ARCH-X 472.14A:
Landscape Construction Methods and Materials Booklet

Michelle Tiet

UCLA EXTENSION
FALL 2020

Instructor: Patrick Reynolds

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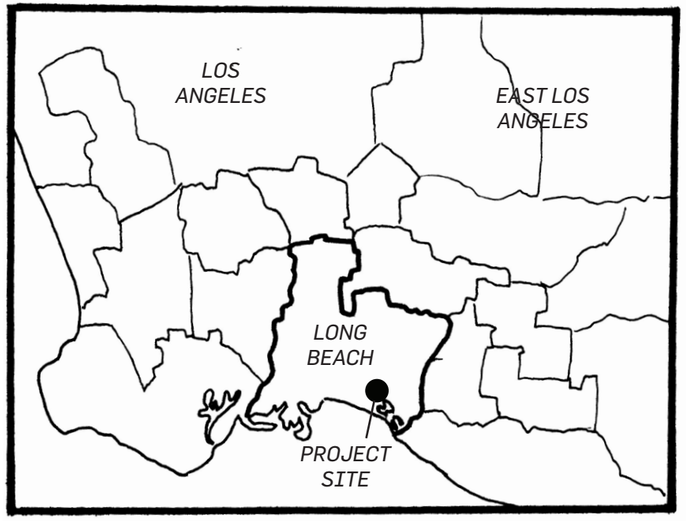
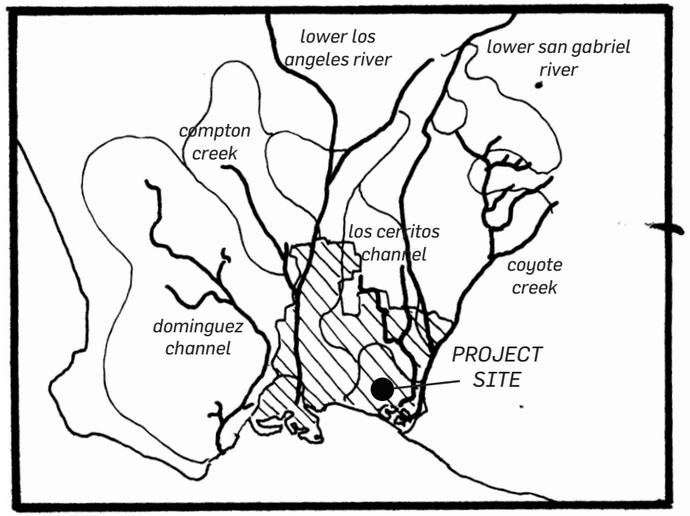
P1. Colorado Lagoon with apparent connection to Alamitos Bay during 1920's



M1. Location Map



M2. Watershed Map

NARRATIVE: COLORADO LAGOON

The Colorado Lagoon is a man-made geomorphological feature located in Long Beach, California. It is one of the few remaining coastal salt marshes on the West Coast and has become a vital and necessary refuge for wildlife and native species.

It was once part of the vast historic Los Cerritos Wetlands and in 1923, the low-lying tidelands of Alamitos Bay were dredged to form the lagoon and Marine Stadium.

During 1932, the lagoon and Marine Stadium were used for diving trials and rowing events, so it was decided to separate the two by land filling along the alignment of Colorado Street and add a short underground pipe culvert and tide gate to maintain adequate diving depth in the lagoon.

In the late 1960s, the north end of Marine Stadium later was filled for a never-executed crosstown freeway and eventually became Marina Vista Park.

The lagoon was reduced to an 18 acre tidal water body connected to Alamitos Bay through a 900 foot box culvert that runs under Marina Vista Park into Marine Stadium.

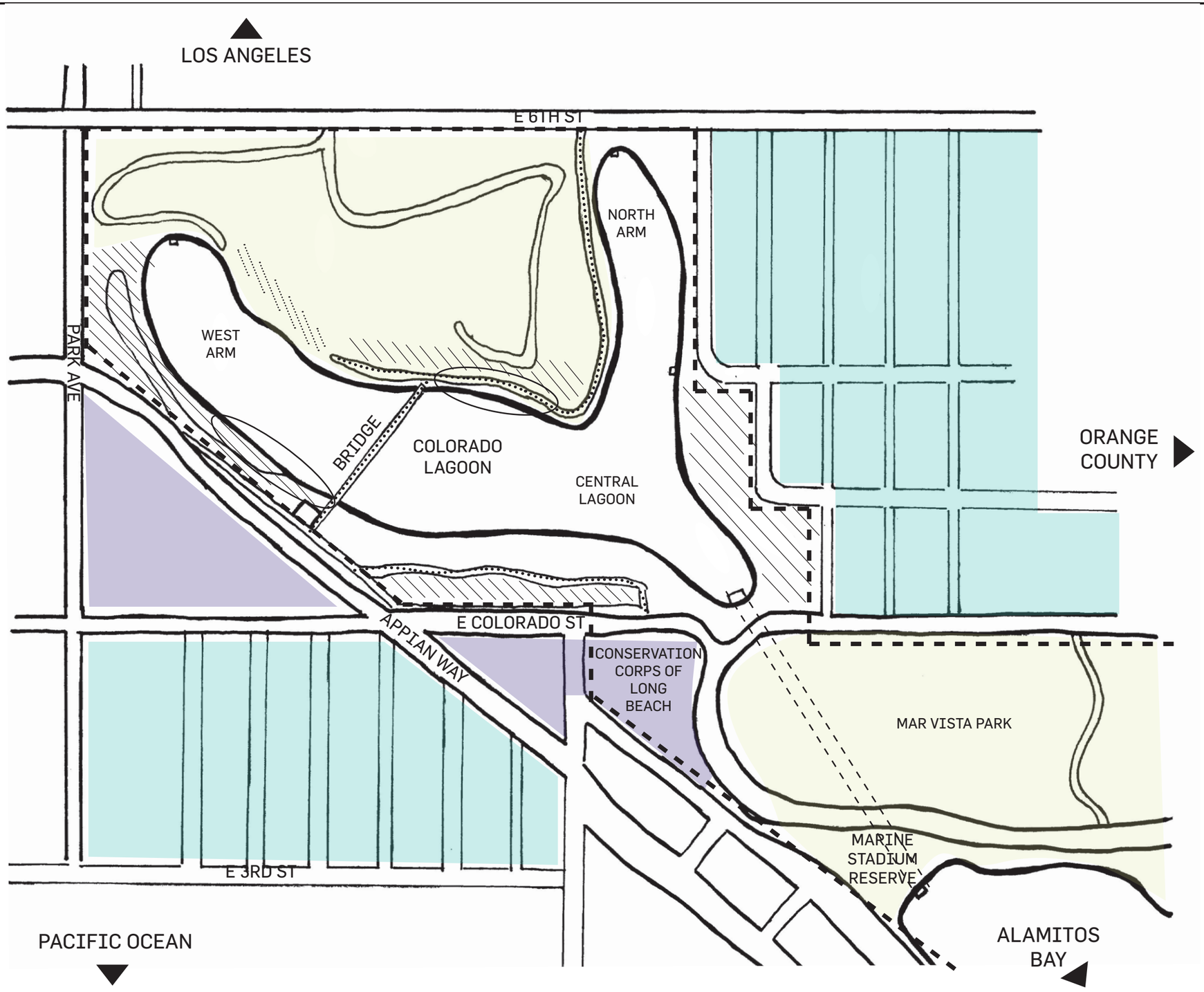
Over the course of several decades, many recreational properties and parks were built around the edge's of the lagoon and eventually resulted in an urban watershed impacting the Lagoon's water quality through the storm drains.

It has completed the first and second phase of remitigation and restoration with an added 600 foot bioswale on the west end of the lagoon and is planned to complete the third phase of an open channel through the Alamitos Bay in the near future.

P2. View from North Arm marsh habitat adjacent to the hiking path

P3. View of walking trail and South Beach beyond

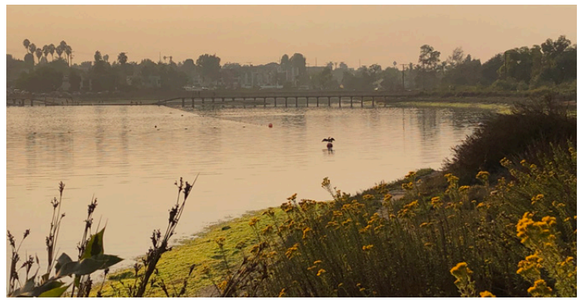
P4. View of walking trail bridge



LEGEND

- PROJECT BOUNDARY
- PEDESTRIAN CIRCULATION
- CULVERT TO ALAMITOS BAY
- BEACHES
- BIOSWALE
- VEGETATION AND HABITAT
- RECREATION
- RESIDENTIAL
- DEVELOPMENTS

Michelle Tiet ARCH-X 472.14A: Landscape Construction Methods and Materials	SITE ANALYSIS & CONTEXT	Grading and Drainage Study: Colorado Lagoon, Long Beach	Page 2 of 6	N 0 150' 300' 600' Scale: 1:300	10/07/20	04



P5. View of the bridge

P6. View of South Beach

LOS ANGELES

ORANGE COUNTY

PACIFIC OCEAN

ALAMITOS BAY

LEGEND

- PROJECT BOUNDARY
- Ⓐ CULVERTS
- Ⓑ BRIDGE
- Ⓒ BIOSWALE
- Ⓓ LIFEGUARD STATION
- Ⓔ MODEL BOAT SHOP
- Ⓕ LAGOON PLAYGROUND
- Ⓖ WALKING TRAIL

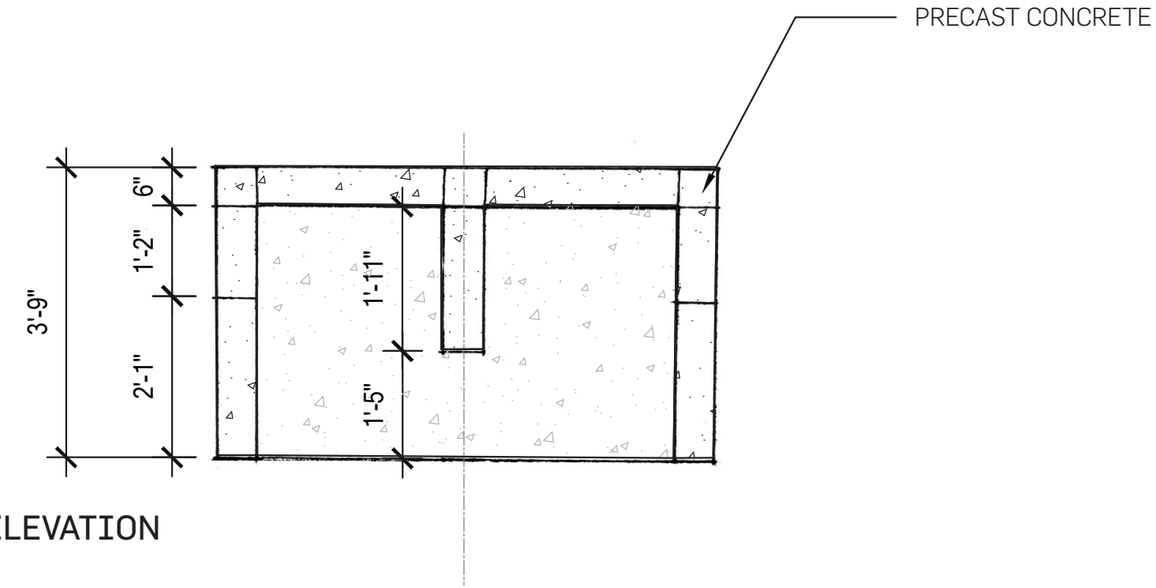
Michelle Tiet ARCH-X 472.14A: Landscape Construction Methods and Materials	SITE PLAN	Grading and Drainage Study: Colorado Lagoon, Long Beach	Page 3 of 6	N 0 100' 200' 400' Scale: 1:200	10/07/20	05

I1. Aerial image of the box culvert

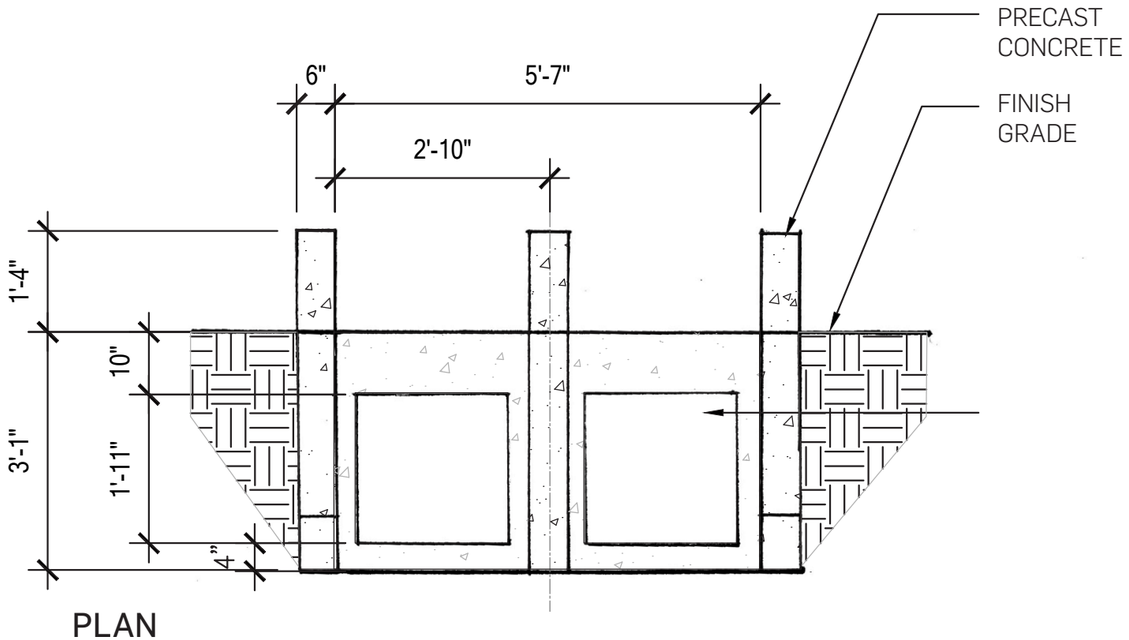
P7. Box culvert connection to Alamitos Bay

DETAIL ANALYSIS

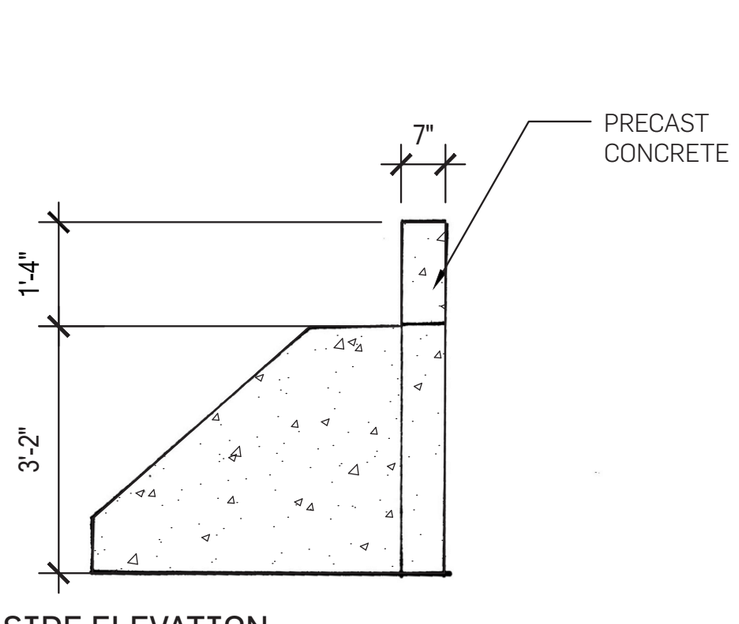
This box culvert runs 900 feet underneath Marina Vista Park and is the main connection from the Lagoon to the Alamitos Bay. It currently serves as a host for sensitive habitat, public recreation, and a place to retain and convey storm floods. Since it currently restricts the tidal flows to the lagoon, it may impact the lagoon's water and habitat quality.



ELEVATION

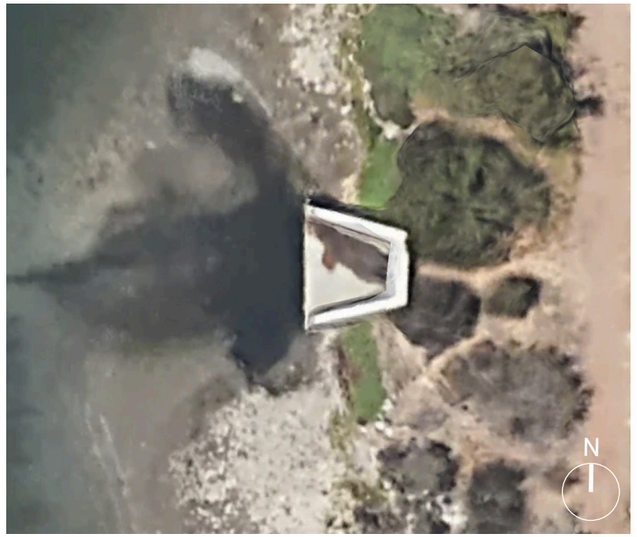


PLAN



SIDE ELEVATION

Michelle Tiet ARCH-X 472.14A: Landscape Construction Methods and Materials	A - BOX CULVERT ENLARGEMENT & DETAIL	Grading and Drainage Study: Colorado Lagoon, Long Beach	Page 4 of 6	0 1' 2' 4' Scale: 1/2" = 1'0"	10/07/20	06

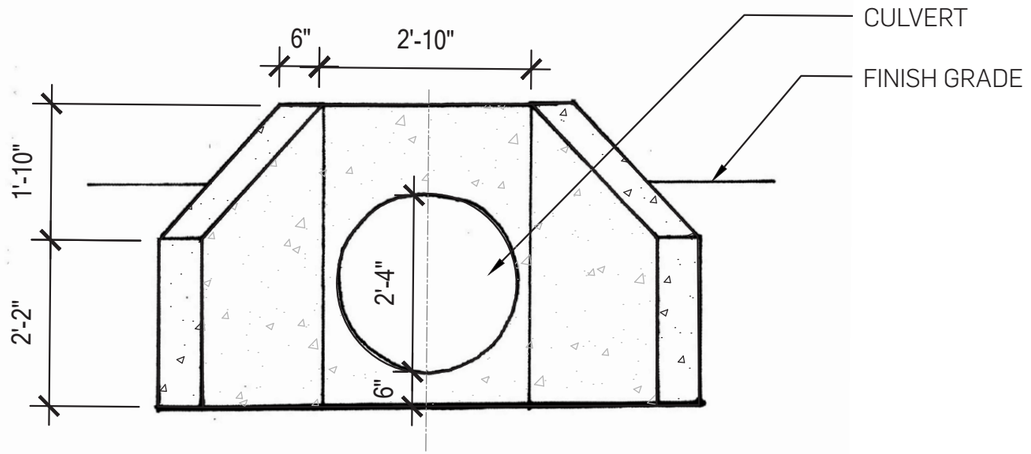


I2. Aerial image of pipe culvert

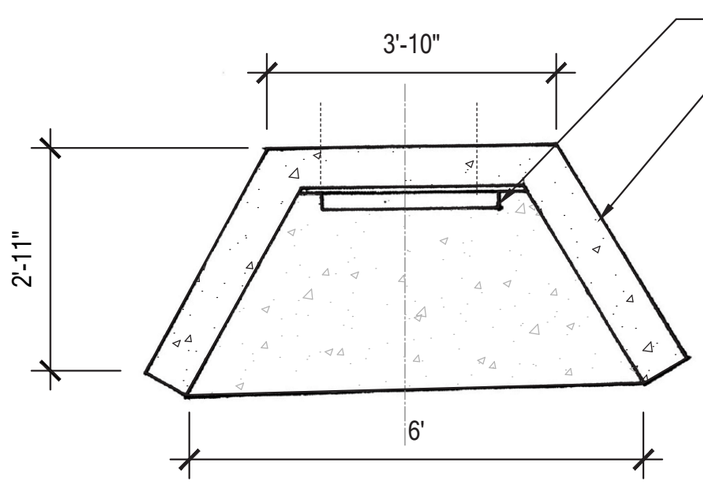
P8. Pipe culvert

DETAIL ANALYSIS

This pipe culvert is one of few that are on the project site. It's a covered concrete hydraulic structure that lies perpendicular under roads ways or traffic enbankments and allows water to flow from one side to the other. It functions as a drainage relief system and can also serve as a traffic load bearing structure.



ELEVATION



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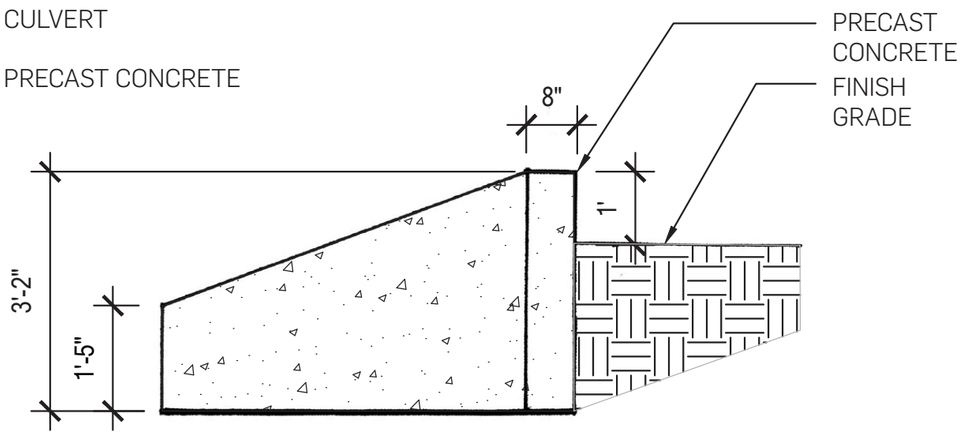


SIDE ELEVATION

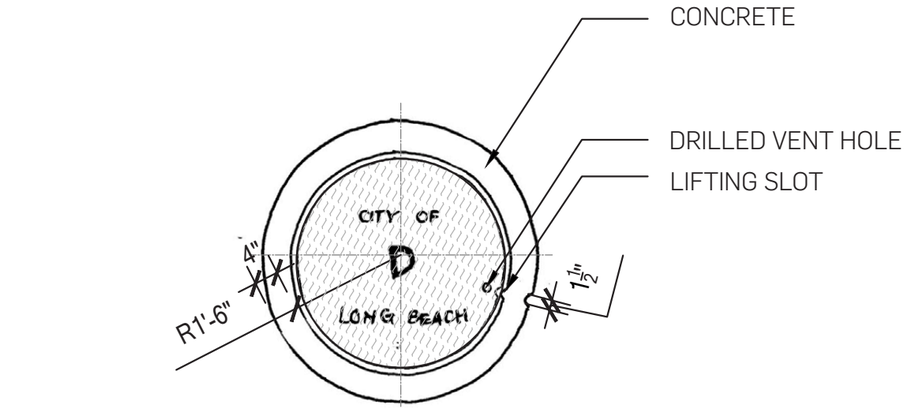
Michelle Tiet ARCH-X 472.14A: Landscape Construction Methods and Materials	B - PIPE CULVERT ENLARGEMENT & DETAIL	Grading and Drainage Study: Colorado Lagoon, Long Beach	Page 5 of 6	0 1' 2' 4' Scale: 1/2" = 1'-0"	10/07/20	07

I3. Aerial view of manhole on grade above a pipe culvert

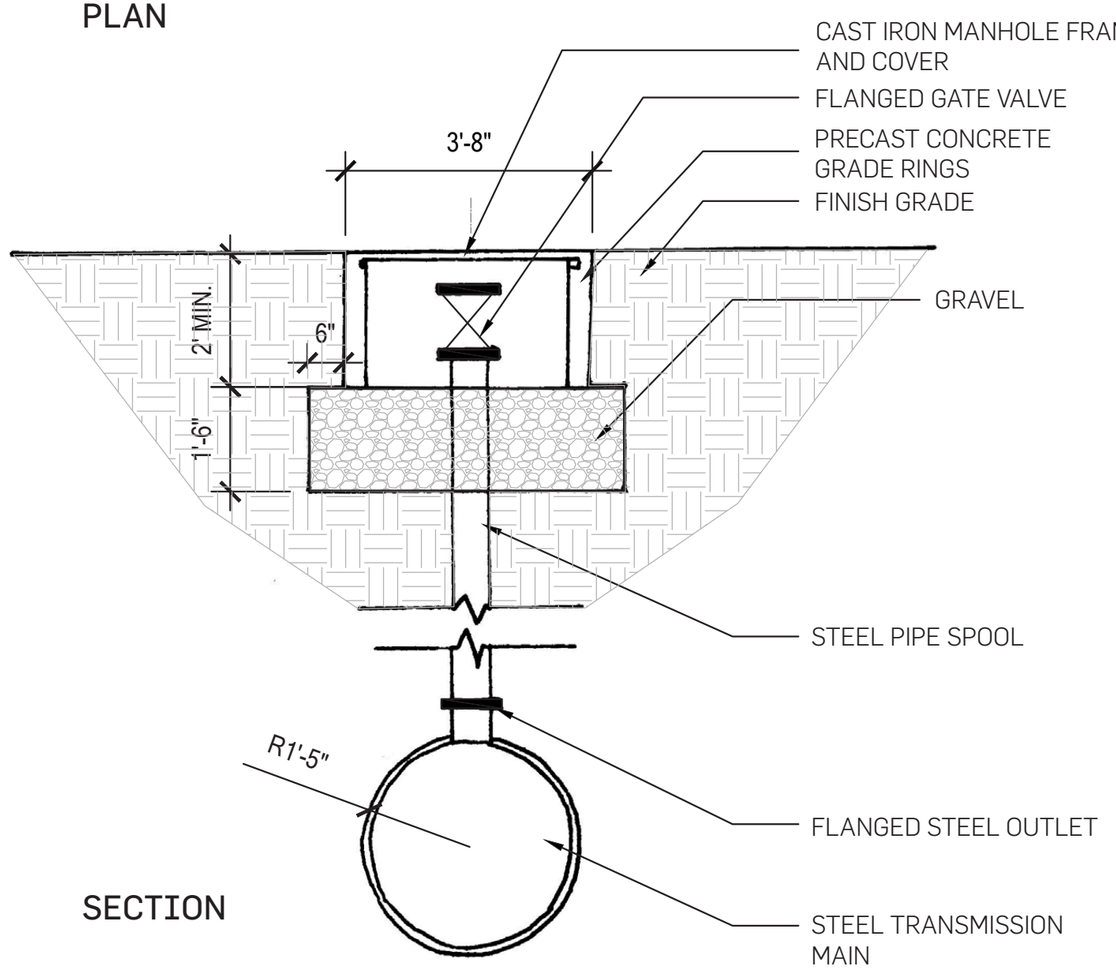
P9. Manhole

DETAIL ANALYSIS

This manhole is located above one of the pipe culverts on site and is probably used for inspection, cleaning and removal of obstructions below the pipes. It also allows escape of gases through a perforated cover and helps with ventilation of as well. This manhole differs from the others on site as it sits in dirt rather in a concrete base. Because of this, a concrete base is needed as a foundation for the connection to the pipe.

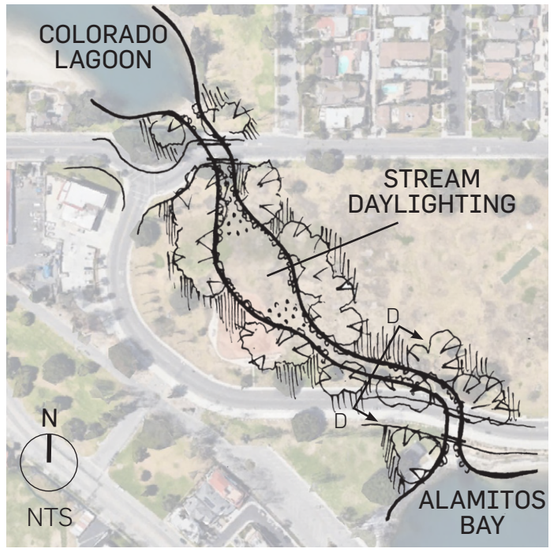


PLAN

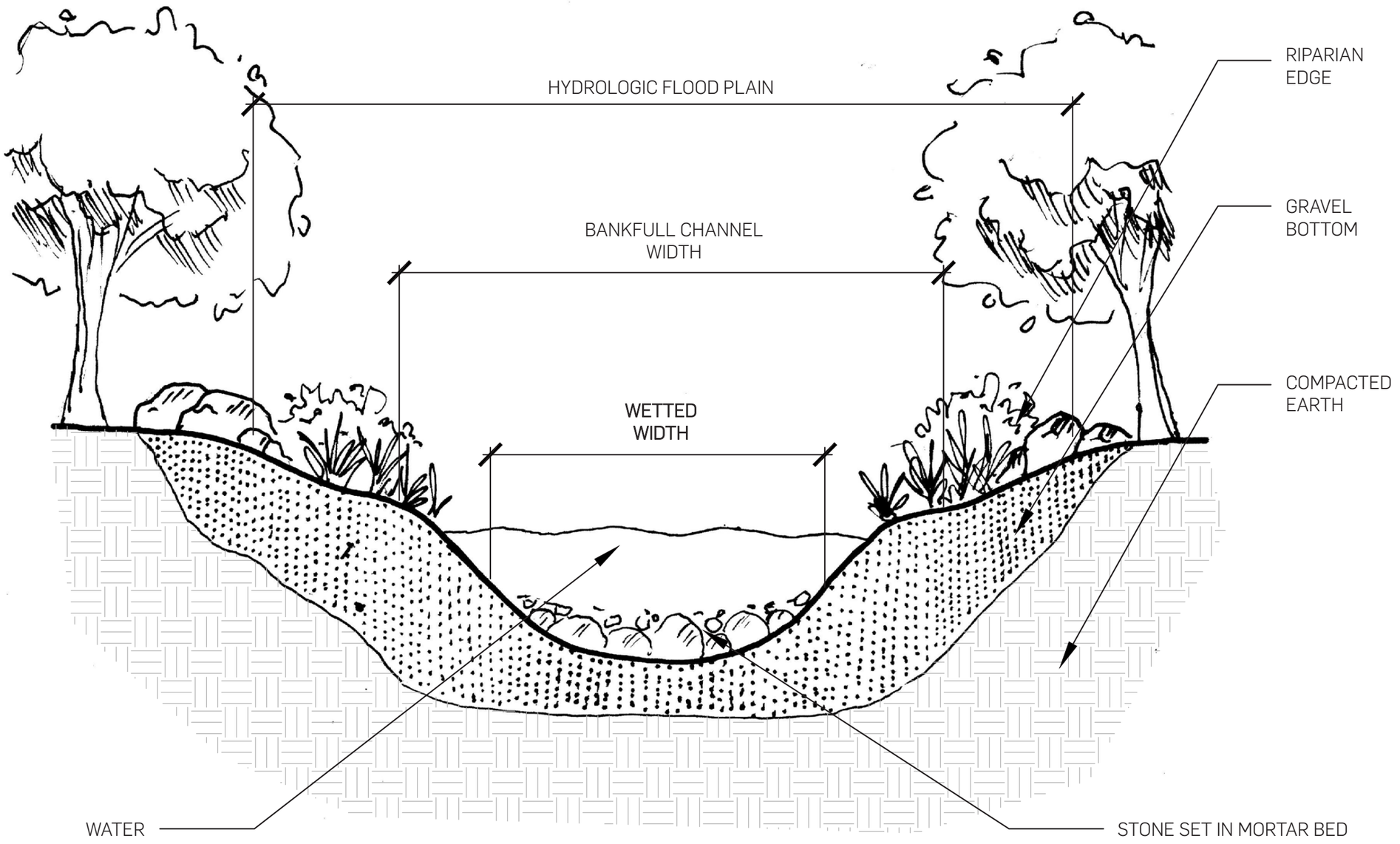


SECTION

Michelle Tiet ARCH-X 472.14A: Landscape Construction Methods and Materials	C -MANHOLE ENLARGEMENT & DETAIL	Grading and Drainage Study: Colorado Lagoon, Long Beach	Page 6 of 6	0 1' 2' 4' Scale: 1/2" = 1'-0"	10/07/20	08



PLAN



SECTION

REDESIGN

The box culvert connected to the Alamitos Bay was once an open channel that was diverted below ground. The redesign is proposing daylighting with a naturalized stream to mitigate floods and increase hydraulic storage. It will restore a riparian environment that will enhance the ecological and economical aspects of the surrounding inhabitants.

NOTE: USE EXISTING STONE AND STONE RELOCATED FROM CULVERT AREA, PROVIDE ADDITIONAL STONE AS NECESSARY

I1. A forest of oil derricks sprouts up in 1937

P1. West side condition of retaining wall

P2. Poured-in-place concrete wall

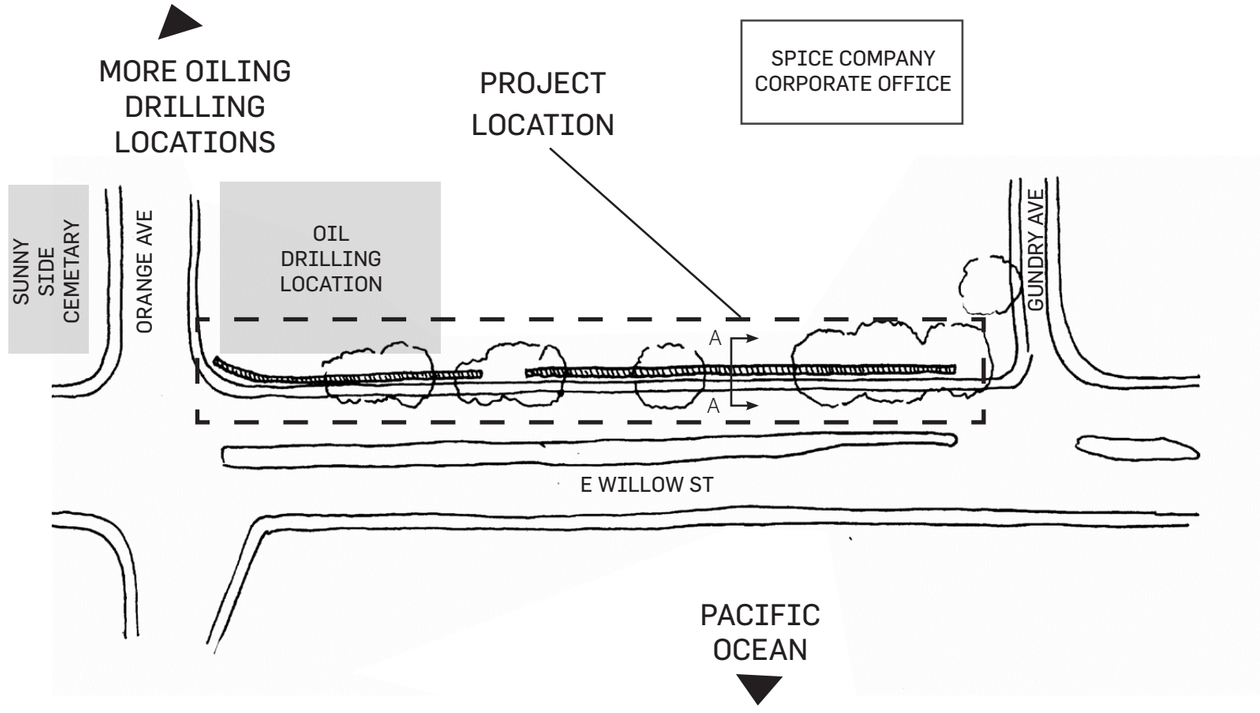
P3. East side condition of retaining wall

NARRATIVE: SIGNAL HILL

Signal Hill's legacy of oil production began in 1919 when oil was first discovered. The Long Beach Field is termed a mega giant field. It is the eighth-largest by cumulative production in California, and although largely depleted now, it still officially retains around 5 million barrels of recoverable oil.

The field was extremely productive in the 1920s, with hundreds of oil derricks covering Signal Hill and adjacent parts of Long Beach. Even with the dramatic land use changes over the decades since its discovery, it remains moderately productive, with oil wells and oilfield infrastructure intermixed with commercial and residential development.

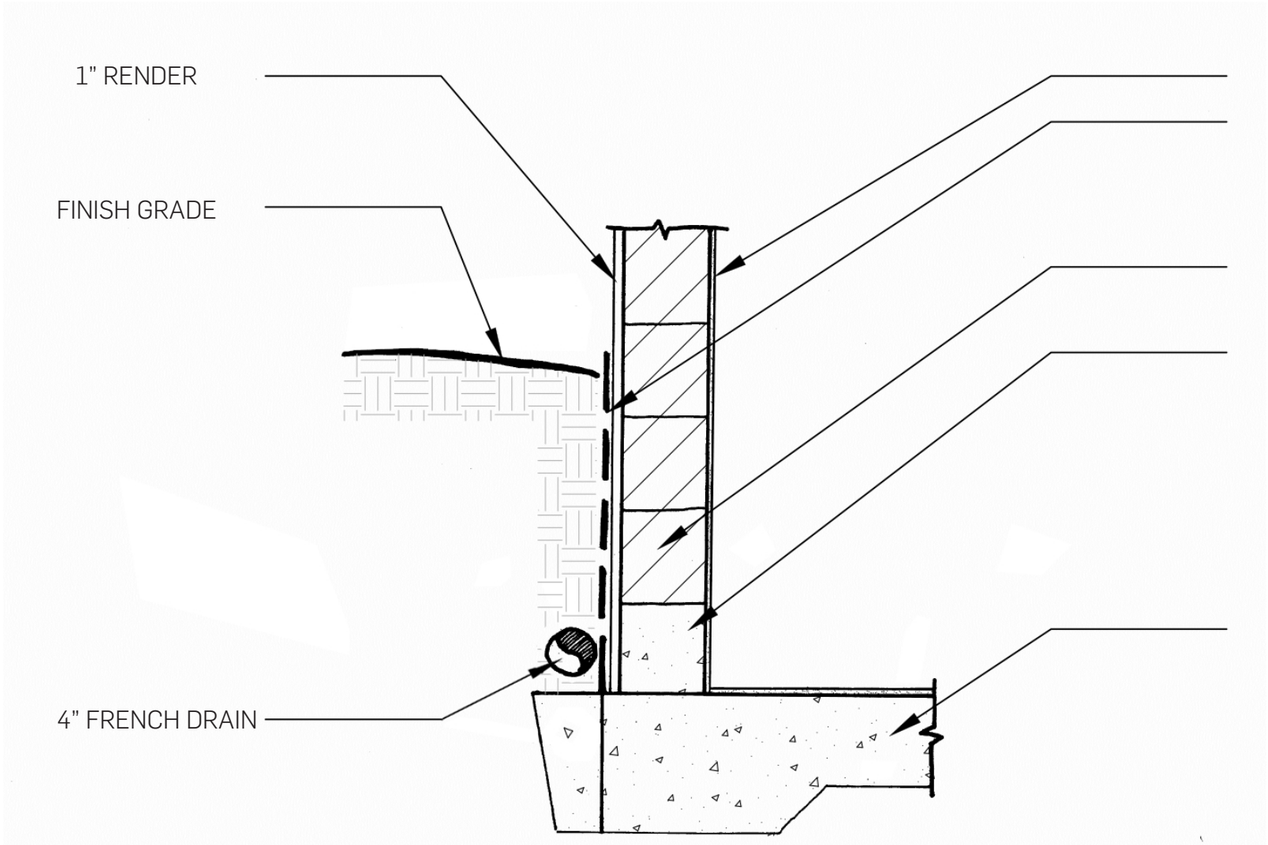
The site chosen is located across the street from Sunny Side Cemetary , which is currently an empty plot with walls retaining a large amount of soil along the sidewalk of East Willow Street. Right at the corner of the plot, there lies an oil drilling area that looks like it has not been active for quite some time.



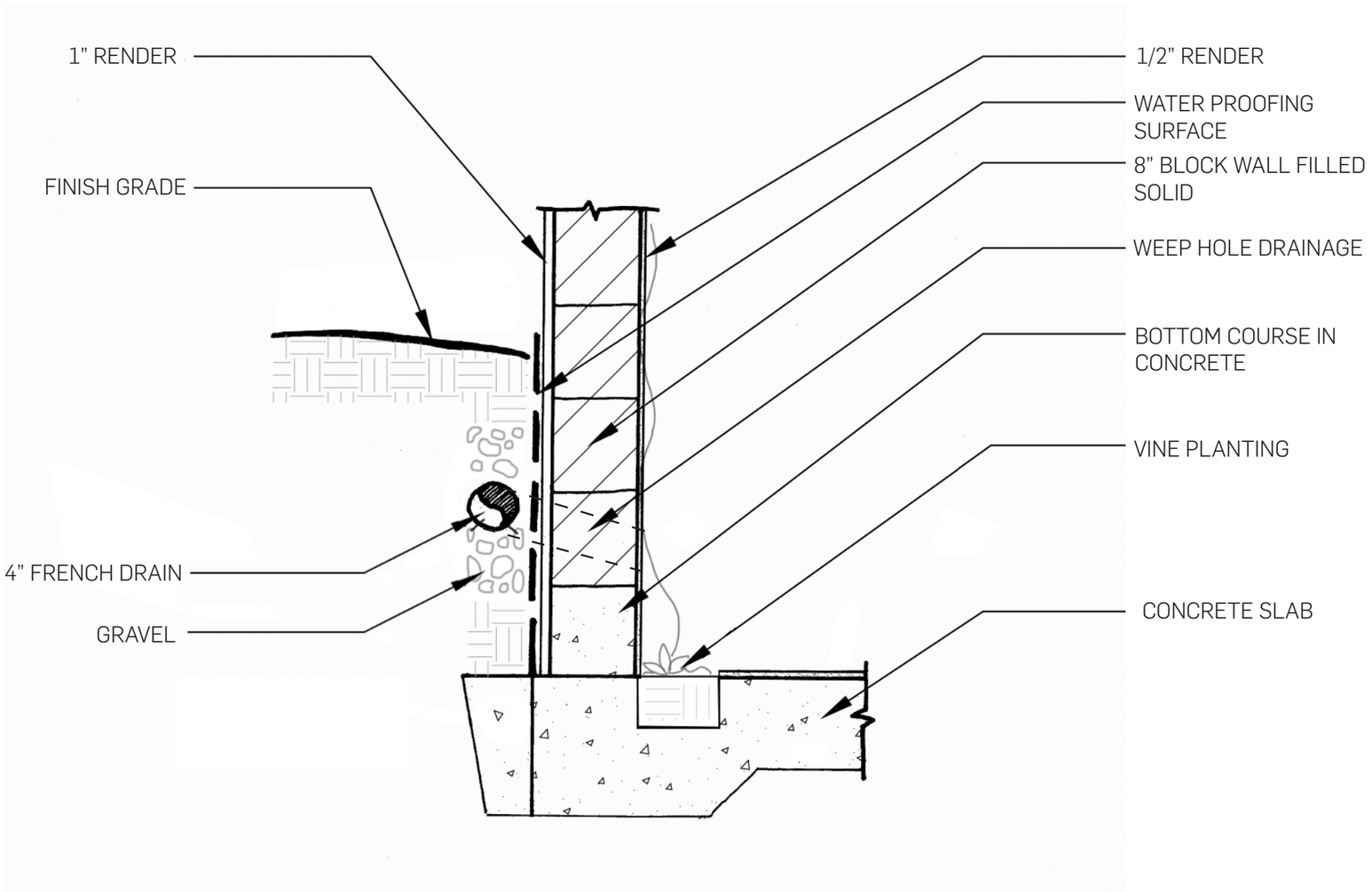
Michelle Tiet ARCH-X 472.14A: Landscape Construction Methods and Materials	COVER SHEET	Retaining Wall Study: E Willow St, Signal Hill	Page 1 of 3	N 0 30' 60' 120' Scale: 1"=60'-0"	10/19/20	*010*

DETAIL ANALYSIS

This retaining wall looks like a CMU block wall that is about 8' tall and 187' long. I did not notice any cracks on the wall, so it may be structured with rebar to hold the grade on one side, which is the soil. There should be drainage to allow the water to flow through the wall, but from my analysis, I could not identify where the water drains. The drainage for this retaining wall may either be located behind the wall on the bottom of the grade or it may not have a proper drainage system. This section shows a system below the retaining wall on the soil side to provide the proper drainage.



SECTION

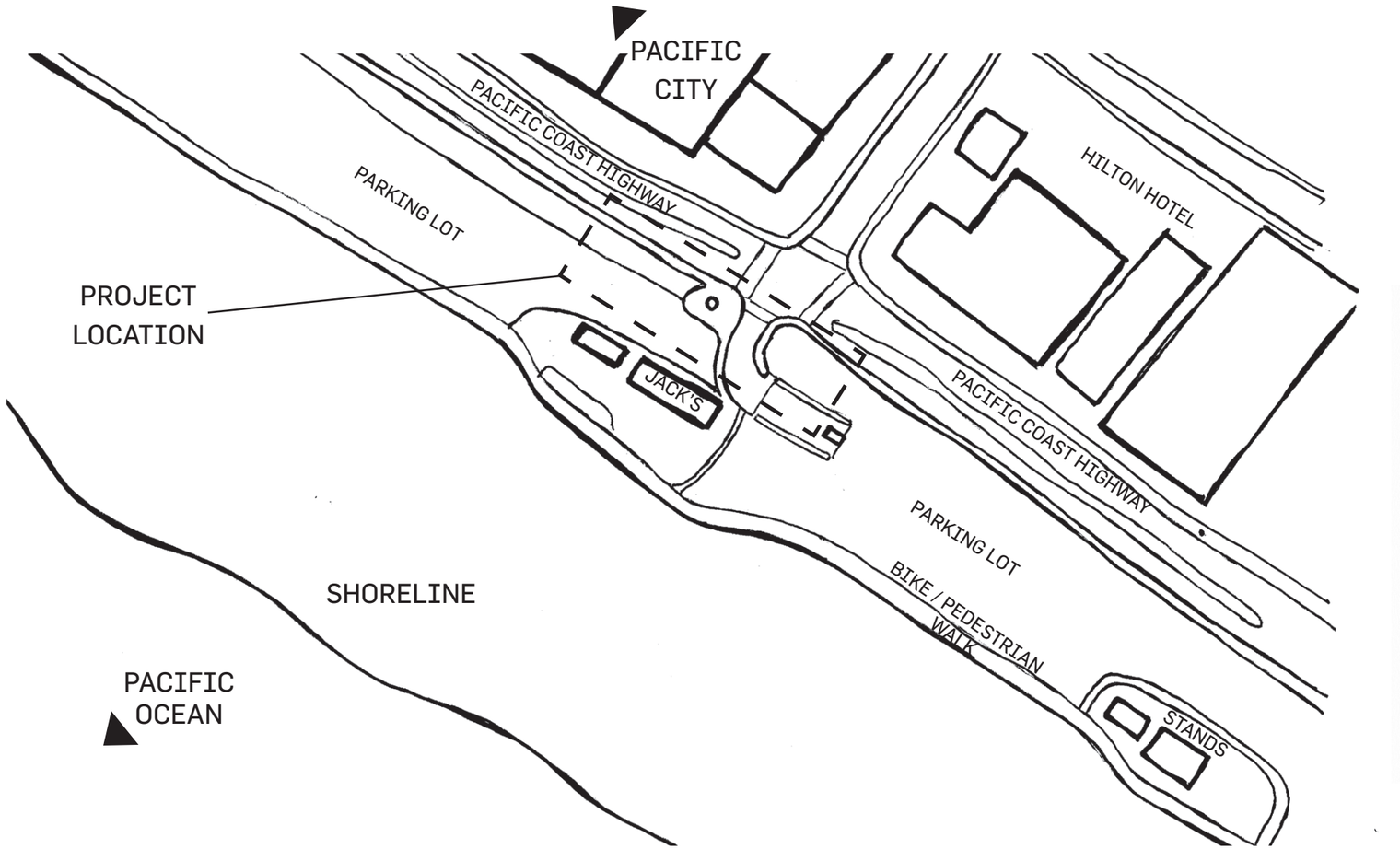


SECTION

DETAIL ANALYSIS

From the initial site analysis there was proper drainage on the other wall on this property, however, this retaining wall did not have proper drainage and it was the tallest wall on the site. It seems to me that there should be a weep hole to help with better drainage and have the drain in gravel. It would make sense to have vine planting on the other side of the retaining wall to capture the water and beautify the wall from street view.

I1. Historical image of huntington beach

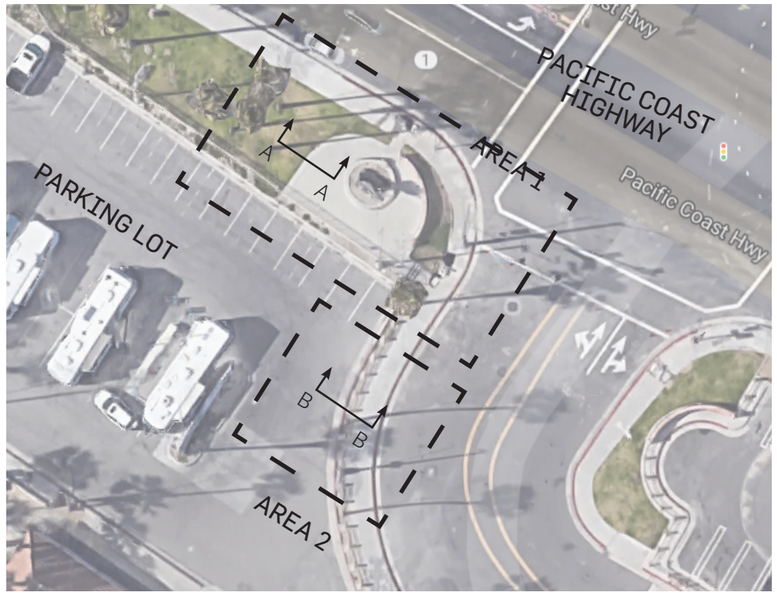


NARRATIVE: HUNTINGTON BEACH

Huntington Beach, one of the fastest growing cites in the nation during the 1960s. It has slowed down quite a bit since it was transformed from a rough and tumble oil town into the third largest city in Orange County.

The area I chose to study are the paving areas around the Surf City's focal point and beach parking lot. Because of the city's location next to the ocean, I suspect that any paving materials used will weather quicker than most. Especially with the sea salt air, it seems like concrete paving is the best material option to be used in this case.

Michelle Tiet ARCH-X 472.14A: Landscape Construction Methods and Materials	COVER SHEET	**Paving Study:** **Huntington Beach**	Page 1 of 4	N 0 30' 60' 120' Scale: 1"=60'-0"	10/27/20	*013*



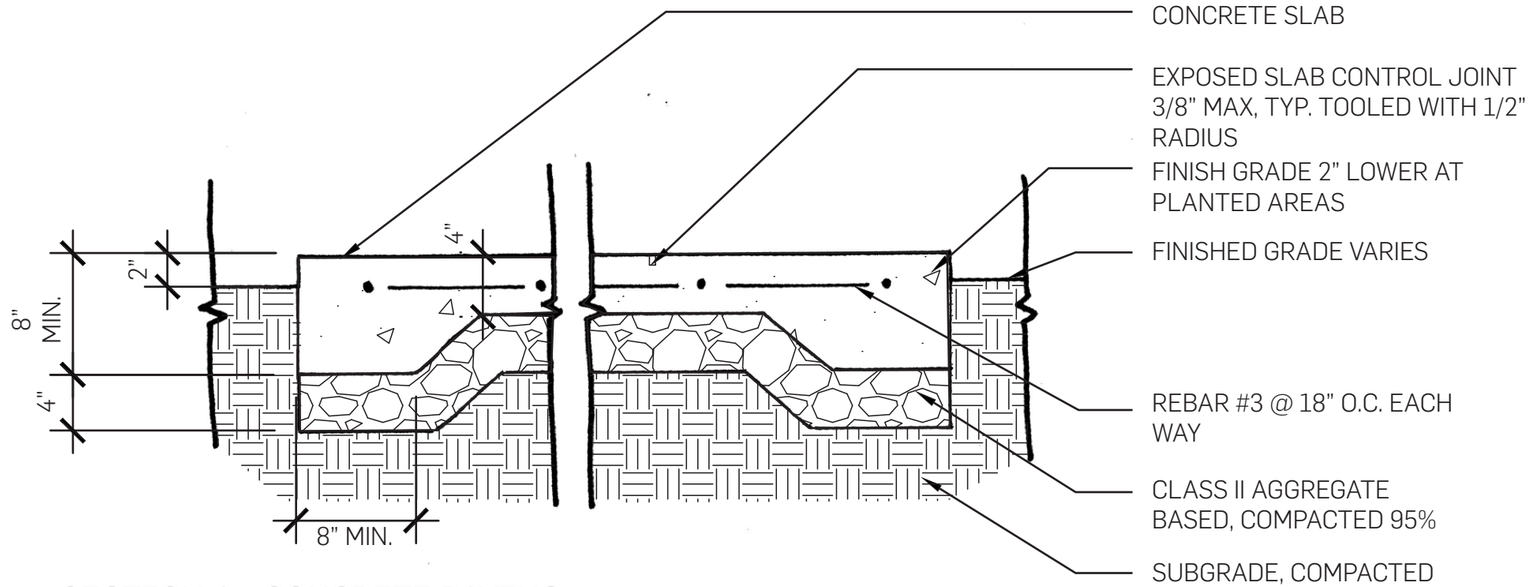
M1. Site map of Area 1 and 2 studies

P1. Concrete with irregular paving design

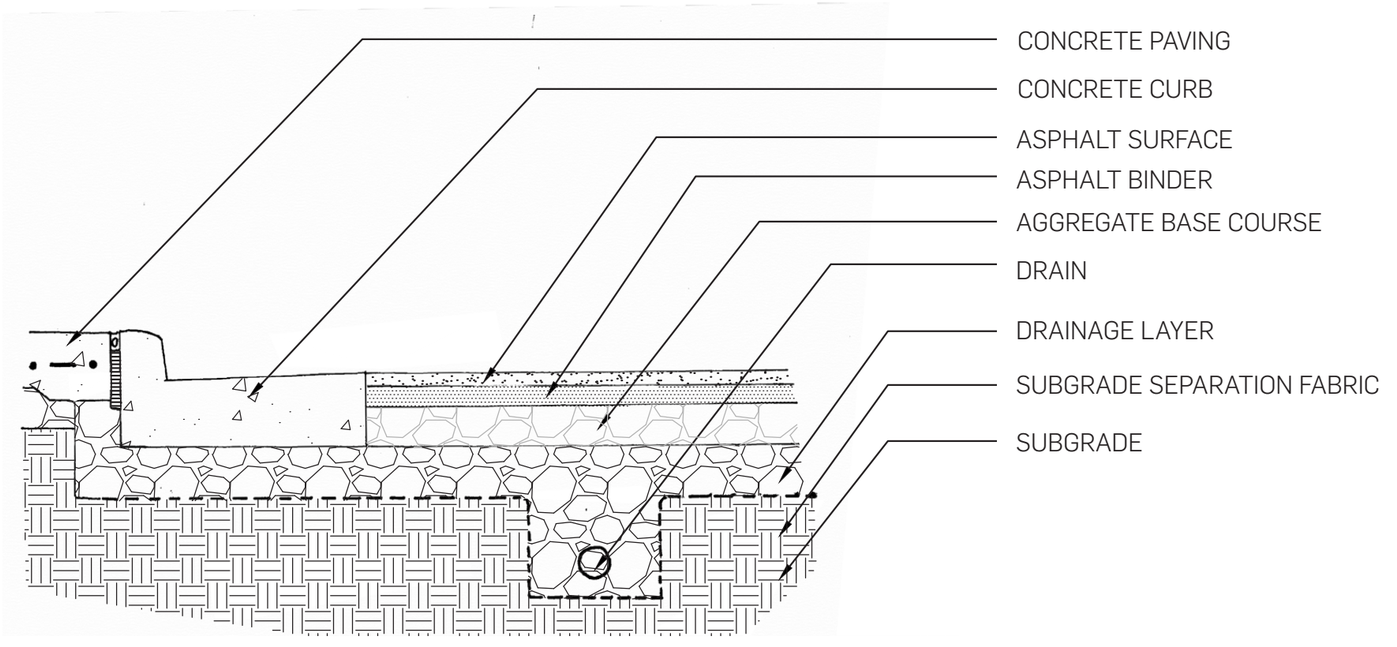
P2. Asphalt of parking lot

DETAIL ANALYSIS

My study of Area 1 is a concrete paving with score joints, while Area 2 is the parking lot made of asphalt. In Area 1 & Area 2, you can see that the paving maerial looks cracked and worn out. A few reasons I can infer is that there may be some improper pavement thicknesses and deterioration from lack of maintenance for both paving materials.

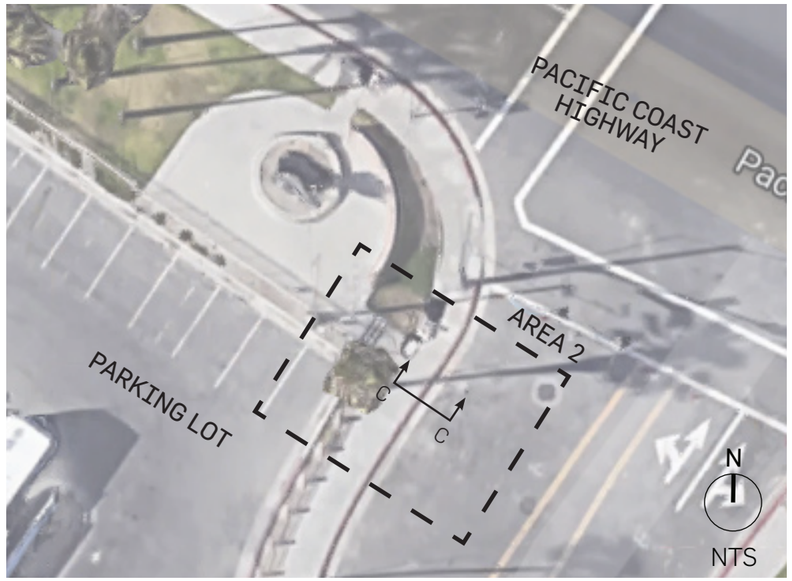


SECTION A - CONCRETE PAVING

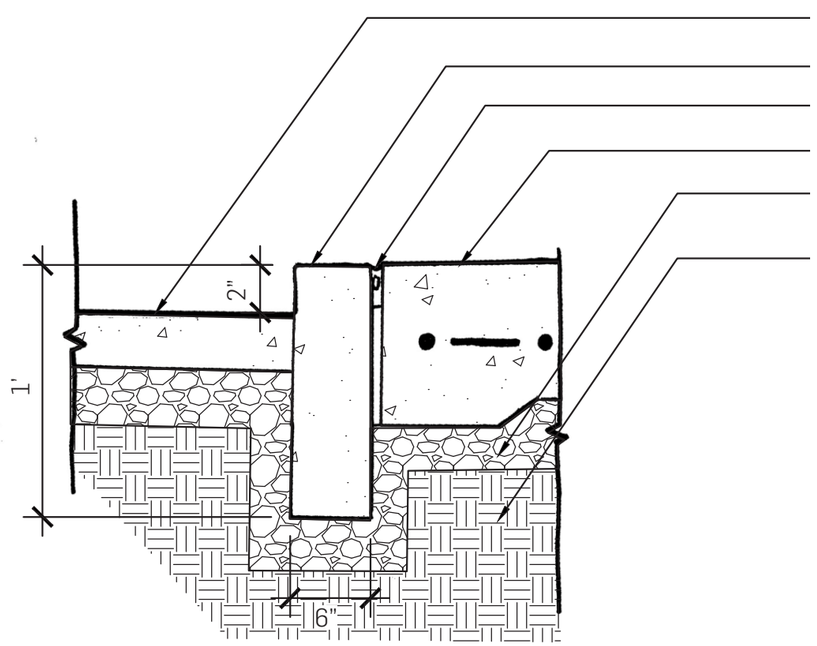


SECTION B - ASPHALT PAVING

Michelle Tiet ARCH-X 472.14A: Landscape Construction Methods and Materials	A & B - PAVING DETAILS	Paving Study: Huntington Beach	Page 2 of 4	0 6" 1' 2' Scale: 1" = 1'-0"	10/27/20	*014*



M2. Site map of Area 2 study

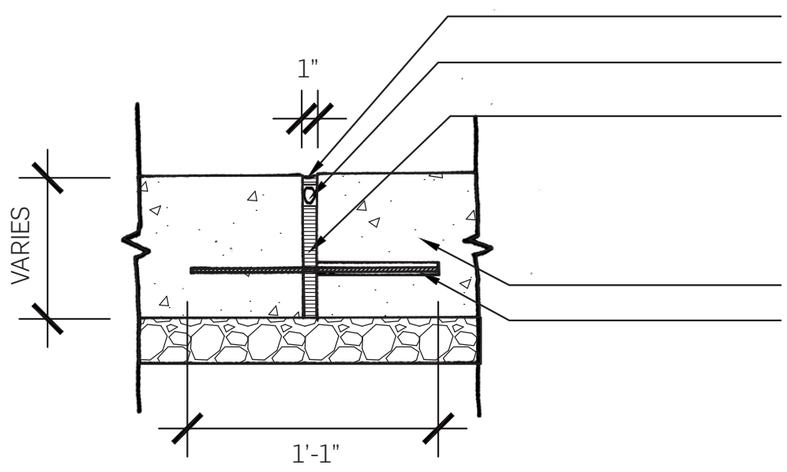


SECTION C - CONCRETE CURB

P3. Concrete curb and sidewalk paving

DETAIL ANALYSIS

I did another study of Area 2 of the concrete curb and the expansion joint. The concrete paving that meets the curb will need an expansion joint because it's a separate parts that will need some sort of relief from any pressure and prevent it from cracking prematurely

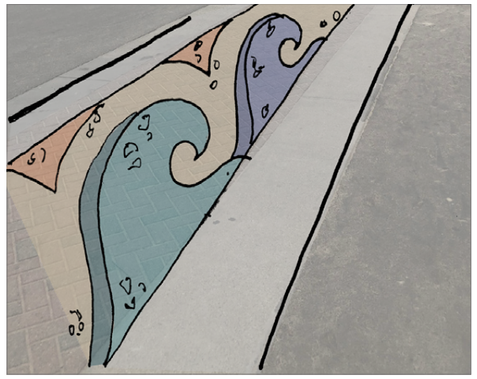


DETAIL C - EXPANSION JOINT

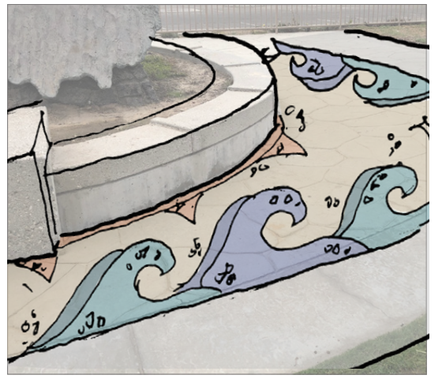
NOTE: PROVIDE SLIP SHEET CONTINUOUS WHERE JOINTS ARE OFFSET BETWEEN SLAB AND SURFACE. SEE SPECIFICATIONS AND PLAN DETAIL FOR PATTERN. NO DOWEL AT FACE OF STRUCTURE

Michelle Tiet ARCH-X 472.14A: Landscape Construction Methods and Materials	C - PAVING DETAILS	Paving Study: Huntington Beach	Page 3 of 4	0 6" 1' 2' Scale: 1" = 1'-0"	10/27/20	*015*

M1. Map of Bixby Park



P4. Crosswalk re-design tile pattern

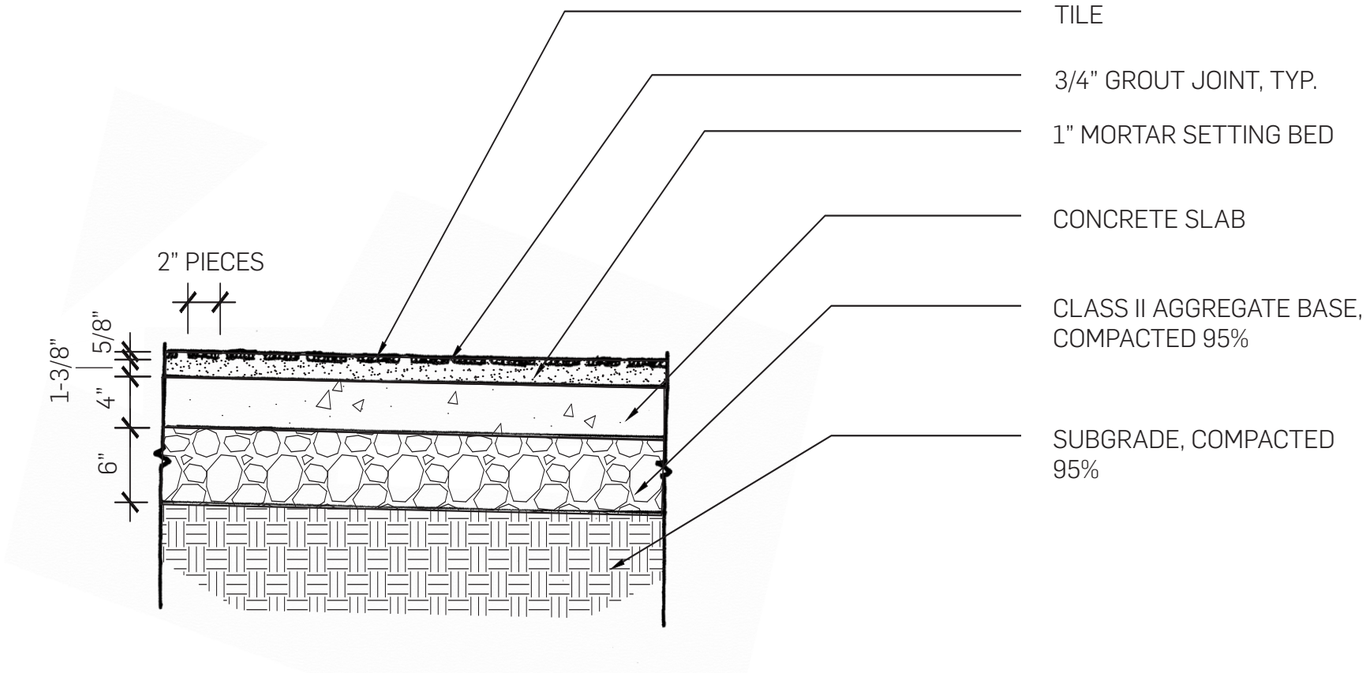


P5. Focal point paving re-design tile pattern

P6. Tile pieces with grout joint

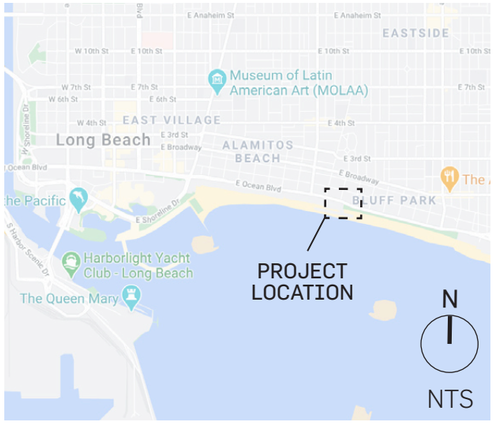
REDESIGN

For the redesign, I had inspiration from the famous Copacabana Beach Sidewalk Pavement in Rio de Janeiro, Brazil. The use of the portuguese tile mosaic in the paving provides a fresh, clean look to the space. I think this would look great in some of the crosswalk paths (Area 3) and the concrete paving where the Surf City Statue is located (Area 1).

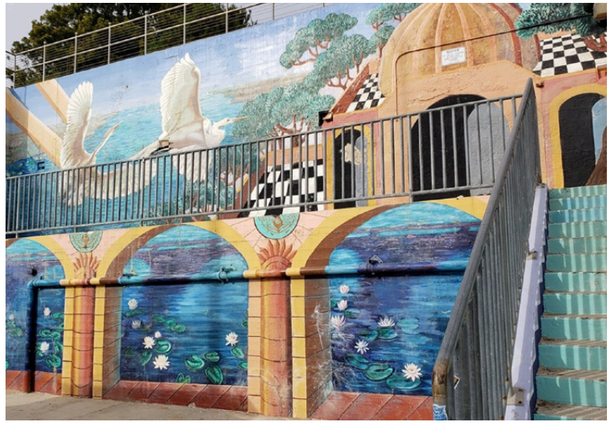


TILE PAVING

Michelle Tiet ARCH-X 472.14A: Landscape Construction Methods and Materials	PAVING - REDESIGN	Paving Study: Huntington Beach	Page 3 of 4	0 6" 1' 2' Scale: 1" = 1'-0"	10/27/20	*016*



M1. Map of Long Beach



I1. Closed- up tunnel

I2. Stairs up to platform to closed-up tunnel

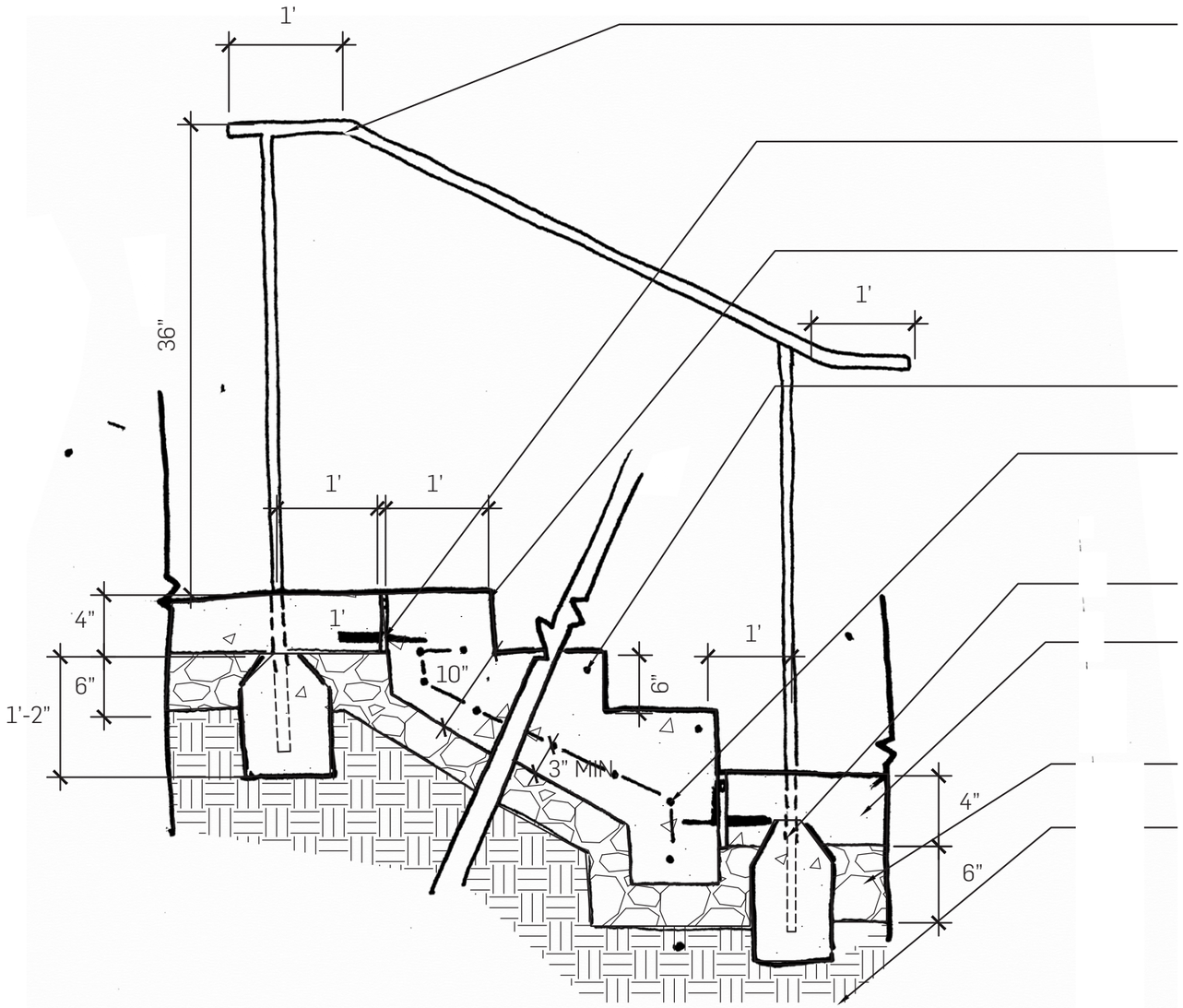
I3. At the base of the closed tunnel wall

NARRATIVE: BIXBY PARK

I studied the Bixby Passageway Tunnel Mural, at Cherry Ave and Ocean Blvd in Long Beach. It used to be an active tunnel that covers the beach end of a pedestrian passageway from Bixby Park up on other side of Ocean Blvd to the beach. The tunnel, one of two opened in 1927, was the idea of City Councilman Alexander Beck, who was concerned about pedestrian safety. The mural was painted when the passageway was closed in the 1960s by the city as part of a street-widening project. It has remained shut except in 1984 when the south end was used for a chase scene in the movie, “Body Double.”

Michelle Tiet ARCH-X 472.14A: Landscape Construction Methods and Materials	COVER SHEET	Stairs and Handrail Study: Bixby Park	Page 1 of 4	N 0 30' 60' 120' Scale: 1”=60’-0”	11/01/20	017

M2. Site map of stairs



SECTION

DETAIL ANALYSIS

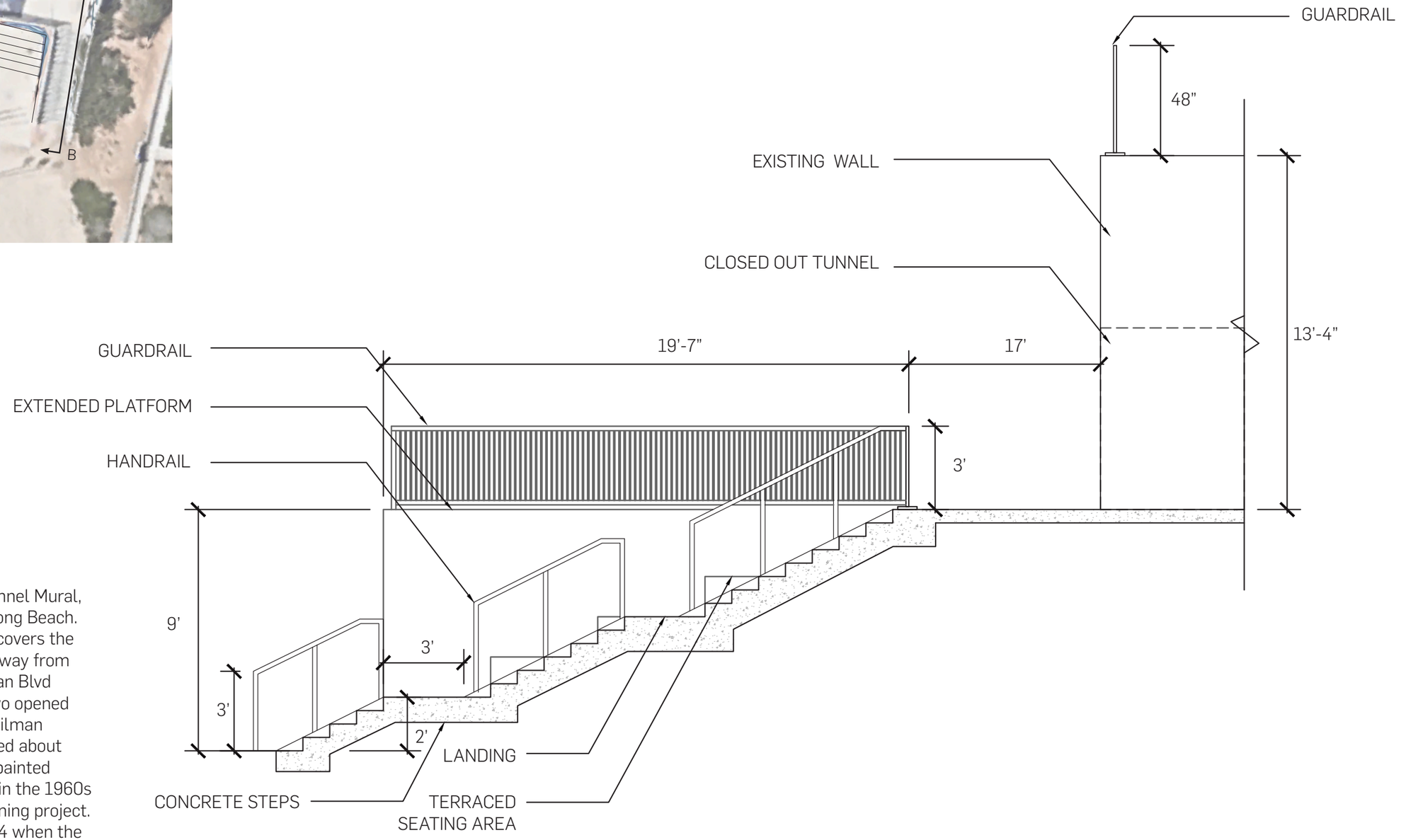
The stairs ascend up to a platform with a tall wall that retains the slope behind since it used to be a tunnel. There are 17 steps at 6" high each step which makes the grade of the platform at 8'-6". There are guardrails on the left side of the stairs on a low curb and the right side has a higher curb wall that retains the soil on that end with handrails.

Michelle Tiet ARCH-X 472.14A: Landscape Construction Methods and Materials	A - STAIR DETAIL	Stairs and Handrail Study: Bixby Park	Page 2 of 3	0 6" 1' 2' Scale: 1" = 1'-0"	11/01/20	*018*

REDESIGN

For the redesign, I chose to re-do the stairs by adding a second level with raised planter beds and created landing platforms to access these levels. It's now a terraced seating area for people to sit and enjoy the view of the beach. There were improvements to the side retaining walls and the handrails were also used instead of guardrails because of the change in elevation.

Michelle Tiet ARCH-X 472.14A: Landscape Construction Methods and Materials	REDESIGN	Stairs and Handrail Study: Bixby Park	Page 3 of 3	0 6" 1' 2' Scale: 1" = 1'-0"	11/01/20	*019*



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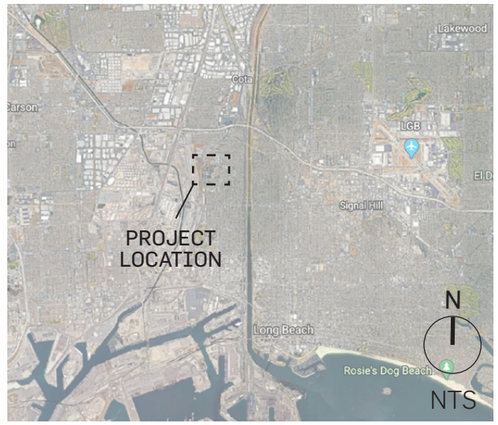
Michelle Tiet ARCH-X 472.14A: Landscape Construction Methods and Materials	B - REDESIGN ELEVATION	Stairs and Handrail Study: Bixby Park	Page 4 of 4	0 8' 16' 32' Scale: 1/8”=1’-0”	11/01/20	*020*



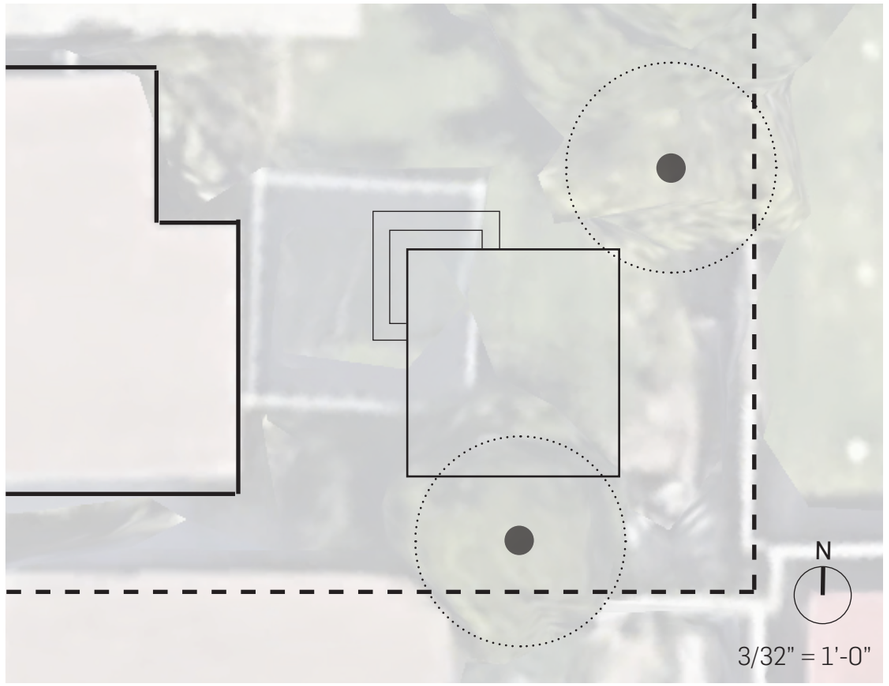
M1. Map of Long Beach

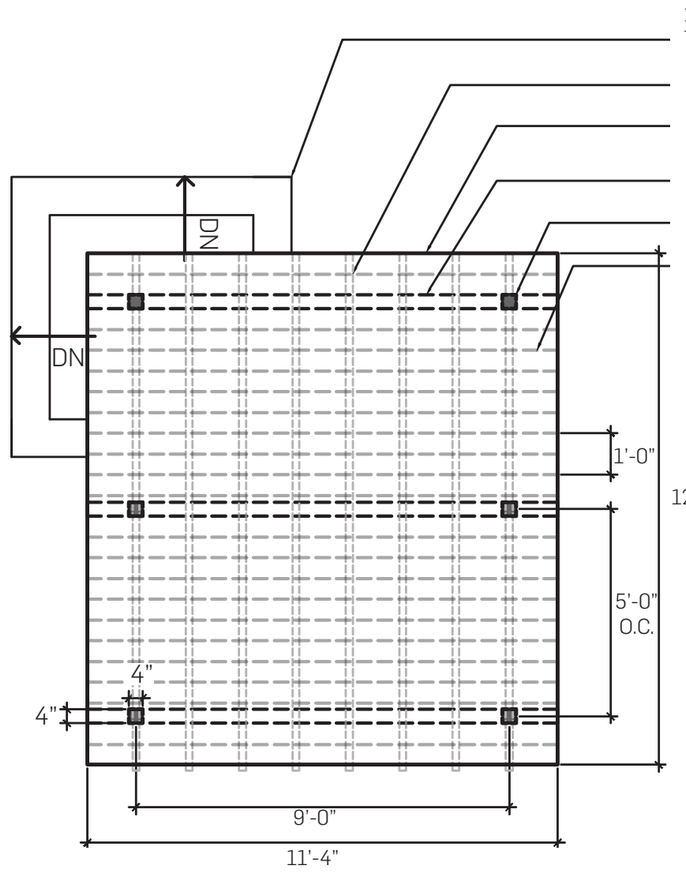
I1-3. Rear yard with temporary shade structure

NARRATIVE: LONG BEACH RESIDENCE

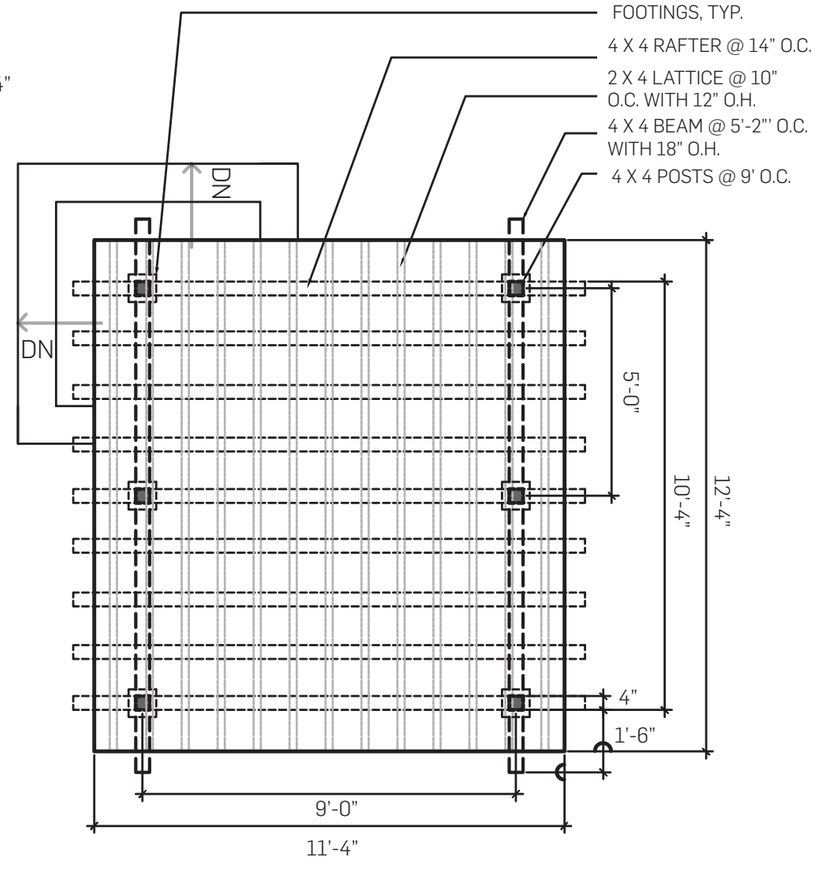
I studied a residence in Long Beach. The rear yard has an existing temporary shade structure made of aluminum with a mesh fabric that's just stuck into the lawn. From the site analysis, the grade is pitching towards the street which is a good sign. The residence would like to have a nice wood deck located at the corner of the property with some hedges for privacy. They also would like to keep some lawn as well. This study I will determine the span and load of the deck that will best fit the rear yard.

Michelle Tiet ARCH-X 472.14A: Landscape Construction Methods and Materials	COVER SHEET	Wood Deck & Pergola Study: Long Beach	Page 1 of 4	N 0 30' 60' 120' Scale: 1"=60'-0"	11/14/20	*021*





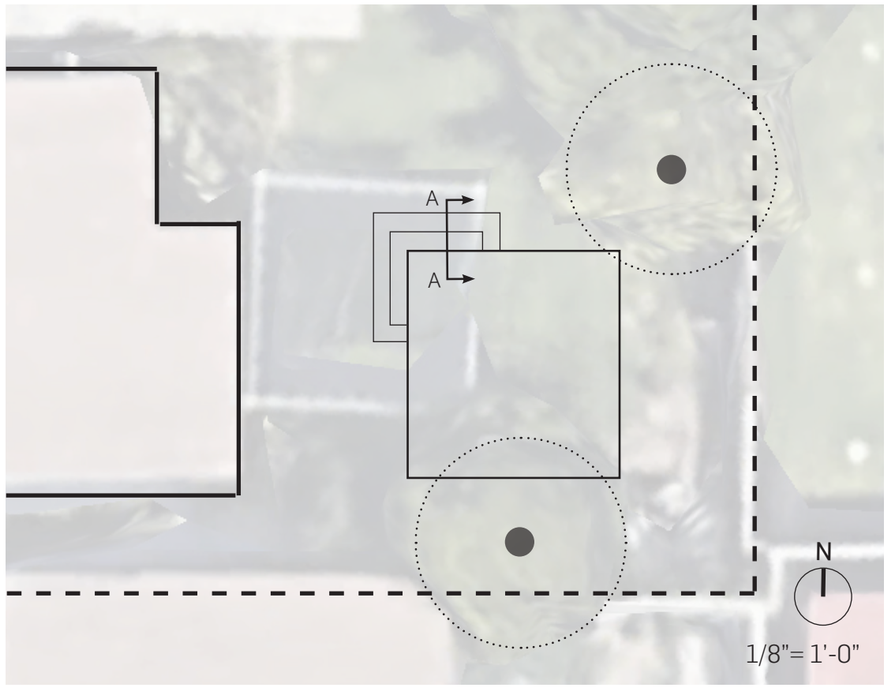
DECK PLAN

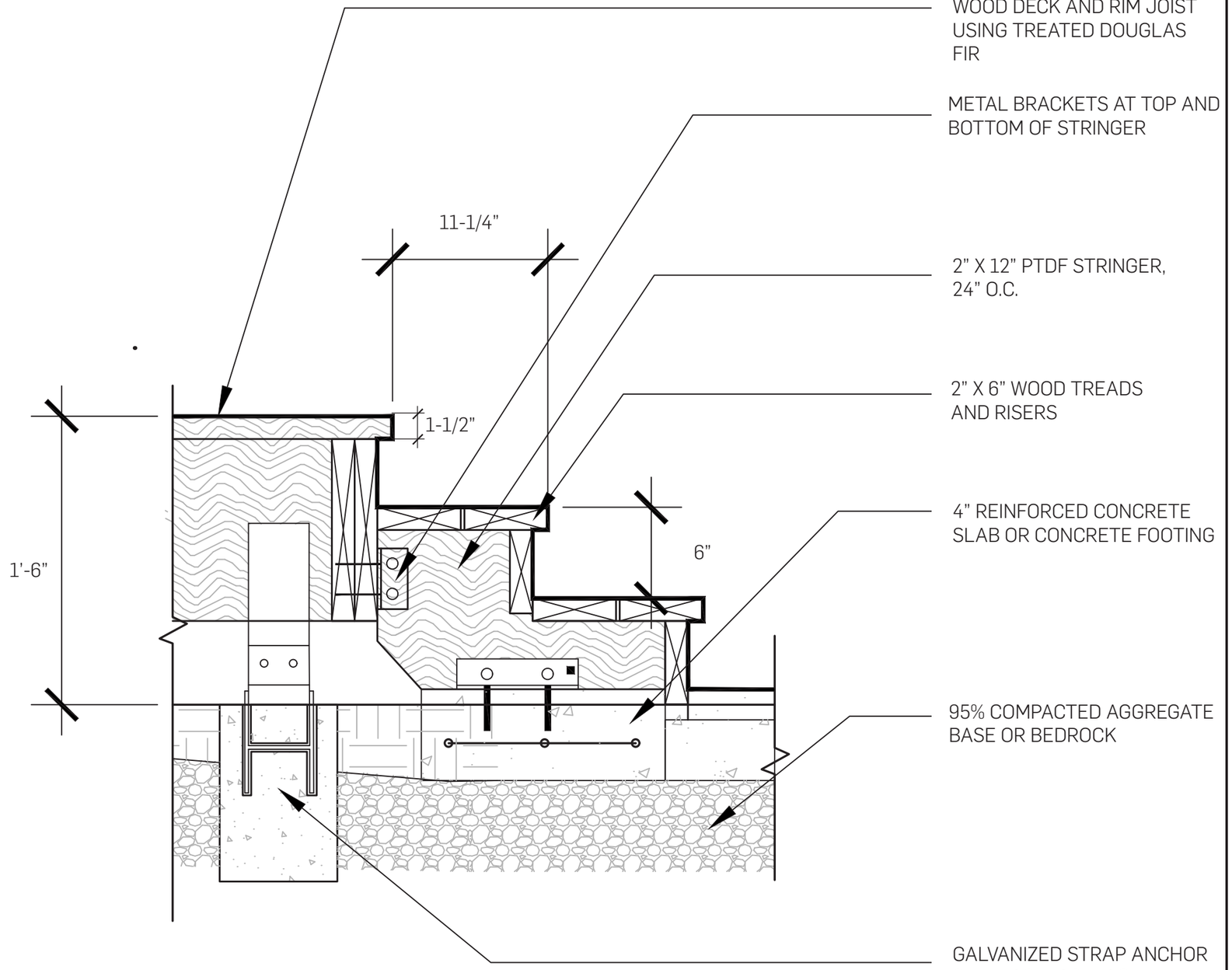


OVERHEAD PLAN

DESIGN

For the design I chose to add a wood deck structure with steps and a covered pergola on the corner of the rear yard to provide a space away from the residence and to house some furniture for an outdoor dining area. Proposed tall hedges will be added to fill in the exposed fence and provide privacy as well as keeping a planting bed surrounding the deck. Based on my calculations, this detail shows the plan for the wood deck and overhead structure using treated douglas fir.



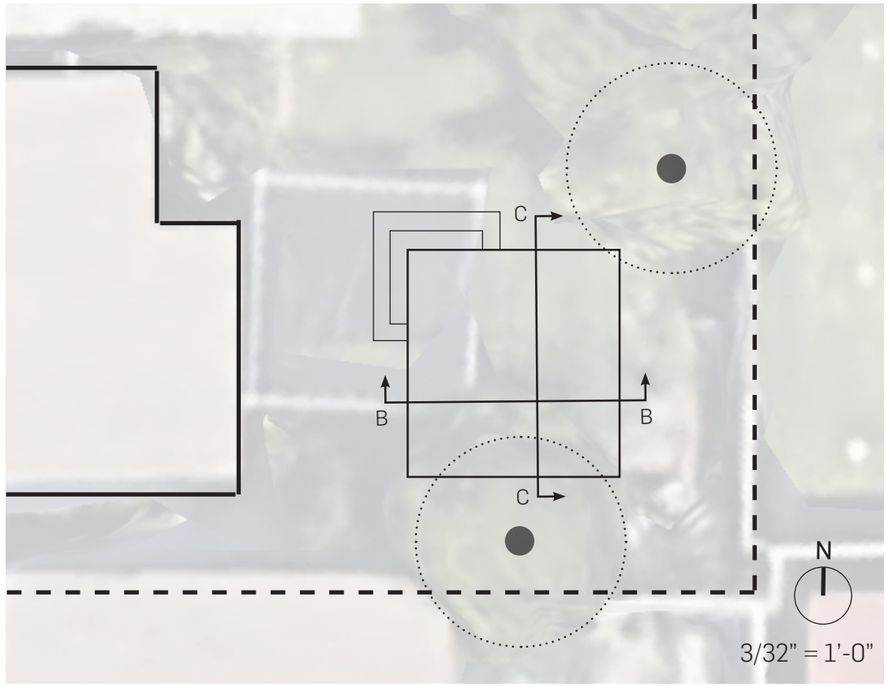


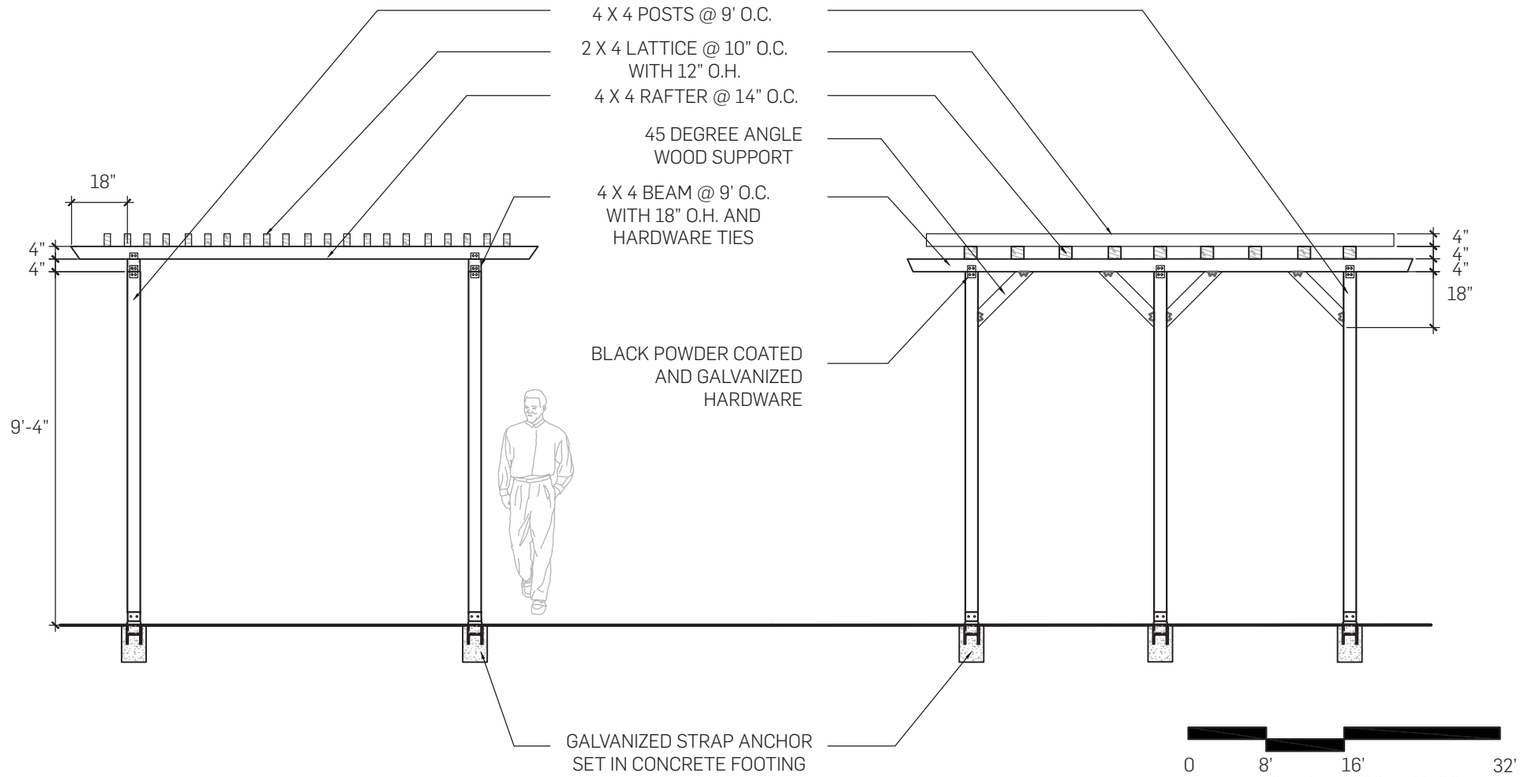
SECTION A - WOOD DECK STEPS

DESIGN

This detail is a close up study of the wood deck concrete footing and how the deck meets the wood steps. The elevation of the deck will be 18" high with wood treads that are 11-1/4" deep and the risers are 6" high. The bottom post of the wood deck has a galvanized strap anchor that is set in concrete footing below grade.

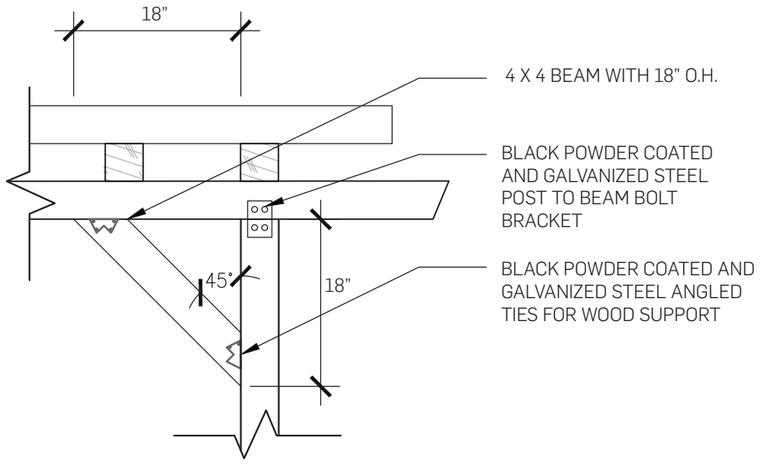
Michelle Tiet ARCH-X 472.14A: Landscape Construction Methods and Materials	A - WOOD DECK DETAIL	**Wood Deck & Pergola Study: Long Beach**	Page 3 of 4	0 1" 2" 4" Scale: 1" = 1'-0"	11/01/20	*023*



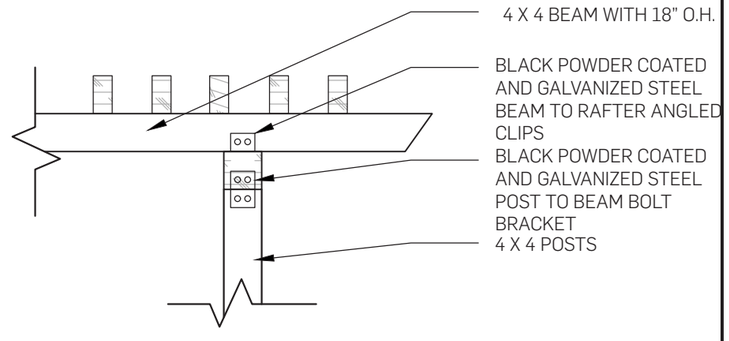


SECTION B

SECTION C



DETAIL D



DETAIL E

DESIGN

This is a detail study of the deck overhead connections and hardware at the top of the structure as well as the footing for the structure. I added a 2 x 4 lattice detail on top spaced at 10" on center with a 12" overhang.

Michelle Tiet ARCH-X 472.14A: Landscape Construction Methods and Materials	OVERHEAD SECTIONS AND HARDWARE DETAILS	Wood Deck & Pergola Study: Long Beach	Page 4 of 4	0 1" 2" 4" Scale: 1" = 1'-0"	11/01/20	024

M1. Map of Los Angeles

NARRATIVE: BEVERLY HILLS RESIDENCE

This is a project in Beverly Hills where the residence has an existing pool with an irregular stone patio and an autocover. The spa is located independently outside of the pool. The design was to re-configure the pool to have the spa inside, change the plaster and replace the pool coping, tile and patio to a more clean paving material.

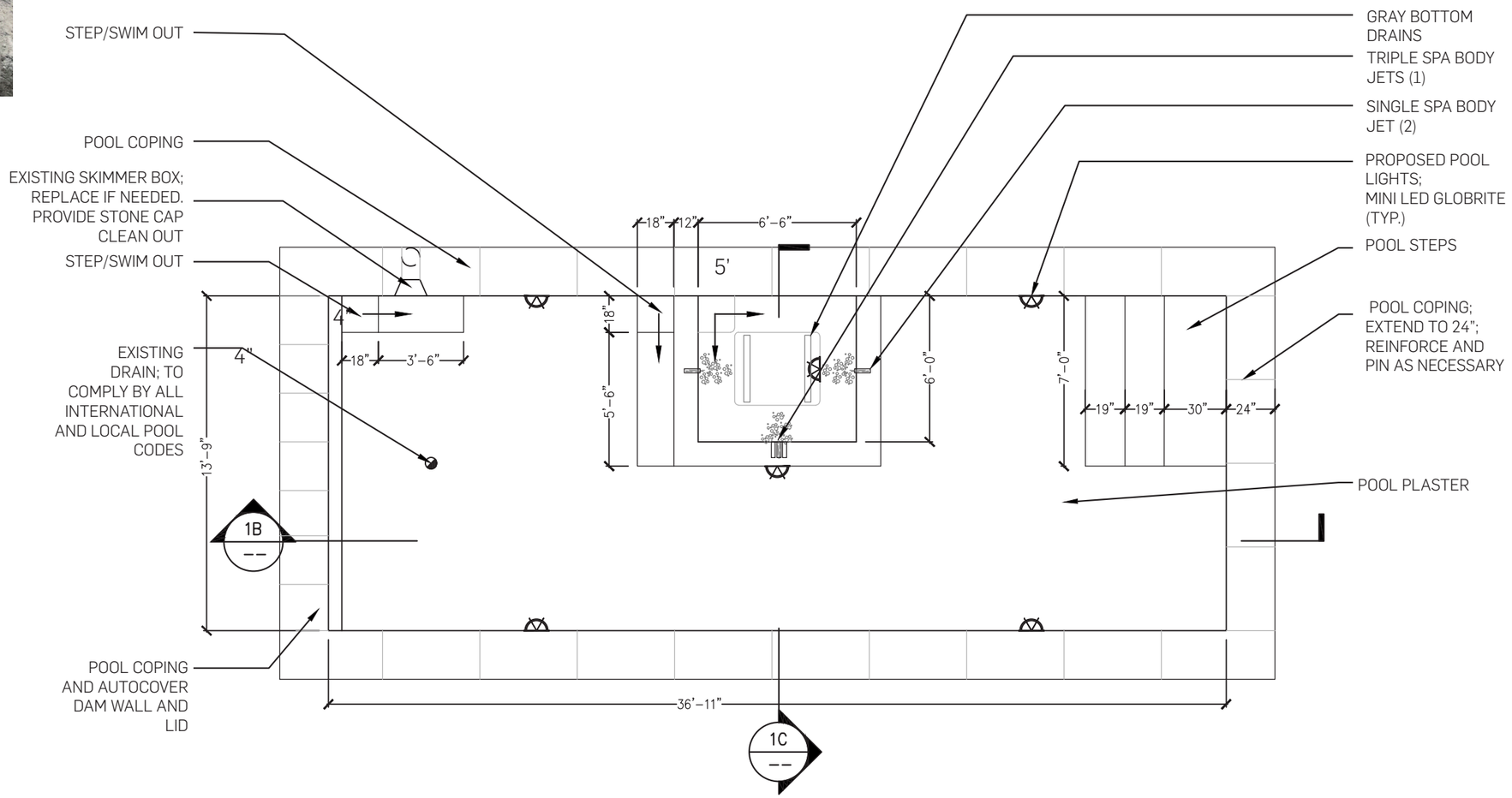
I1. Residence's old pool with baja shelf and steps

I2. New pool design with spa and new autocover

I3. New pool patio

Michelle Tiet ARCH-X 472.14A: Landscape Construction Methods and Materials	COVER SHEET	**Pool Study:** **Beverly Hills**	Page 1 of 5	N 0 30' 60' 120' Scale: 1"=60'-0"	11/29/20	*025*

I4. Pool during construction



PLAN VIEW

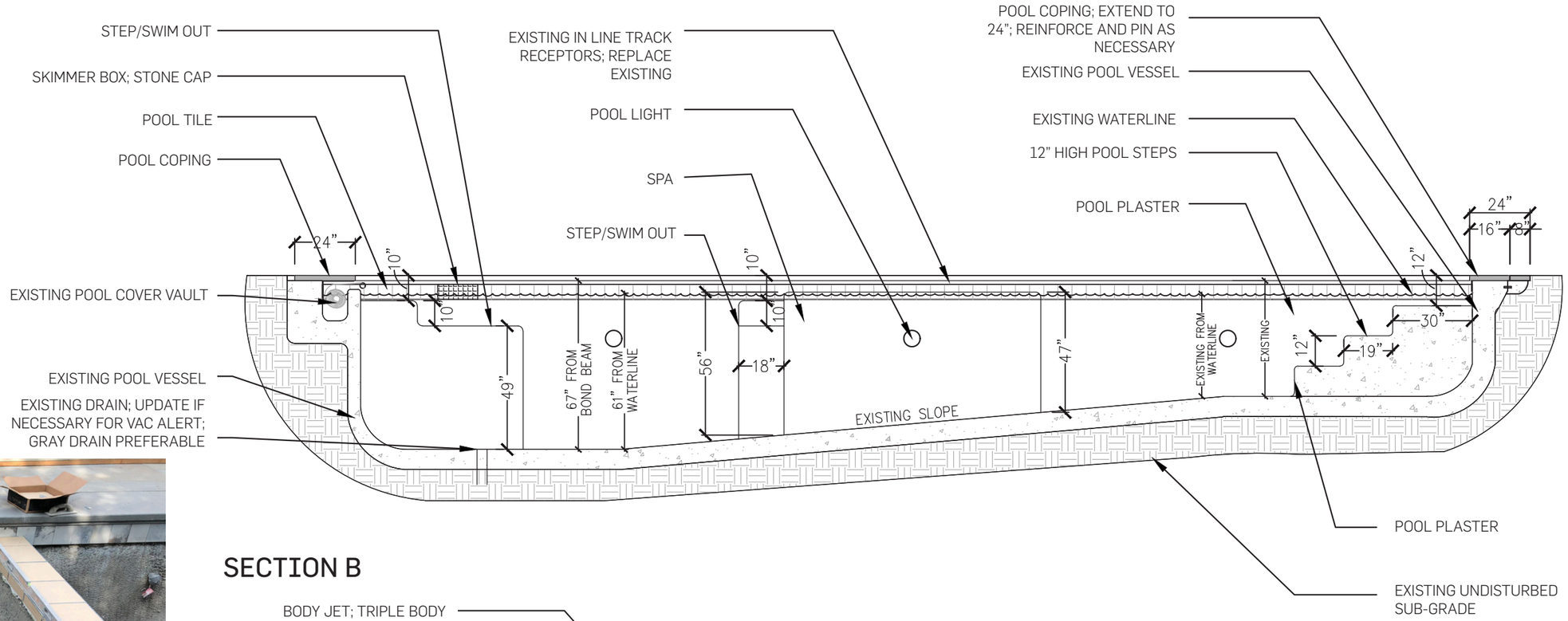
DESIGN

The main design for the new pool is to keep the size at 36'-11" X 13'-9". The old steps were moved, but tucked at the corner of the pool so there is room for a swim lane at the deep end of the pool. The shallow end starts at the steps with 3 steps going into the pool at 4' depth. The deep end goes up to 67" with a step and swim out at the end of the pool.

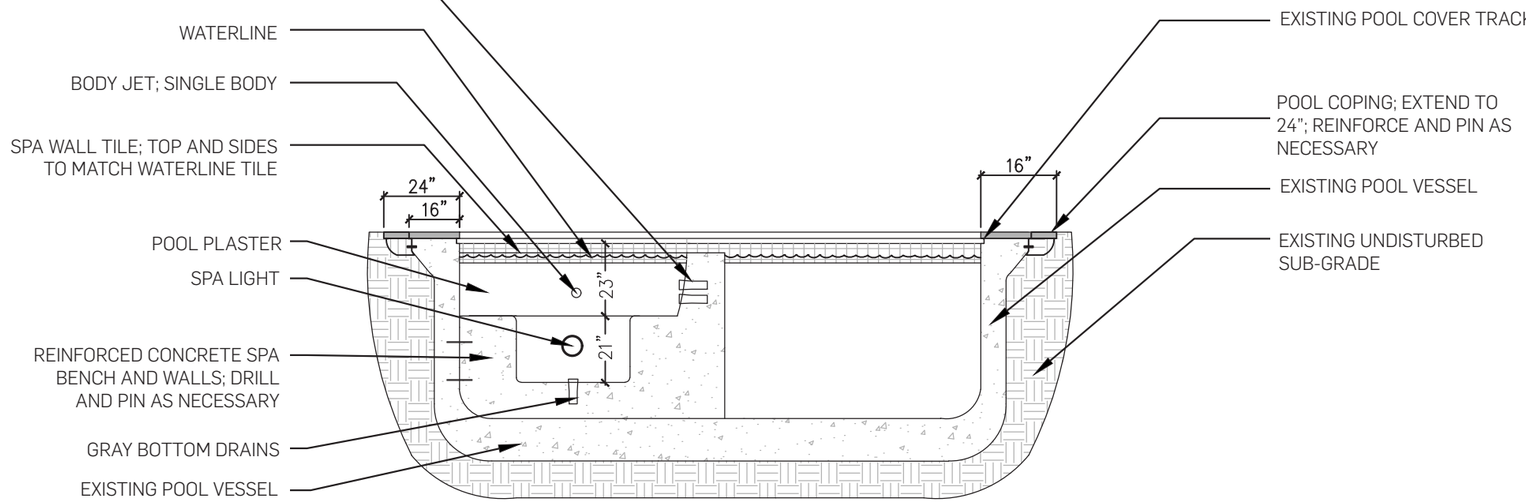
14. Spa during construction

DESIGN

The spa is placed in a size 6'-6" x 8' in the centerline of the horizontal axis of the pool with an additonal step out and bench on the edge of the spa dam wall. The old lights were removed and replaced with new lights and the existing drain for the pool was kept, while a new drain was added for the spa.



SECTION B



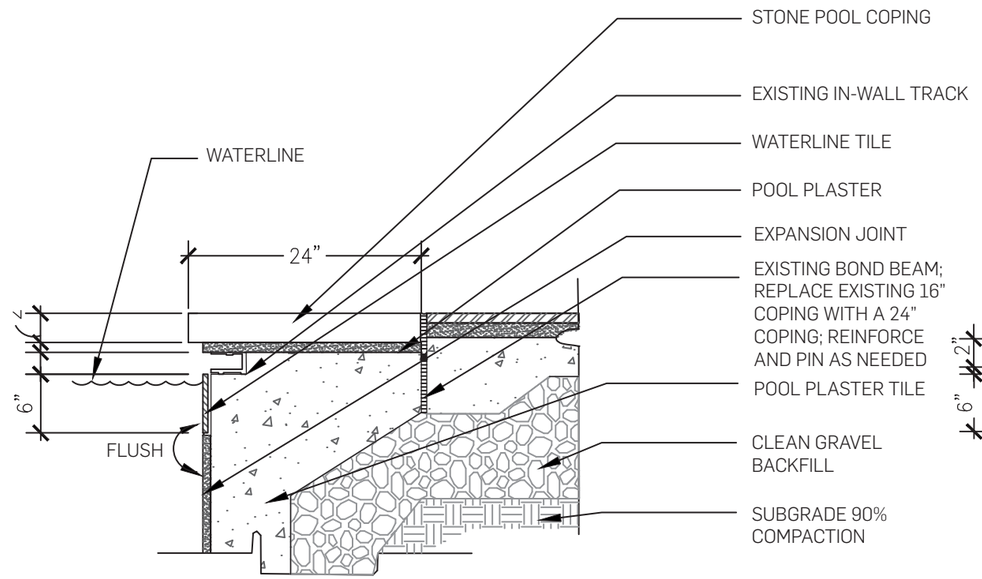
SECTION C - SPA

I5.Close up of pool coping and autocover during contruction

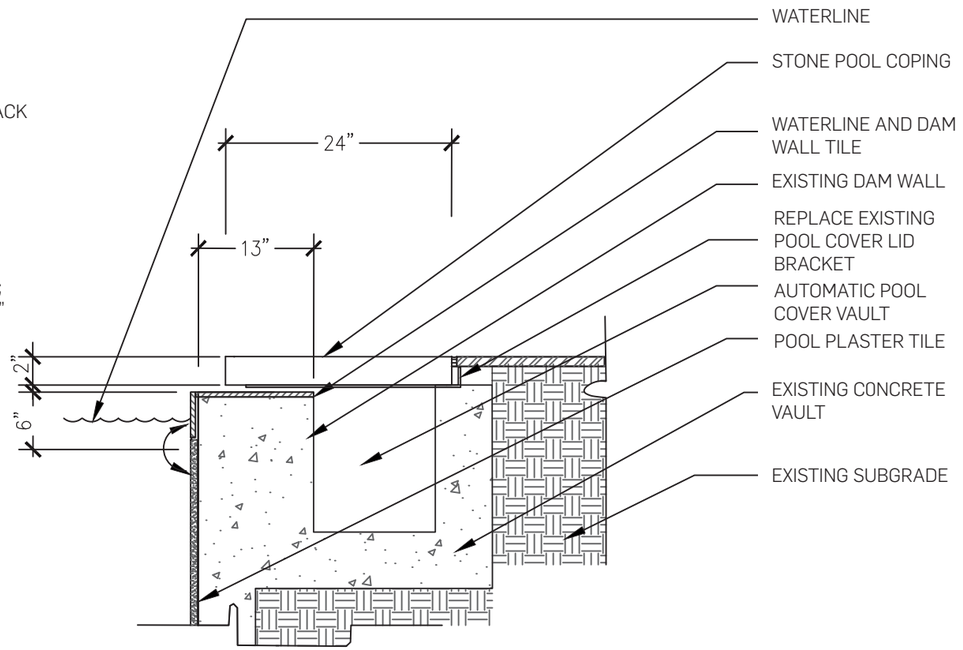
I6. Image of pool deck with autocover

DETAILS

These details are showcasing how the pool coping and autocover works. In Detail D, it shows the condition of the autocover in-wall track and how the coping is laid on top. The plaster and the waterline tile are also shown and should be flush when being constructed. In Detail E, it shows the pool cover vault with the pool coping lid to be specified as a removable lid so it can be serviced.



DETAIL D - POOL COPING



DETAIL E - POOL COPING WITH AUTOCOVER

Michelle Tiet ARCH-X 472.14A: Landscape Construction Methods and Materials	D & E - POOL COPING AND COPING WITH AUTOCOVER	**Pool Study: Beverly Hills**	Page 4 of 5	0 9" 1.5' 3 Scale: 3/4" = 1'-0"	11/29/20	*028*

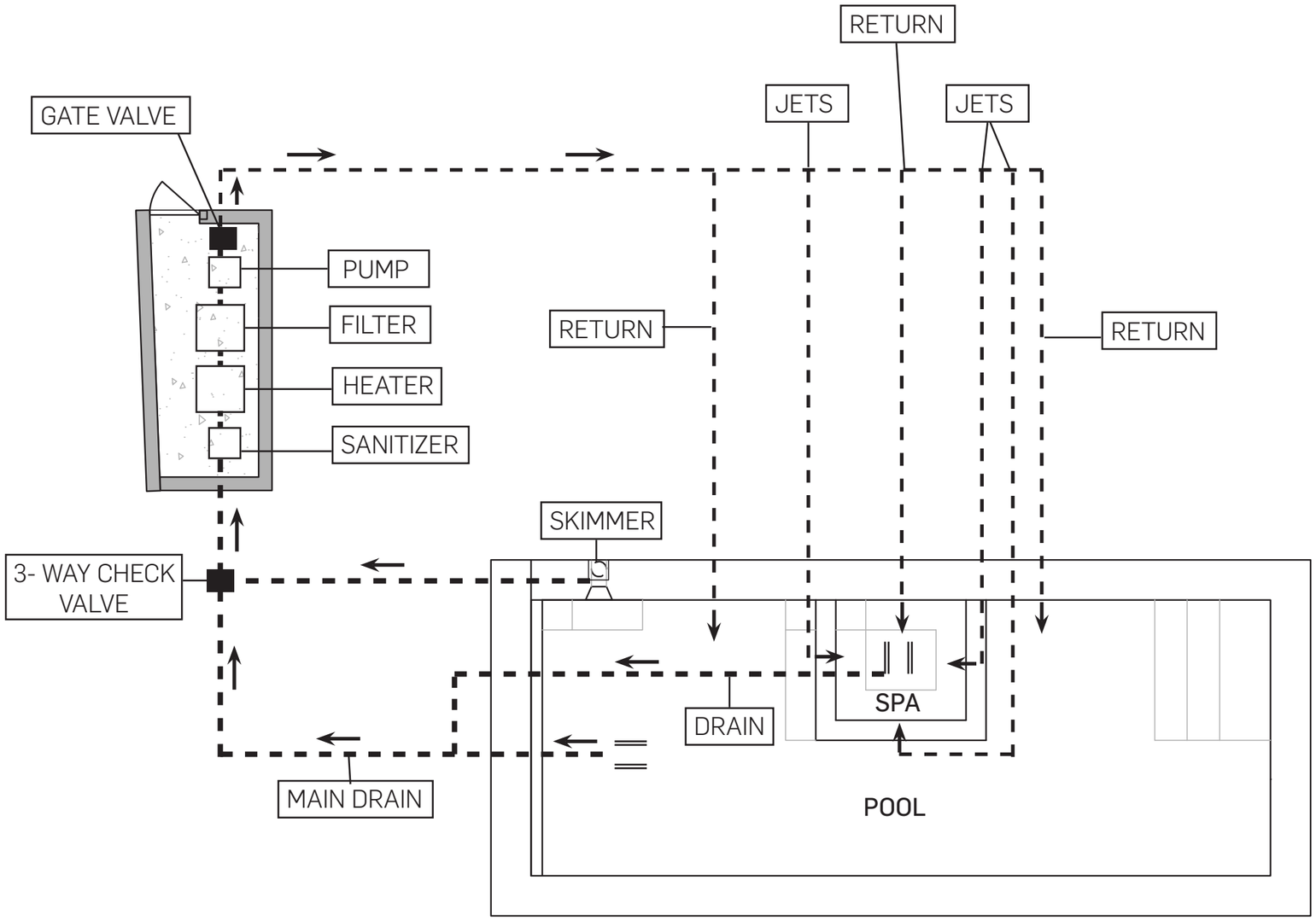
I6. Image of the pool equipment

POOL EQUIPMENT SYSTEM

The pool equipment system consists of a filtration system, which includes a filter, filter valve, pump and skimmer box. This pool has an intellitouch automation system with an interface kit. Pools should always have a sanitation system which includes a pump, pool cleaner, sanitzer and chemistry controller. Because there is a spa in the pool there is also a heating system with a heater. LED lights were specified for this pool with combo colors and preprogrammed light shows. The pool equipment system also includes a water leveling system which will auto fill the pool water levels for safer optimal usage and a line for the spa jets.

POOL MECHANICS

The pool and pool equipment are connected through pvc pipes. The pump and motor takes the water from the main drain and skimmer to the filtration system that then goes through a heat pump. After, the water goes through the auto-chlorinator and returns back into the pool.



Michelle Tiet ARCH-X 472.14A: Landscape Construction Methods and Materials	POOL EQUIPMENT LAYOUT	Pool Study: Beverly Hills	Page 4 of 5	0 9" 1.5' 3 Scale: 3/4" = 1'-0"	11/29/20	029

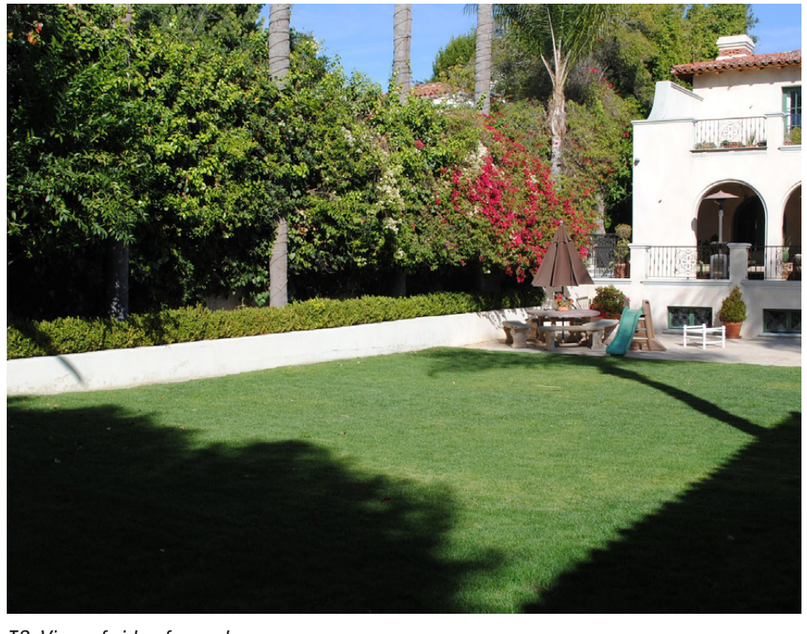
M1. Map of Los Angeles

I1. View from open lawn to Residence's home

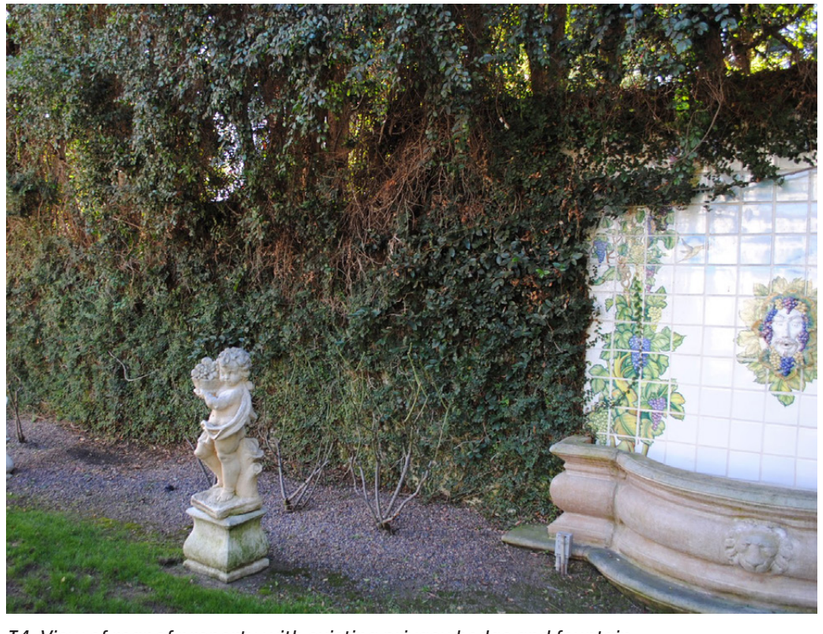
I2. View of side yard entry to rear yard

NARRATIVE: BEVERLY HILLS RESIDENCE

This is a site in Beverly Hills where the residence has an open lawn area in the rear yard. There are existing palm trees along the side yard and mature privacy hedge along the property line that the resident wants to keep. They want a traditional knot style garden in the rear yard where there is an existing fountain and statues. The design intent is to use the correct lighting to enhance and continue the design of the landscape when the sun sets.



I3. View of side of open lawn



I4. View of rear of property with existing privacy hedge and fountain

CIRCUIT 1

(B) UPLIGHTS - 3 WATTS
#12 CABLE 7500 CABLE CONSTANT

(3 WATTS) X (14 FIXTURES) = 42 WATTS
I=W/V = (42 WATTS)/(10 VOLTS) = 4.2 AMPS
VD = (42 WATTS X 130 FT)/(7500) =
0.7 VOLTAGE DROP

CIRCUIT 2

(C) WALL WASH - 2 WATTS
#12 CABLE 7500 CABLE CONSTANT

(2 WATTS) X (10 FIXTURES) = 20 WATTS
I=W/V = (20 WATTS)/(11 VOLTS) = 1.8 AMPS
VD = (20 WATTS X 220 FT)/(7500) =
0.5 VOLTAGE DROP

CIRCUIT 3

(B) UPLIGHTS - 2 WATTS

(D) DOWNLIGHTS - 8 WATTS
#10 CABLE 11920 CABLE CONSTANT

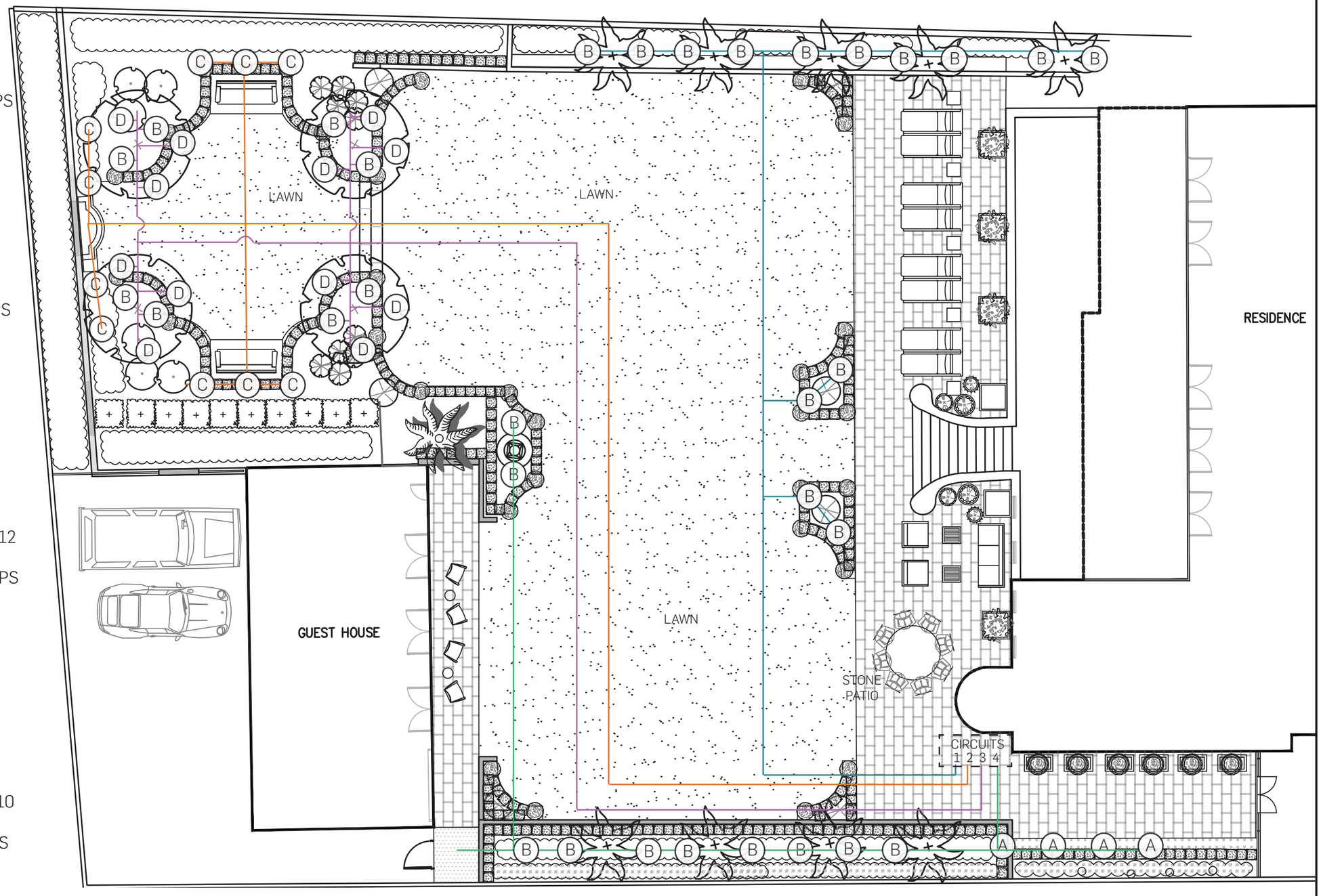
(2 WATTS) X (8 FIXTURES) + (8 WATTS) X (12 FIXTURES) = 112 WATTS
I=W/V = (112 WATTS)/(12 VOLTS) = 9.3 AMPS
VD = (112 WATTS X 220 FT)/(30150) =
0.8 VOLTAGE DROP

CIRCUIT 4

(A) PATH LIGHTS - 3 WATTS

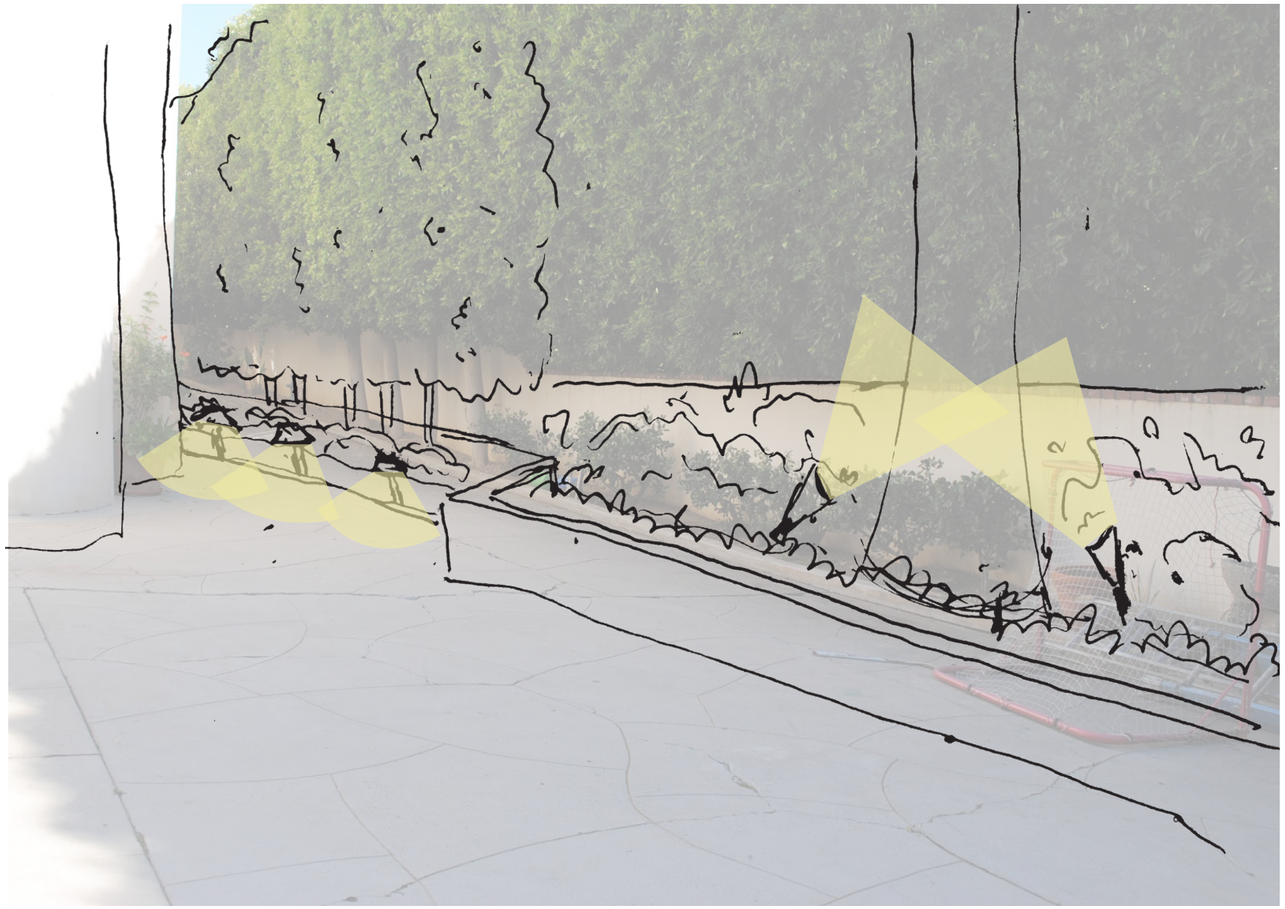
(B) UPLIGHTS - 2 WATTS
#12 CABLE 7500 CABLE CONSTANT

(3 WATTS) X (4 FIXTURES) + (2 WATTS) X (10 FIXTURES) = 32 WATTS
I=W/V = (32 WATTS)/(10 VOLTS) = 3.2 AMPS
VD = (32 WATTS X 110 FT)/(7500) =
0.5 VOLTAGE DROP



PLAN VIEW

Michelle Tiet ARCH-X 472.14A: Landscape Construction Methods and Materials	CIRCUIT CALCULATIONS	Lighting Study: Beverly Hills	Page 2 of 6	N 0 8' 16' 32' Scale: 1/8" = 1'-0"	12/09/20	031



PATHLIGHT

In this area of study, the use of pathlights were added to the side yard walkway to the rear yard. It will nicely light up the path when someone walks at night. The pathlights should be spaced at a distance where there isn't too much of a dark area. This is for safety.

Model: **SPJ07-10**
Finish: Matte Bronze

Path / Area Light

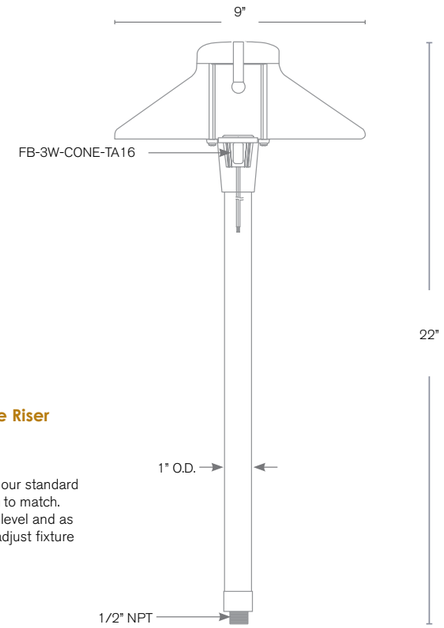
Forever Bright

SPECIFICATION FEATURES

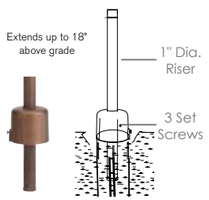
Finish:	Our naturally etched finishes will withstand the test of time. All finishes are individually treated insuring consistency. Our meticulous application results in a fixture that truly becomes "a one of a kind".
Electrical:	Available in 8-15V
Labels:	ETL Standard Wet Label C-ETL

DESCRIPTION

Model#:	SPJ07-10
Material:	Solid Brass
Electrical:	8-15V
Engine:	FB-3W-Cone-TA16
Lumens:	200
Color Temp:	2700 k
Mounting:	1/2" NPT. Dual Fin Spike Incl.
LED:	Nichia



Option:



Adjustable Below Grade Riser

Model:	SPJ19-03-RBBG
Shown:	Matte Bronze
Desc:	Solid brass top fits on our standard perma-post with finish to match. Install fixture at grade level and as the landscape grows adjust fixture height as needed.

Wet Listed

ORDERING INFORMATION

Model#	Finishes	Wattage	Lumens	Color Temp.	Electrical
SPJ07-10	MBR	3W	200	2700K	8-15V
	V = Verde M = Moss AG = Aged Brass MBR = Matte Bronze RC = Raw Copper GM = Gun Metal B = Black R = Rusty PVDP = PVD Polished PVDS = PVD Satin	3W	200	2700K 4000K 5000K	8-15V

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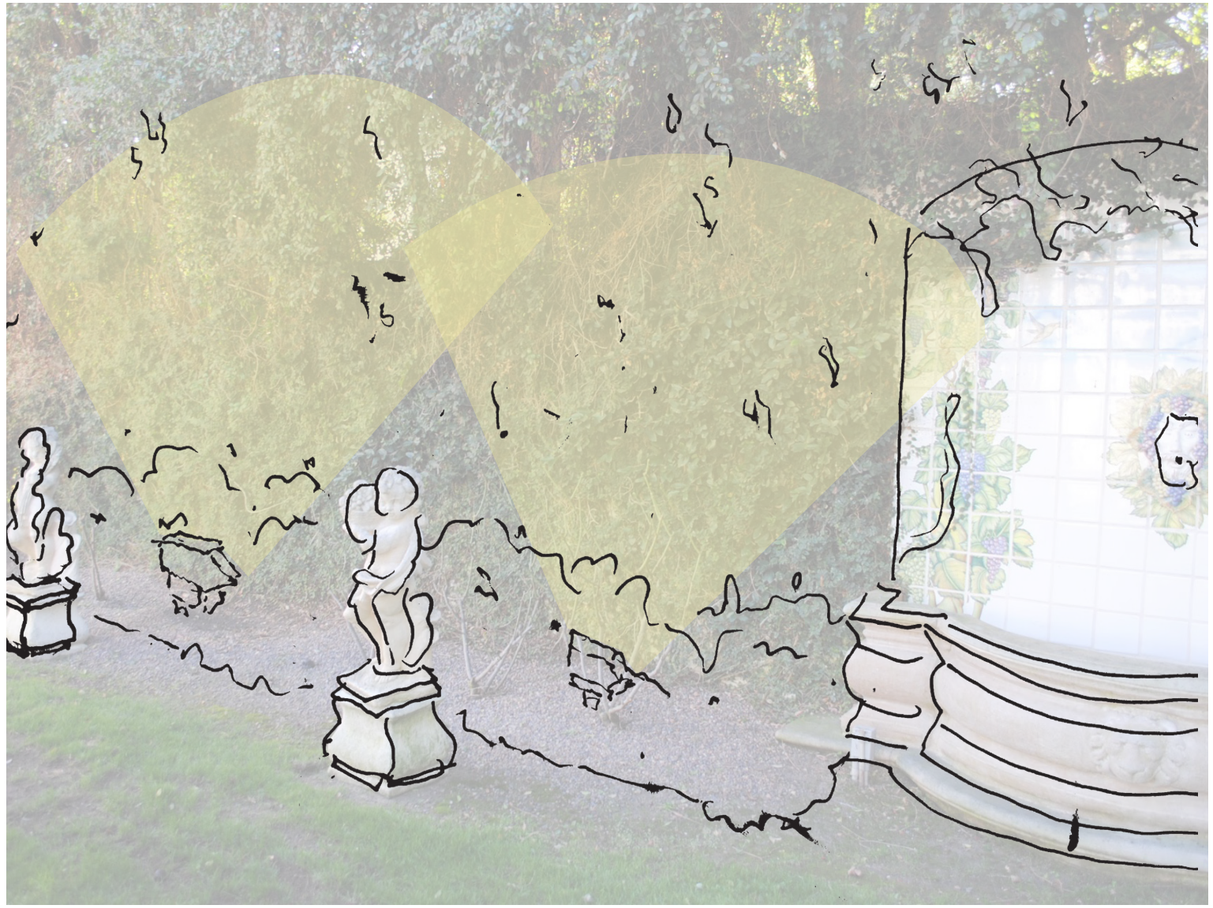


Model: **SPJ-MWW2**
Finish: Matte Bronze

Wall Washer

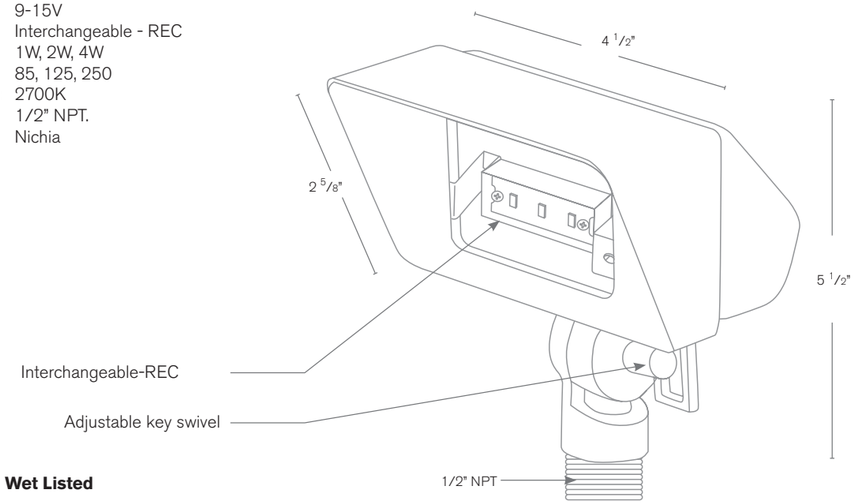
Forever Bright

SPECIFICATION FEATURES

Finish:	Our naturally etched finishes will withstand the test of time. All finishes are individually treated insuring consistency. Our meticulous application results in a fixture that truly becomes "a one of a kind".
Electrical:	Available in 9-15V
Labels:	ETL Standard Wet Label C-ETL

DESCRIPTION

Model#:	SPJ-MWW2
Material:	Cast Brass
Electrical:	9-15V
Engine:	Interchangeable - REC 1W, 2W, 4W
Lumens:	85, 125, 250
Color Temp:	2700K
Mounting:	1/2" NPT.
LED:	Nichia



Wet Listed

FLOOD WALL WASH

In the area of study, I chose the flood wall wash which can be used to subtly light up a wall of that is covered with vines. This wash color create a nice ambiance as a backdrop to the statues in the foreground.

ORDERING INFORMATION

Model#	Finishes	Wattage	Lumens	Color Temp.	Electrical
SPJ-MWW2	MBR	1W	85	2700K	9-15V
	V = Verde M = Moss AG = Aged Brass MBR = Matte Bronze SB = Satin Brass	GM = Gun Metal B = Black R = Rusty PVDP = PVD Polished PVDS = PVD Satin	1W 2W 4W	85 125 250	2700K 4000K 5000K	9-15V

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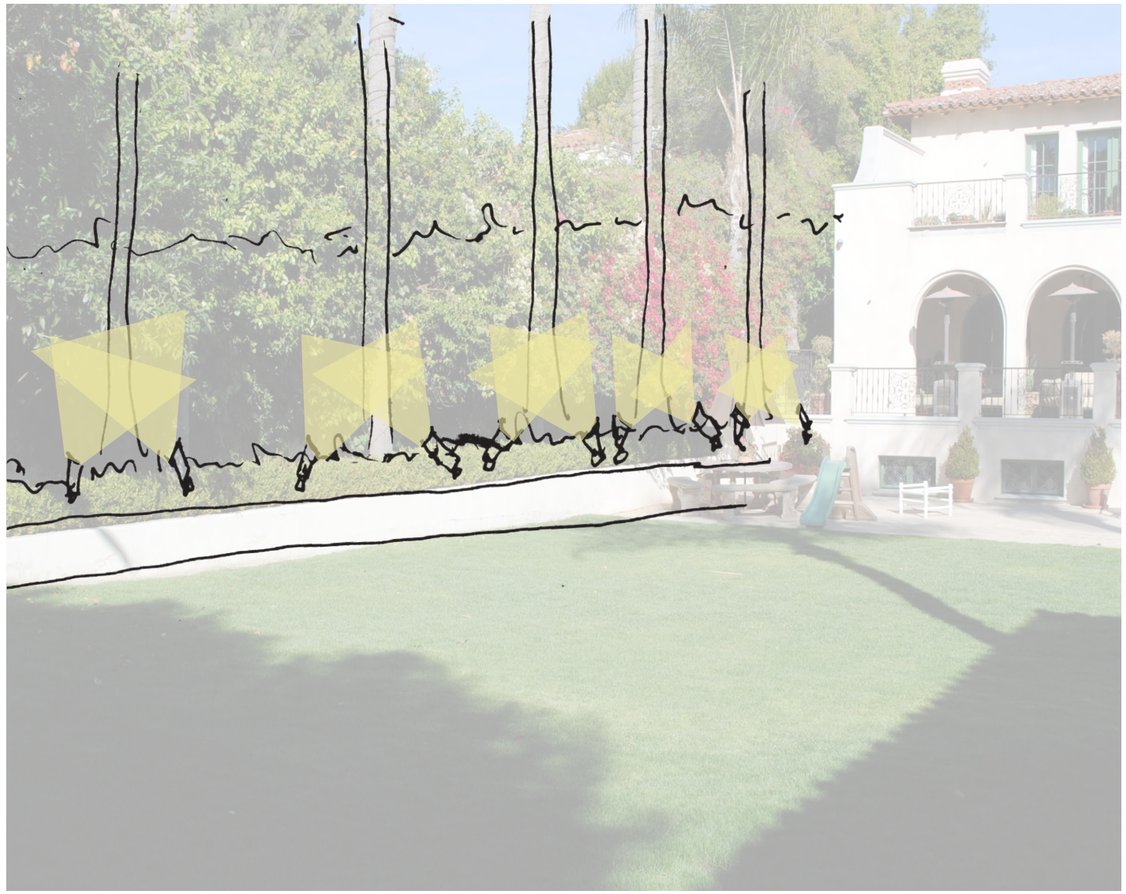


Model: **Mr. Universatility**

Directional Light

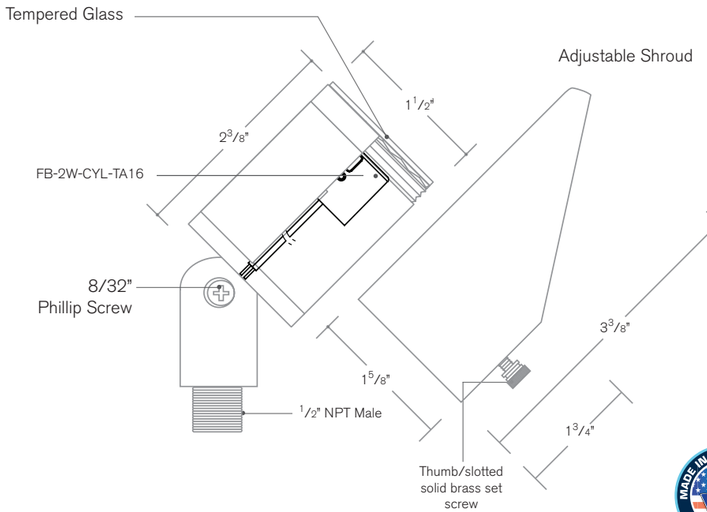
Forever Bright

SPECIFICATION FEATURES

Finish:	Our naturally etched finishes will withstand the test of time. All finishes are individually treated insuring consistency. Our meticulous application results in a fixture that truly becomes “a one of a kind”.
Electrical:	Available in 8-15V
Labels:	ETL Standard Wet Label C-ETL

DESCRIPTION

Model#:	Mr. Universatility
Material:	Solid Brass
Finish:	Matte Bronze
Electrical:	8-15V
Engine:	FB-2W-CYL-TA16
Lumens:	150
Color Temp:	2700K
Optic:	Spot, Flood, Wide Flood, Wide Angle Flood
Mounting:	1/2” NPT.



Wet Listed

ORDERING INFORMATION

Model#	Finishes	Wattage	Optics	Lumens	Color Temp.	Electrical
Mr. Universatility	MBR	2W	FLOOD	150	2700K	8-15V
	V = Verde M = Moss AG = Aged Brass MBR = Matte Bronze SB = Satin Brass	2W	Spot Flood Wide Flood Wide Angle Flood		2700K 4000K 5000K	8-15V
	GM = Gun Metal B = Black R = Rusty PVDP = PVD Polished PVDS = PVD Satin					

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UPLIGHT

In this area of study, I selected a directional uplight to light up the existing palms in the planter area. This will accentuate the tall columnar trunk of the palm and create a dramatic effect. The light fixture will be buffered by a smaller hedge in the front so it is not visible.

Model: **SPJ-AL1-8W**

Forever Bright

SPECIFICATION FEATURES

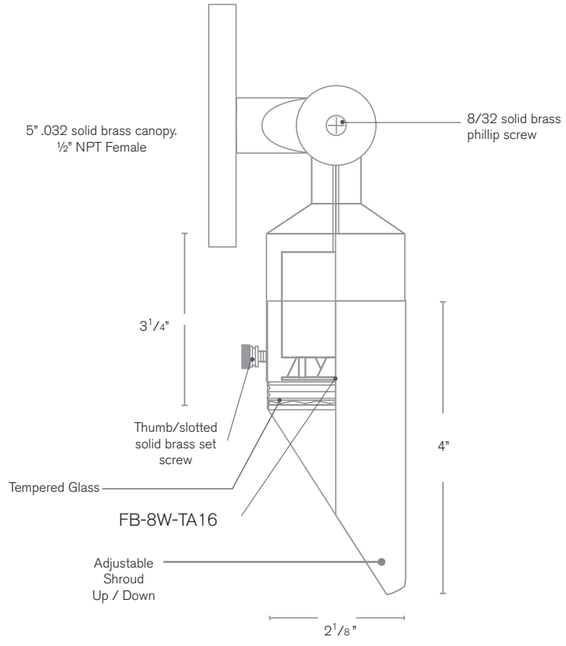
Finish:	Our naturally etched finishes will withstand the test of time. All finishes are individually treated insuring consistency. Our meticulous application results in a fixture that truly becomes "a one of a kind".
Electrical:	Available in 12V-15V
Labels:	ETL Standard Wet Label C-ETL

Surface Mount Directional Light

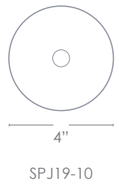
DESCRIPTION

Model#:	SPJ-AL1-8W
Material:	Solid Brass
Finish:	Matte Bronze
Electrical:	12V-15V
Engine:	FB-8W-TA16
Lumens:	580
Color Temp:	2700K
Optic:	Spot, Flood, Wide Flood, Wide Angle Flood
Mounting:	Surface Mount

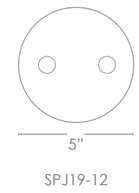
Mounting Canopies



SPJ19-01



SPJ19-10



SPJ19-12

Wet Listed

ORDERING INFORMATION

Model#	Finishes	Wattage	Optics	Lumens	Color Temp.	Electrical
SPJ-AL1-8W	MBR	8W	FLOOD	580	2700K	12-15V
	V = Verde M = Moss AG = Aged Brass MBR = Matte Bronze SB = Satin Brass	GM = Gun Metal B = Black R = Rusty PVDP = PVD Polished PVDS = PVD Satin	8W	Spot Flood Wide Flood Wide Angle Flood	580	2700K 4000K 5000K	12-15V

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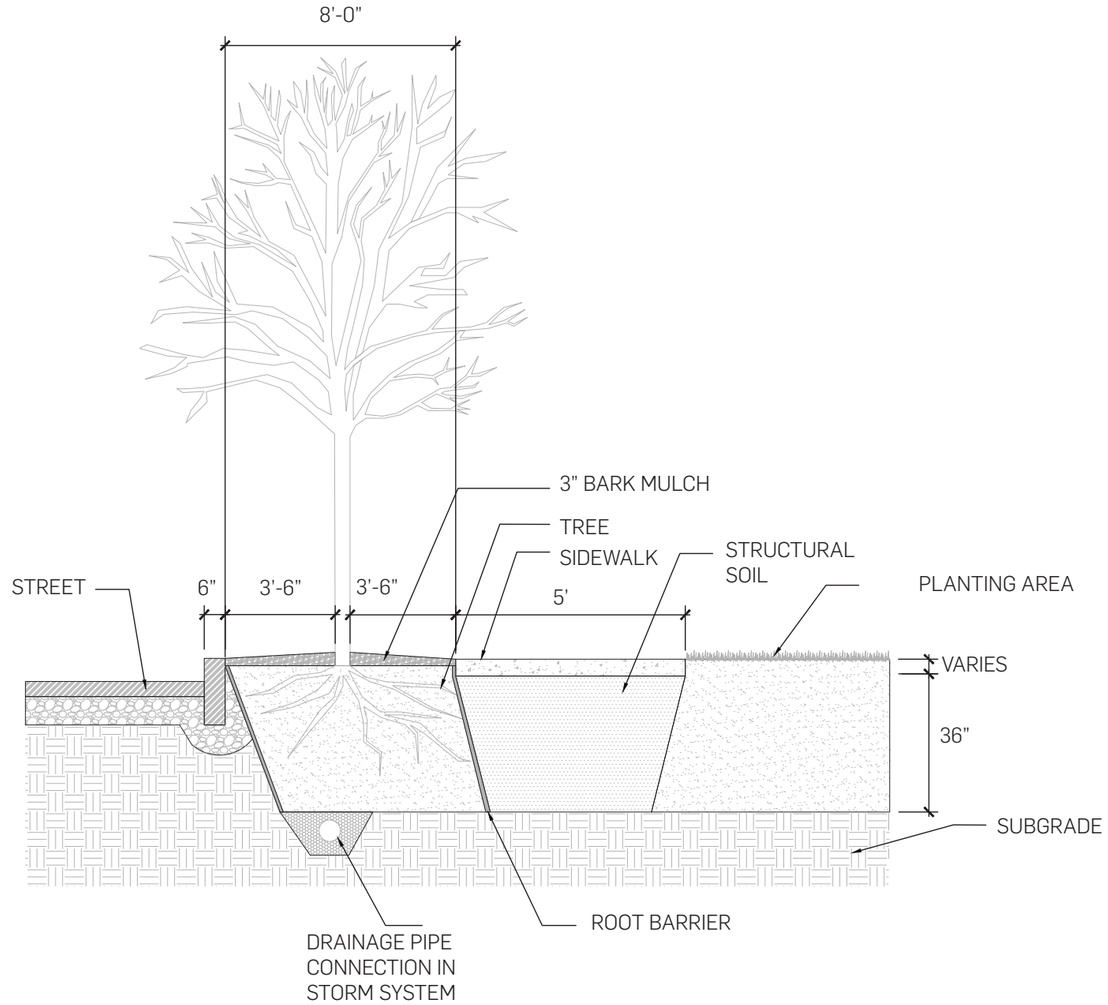
HANGING DOWNLIGHT

In this area of study, I chose to light the proposed trees in the rear garden with 3 mounted directional downlights and 2 uplights. Depending on the size of the tree, one should consider how many fixture is good enough to properly light the tree. The downlights are lighting whats below the tree and the uplight is lighting the tree.

I1. Parkway with sidewalk, street and planting area condition

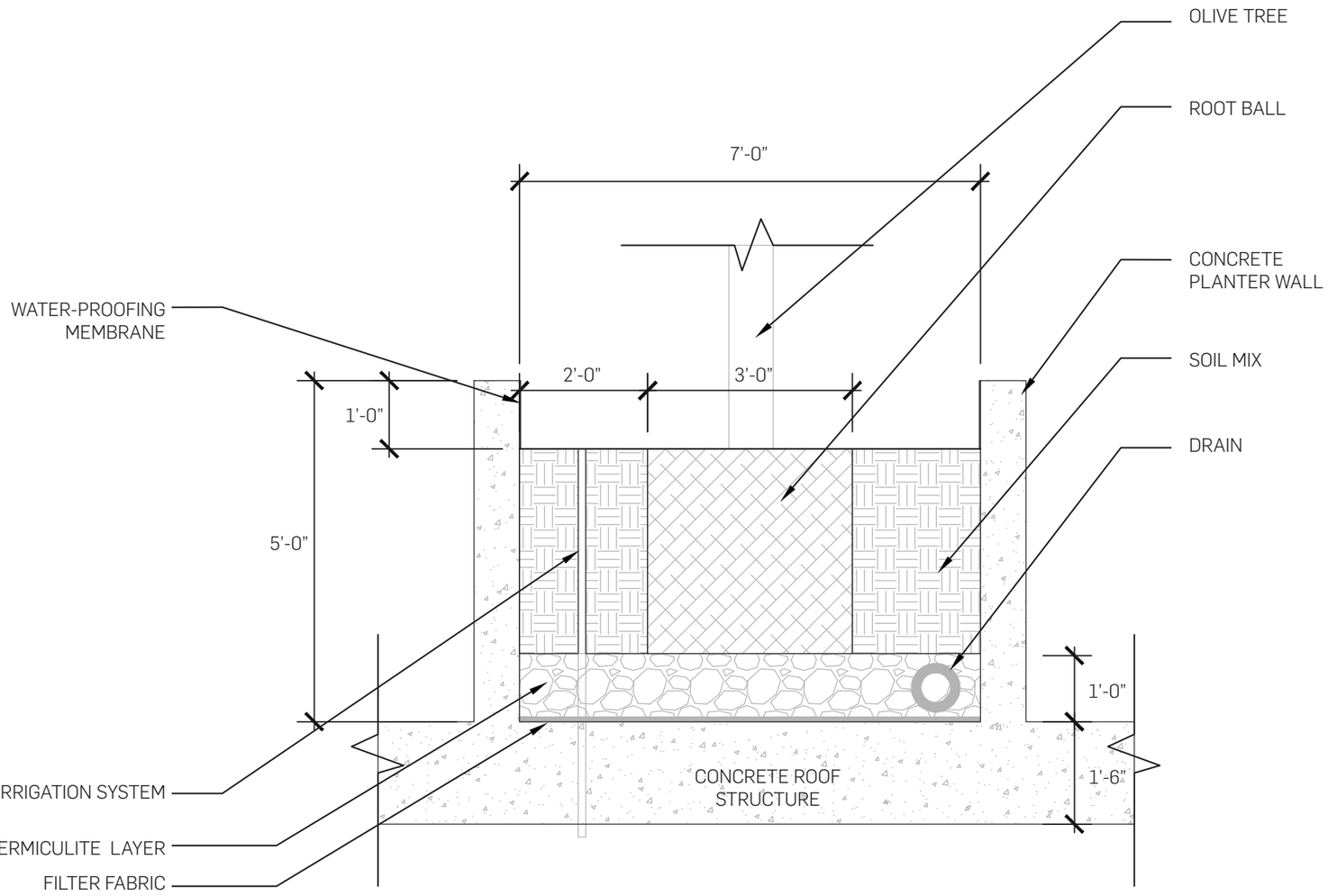
PARKWAY PLANTING

This is a study of a parkway outside of my apartment complex. This detail shows the right of way concrete pathway, the parkway with street tree and the street curb. It is typical to have a root barrier within the rootball to maintain the spreading of the tree roots.



Michelle Tiet ARCH-X 472.14A: Landscape Construction Methods and Materials	DETAIL	Planting Study: Los Angeles	Page 1 of 3	0 2.5' 5' 10' Scale: 3/8" = 1'-0"	12/14/20	036

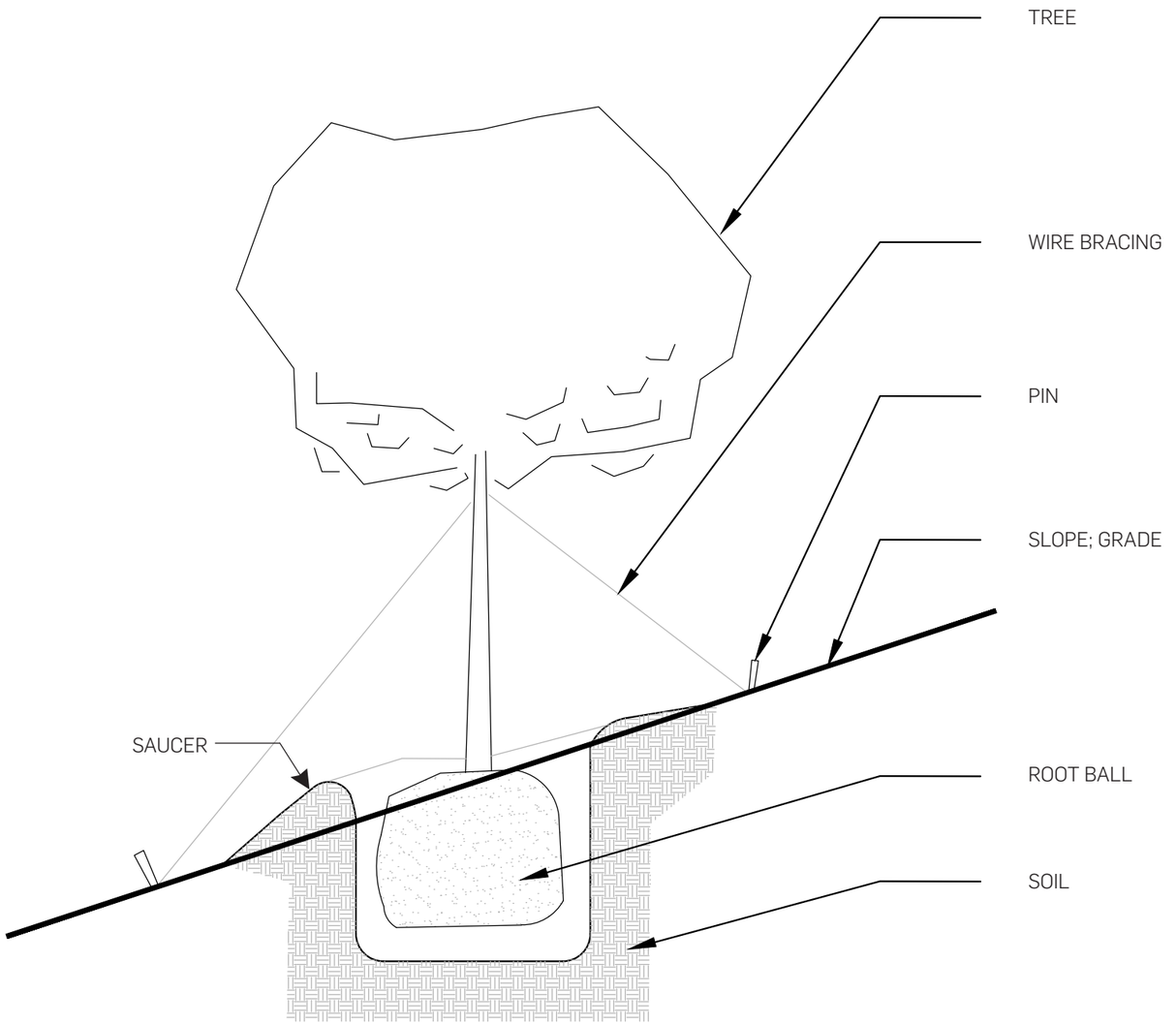
I2. Outdoor seating are at Eataly



RAISED PLANTER ON 2ND FLOOR

This is a study of a raised planter at the Century City Mall at the restaurant roof deck at Eataly. This detail shows how the raised planter is built showing the conditions of the structure underneath.

I3. Trees on sloped hillside



TREE ON SLOPE

This is a study of sloped hillside in Thousand Oaks Civics Arts Plaza where there are several oak trees and picnic tables that sit on lawn and bark mulch. This detail shows the conditions of how the trees are planted on these slopes.

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