

SLO Cultivation- Carpinteria Water Efficiency Management Plan

Prepared for:

SLO Cultivation
3861 Foothill Road
Carpinteria, CA 93103

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1.0 WATER EFFICIENCY MANAGEMENT PLAN

This Water Efficiency Management Plan (Plan) has been prepared in compliance with applicable local and State regulations for the purposes of maintaining efficient use of local freshwater supplies related to the cultivation of cannabis associated with the operations of SLO Cultivation in Carpinteria, California.

1.1 SITE/PROJECT DESCRIPTION

The Project Site (Site) is located at 3861 Foothill Road also identified as APN 005-310-024. The Site is approximately 13.66 acres in size and contains four (4) existing greenhouse structures and twelve (12) pre-fabricated supporting structures (freezers, equip & material storage, etc.), totaling approximately 389,800 square feet of development. The property and associated greenhouses have been historically used to cultivate other agricultural products such as cut flowers (gerbera daisies) and avocados.

The proposed Project would allow for:

1. Utilization of existing **Greenhouse 1 (GH1)**, approximately 264,500 square feet in size, for mature mixed-light cannabis cultivation.
2. Demolition of three (3) existing greenhouses, known as **Greenhouse 2 (GH2)**, **Greenhouse (GH3)**, and **Greenhouse 4 (GH4)**, which are approximately 40,700 square foot each.
3. Development and operation of a 61,840 square foot addition to **GH1** for nursery/juvenile mixed-light cannabis cultivation.
4. Development of a new 24,751 square foot pack house which will be utilized for cannabis processing (bucking, drying, and packaging; none of these activities require water).
5. The development of seventy-one (71) onsite parking spaces.
6. Expansion of the Project Site's stormwater detention basin system.
7. Minor ancillary improvements to the Project Site including installation of security cameras and lighting, installation and use of irrigation recycling and fertigation equipment, septic waste disposal systems, and placement of cannabis waste storage containers.
8. Removal of twelve (12) pre-fabricated containers, totaling 3,840 square feet, historically used for agricultural and cannabis support activities.

The cultivation operations in the existing Greenhouse 1 and the proposed addition to Greenhouse 1 will be the only significant source of water usage on the premises. The

existing twelve (12) pre-fabricated supporting structures will be removed from the Project Site. Processing done in the proposed pack house is limited to wet-bucking, weighing, and loading for export shipment; none of these activities require water. Refer to Attachment 1 for further site development and use details.

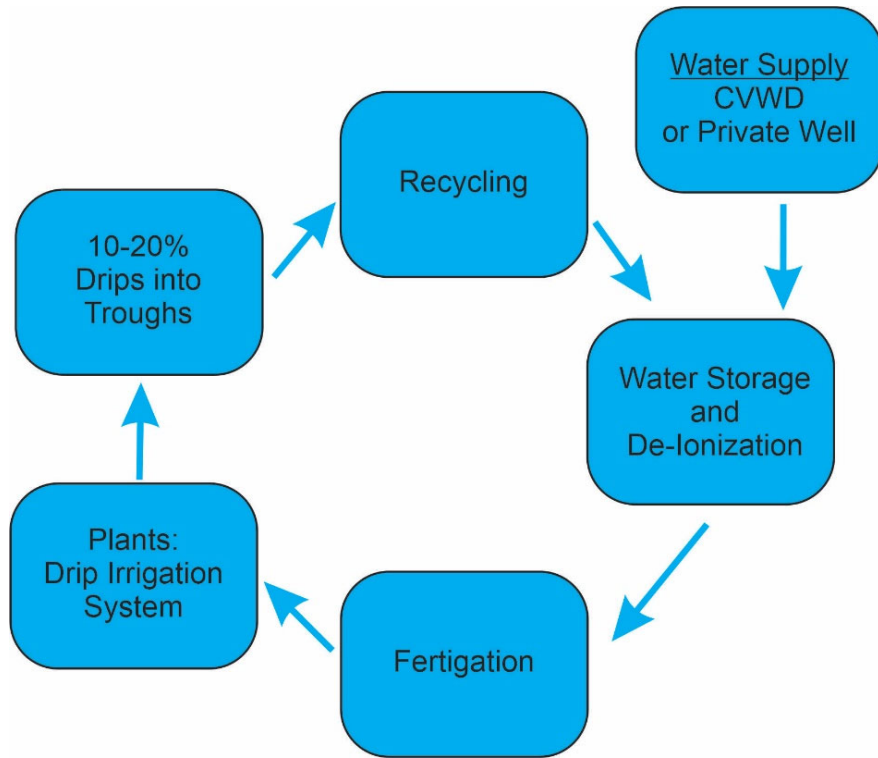
The Project is not expected to result in a substantial increase in local water usage because:

1. Three (3) existing greenhouses will be demolished; totaling approximately 122,100 square feet, and replaced by 61,840 square foot addition to Greenhouse 1.
2. The proposed pack house, approximately 24,751 square feet, does not require water for the cannabis processing (bucking, drying and packaging).
3. The existing avocado orchards would be removed to accommodate expanded stormwater detention basins, this would further reduce irrigation demand on the Site versus the baseline condition. Refer to Attachment 2 for further landscaping details.

1.2 WATER SOURCES & USES

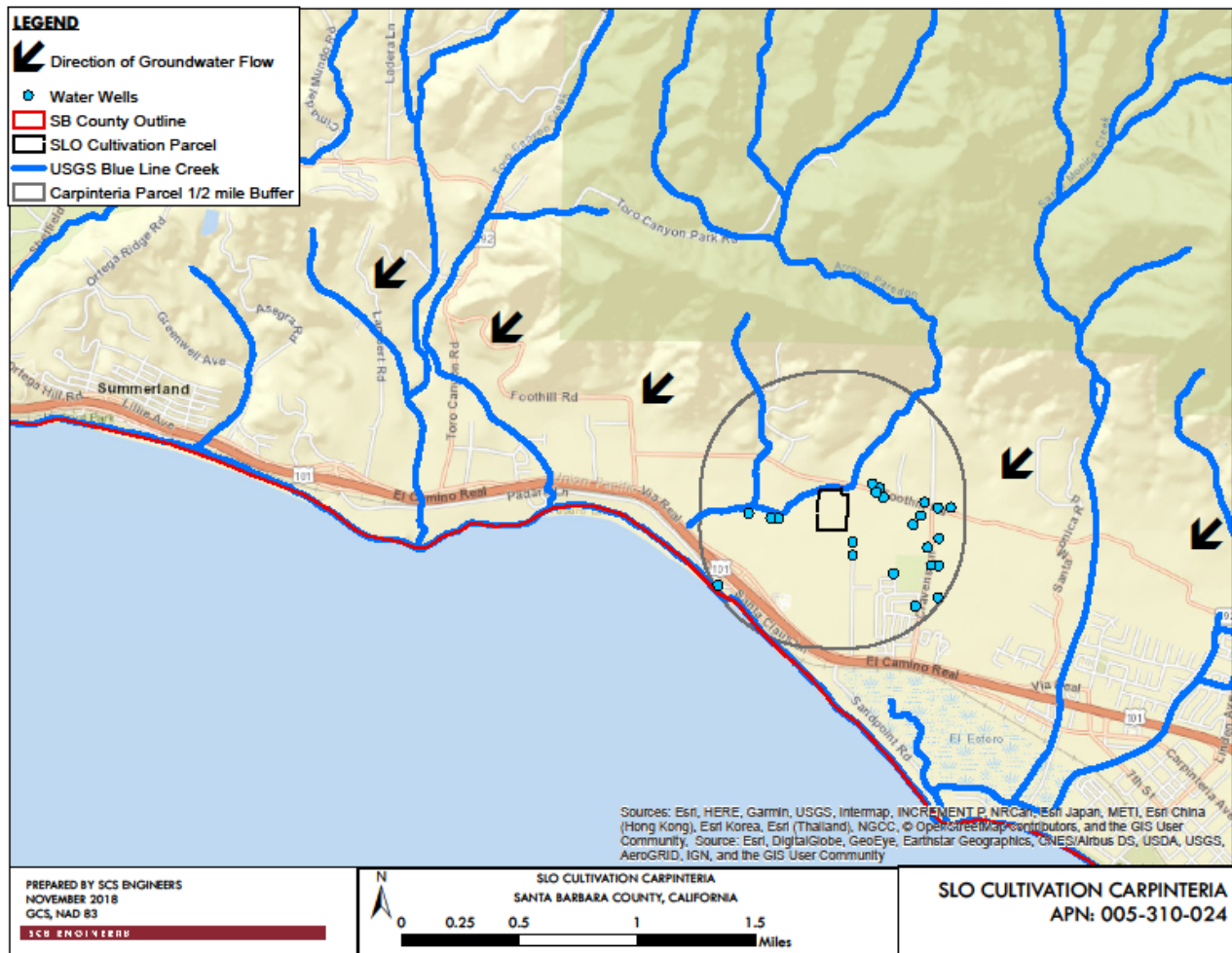
The Site derives its primary water supply from a water sharing agreement which allows the use of groundwater produced by an existing private well located on the adjacent parcel to the East (APN 005-310-026). The well has historically been used to supply irrigation water for the Site so all necessary cross parcel piping connections are existing and available. Additionally this water supply can be supplemented through the purchase of additional water from the Carpinteria Valley Water District. Irrigation water usage for the cannabis cultivation is estimated to be 17,000-20,000 gallons per day (approximately 19.04-22.40 acre feet per year). Historical water usage for the cut flower cultivation has been 25,500-30,000 gallons per day. Therefore it is possible that the Project will result in a net reduction in onsite water demand. As reflected in Figure 1 below, irrigation water is distributed to the cannabis cultivation areas utilizing a high-efficiency drip irrigation system with computerized timing controls. While the timing controls will be optimized to limit over-irrigation, there is a secondary overflow collection system in-place to capture excess irrigation water and recycle it back into the system. Refer to Attachment 2 for an overview of how this water cycle is distributed across the Site.

Figure 1- Irrigation Water Cycle



Groundwater levels throughout the region are approximately 115.95 feet based upon a survey of monitoring wells within a 1/2 mile radius of the Site. Groundwater generally flows in a Southwest or southerly direction throughout the local aquifer. A map of water wells within 1/2 mile of the Project Site can be seen in Figure 2 below. Arroyo Paredon Creek crosses the northern fringes of the property.

Figure 2- Water Wells and Groundwater Flow



1.3 WATER CONSERVATION FEATURES

Pursuant to the Santa Barbara County *Water Efficiency for Commercial Cannabis Activities- Development Standards*, SLO Cultivation plans to conserve water to the maximum extent feasible. SLO Cultivation plans on using a number of different techniques and measures to conserve water on Site during operations as outlined below.

1.3.1 Evaporative Barriers on Exposed Soils and Pots

All cultivation will be restricted to indoor greenhouses which will limit direct evaporation. Additionally, all cannabis plants will be grown in pots utilizing timed, drip irrigation and coco fiber instead of typical potting/soil mix. This will ensure that the minimum amount of water will be used at any given time and irrigation will be quickly sequestered within the fiber matrix.

1.3.2 Timed Drip Irrigation

An automated system, which delivers irrigation through a web of timers and automatic valves, will deliver each individual cannabis plant the precise amount of water it needs. The timing for irrigation periods will be monitored and adjusted based on variable Site conditions (seasons, weather patterns, etc.) to limit irrigation overflow to the maximum extent feasible. The automated drip irrigation will also reduce the potential for human error such as overwatering.

1.3.3 Soil Moisture Monitors

Widespread soil moisture monitors are not useful for this operation as excess irrigation will be detected by excessive rate of overflow into troughs and irrigation times will be adjusted in the automated system. SLO Cultivation may utilize sporadic soil moisture monitors primarily for the purpose of spot checking plants to ensure they receive sufficient irrigation.

1.3.4 Use of Recycled Water

In addition to limiting water use by carefully monitoring irrigation time periods, excess irrigation will be captured using a system of drip troughs running below each row of pots. These troughs will transport this irrigation overflow to holding tanks on the Southern edge of the property. This irrigation overflow will then be recycled by processing it through the Site's de-ionization water treatment system and reintroducing it into the irrigation system.

Figure 3- Drip Irrigation & Capture System



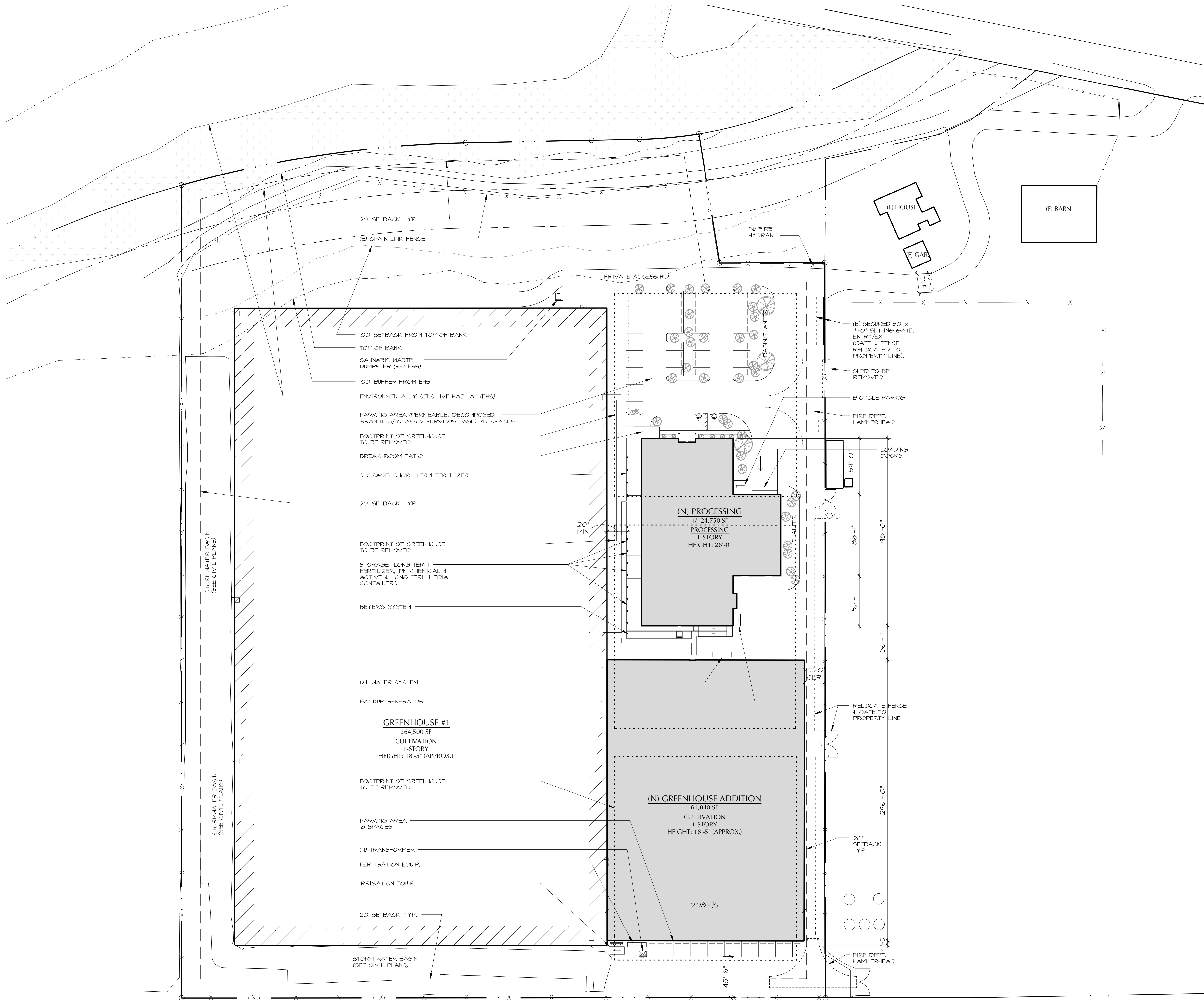
1.3.5 Rain Capture

The existing greenhouses, and associated irrigation infrastructure, on the Site are not designed to directly capture rain water into rain barrels or cisterns for direct return to the irrigation supply water. Rainfall in the region is too minimal and sporadic to make efficient use of such as system. Instead, rain water will be utilized as an indirect form of water conservation. Stormwater is directed from the greenhouse roofs to an existing network of four (4) large stormwater retention basins located along the Western and Southern edges of the Site. Stormwater then percolates into the regional aquifer and assists in maintaining recharge of the groundwater which in turn feeds the Site's private well.

Figure 4- Typical Existing On-site Stormwater Retention Basin



Attachment 1
SLO Cultivation Carpinteria- Site Plan



SITE PLAN

1"=50'



SITE PLAN GENERAL NOTES:

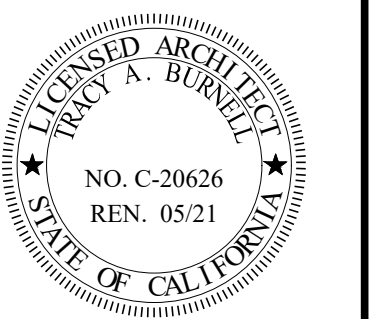
1. This plan is for architectural reference. See civil plans for specific grading and drainage information.
2. Positive drainage shall be provided away from the structure at a minimum slope of 5% for 10 feet.
3. Contractor shall verify location of all underground utilities prior to excavation.
4. Rain gutters and downspouts shall collect and discharge roof rain water run-off through an approved storm drain system. See civil plans for additional information.
5. Verify depth & separation of utilities within trenches w/ governing jurisdiction and comply w/ all applicable codes. Architect to be notified of any conflicts.



ARCHITECTURE

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805.564.6074

SLO CULTIVATION
3861 Foothill Rd
Carpinteria, CA



sheet description
SITE PLAN

date:

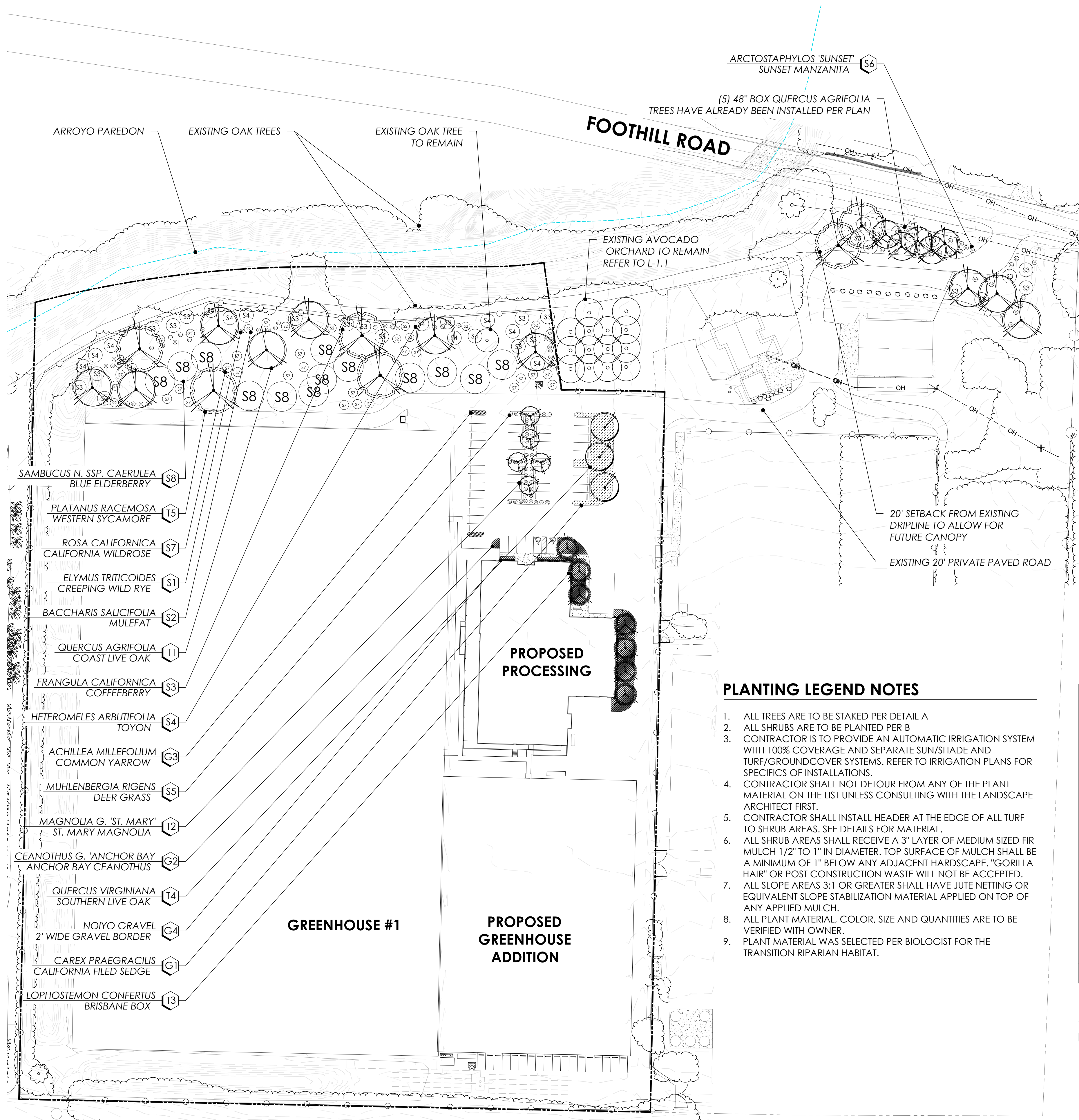
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- 8-20-2020
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- 12-29-2020
- 1-13-2021
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- 2-9-2021
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- 10-1-2021

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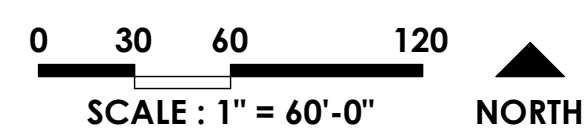
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Attachment 2
SLO Cultivation Carpinteria – Landscaping Plans



LANDSCAPE SCREENING PLAN - DETENTION BASIN ENLARGEMENT



PLANT LEGEND

TREES

SYMBOL	NAME	COMMENTS	SIZE	WUCOLS	QTY.
T1	QUERCUS AGRIFOLIA COAST LIVE OAK	PLANT PER DETAIL A	48" BOX	V. LOW	15
T2	MAGNOLIA GRANDIFLORA 'ST. MARY' ST. MARY MAGNOLIA	PLANT PER DETAIL A	24" BOX	MED	5
T3	LOPHOSTEMON CONFERTUS BRISBANE BOX	PLANT PER DETAIL A	36" BOX	MED	7
T4	QUERCUS VIRGINIANA SOUTHERN LIVE OAK	PLANT PER DETAIL A	36" BOX	MED	3
T5	PLATANUS RACEMOSA WESTERN SYCAMORE	PLANT PER DETAIL A REFER TO PLANT LEGEND NOTE #9	36" BOX	MED	6

SHRUBS

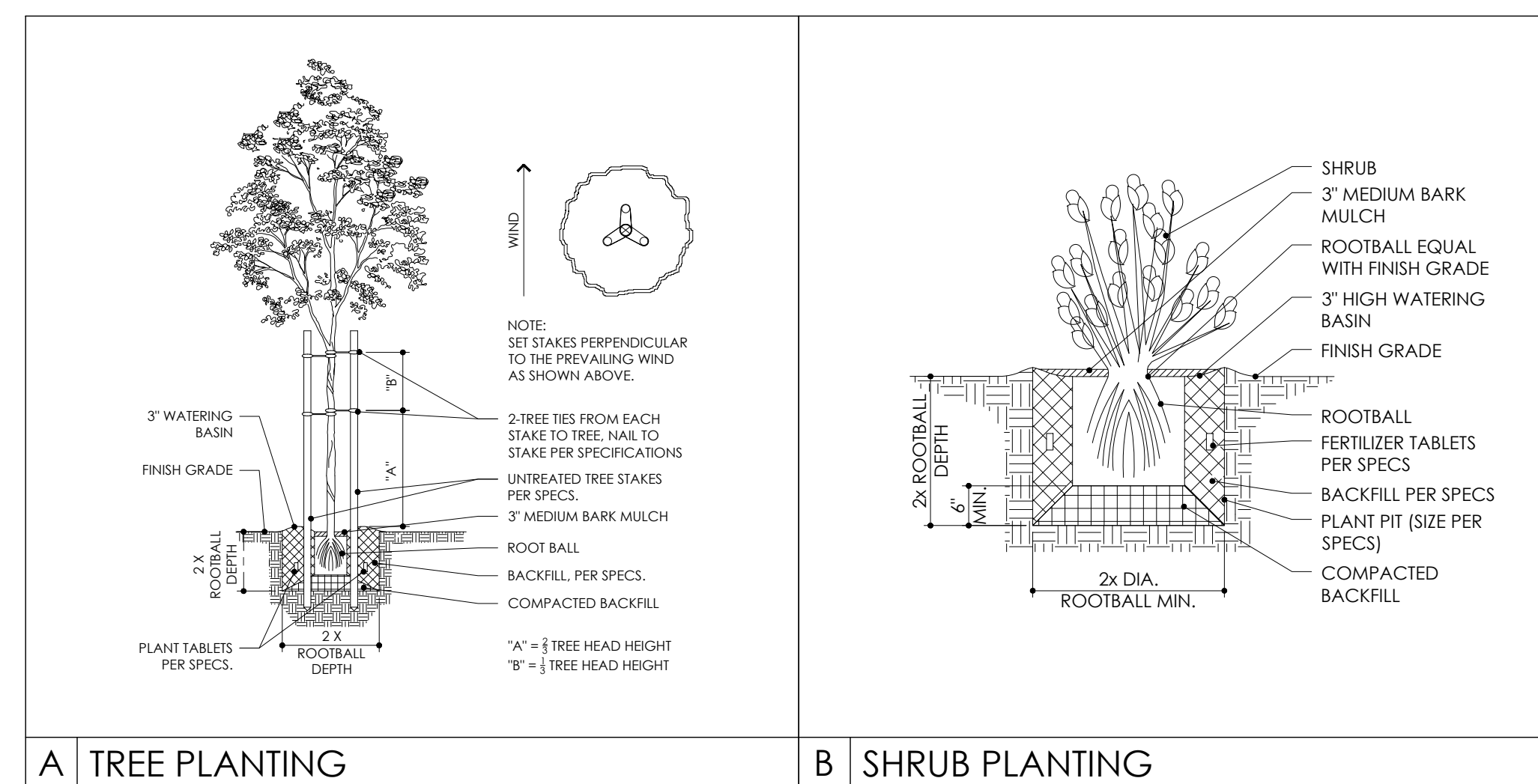
SYMBOL	NAME	COMMENTS	SIZE	WUCOLS	QTY.
S1	ELYMUS TRITICOIDES CREEPING WILD RYE	PLANT PER DETAIL B	1 GAL.	LOW	38
S2	BACCHARIS SALICIFOLIA MULEFAT	PLANT PER DETAIL B	1 GAL.	LOW	15
S3	FRANGULA CALIFORNICA COFFEE BERRY	PLANT PER DETAIL B	5 GAL.	V. LOW	26
S4	HETEROMELES ARBUTIFOLIA TOYON	PLANT PER DETAIL B	5 GAL.	V. LOW	14
S5	MUHLENBERGIA RIGENS DEER GRASS	PLANT PER DETAIL B	5 GAL.	LOW	46
S6	ARCTOSTAPHYLOS 'SUNSET' SUNSET MANZANITA	PLANT PER DETAIL B	5 GAL.	LOW	23
S7	ROSA CALIFORNICA CALIFORNIA WILDROSE	PLANT PER DETAIL B REFER TO PLANT LEGEND NOTE #9	5 GAL.	LOW	23
S8	SAMBUCUS NIGRA SPP. CAERULEA BLUE ELDERBERRY	PLANT PER DETAIL B REFER TO PLANT LEGEND NOTE #9	5 GAL.	LOW	13

GROUNDCOVERS

SYMBOL	NAME	COMMENTS	SIZE	WUCOLS	QTY.
G1	CAREX PRAEGRACILIS CALIFORNIA FIELD SEDGE	PLANT PER DETAIL B 36" O.C.	4" POTS	LOW	19
G2	CEANOTHUS GLORIOSUS 'ANCHOR BAY' ANCHOR BAY CEANOTHUS	PLANT PER DETAIL B 72" O.C.	5 GAL.	LOW	92
G3	ACHILLEA MILLEFOLIUM COMMON YARROW	PLANT PER DETAIL B 24" O.C.	1 GAL.	LOW	43
G4	NOIYO GRAVEL GRAVEL BORDER	2 FOOT WIDE BORDER SURROUNDING THE BUILDING	2"-4"	N/A	423 SQ. FT.

PLANTING LEGEND NOTES

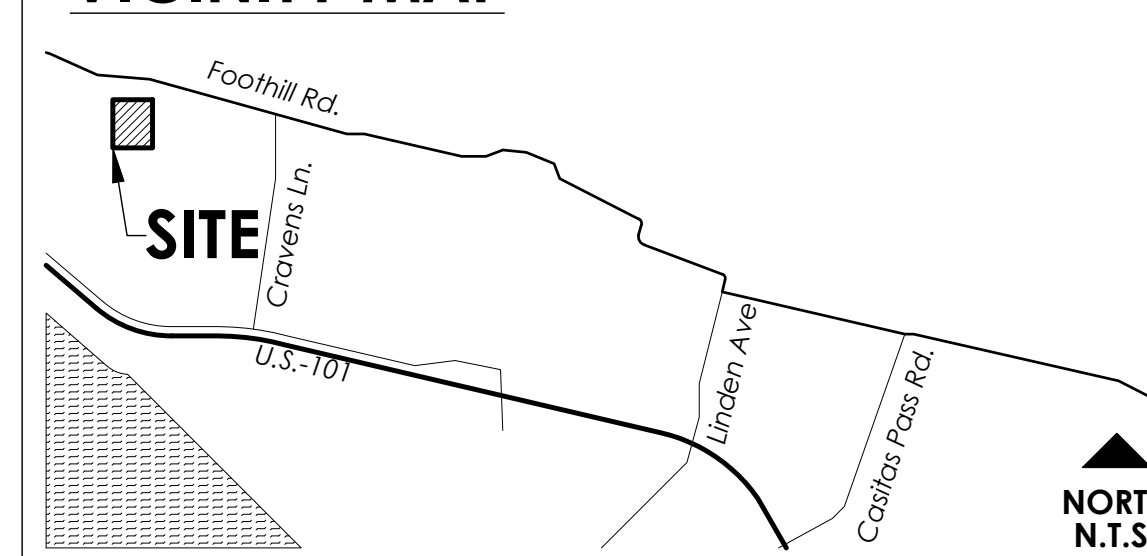
1. ALL TREES ARE TO BE STAKED PER DETAIL A
2. ALL SHRUBS ARE TO BE PLANTED PER B
3. CONTRACTOR IS TO PROVIDE AN AUTOMATIC IRRIGATION SYSTEM WITH 100% COVERAGE AND SEPARATE SUN/SHADE AND TURF/GROUNDCOVER SYSTEMS. REFER TO IRRIGATION PLANS FOR SPECIFICS OF INSTALLATIONS.
4. CONTRACTOR SHALL NOT DETOUR FROM ANY OF THE PLANT MATERIAL ON THE LIST UNLESS CONSULTING WITH THE LANDSCAPE ARCHITECT FIRST.
5. CONTRACTOR SHALL INSTALL HEADER AT THE EDGE OF ALL TURF TO SHRUB AREAS. SEE DETAILS FOR MATERIAL.
6. ALL SHRUB AREAS SHALL RECEIVE A 3" LAYER OF MEDIUM SIZED FIR MULCH 1/2" TO 1" IN DIAMETER. TOP SURFACE OF MULCH SHALL BE A MINIMUM OF 1" BELOW ANY ADJACENT HARDSCAPE. "GORILLA HAIR" OR POST CONSTRUCTION WASTE WILL NOT BE ACCEPTED.
7. ALL SLOPE AREAS 3:1 OR GREATER SHALL HAVE JUTE NETTING OR EQUIVALENT SLOPE STABILIZATION MATERIAL APPLIED ON TOP OF ANY APPLIED MULCH.
8. ALL PLANT MATERIAL, COLOR, SIZE AND QUANTITIES ARE TO BE VERIFIED WITH OWNER.
9. PLANT MATERIAL WAS SELECTED PER BIOLOGIST FOR THE TRANSITION RIPARIAN HABITAT.



NOTE:

GRADING AND SITE DISTURBANCE SHALL REMAIN AT LEAST 6 FEET OUTSIDE OF THE EXISTING OAK'S DRIPLINE WHENEVER FEASIBLE. IF GRADING MUST ENCROACH WITHIN THAT PROTECTED AREA, ALL SUCH WORK SHALL BE CONDUCTED UNDER THE SUPERVISION OF THE LANDSCAPE ARCHITECT/ARBORIST

VICINITY MAP



SHEET TITLE

**LANDSCAPE
SCREENING
PLAN**

OWNER Cresco California
P.O. Box 183
Carpinteria, California 93014

DATE 2021.10.12
21839

SHEET NO.

L-1.2