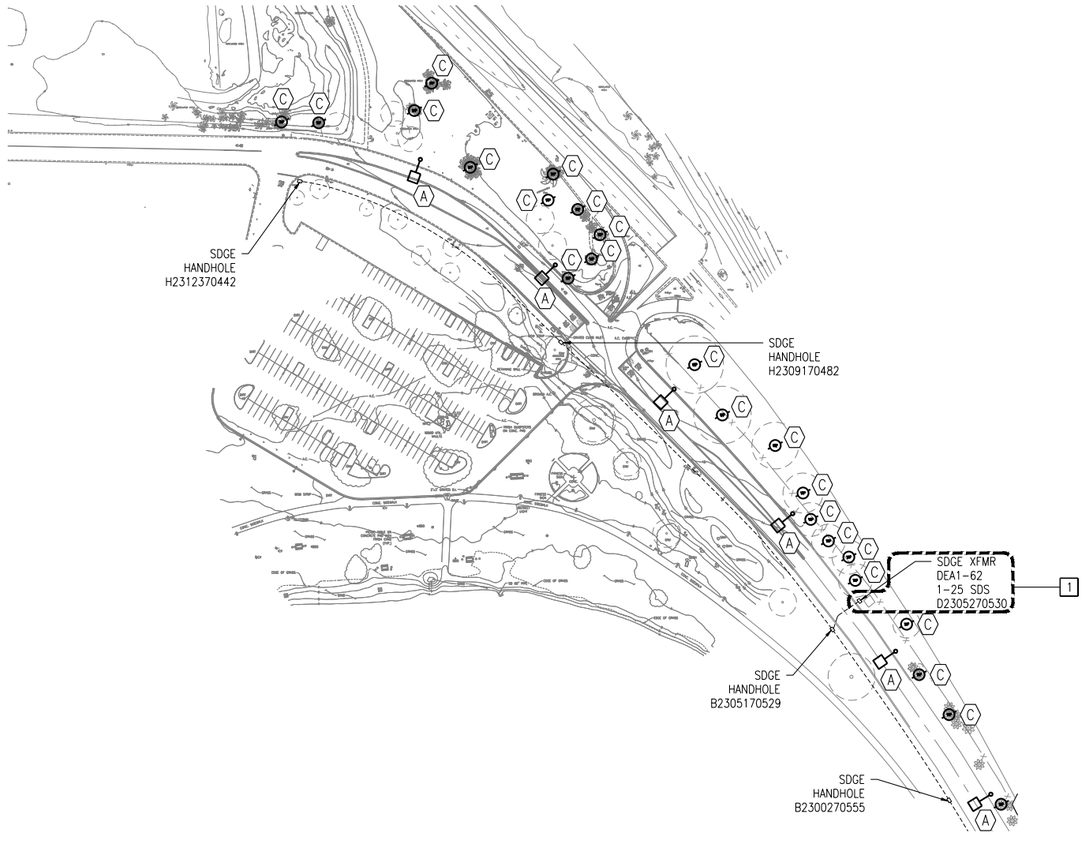
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GENERAL NOTES:

1. SDGE ELECTRIC MAP SHOWN FOR REFERENCE.

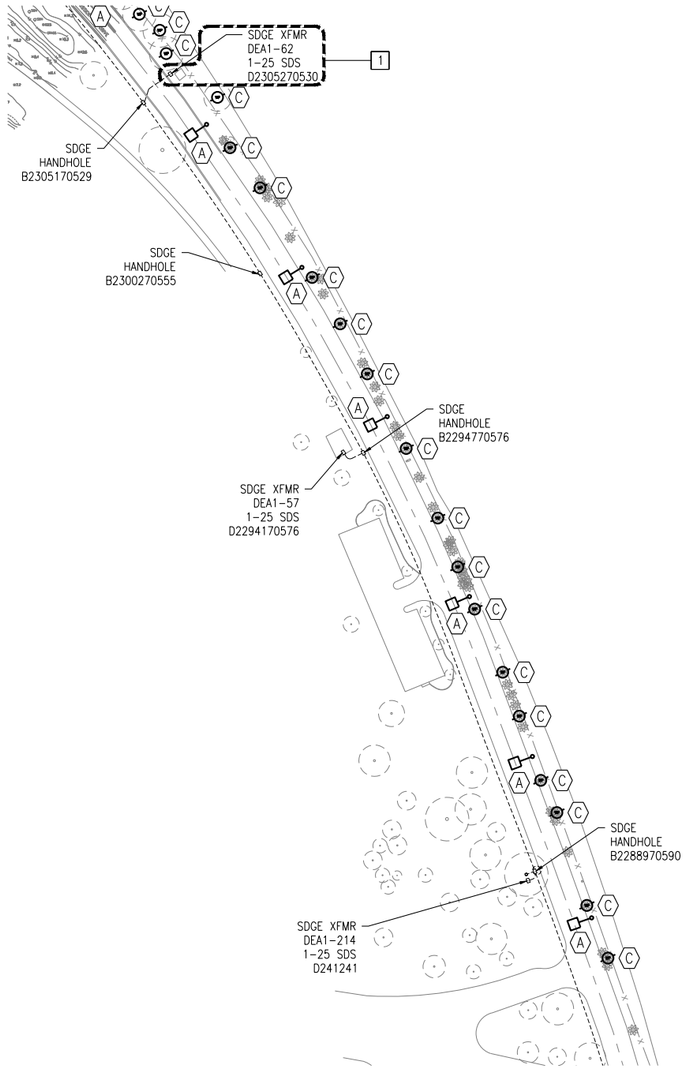
KEYNOTES:

[1] PROPOSED POC FOR AREA 1 – MISSION BAY DRIVE AT DE ANZA COVE.



1 E101 ELECTRICAL SITE PLAN AREA 1

SCALE: N.T.S.



1 E102 ELECTRICAL SITE PLAN AREA 1

SCALE: N.T.S.

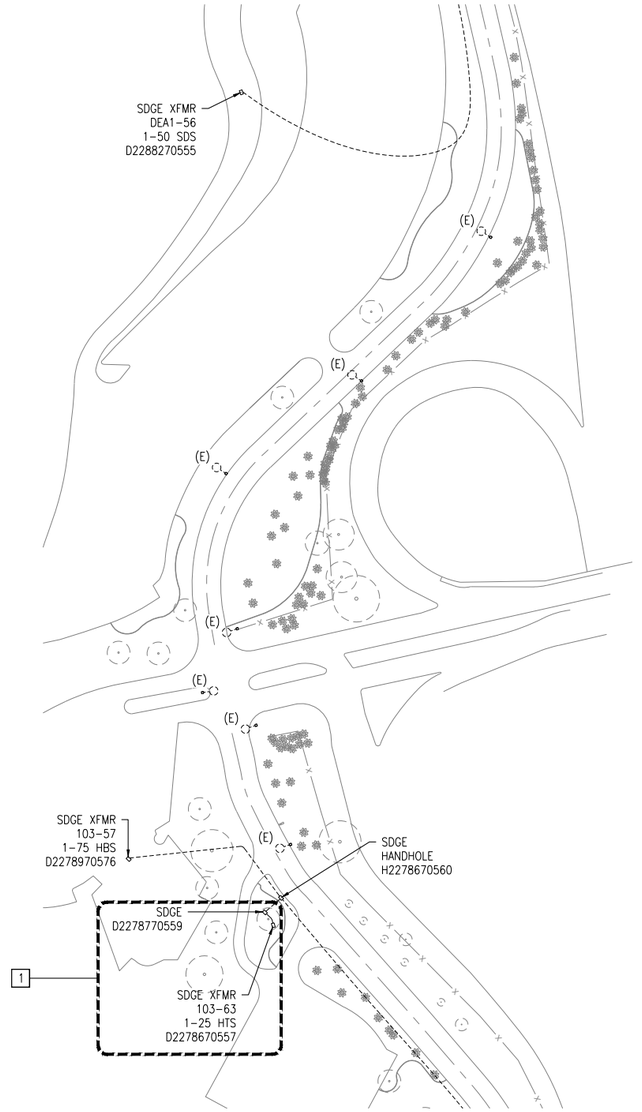
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GENERAL NOTES:

1. SDGE ELECTRIC MAP SHOWN FOR REFERENCE.

KEYNOTES:

1 PROPOSED POC FOR AREA 1 – MISSION BAY DRIVE AT DE ANZA COVE.



1 E103 ELECTRICAL SITE PLAN AREA 2

SCALE: N.T.S.

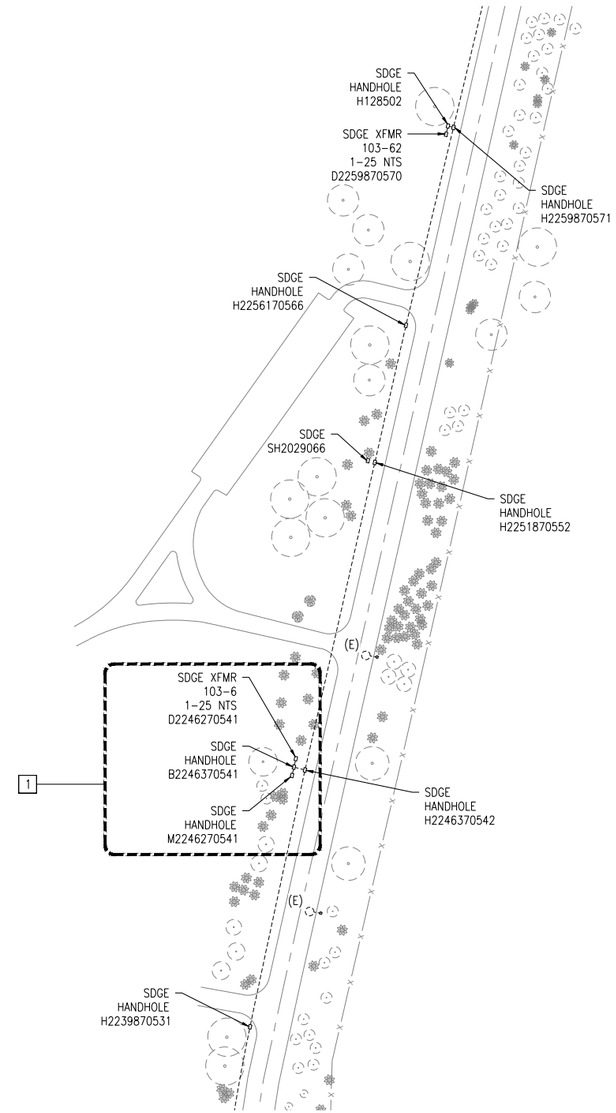
N

GENERAL NOTES:

1. SDGE ELECTRIC MAP SHOWN FOR REFERENCE.

KEYNOTES:

1 PROPOSED POC FOR AREA 2 – EAST MISSION BAY DRIVE AT CLAIREMONT DRIVE.



1 E104 ELECTRICAL SITE PLAN AREA 3A

SCALE: N.T.S.

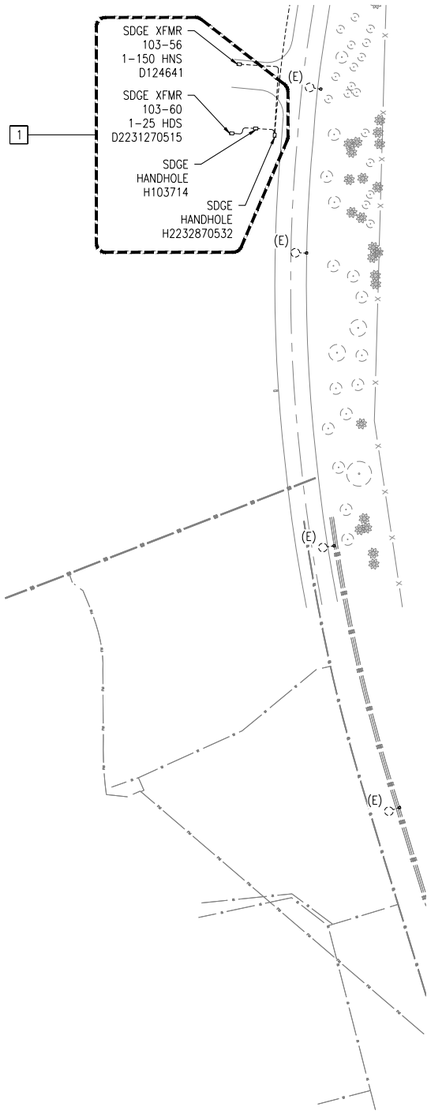
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GENERAL NOTES:

1. SDGE ELECTRIC MAP SHOWN FOR REFERENCE.

KEYNOTES:

1 PROPOSED POC FOR AREA 3 – EAST MISSION BAY DRIVE AT TECOLOTE SHORES.



1 E105 ELECTRICAL SITE PLAN AREA 3B
SCALE: N.T.S.

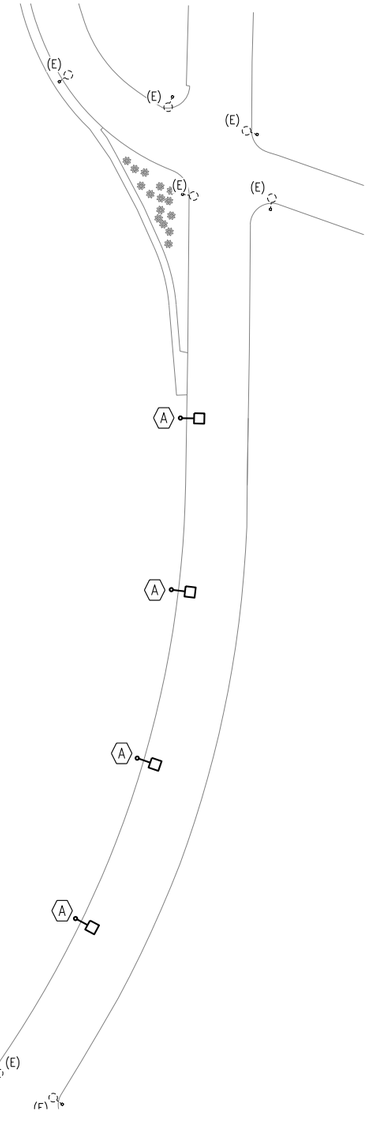
N

GENERAL NOTES:

1. SDGE ELECTRIC MAP SHOWN FOR REFERENCE.

KEYNOTES:

1 PROPOSED POC FOR AREA 3 – EAST MISSION BAY DRIVE AT TECOLOTE SHORES.



1 E106 ELECTRICAL SITE PLAN AREA 4A
SCALE: N.T.S.

N

GENERAL NOTES:

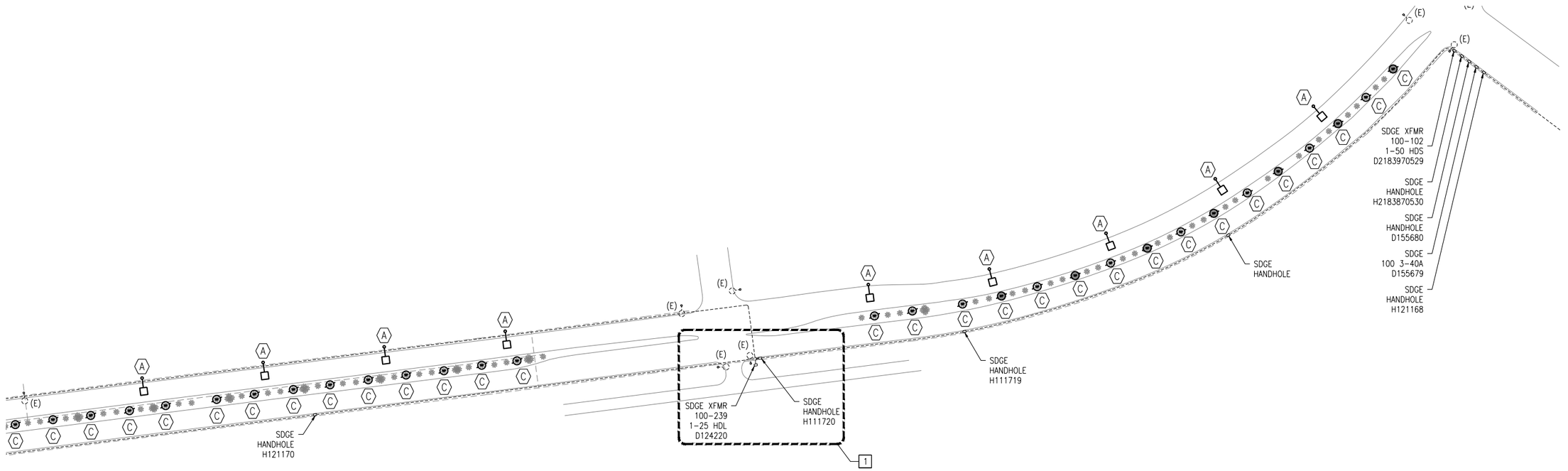
1. SDGE ELECTRIC MAP SHOWN FOR REFERENCE.
2. REFER TO E107 FOR PROPOSED POC.

GENERAL NOTES:

1. SDGE ELECTRIC MAP SHOWN FOR REFERENCE.

KEYNOTES:

[1] PROPOSED POC FOR AREA 4 – SEA WORLD DRIVE CORRI[



1 E107 ELECTRICAL SITE PLAN AREA 4B

SCALE: N.T.S.

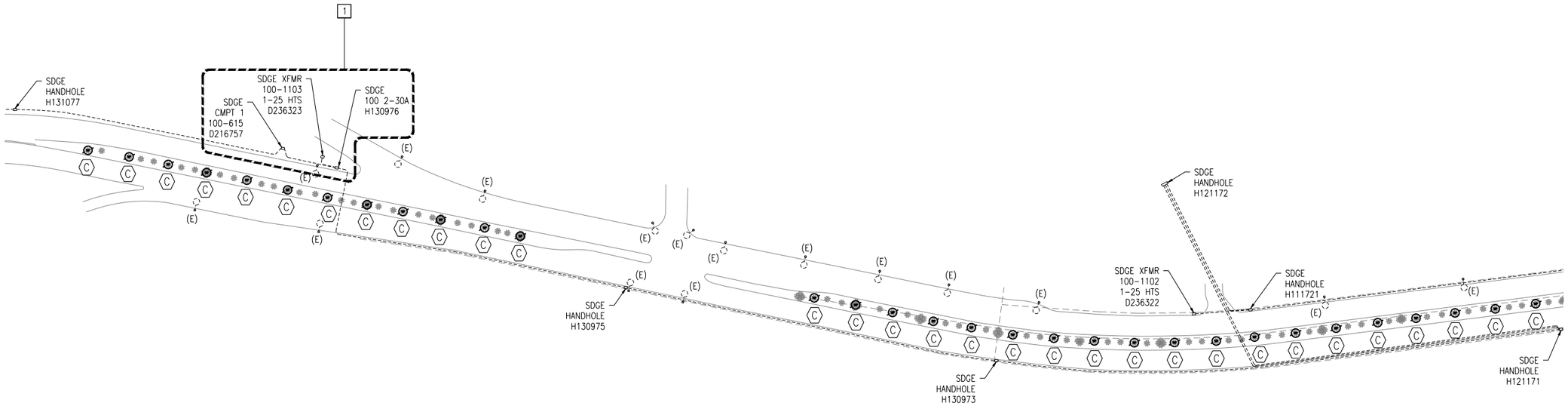
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GENERAL NOTES:

1. SDGE ELECTRIC MAP SHOWN FOR REFERENCE.

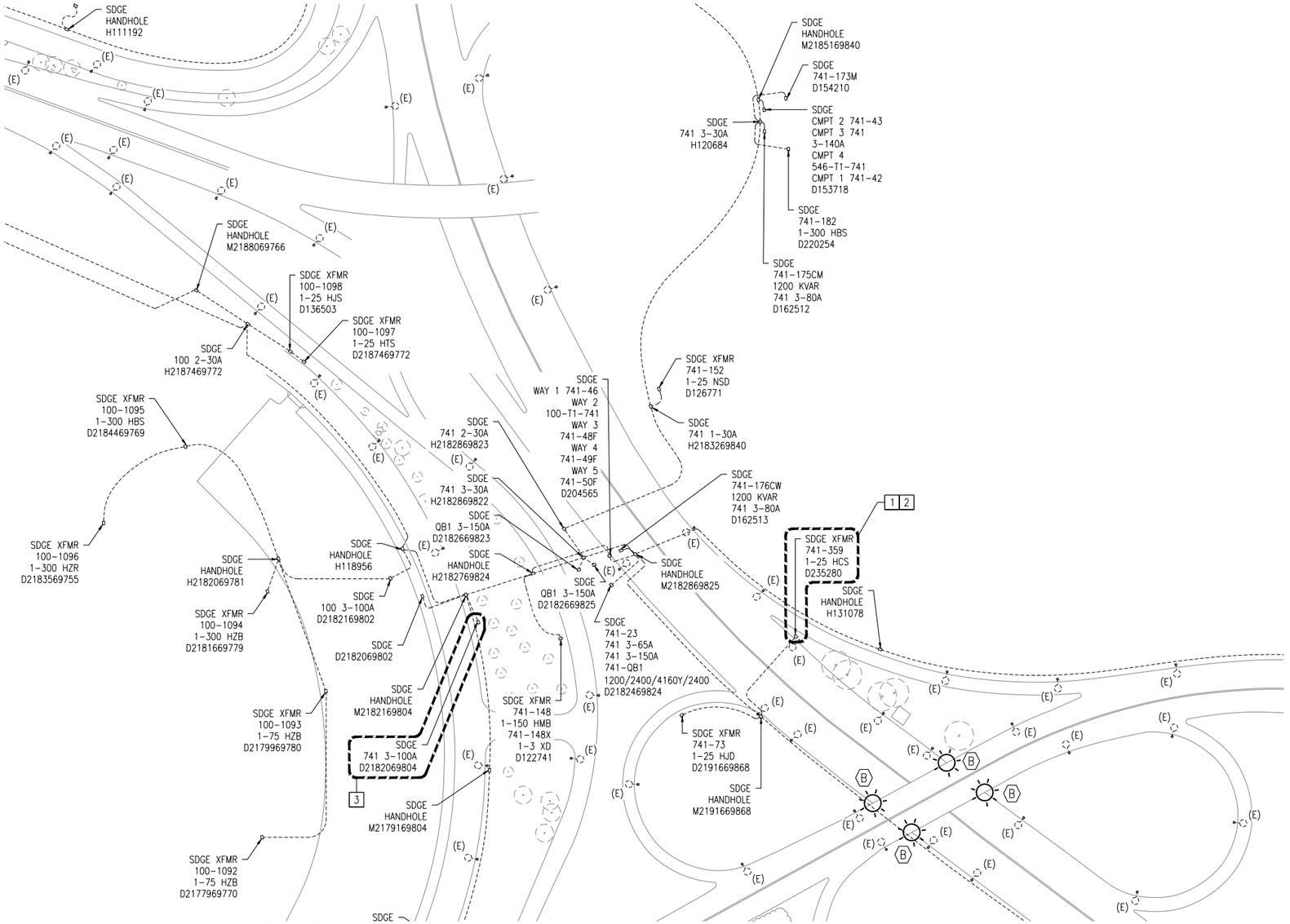
KEYNOTES:

[1] PROPOSED POC FOR AREA 4 – SEA WORLD DRIVE CORRIDOR.



1 E108 ELECTRICAL SITE PLAN - AREA 4C

SCALE: N.T.S.



1 E109 ELECTRICAL SITE PLAN AREA 5,6, & 8

SCALE: N.T.S.

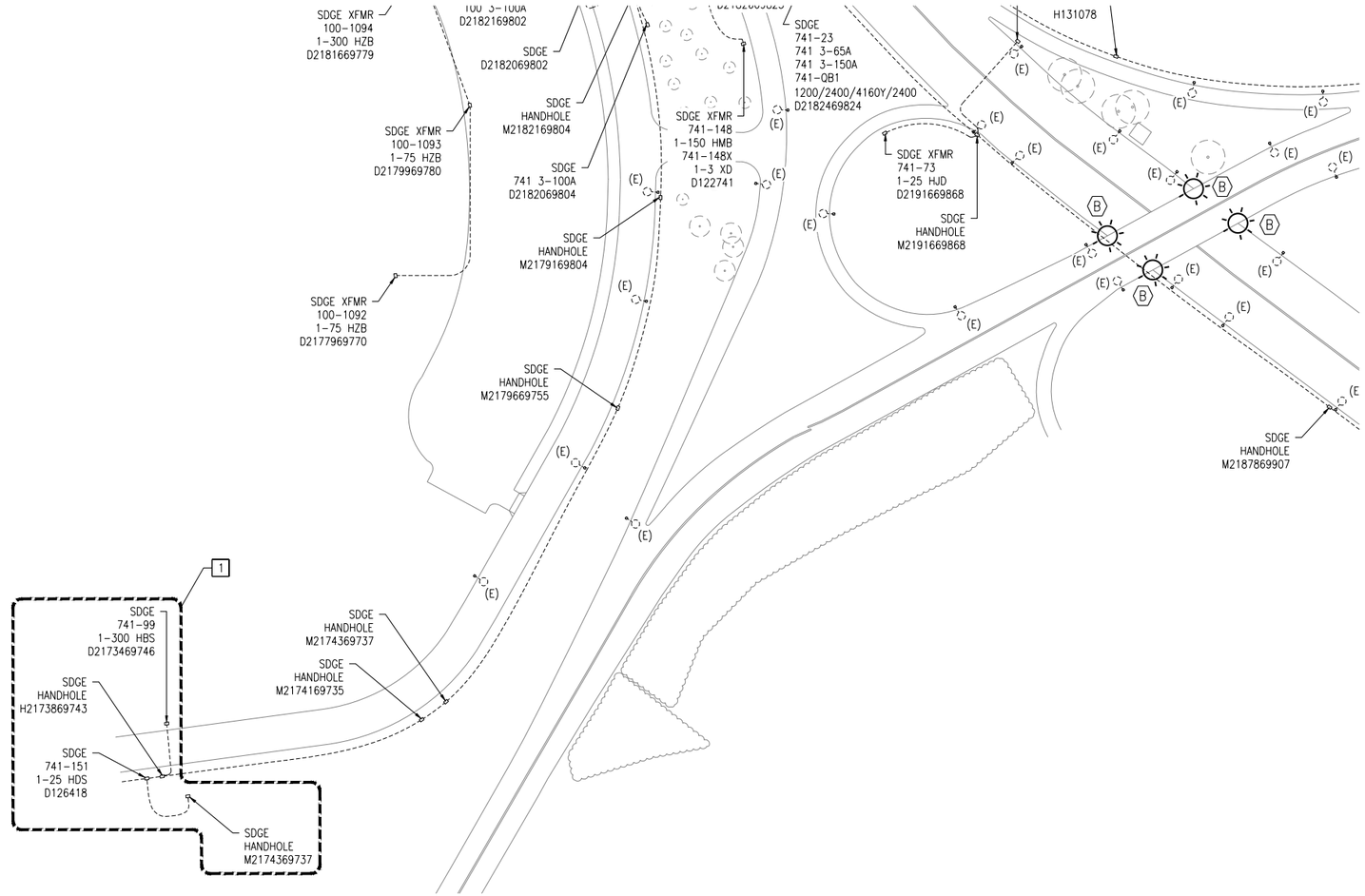
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GENERAL NOTES:

1. SDGE ELECTRIC MAP SHOWN FOR REFERENCE.

KEYNOTES:

1. PROPOSED POC FOR AREA 5 – WEST MISSION BAY DRIVE AT SUNSET CLIFFS BLVD. EXCHANGE.
2. PROPOSED POC FOR AREA 6 – SUNSET CLIFFS BRIDGE.
3. PROPOSED POC FOR AREA 8 – MARINA VILLAGE AND QUIVIRA WAY.



GENERAL NOTES:

1. SDGE ELECTRIC MAP SHOWN FOR REFERENCE.

KEYNOTES:

1 PROPOSED POC FOR AREA 7 – WEST SEA WORLD DRIVE.

1 / E110 ELECTRICAL SITE PLAN AREA 7

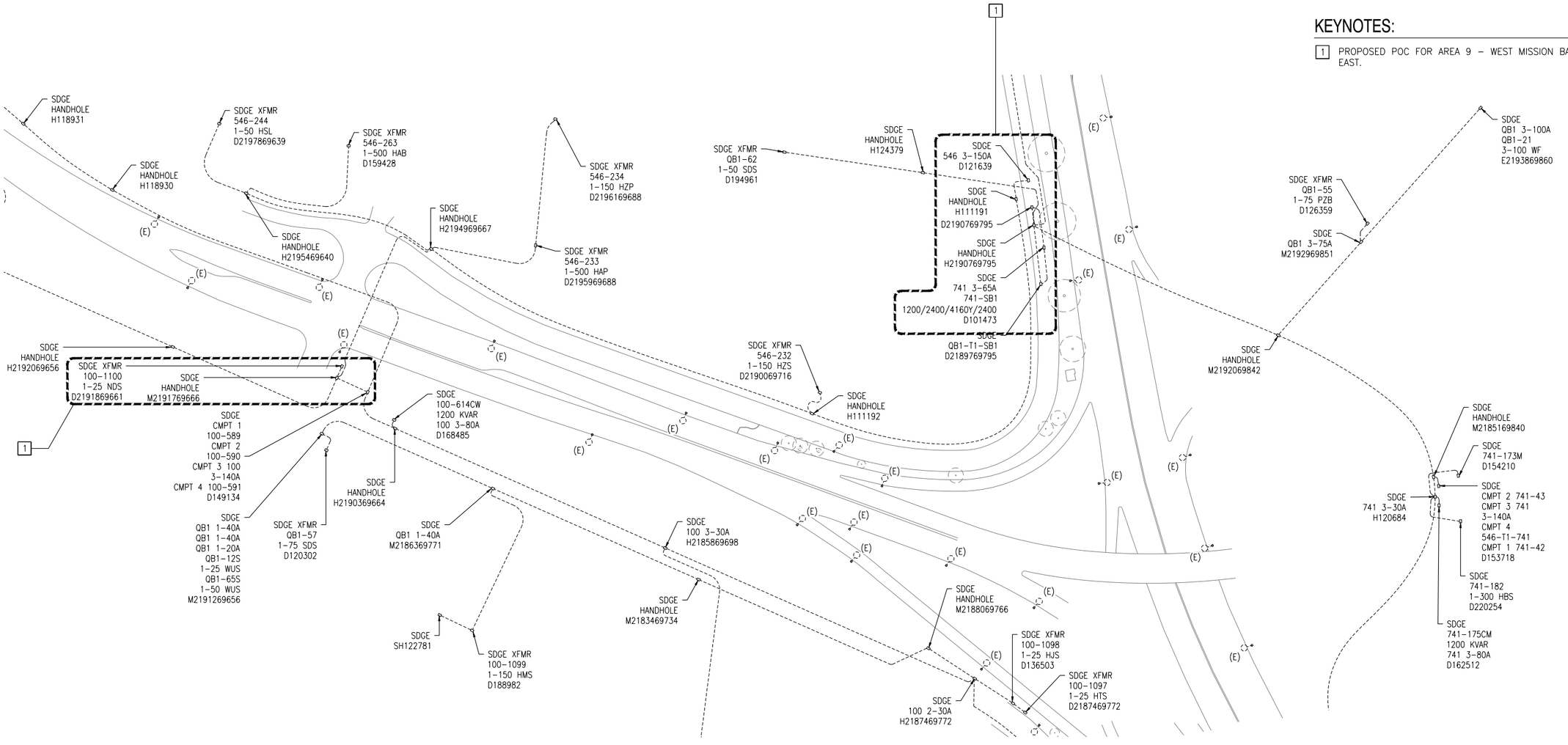
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GENERAL NOTES:

1. SDGE ELECTRIC MAP SHOWN FOR REFERENCE.

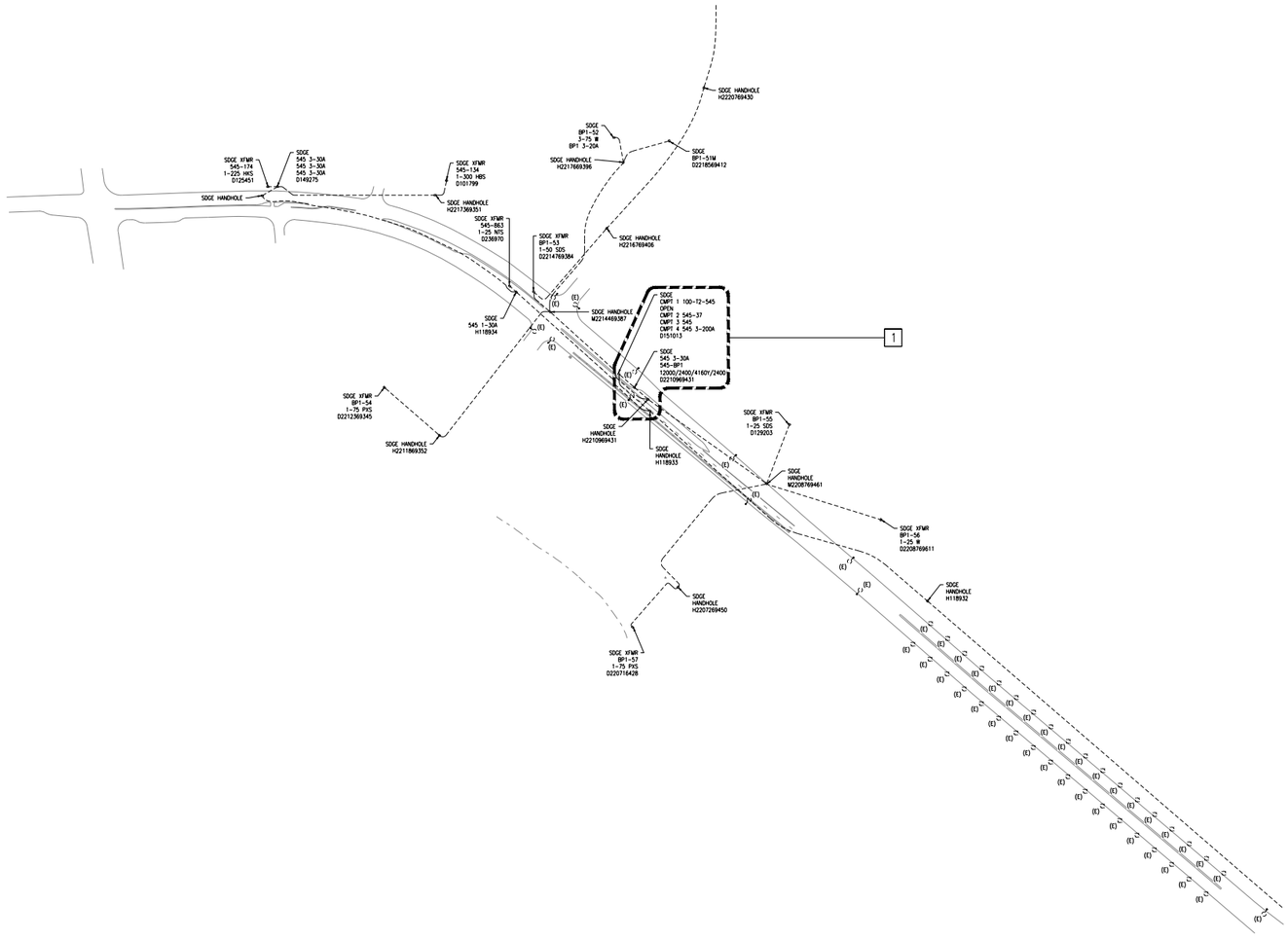
KEYNOTES:

1 PROPOSED POC FOR AREA 9 – WEST MISSION BAY DRIVE EAST.



1 E111 ELECTRICAL SITE PLAN AREA 9A

SCALE: N.T.S.



1 E112 ELECTRICAL SITE PLAN AREA 9B

SCALE: N.T.S.

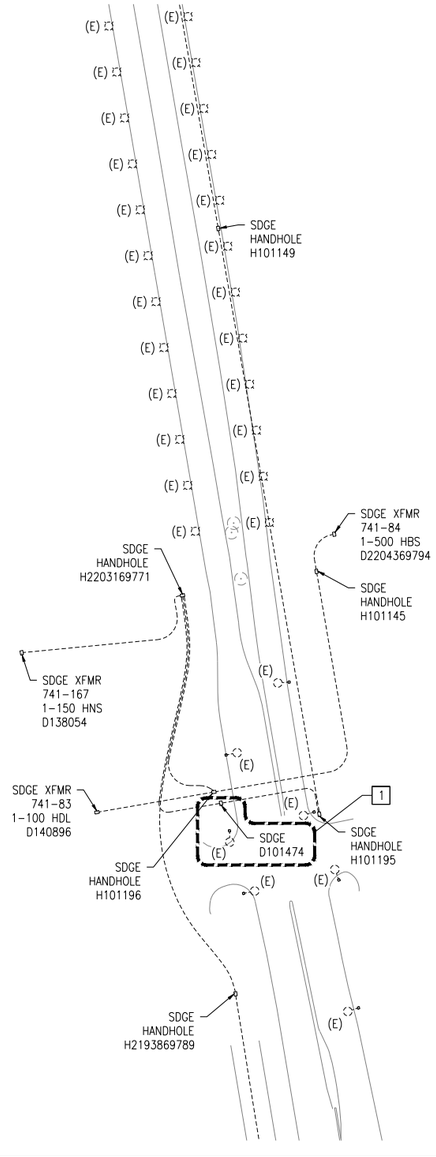
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GENERAL NOTES:

1. SDGE ELECTRIC MAP SHOWN FOR REFERENCE.

KEYNOTES:

1 PROPOSED POC FOR AREA 9 – WEST MISSION BAY DRIVE – WEST.



1 E113 ELECTRICAL SITE PLAN AREA 10A

SCALE: N.T.S.

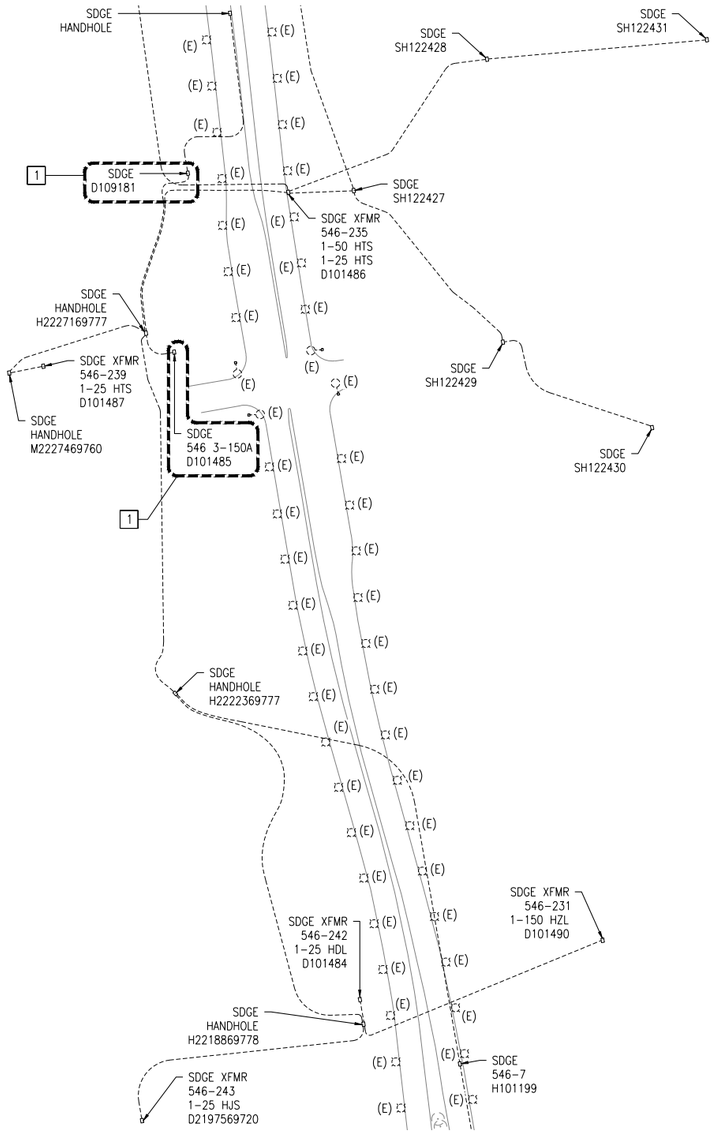
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GENERAL NOTES:

1. SDGE ELECTRIC MAP SHOWN FOR REFERENCE.

KEYNOTES:

1 PROPOSED POC FOR AREA 10 – INGRAHAM STREET.



GENERAL NOTES:

1. SDGE ELECTRIC MAP SHOWN FOR REFERENCE.

KEYNOTES:

1 PROPOSED POC FOR AREA 10 – INGRAHAM STREET.

1 / E114 ELECTRICAL SITE PLAN AREA 10B

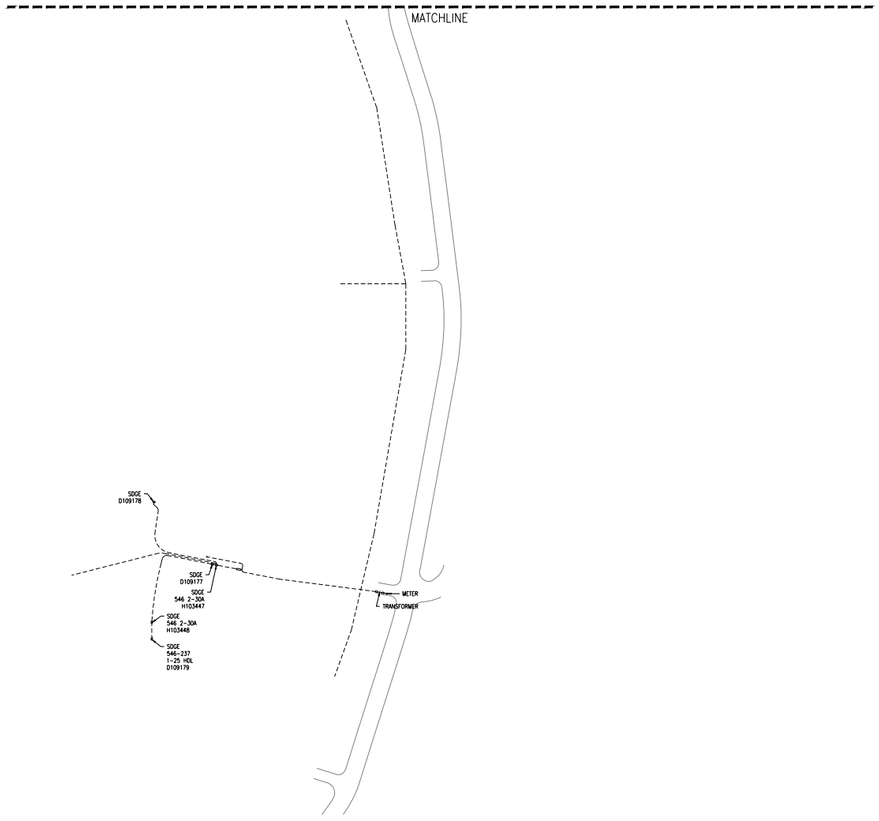
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GENERAL NOTES:

1. SDGE ELECTRIC MAP SHOWN FOR REFERENCE.

KEYNOTES:

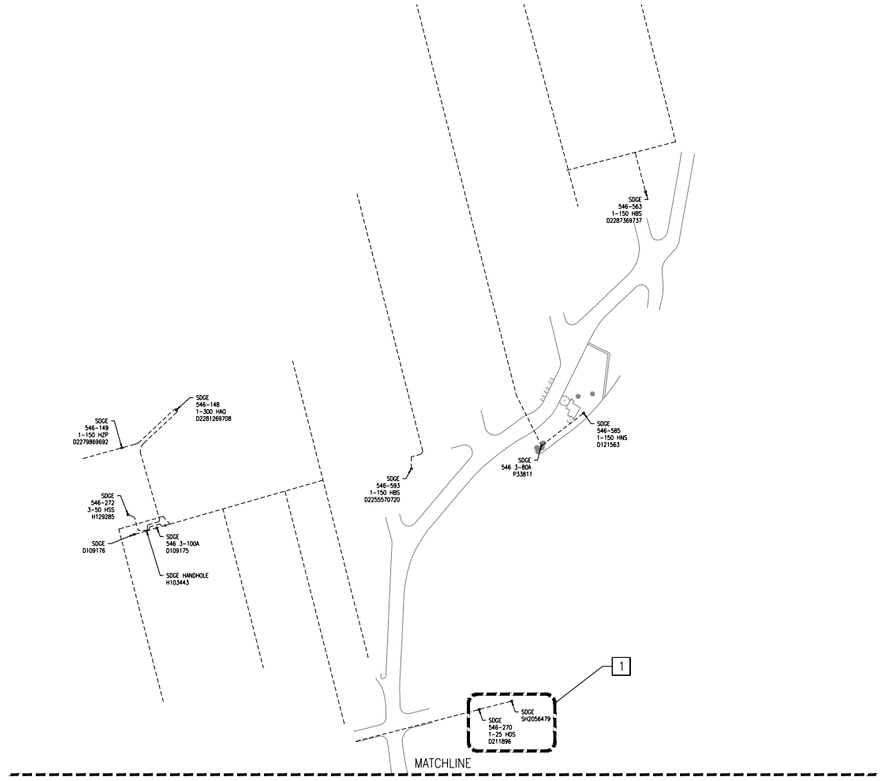
[1] PROPOSED POC FOR AREA 11 – CROWN POINT DRIVE.



1 E115 ELECTRICAL SITE PLAN AREA 11A

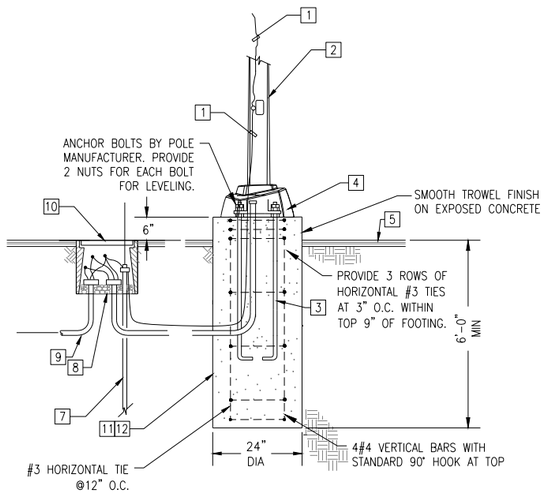
SCALE: N.T.S.

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2 E115 ELECTRICAL SITE PLAN AREA 11B

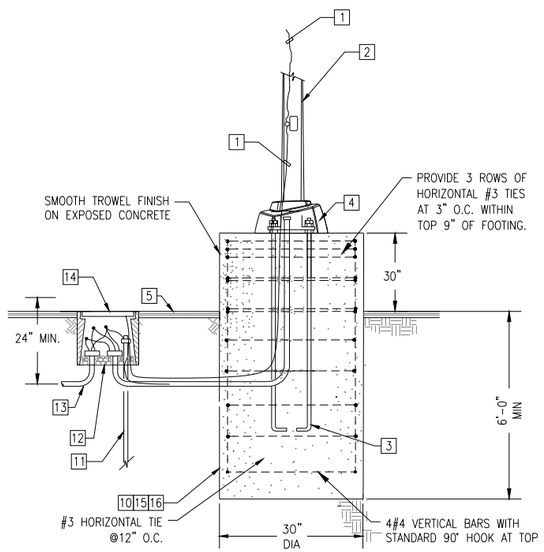
SCALE: 1"=200'



DETAIL NOTES:

1. #8 GROUND WIRE UP TO LUMINAIRE.
2. CURVED ALUMINUM POLE. REFER TO DETAIL 4/E201.
3. ANCHOR BOLTS. SIZE NUMBER AND PLACEMENT PER MFGRS. RECOMMENDATIONS.
4. BASE COVER. FINISH SHALL MATCH LUMINAIRE AND POLE.
5. GRADE LEVEL.
6. 3000 PSI CAST CONCRETE BASE AGAINST UNDISTURBED OR COMPACTED (95% MIN.) EARTH.
7. GROUND ROD, 3/4" DIA. X 10'-0" LONG COPPER CLAD STEEL.
8. 3" LAYER OF CRUSHED ROCK.
9. CONDUIT AND CONDUCTORS AS SHOWN ON PLAN (TYP).
10. PULLBOX ADJACENT TO POLE BASE, SEE DETAILS 1/E200 AND 5/E200.
11. 560-C-3250 PCC ANCHOR BASE ROUND, ADD 1" TO EACH DIMENSION FOR LOOSE SOIL OR SOFT CLAY CONDITIONS.
12. CONTRACTOR TO CONFER TO CITY OF SAN DIEGO STANDARD DRAWING SDE-101.

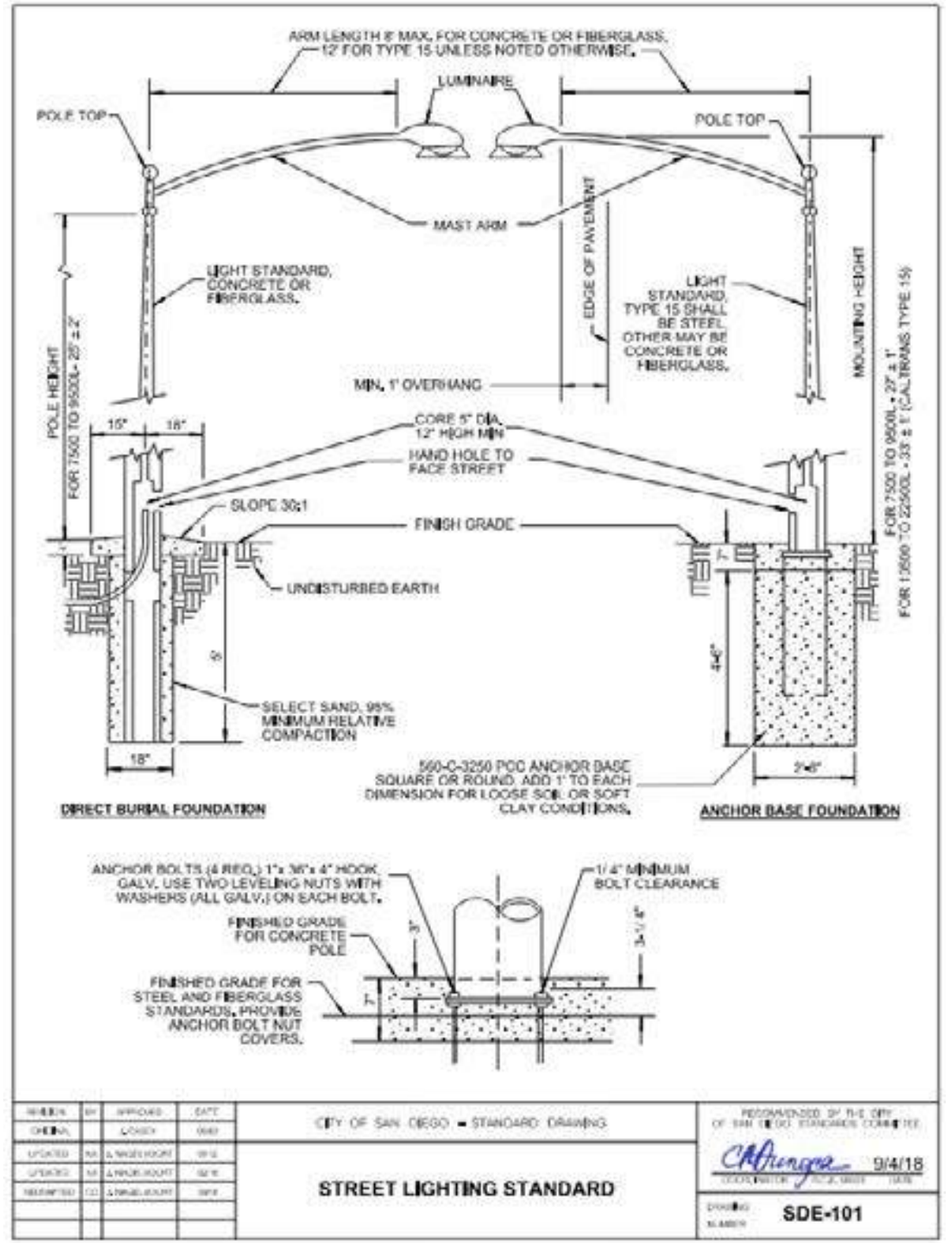
PEDESTRIAN LIGHTING POLE BASE DETAIL PLANTER INSTALLATION | SCALE NONE | 1



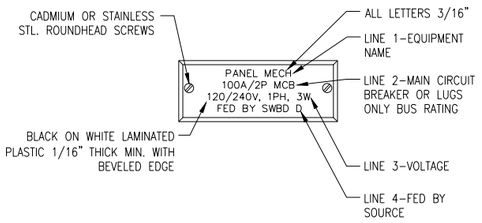
DETAIL NOTES:

1. #8 GROUND WIRE UP TO LUMINAIRE.
2. CURVED ALUMINUM POLE. REFER TO DETAIL 4/E201.
3. ANCHOR BOLTS. SIZE NUMBER AND PLACEMENT PER MFGRS. RECOMMENDATIONS.
4. BASE COVER. FINISH SHALL MATCH LUMINAIRE AND POLE.
5. GRADE LEVEL.
6. 3000 PSI CAST CONCRETE BASE AGAINST UNDISTURBED OR COMPACTED (95% MIN.) EARTH.
7. GROUND ROD, 3/4" DIA. X 10'-0" LONG COPPER CLAD STEEL.
8. 3" LAYER OF CRUSHED ROCK.
9. CONDUIT AND CONDUCTORS AS SHOWN ON PLAN (TYP).
10. PULLBOX ADJACENT TO POLE BASE, SEE DETAILS 1/E200 AND 5/E200.
11. 560-C-3250 PCC ANCHOR BASE ROUND, ADD 1" TO EACH DIMENSION FOR LOOSE SOIL OR SOFT CLAY CONDITIONS.
12. CONTRACTOR TO CONFER TO CITY OF SAN DIEGO STANDARD DRAWING SDE-101.

PEDESTRIAN LIGHTING POLE BASE DETAIL PARKING LOT INSTALLATION | SCALE NONE | 2

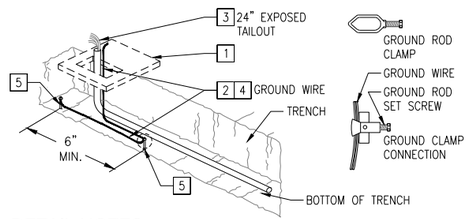


*** Refer to City of San Diego Light Requirements for updates to this detail.**



NAMEPLATE DETAIL

SCALE NONE | 1

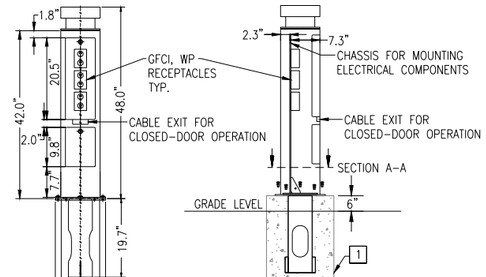


DETAIL NOTES:

1. UTILITY EQUIPMENT.
2. WIRE, BARE COPPER, #2, 7 STR. SOFT DRAWN.
3. LEAVE 24 INCHES OF WIRE (EXPOSED TAILOUT) ABOVE THE TOP OF FINAL GRADE.
4. SEE SDG&E ELECTRIC STANDARD 4510.2 FOR EQUIPMENT GROUNDING INSTALLATION.
5. 3/8"X8' GROUND ROD.

EQUIPMENT PAD GROUNDING DETAIL

SCALE NONE | 2

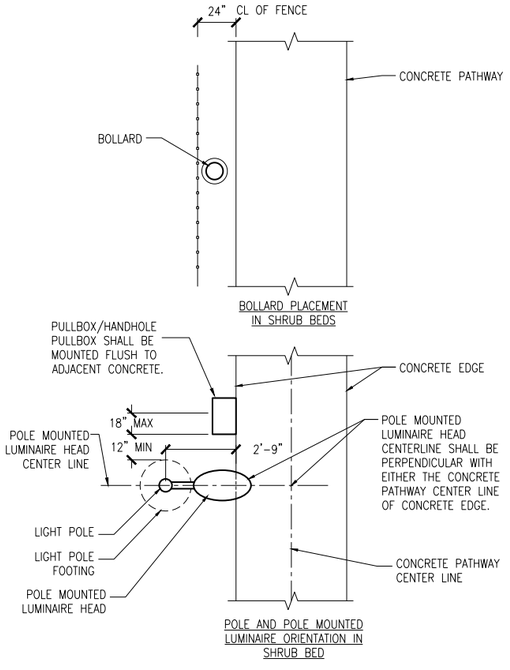


DETAIL NOTES:

1. TWO ACCESS DOORS.
2. HOUSING: STEEL, HOT DIPPED GALVANIZED INSIDE AND OUTSIDE.
3. ELECTRICAL ASSEMBLY PLATE: STEEL, HOT DIPPED GALVANIZED.
4. SOIL INSERT: STEEL, HOT DIPPED GALVANIZED.
5. HARDWARE: STAINLESS STEEL
6. FINISH: CUSTOM BRONZE COLOR TO MATCH LIGHT POLE FINISH.

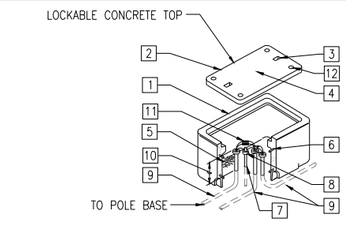
POWER PEDESTAL DETAIL

SCALE NONE | 3



TYPICAL POLE AND HANDHOLE PLACEMENT

SCALE NONE | 4

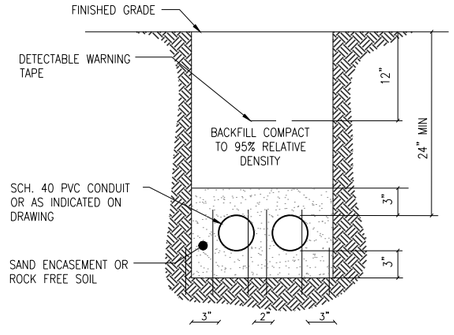


DETAIL NOTES:

1. PRECAST CONCRETE PULLBOX. SET TOP FLUSH WITH TOP OF FINISHED GRADE, 14"X20" MIN. OUTSIDE DIMENSIONS.
2. CONCRETE COVER.
3. LIFTING EYE (2) REQUIRED (TYPICAL).
4. 1" HIGH LETTERING,'ELECTRICAL' OR 'LIGHTING', PERMANENTLY STAMPED ON CONCRETE COVER.
5. PROVIDE 6" GRAVEL FILL BELOW BOTTOM OF BOX FOR DRAINAGE.
6. 9 GA. WELDED WIRE FRAME.
7. 3/4" DIA. X 10'–0" COPPER–CLAD GROUND ROD.
8. TYPICAL GROUND CONDUCTORS SHALL BE CLAMPED TO GROUND ROD.
9. U.G. PVC CONDUITS, SEE SITE PLAN.
10. 6" ABOVE TOP OF GRAVEL.
11. WATERPROOF 30A FUSE HOLDER ASSEMBLY WITH FUSES.
12. PENTAHEAD STAINLESS STEEL BOLTS REQUIRED. PROVIDE WRENCHES TO FIT PENTAHEAD BOLTS.

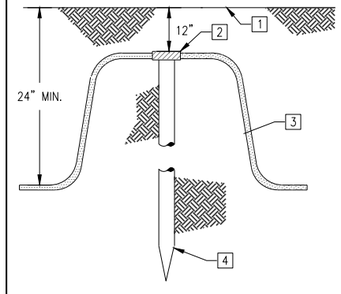
PULLBOX/HANDHOLE DETAIL

SCALE NONE | 5



DUCTBANK SECTION DETAIL

SCALE NONE | 6



DETAIL NOTES:

1. FINISH GRADE.
2. CONNECT GROUND ROD WITH EXOTHERMIC WELD.
3. #2 B.C. STRANDED GROUND WIRE.
4. 3/4" DIA. X 10' LONG COPPER CLAD GROUND ROD.

GROUND ROD INSTALLATION

SCALE NONE | 7

PART 1 - Introduction

This maintenance appendix describes general provisions and establishes recommendations for post construction maintenance. This appendix is intended to be used by the City and their landscape maintenance division to facilitate proper long term maintenance with the goal of establishing landscape and facility guidelines that ensure each District is permanently maintained in excellent condition.

Overarching maintenance principles include maintaining landscape areas to minimize material loss, prevent plants from being damaged by pedestrians, and discouraging encampment in all landscape areas.

PART 2 - Maintenance Procedure

1. Plant Litter and Trash Removal
   Clean all hardscape within the landscaped areas on a weekly basis, and remove all trimmings, clippings, or other debris created by maintenance activities such as tree and shrub trimming, weeding, and mowing. Any grass clipping, trimmings, or debris that accumulate on adjacent paving shall be collected and disposed of. Clipping, trimmings, and debris shall not be swept or blown into adjacent landscape planters.

   All green waste shall be taken to a green waste composting facility. Leaves falling into mulch areas (natural leaf drop) shall be left in the mulch unless otherwise directed by the Owner.

   All trash, bottles, and other debris shall be removed from the site on a weekly basis and disposed of off-site at a designated recycling or refuse area, unless other provisions have been made for on-site disposal.

2. Pedestrian Pavement
   Replace DG (decomposed granite) paving on an as-needed basis where activity, water, or other influences have caused the material to migrate out of the designated area. At a minimum, review the condition of the DG quarterly, and install decomposed granite as required to bring all surfaces up to the level of the adjacent abutting pavement, after consolidation. Roll the material with a 50-pound roller, or equivalent, to consolidate. DG material shall match the As repairs are made to planting beds and irrigation systems, the soil levels should be repaired and regraded to the levels prior to beginning the work. This will provide a consistent level of maintenance and assure that the grades are consistent with the original drainage design. Maintain a minimum of one inch (1”) grade change between hard surface paving, such as sidewalks or patios when placing any sod or re-seeding lawn. Two inches (2”) should be maintained in planting beds to allow for the placement of bark mulch.

3. Site Drainage
   Maintain surface drainage and grades to assure that drainage systems remain functional. General maintenance shall include the removal of all trash, eroded soil, and voluntary weeds or seed that may sprout. Drain lines, drain inlets, and catch basins shall also be reviewed on a monthly basis. Ensure that lids and grates are set properly, clear of the above mentioned obstructions, and properly draining.

   As repairs are made to planting beds and irrigation systems, the soil levels should be repaired and regraded to the levels prior to beginning the work. This will provide a consistent level of maintenance and assure that the grades are consistent with the original drainage design.

   Maintain a minimum of one inch (1”) grade change between hard surface paving, such as sidewalks or patios when placing any sod or re-seeding lawn. Two inches (2”) should be maintained in planting beds to allow for the placement of bark mulch. The landscape maintenance division shall provide general clean up and maintenance of accumulated litter and soil at all drain inlets.

4. Watering
   The application frequency of supplemental water will depend on actual site conditions. Factors that will determine the need to irrigate include: humidity, wind conditions, temperature, soil conditions, and depth of plant root systems. A soil probe should be utilized to determine the moisture content within plant root systems; sample checks should be taken on a weekly basis. The irrigation controller is a ‘Smart Controller’ equipped with an on-site rain sensor.

   Water should be applied to encourage deep rooting of plant material without causing surface runoff. Water shall be applied to penetrate throughout the root zone. Apply water only as frequently as necessary to maintain healthy plant growth. Over-watering will result in the decline—or, in some cases, undesirable overgrowth—of the plant material. Monitor soil moisture content to reduce the watering amounts as far as possible without sacrificing plant health.

   Watering shall be scheduled for night and early morning operation. Additionally, the landscape maintenance division shall perform a functional check of the irrigation system on a monthly basis to ensure it is fully operational.

5. Fertilizing
   Complete plant suitability soil tests shall be performed in spring and fall to determine the need for supplemental fertilization. As recommended by the soil tests, and under the direction of the Owner, fertilizer shall be applied as needed to correct any deficiencies.

   For maintenance fertilizer, apply ammonium sulfate (21-0-0) at five pounds per 1,000 square feet about once per quarter. Monitor the site with periodic testing. Adjust the maintenance program as needed. If the application of fertilizer is required, it shall be a balanced, organic-based, multi-purpose relatively low-nitrogen fertilizer (such as Kellogg’s Big 6, with an NPK ratio of 6-6-6, or Grow Power Plus with NPK of 5-3-1). Avoid over-fertilization of plant materials. Over fertilizing contributes to excessive growth and benefits weed species at the expense of ornamental plant material.

   Unless otherwise recommended by a soil/agronomic testing service, the turf for the project should be fertilized on a semi-annual cycle—once in the fall and once in the spring—with the same organic fertilizer as recommended for the other landscape areas.

   Fertilizer shall be applied when all adjacent paved surfaces are dry and just prior to a planned irrigation cycle. Any fertilizer coming in contact with adjacent paving shall be swept and removed immediately to avoid staining the adjacent surfaces.

6. Weed Control
   Weeding and general clean up of all shrub areas, groundcover areas, and planter beds should be provided by the landscape maintenance contractor. Weed removal shall be a weekly operation. Evaluate the area and implement a weed removal program that includes both manual and chemical eradication. Weed germination rates vary throughout the year, but typically are most severe in the spring months. However, different seasons each have their own select species and thus year-round eradication is required. Weed control in lawn areas should be by either a selective contact herbicide (Trimec or equivalent), or through the use of a pre-emergent herbicide. See section ‘Pre-emergence’ for applications in lawn. All trees in lawns should have open soil maintained eight inches (8”) around the base of the trunk. “Weed eater”, nylon line type trimmers should not be used, unless tree guards are installed at the base of the trees.

   Chemical contact herbicide shall be used in cases of weed infestation and with the approval of the City. Use extreme care to prevent damage to

adjacent plants and contact to humans. Use separate sprayers for each type of weed killer. Always apply herbicides when wind levels are low to prevent over-spray into adjacent areas. All chemical applications should be made in accordance with pest control regulations and follow the manufacturer's recommendations.

7. Integrated Pest and Disease Management
   The landscape maintenance division shall provide ongoing maintenance for pest and disease control in all landscape areas. Disease prevention shall include the control of all bacteria, fungi, and viruses. Pest management may include the control of aphids, thrips, scale, worms, slugs, snails, gophers, voles, ground squirrels, rabbits and the like.

   It is important not to overreact to pest presence. A totally pest free landscape is neither desirable nor possible. Natural forces play an important role in balancing pest populations and beneficial insects/ predators. Mechanical methods of handpicking, trapping, barriers or a strong jet of water can thwart many pests and insects in the early stages. A landscape free of standing water, saturated soil, and excessive debris is also beneficial to removing potential situations where pests can reproduce.

   Use of non-chemical options is preferred for the control of insect and pest populations. Non-chemical alternatives include the release of beneficial insects, the use of soaps, horticultural oils, or botanical insecticides. Upon identification of a major pest or disease problem in a large area, chemical pesticides should be used as a last resort.

   If unknown disease and pest infestation is encountered, the landscape maintenance division should request that the City engage a registered horticulturist or horticultural pest control advisor to provide recommendations for eradication.

8. Replacement of Plant Material
   Dead plants, and those in a state of decline that have lost 50% of their leaves, should be replaced. A thorough investigation for the cause of decline should be implemented prior to any new planting. All replacement plants should be of the original type and spacing, unless the plants within an area are exhibiting a consistent history of decline. In this case, a plant substitution should be selected from a variety used successfully in other similar areas of the site.

PART 3 - Plant Material Maintenance

1. General
   Maintain trees, shrubs, and groundcovers in a healthy growing condition while performing all maintenance operations.

   Plant beds should be maintained to be free of trash and weeds. A water conserving, three inch (3") minimum depth, layer of bark mulch should be maintained in all plant beds until plant materials have covered and filled in. Mulch shall be kept 2-3" from shrub stems/trunks.

   Maintenance operations should be sequential. Complete all trimming and pruning of a specific area before moving to another location. This will help create a consistent level of care within each area and contribute to a uniform look within specific portions of the project.

2. Trees
   Trees throughout the site less than fifteen feet (15') in height should be pruned by the landscape maintenance division n an as-needed basis, but not less than annually. Unless specifically identified in the maintenance proposal, trees larger than fifteen feet (15') are not a part of the yearly schedule of work. A bonded tree service should be used to maintain all larger trees using the Pruning Standards of the International Society of Arboriculture, Western Chapter, and in compliance with ANSI Z133.1, 1988 Safety Standards. Traditional tree pruning and maintenance concentrates only on the pruning of tree limbs. It is extremely important that all tree roots also be evaluated on an annual basis and root pruning shall take place when necessary.

   Natural pruning techniques and training will require more time in the first two years to train all shrubs and trees, reducing long-term care costs. Proper pruning, along with slow, deep watering, stimulates natural deep-root growth, using less water and producing healthier plants with year-round beauty.

   Stakes/guys should be inspected a minimum of two (2) times per year on all newly planted trees. Prevent girdling of trunks or branches and prevent rubbing by stakes that can cause bark wounds. When a tree stands without support, or attains a trunk caliper of three inches (3"), remove existing stakes or guys.

   Tree maintenance should include the following minimum standards:
   - Trees should be trimmed so as to develop a permanent scaffold of branches that are smaller in diameter than the trunk or branch to which they are attached. The interior of the tree should be open and branches should be spaced a minimum of eighteen inches (18") apart, in a radial orientation so as not to overlay one another.
   - Diseased or damaged growth should be removed.
   - Narrow V-shaped branch forks that lack strength should be eliminated.
   - Foliage growth should be maintained within space limitations and held back from building facades and roofs.
   - Wound dressings and tree paints are prohibited unless recommended by a certified arborist.

   Root pruning, if required, shall take place at least at the same intervals as other tree pruning.

   "Standard" trees on site (and shrubs that have been trained into a small tree) should have suckers and lateral bud growth removed from the base and vertical trunk of the tree on a monthly basis.

   Evergreen trees shall be thinned out and shaped when necessary to prevent wind and storm damage. The primary pruning of deciduous trees should be completed during the dormant winter season. Damaged trees or those that constitute health or safety hazards shall be pruned as needed, at any time of the year. All pruning cuts shall be made to lateral branches, or buds, or flush with the trunk. "Stubbing" or pollarding is not acceptable.

3. Shrubs
   Pruning and trimming should be selective to remove divergent or stray branches, and to maintain shrub shape natural to the species. No pruning during flowering or fruiting stage. No shearing of shrubs.

   Pruning should occur gradually throughout the year as opposed to severe pruning once a year. Regular pruning throughout the year results in more air and light penetrating the plant and produces leafy growth from older wood, giving a fuller, healthier, more attractive plant.

4. Ornamental Grasses & Basal Growers
   Dead or yellowed leaves and spent flower stalks should be removed on a regular basis from herbaceous or non-woody plants have reached their peak should be removed by cutting each stem at the base of the plant.

   For “Strap leaf” plants (e.g. Phormium, Cordyline, or Dietes), and for rushes and sedges (e.g. Carex and Juncus), do not shear to ground. Working inward to the plant center, cut back dead leaves to the base and remove vertical stalks and leaves that have declined. Flower stalks that have reached their peak should be removed by cutting each stem at the base of the plant.

   Once seed heads start to dry out in late summer on ornamental grasses, trim at three to four inches (3 to 4”) above ground to reduce seed spread.

5. Groundcovers
   Groundcover shall be maintained within the confines of the planter, with the top growth and stray branches trimmed to achieve an even appearance. No hedged or hard edges should be apparent at edges of walks. Groundcover should be trimmed to “feather down” to meet paved surfaces, curbs or headers.

   Trimming at sprinkler head locations should be maintained to prevent blockage of spray patterns.

6. Lawn
   The yearly maintenance schedule should provide a minimum mowing schedule of once a week—with a maximum of 14 days, weather permitting, during slow growing periods. The landscape maintenance division should review each lawn area prior to mowing. If the existing lawn height and uniformity is acceptable, mowing may be delayed. Maintenance time can then be delegated to other site considerations. The following table outlines preferable heights for the warm-season turf variety for the project.

   Turfgrass Species Cutting Height Range in Inches
   Bermuda with perrineal rye 0.5-1.0

Lawn clippings should be caught and removed from the site to a green waste composting facility. Mow frequently, never cutting off more than one-third (1/3) of the grass blade. The one-third rule allows the plant to recover from the cutting. Avoid over-fertilization, which encourages rapid growth and requires additional watering and mowing frequency. Limit the use of lawn chemicals and apply corrective measures only when needed.
Edging of the lawn at hard surface concrete or asphalt should be completed on a weekly basis. The landscape maintenance contractor should review each lawn prior to edging. If the existing condition is acceptable, edging may be delayed. Edging around sprinkler heads should be avoided. If irrigation coverage is affected, the position of the irrigation head or the height of the riser should be modified.

Maintenance Staff should exercise caution not to impact or otherwise damage the trunk when mowing, trimming, and edging around tree.

Part 4 - Irrigation System Maintenance And Management

1. General
   The landscape maintenance division shall provide complete maintenance and servicing of the irrigation system including remote-control valves, sprinkler heads, drip emitters, filters, flush valves, air relief valves, mainline and lateral piping, drip lines, flow sensors and master valves, backflow preventers, pressure regulators, and controllers.

All repairs shall be made within 36 hours from the date of work approval. Maintain all plant materials, by hand watering or other means, until repairs are completed. Breaks in pressurized lines shall be repaired immediately.

With closer-than-normal plant arrangement distances in a ornamental planting environment, the root mass will affect water availability to all trees and shrubs. The maintenance division contractor shall closely monitor irrigation schedules to avoid over-watering. Over-watering causes increased mortality, reduced plant health, water runoff, and waste. The irrigation system shall be scheduled to provide deep and infrequent watering cycles to encourage deep-root growth. Irrigation systems shall be seasonally adjusted to account for rain fall.

2. Irrigation Management
   The review and condition of the irrigation system shall incorporate the following items to protect property and conserve water. The landscape maintenance division should run through the entire controller program and observe the operation of each circuit on a monthly basis. Any adjustments or repairs shall be corrected immediately.

- Programming: Set and re-program automatic controllers for seasonal water requirements at least 12 times per year. ET (Evapotranspiration Rate) and weather data will be used by the “Smart Controller” in scheduling and adjusting water budget requirements. The selected controller includes automatic adjustments based on real-time weather information, but should also be checked to verify efficiency. Proficient monitoring of plant materials and soil conditions is important to plant health, appearance and water savings. All systems with the same hardware and/or equipment do not typically have similar run times; each station should be observed and adjusted individually.

- Mismatched heads have a negative impact on irrigation uniformity. It is important to use similar types of heads on a system so that areas are not being over or under watered. The division shall replace sprinkler heads and components with “like kind” materials.

- Over spray shall be adjusted, as necessary, to allow unimpeded coverage of planting areas, but not to over spray onto adjacent areas. Arc (angle of coverage) and radius maladjustments of heads can lead to water loss in the form of excessive runoff and over spray. Most rotor and spray heads can be adjusted by a screw at the top of the head. This radius adjustment screw should be used only for reductions of 20% or less of the maximum radius. Some spray heads use “inserts” to adjust the arc and are recommended for adjustments greater than 20%. Interchangeable nozzles that allow for different radii should be grouped to maintain matched precipitation rates.

- Blocked spray patterns are a problem where shrub and groundcover materials have matured greater in height than the risers. Plants shall be trimmed to accommodate the height of the irrigation head. Pruning should be accomplished to transition plant material away form the irrigation head.

- Clogged nozzles can disrupt the efficiency of the spray head as well as the entire system. The irrigation heads should be reviewed on a biweekly basis for a smooth consistent pattern, and flushed as needed. If a lateral break occurs, the irrigation heads/nozzle of the individual system shall be removed, the lateral line repair made, the system flushed and the heads replaced. If a mainline break occurs, the line should be repaired, and the system flushed through the furthest downstream quick coupler, to avoid contaminating the individual irrigation systems.

- Head alignment can affect the spray pattern of sprinklers. Over time, sprinklers will reposition themselves so that they are no longer vertical. All heads should be repositioned perpendicular to the finished grade.

- System operating pressure shall be monitored and regulated by the landscape maintenance contractor to maintain a consistent pressure throughout the system. High pressure can distort the spray pattern, decrease uniformity, and cause excessive wear on irrigation system components. Low pressure can also decrease uniformity by decreasing the intended radius and precipitation rate of the irrigation heads. Each system's pressure shall be regulated to within the operating range recommended by the equipment manufacturer. The backflow preventer and pressure regulator shall be tested on an annual basis per the manufacturer's recommendations.

- As recommended by the manufacturer, the landscape contractor shall replace the Netafim Techfilter disc filter every two years or 200 hours of irrigating, whichever occurs first, to maintain against root intrusion.

Maintenance Schedule By Season

Winter

- Seasonally adjust tree and shrub watering based on rain fall.
- Supplemental once per month with deep watering if little to no rain fall occurs.
- Check and clean drains and grates weekly through late fall, winter, and early spring.
- Light pruning as needed.

Spring

- Provide a complete irrigation system flush, cleaning, adjust coverage, and setup watering programs for supplemental watering to mimic rainfall until late spring.
- Late spring - prune winter and early spring bloomers after flowering is completed.

Summer

- Pruning of dead flowers and stalks .
- Light pruning of trees and shrubs should be limited to removal of dead, diseased, and leggy or heavy growth of branches only.
- Order replacement plantings , if required, 60 days prior to fall planting to ensure availability.

Fall

- Best time for replacement planting and seeding, if required.
- After deciduous trees and plants begin dormancy start annual thinning, pruning and shaping.
- Late fall - prune summer blooming shrubs and perennials.
- Divide and or thin out clumping plants.