



Midpeninsula Regional
Open Space District

R-17-117
Meeting 17-26
October 25, 2017

AGENDA ITEM 3

AGENDA ITEM

Final Design Approval of the Alma College Parking Area and Trail Crossing

GENERAL MANAGER'S RECOMMENDATIONS

1. Approve the Alma College Parking Area and Trail Crossing Project Design
2. Delegate to the General Manager the authority to approve any necessary changes to the Project Design and Plans, and direct that the "As Built" designs come back to the Board for final approval.

SUMMARY

The Alma College Parking Area and Trail Crossing at Bear Creek Redwoods Open Space Preserve (Preserve) will complete a critical milestone in the opening of the Preserve to the public. At their March 28, 2017 meeting, the Planning and Natural Resources Committee reviewed the schematic design and recommended that the design process continue. Due to concerns related to the at-grade trail crossing and the significance of the project to opening the west side of the Preserve, staff is bringing the final design of the Alma College Parking Area and Trail Crossing to the Board. Following Board confirmation, staff will finalize construction documents, which will be used to support permit application submittals and form the basis for a Request for Bids to solicit bid proposals for construction in Summer 2018.

DISCUSSION

The Alma College Parking Area and Trail Crossing will serve as a gateway to the Bear Creek Redwoods Open Space Preserve, and includes a 51 space parking lot, an at-grade trail crossing on Bear Creek Road (Phase I crossing), vault restrooms, an accessible path around Upper Lake, and native vegetation and cultural landscape restoration (see Attachment 1).

Due to safety concerns related to the at-grade trail crossing on Bear Creek Road, staff hired an additional traffic consultant, TJKM Consultants, to provide a third party review of the crossing design. TJKM Consultants concurred with the location of the pedestrian crossing as designed, and provided minor engineering details. Santa Clara County Roads & Airports reviewed the crossing design as part of the encroachment permit process. Staff provided an FYI Memo at the September 27, 2017 Board Meeting detailing the review of the at-grade trail crossing design. As part of a future phase of construction, a combined culvert and trail undercrossing would replace the at-grade trail crossing. The combined culvert and trail undercrossing is currently under design, and would greatly increase the capacity of the existing undersized and degraded Webb Creek culvert, improve wildlife passage, and provide a safe trail undercrossing with relatively minimal grading and infrastructure.

A primary goal of the project involved integrating the new parking lot into the cultural landscape, and providing sensitive public access around the pond. The design of the project attempts to recall the former grandeur and spatial relationships of the historic pathways and plantings. To ensure the design complies with the intent of the Alma College Cultural Landscape Rehabilitation Plan, the project's cultural landscape specialist reviewed the parking area and landscape design. PGA Design performed a consistency review to determine whether the design drawings are consistent with Guidelines for Rehabilitation of Cultural Landscapes at Alma College, and provided minor design revisions.

At the time of the March 28th Planning and Natural Resources Committee Meeting, there was strong speculation that the Upper Lake and the adjacent grasslands provided important breeding habitat for Western Pond Turtle. Natural Resources hired a consultant to survey multiple ponds for the turtle. The surveys were completed in spring and fall 2017. The biologists found no evidence of recruitment or reproduction of the western pond turtle, and the low numbers are considered insufficient to support a viable population at this time. These findings allowed a little more flexibility in the design of the cultural landscape elements of the site as shown in the final design (Attachment 1).

FISCAL IMPACT

This project is part of Measure AA Expenditure Plan Portfolio #21, Bear Creek Redwoods Public Recreation and Interpretation Projects, which specifies, in part: *Open for hiking, equestrian activities. Provide parking areas, trails,* and is identified as MAA Project #21-5 Phase I Public Access Improvements.

The Planning Department's FY 2017-18 Budget for the Bear Creek Redwoods Public Access Phase I Implementation (MAA 21-005) includes \$151,640 for design development, permitting, and draft construction documents.

There is no direct fiscal impact of this final design approval.

BOARD COMMITTEE REVIEW

The Planning and Natural Resources Committee reviewed the schematic design during their March 28, 2017 meeting (R-17-39) and confirmed the recommended design of Alma College Parking Area and Trail Crossing. The Committee also reviewed the trail undercrossing conceptual design alternatives and confirmed a phased approach to the construction of the trail undercrossing. The Committee recommended proceeding with the design and engineering for a combined culvert-trail undercrossing.

PUBLIC NOTICE

Public notice was provided as required by the Brown Act. Additional noticing was sent to the residents along Bear Creek Road.

CEQA COMPLIANCE

Construction of the Alma College Parking Area and Trail Crossing was included in the Bear Creek Redwoods Preserve Plan EIR, which the Board certified on January 25, 2017 (R-17-15).

NEXT STEPS

Remaining work will focus on the production of bid documents for contracting and initiating permitting. Construction is scheduled for Summer 2018, which will allow for the opening of the west side of Bear Creek Redwoods Preserve in late 2018. Design and regulatory permitting will continue with the design consultant for the future Bear Creek Road trail undercrossing. The timeline to meet the goal of providing public access to Bear Creek Redwoods by late 2018 appears in the table below.

Alma College Parking Area and Trail Crossing Milestones	
Final Schematic Design for Committee Review	March 28, 2017 (completed)
Board Review of Final Design	October 25, 2017
Construction Documents	December 2017
Approve Phase I Construction Contract	Spring 2018
Construction Phase I (parking area/trail crossing)	Summer - Fall 2018
Public Access Opening	Late 2018
Complete Design & Permitting for Phase II Trail Undercrossing	Spring 2019

Attachment

1. Alma College Parking Area and Trail Crossing Final Design

Responsible Department Head:

Jane Mark, AICP, Planning Manager

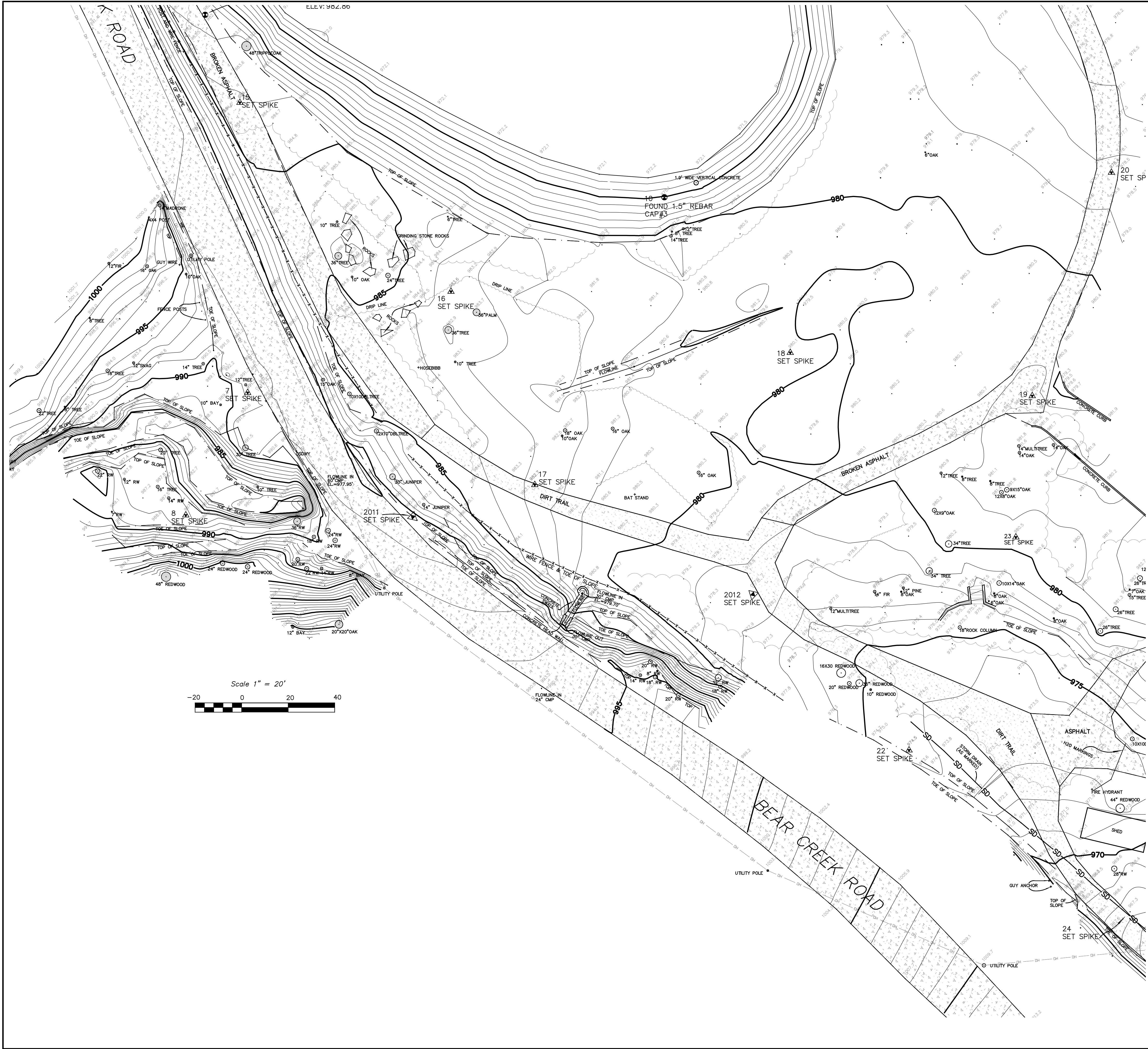
Prepared by:

Bryan Apple, Planner II

Contact person:

Bryan Apple, Planner II

Sheet Number : 11.0



Scale 1" = 20'
Contour Interval 1'

Elevations shown are NAVD88 datum as established from network RTK GPS readings. Not confirmed with a local benchmark.

NOTE: This is not a boundary survey. No property lines are shown.

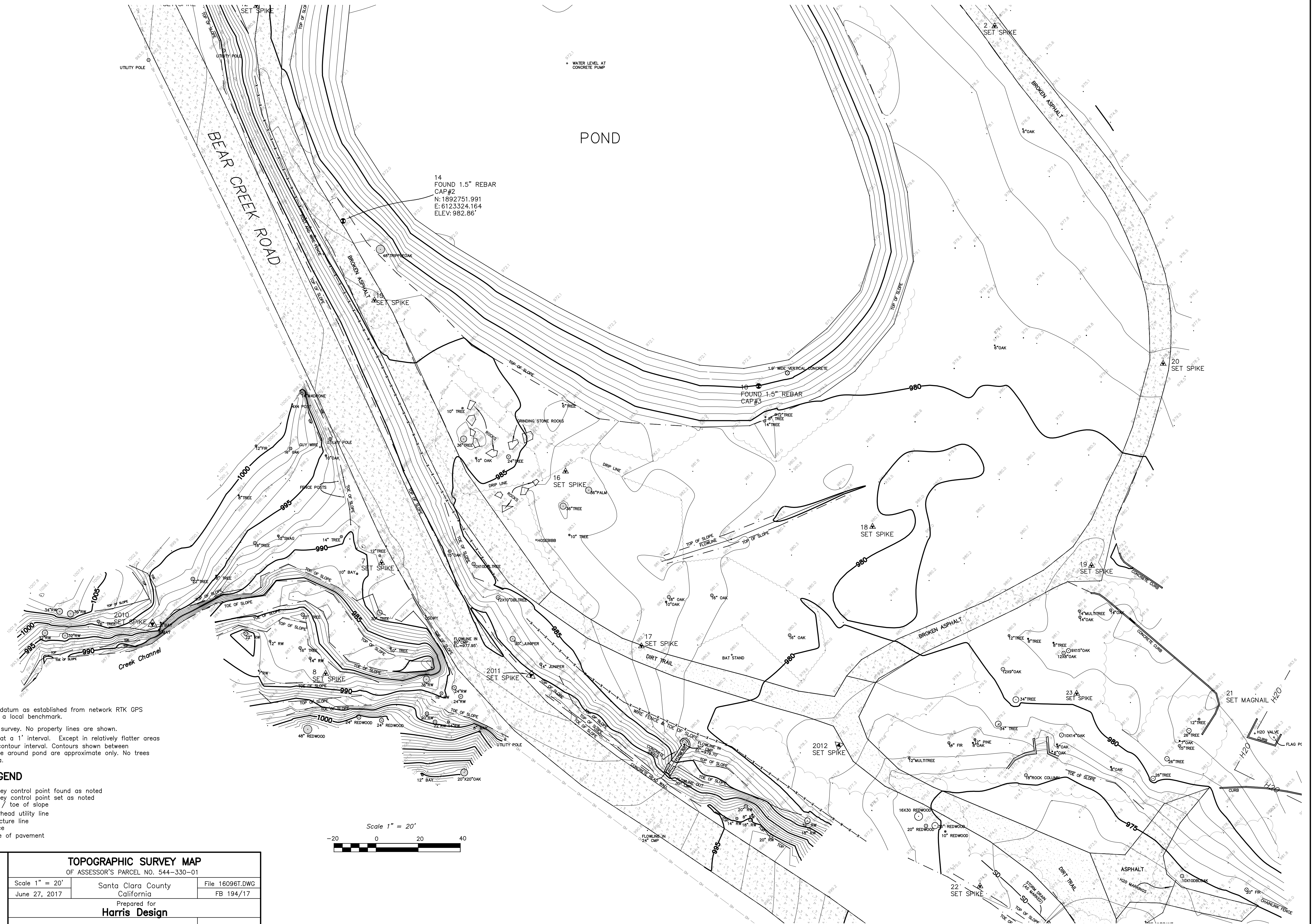
Note: Map displays contours at a 1' interval. Except in relatively flatter areas accuracy is mapped to a 2' contour interval. Contours shown between edge of pond and top of slope around pond are approximate only. No trees have been located in this area.

- LEGEND**
- Survey control point found as noted
 - Survey control point set as noted
 - Top / toe of slope
 - Overhead utility line
 - Structure line
 - Fence
 - Edge of pavement
 - Tree

EDMUNDSON & ASSOCIATES
LAND SURVEYING

1512 SEABRIGHT AVENUE
SANTA CRUZ, CA 95062
PHONE (831) 425-1796
FAX (831) 425-1795

TOPOGRAPHIC SURVEY MAP		
OF ASSESSOR'S PARCEL NO. 544-330-01		
Scale 1" = 20'	Santa Clara County California	File 16096T.DWG
June 27, 2017		FB 194/17
Prepared for Harris Design		
Sheet 2 of 4		Job #16096

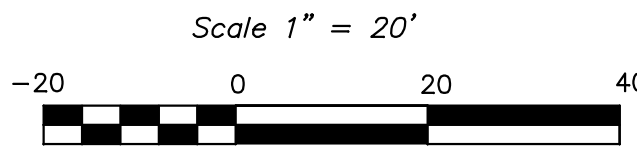


Elevations shown are NAVD88 datum as established from network RTK GPS readings. Not confirmed with a local benchmark.

NOTE: This is not a boundary survey. No property lines are shown.

Note: Map displays contours at a 1' interval. Except in relatively flatter areas accuracy is mapped to a 2' contour interval. Contours shown between edge of pond and top of slope around pond are approximate only. No trees have been located in this area.

- LEGEND**
- Survey control point found as noted
 - Survey control point set as noted
 - Top / toe of slope
 - Overhead utility line
 - Structure line
 - Fence
 - Edge of pavement
 - Tree



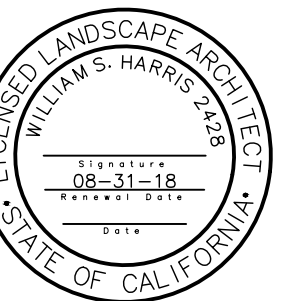
EDMUNDSON & ASSOCIATES
LAND SURVEYING

1512 SEABRIGHT AVENUE
SANTA CRUZ, CA 95062
PHONE (831) 425-1796
FAX (831) 425-1795

TOPOGRAPHIC SURVEY MAP		
OF ASSESSOR'S PARCEL NO. 544-330-01		
Scale 1" = 20'	Santa Clara County California	File 16096T.DWG
June 27, 2017		FB 194/17
Prepared for Harris Design		
Sheet 4 of 4		Job #16096

[illegible]

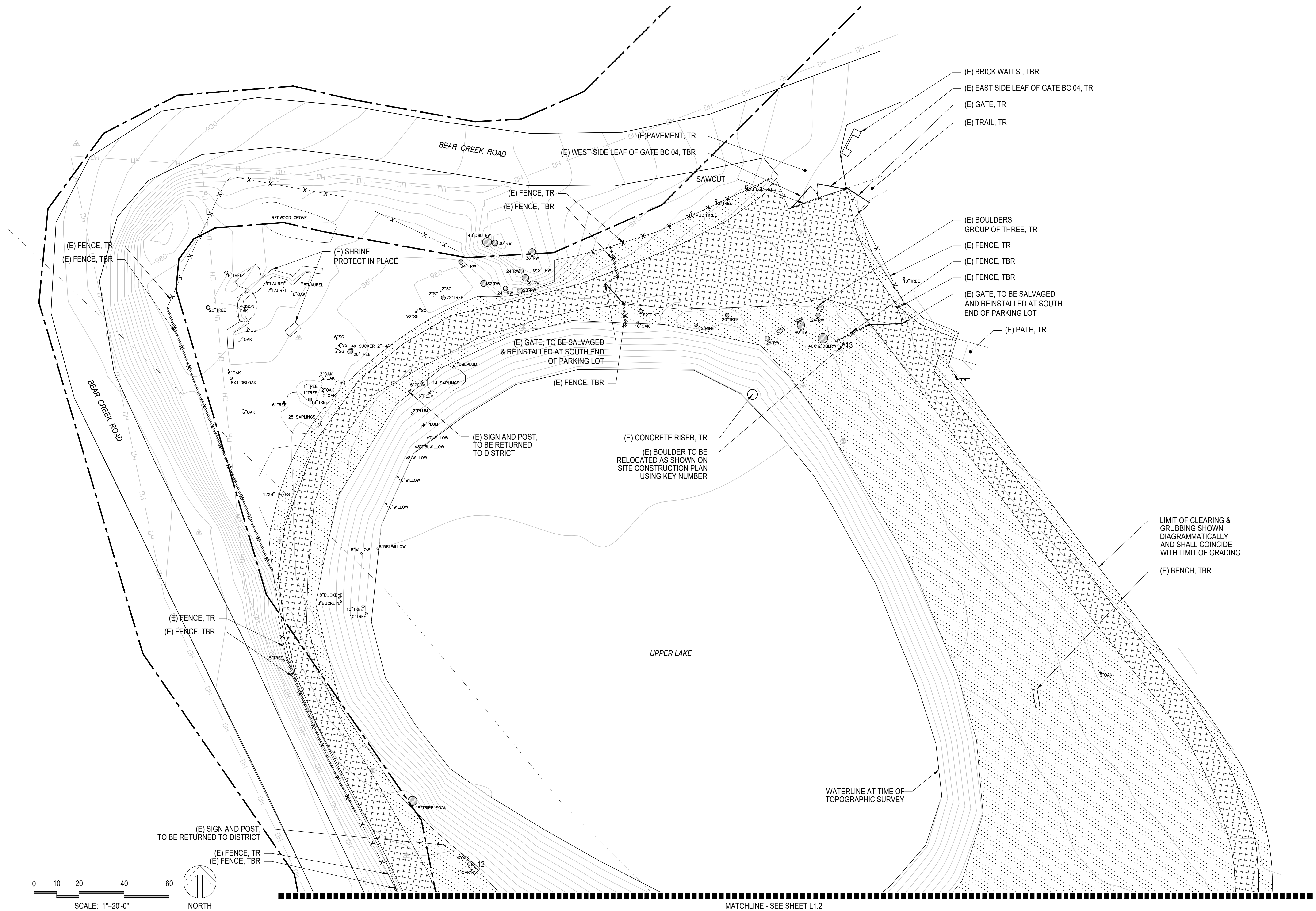
Seals and Signatures



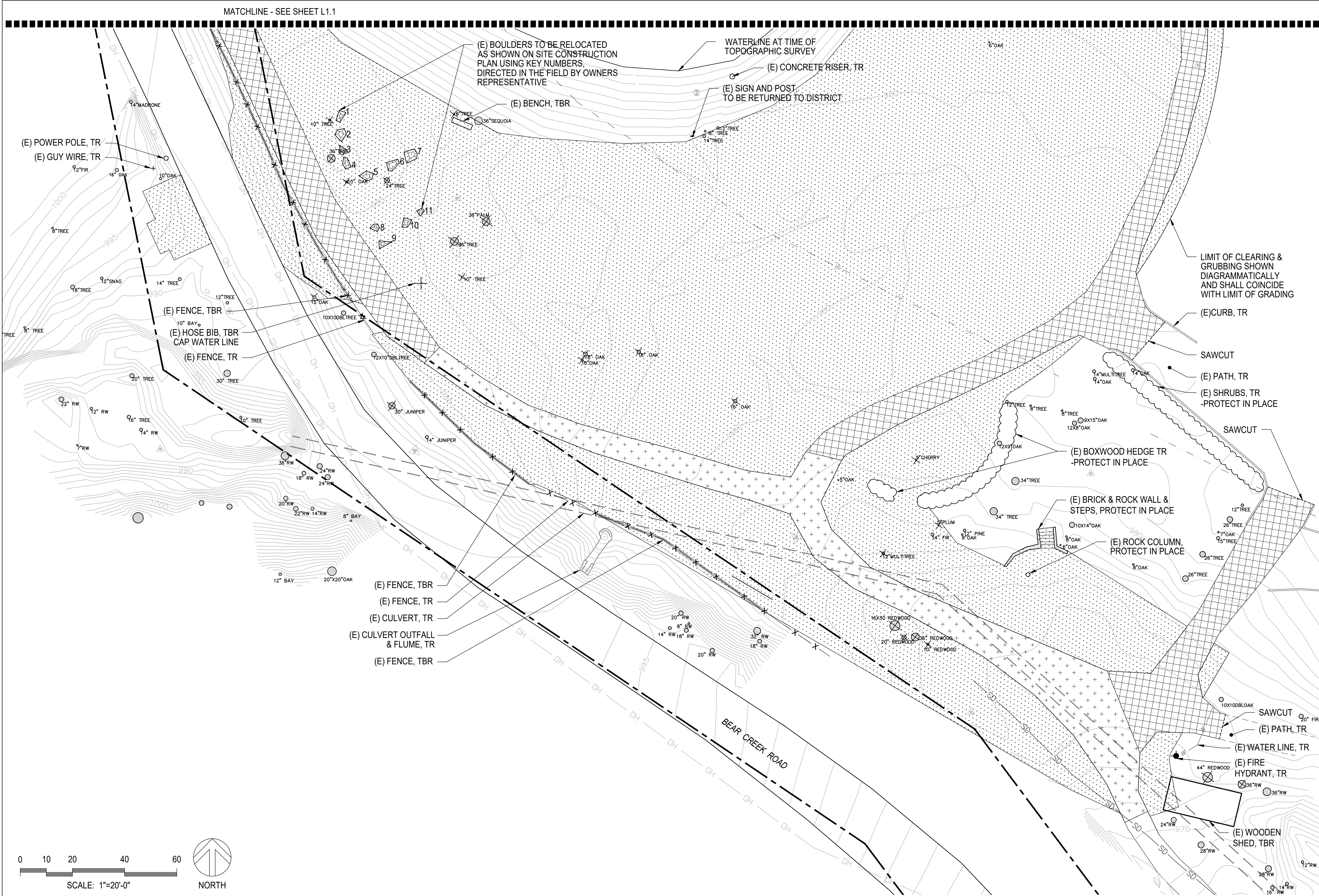
Drawn by : ZD
Checked by : BH
Drawing Title :

DEMOLITION PLAN

Date :	10/10/17
Scale :	1" = 20'-0"
Project Number :	16.04
Sheet Number :	L1.1



SEE SHEET L1.2 FOR LEGEND & NOTES



Midpeninsula
Regional Open
Space District

Alma College Parking Area and Trailhead

Bear Creek Redwoods
Open Space Preserve
Santa Clara County, CA

HARRIS DESIGN



**Landscape Architecture
Park & Recreation Planning
Urban Design**

755 Folger Avenue
Berkeley, CA 94710
t: 510.647.3792
f: 501.647.3712
www.hd-la.com

[illegible]

Seals and Signatures



FALL CREEK
ENGINEERING, INC.

1525 SEABRIGHT AVE
SANTA CRUZ, CA
95062

(831) 426-9054

Drawn by : ARS

Checked by : RLC

Drawing Title :

CIVIL INFO

Date : 10/10/17

Scale : AS SHOWN

Project Number : 16.04

Sheet Number : C0.0

DRAWING NOTATIONS

EXISTING STORM DRAIN AREA INLET

SIGN

BOLLARD

SINGLE GATE

DOUBLE GATE

SURFACE FLOW ARROW

SET SPIKE FOR SURVEY

DETAIL NUMBER

C2.1

SHEET WHERE
DETAIL IS SHOWN

PROFILE VIEW

CIVIL LINE TYPES

PROPERTY LINE

EXISTING CONTOURS

PROPOSED CONTOURS

LIMIT OF DISTURBANCE

FLOWLINE

STORMDRAIN PIPE

EXISTING ELECTRICAL CONDUIT

NEW ELECTRICAL CONDUIT

EXISTING OVERHEAD POWER LINE

TREE COVER OR DENSE VEG.

RIVER, STREAM, GULCH, OR CREEK

SAWCUT LINE

PROJECT BOUNDARY

EXISTING FENCE

EASEMENT

GUY POST AND WIRE FENCING

GRADE BREAK

NEW PERMANENT FENCE

RESOURCE PROTECTION FENCING (TEMPORARY)

STRAW BALES (TEMPORARY)

GENERAL NOTES

1. AREA OF DISTURBANCE: APPROXIMATELY 1.6 ACRES.

2. CONTRACTOR MUST COMPLY WITH REQUIREMENTS OF ALL APPLICABLE PERMITS.

3. IF THE PROJECT DISTURBS MORE THAN ONE ACRE, THE CONTRACTOR MUST DEVELOP A SWPPP, SUBMIT IT TO THE STATE FOR APPROVAL, AND FOLLOW THE REQUIREMENTS OF THE SWPPP. FALL CREEK TO PREPARE THE SWPPP. MROSD WILL SUBMIT TO THE STATE.

ABBRÉVIATIONS

AC ASPHALT CONCRETE

ADA AMERICAN DISABILITIES ACT

AGG AGGREGATE

AI AREA INLET

AWG AMERICAN WIRE GAUGE

B-# STORMWATER BASIN #

BCR BEAR CREEK ROAD

BCROP BEAR CREEK REDWOODS OPEN PRESERVE

BLDG BUILDING

BOC BOTTOM OF CURB

BVCE BEGINNING VERTICAL CURVE ELEVATION

BVCS BEGINNING VERTICAL CURVE STATION

C# CURVE #

C&G CURB & GUTTER

€ CENTERLINE

CL CENTERLINE

DIA DIAMETER

DG DECOMPOSED GRANITE

DI DROP INLET

EL. ELEVATION

EP EDGE OF PAVEMENT

EQ. EQUIDISTANT

EVCE ENDING VERTICAL CURVE ELEVATION

EVCS ENDING VERTICAL CURVE STATION

(E) EXISTING

FG FINISHED GRADE

HYD HYDRANT

INF INFILTRATION

K OAK

L# LINE #

LAT LATERAL

LEN LENGTH

LVI LENGTH OF VERTICAL CURVE

MAX MAXIMUM

MIN MINIMUM

(N) NEW

NTS NOT TO SCALE

O.C. ON CENTER

O.D. OUTER DIAMETER

OFF OFFSET

PED PEDESTRIAN

PVI POINT OF VERTICAL INTERSECTION

(P) PROPOSED

SCH SCHEDULE

SD STORM DRAIN SYSTEM

SF SQUARE FEET

STA STATION

STN STATION

SW STORMWATER

T TREE

TBR TO BE REMOVED

TOC TOP OF CURB

TOW TOP OF WALL/TWISTED

TPZ TREE PROTECTION ZONE

TR TO REMAIN

TS TOP OF STAIRS

TYP TYPICAL

UG UNDERGROUND

VC VERTICAL CURVE

VEG VEGETATED

WW WASTEWATER

XX-(#) INFRASTRUCTURE IDENTIFICATION

TECHNICAL REFERENCES

1. GEOTECHNICAL INVESTIGATION DESIGN PHASE FOR ALMA COLLEGE PARKING AREA AND TRAILHEAD, SANTA CLARA COUNTY, CALIFORNIA, JULY 2017.

2. C.3 STORMWATER HANDBOOK, SANTA CLARA VALLEY URBAN RUNOFF POLLUTION PREVENTON PROGRAM, JUNE 2016.

3. TOPOGRAPHIC SURVEY, CONDUCTED BY EDMUNSON & ASSOCIATES LAND SURVEYING, JULY 18, 2016

3.1. ELEVATIONS SHOWN ARE NAVD88 DATUM AS ESTABLISHED FROM NETWORK RTK GPS READINGS. NOT CONFIRMED WITH A LOCAL BENCHMARK

MATERIALS LEGEND

ASPHALT CONCRETE (AC) PAVEMENT

(E) AC PAVING AND BASE TO BE REMOVED

EROSION CONTROL - TURF REINFORCED MAT (TRM)

(E) GRAVEL PATH TO BE REMOVED

UNDISTURBED EARTH

PERMEABLE CONCRETE

PERMEABLE CONCRETE WITH MACROFIBER

AGGREGATE BASE

RESIN PAVING

COMPACTED SUBGRADE

TRUNCATED DOMES

DEMO EXISTING FEATURE

CLEAR AND GRUB AREA

STAGING AREA

STABILIZED ENTRANCE - METAL PLATES

STABILIZED ENTRANCE - GRAVEL

ACCESS RAMP

CIVIL SHEET LIST TABLE

	Sheet Number	Sheet Title
	C0.0	CIVIL INFO
	C1.0	CONSTRUCTION ACCESS AND STAGING PLAN- POND LAYOUT
	C1.1	CONSTRUCTION ACCESS AND STAGING- PARKING LOT LAYOUT
	C2.0	HORIZONTAL CONTROL PLAN - POND LAYOUT
	C2.1	HORIZONTAL CONTROL PLAN- PARKING LOT LAYOUT
	C2.2	HORIZONTAL CONTROL PLAN- TABLES
	C3.0	SIGNAGE, STRIPING, AND PAVEMENT PLAN-PARKING LOT LAYOUT
	C4.0	GRADING AND DRAINAGE PLAN - POND LAYOUT
	C4.1	GRADING AND DRAINAGE PLAN- PARKING LOT LAYOUT
	C4.2	GRADING AND DRAINAGE PLAN- SECTIONS AND PROFILES
	C5.0	CIVIL DETAILS- PARKING LOT DETAILS
	C5.1	CIVIL DETAILS- GATE AND DRIVEWAY DETAILS
	C6.0	EROSION CONTROL PLAN - POND LAYOUT
	C6.1	EROSION CONTROL PLAN- PARKING LOT LAYOUT
	C6.2	EROSION CONTROL PLAN - DETAILS AND NOTES
	C7.0	STORMWATER CONTROL PLAN

GRADING NOTES

APPROXIMATE GRADING VOLUMES

SITE	CUT (CY)	FILL (CY)	NET
PROJECT IMPROVEMENTS	635.7	911.1	275.4 (F)
TOTAL VOLUMES	635.7	911.1	275.4 (F)

SITE BALANCE NOTES:

1. CUT AND FILL VOLUMES ON THIS PROJECT ARE ESTIMATES AND SHALL BE VERIFIED.

2. CONTRACTOR SHALL DETERMINE THE QUANTITIES OF CUT AND FILL REQUIRED TO BALANCE THE SITE EARTHWORK, ALLOWING FOR SUCH FACTORS AS SHRINKAGE, SUBSIDENCE, ETC.

3. CONTRACTOR MUST HAUL ALL EXCESS SOIL OFFSITE AND IMPORT ANY REQUIRED BORROW FROM OFFSITE.

GRADING NOTES:

1. A COMPACTION FACTOR OF 95% HAS BEEN APPLIED TO THE GRADING FILL VOLUMES.

2. GRADING VOLUMES DO NOT ACCOUNT FOR PAVEMENT SECTIONS.

3. ALL RECOVERY SLOPES SHALL NOT EXCEED 3:1 (H:V).

4. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING EXISTING TOPOGRAPHY AND GRADING VOLUMES AS EXISTING SOIL IS SANDY AND SUBJECT TO CHANGING CONDITIONS.

5. ALL SITE GRADING SHALL COMPLY WITH THE RECOMMENDATIONS OF THE PROJECT'S GEOTECHNICAL ENGINEERING REPORT.

Sheet Number : C0.0

[illegible]

Seals and Signatures



1525 SEABRIGHT AVE
SANTA CRUZ, CA
95062
(831) 426-9054

Drawn by : ARS
Checked by : RLC
Drawing Title :

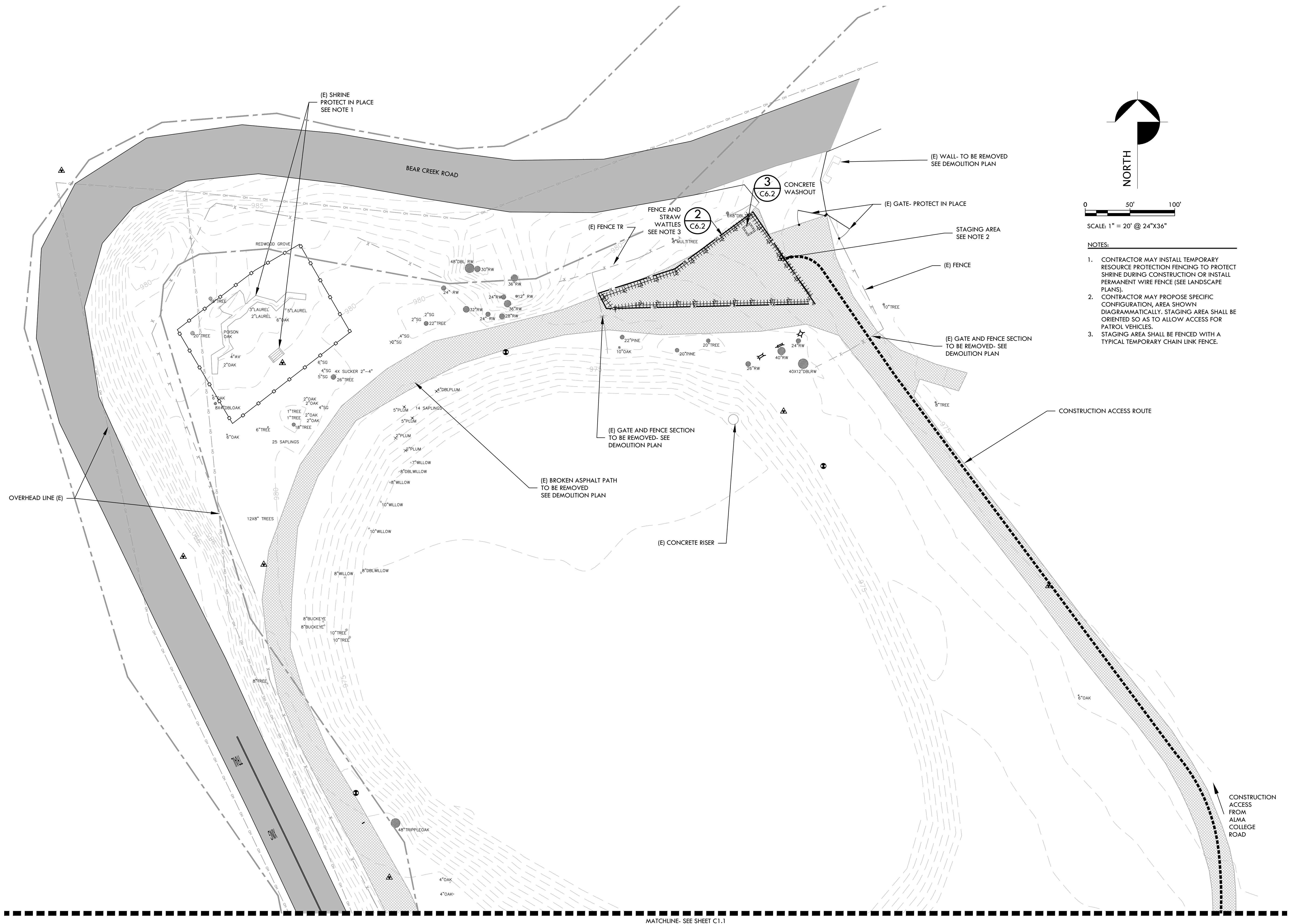
CONSTRUCTION ACCESS AND STAGING PLAN- POND LAYOUT

Date : 10/10/17

Scale : AS SHOWN

Project Number : 16.04

Sheet Number : **C1.0**



MATCHLINE- SEE SHEET C1.1

1 CONSTRUCTION ACCESS AND STAGING PLAN- POND LAYOUT

[illegible]

Seals and Signatures

 FALL CREEK
ENGINEERING, INC.

1525 SEABRIGHT AVE
SANTA CRUZ, CA
95062
(831) 426-9054

Drawn by : ARS
Checked by : RLC
Drawing Title :

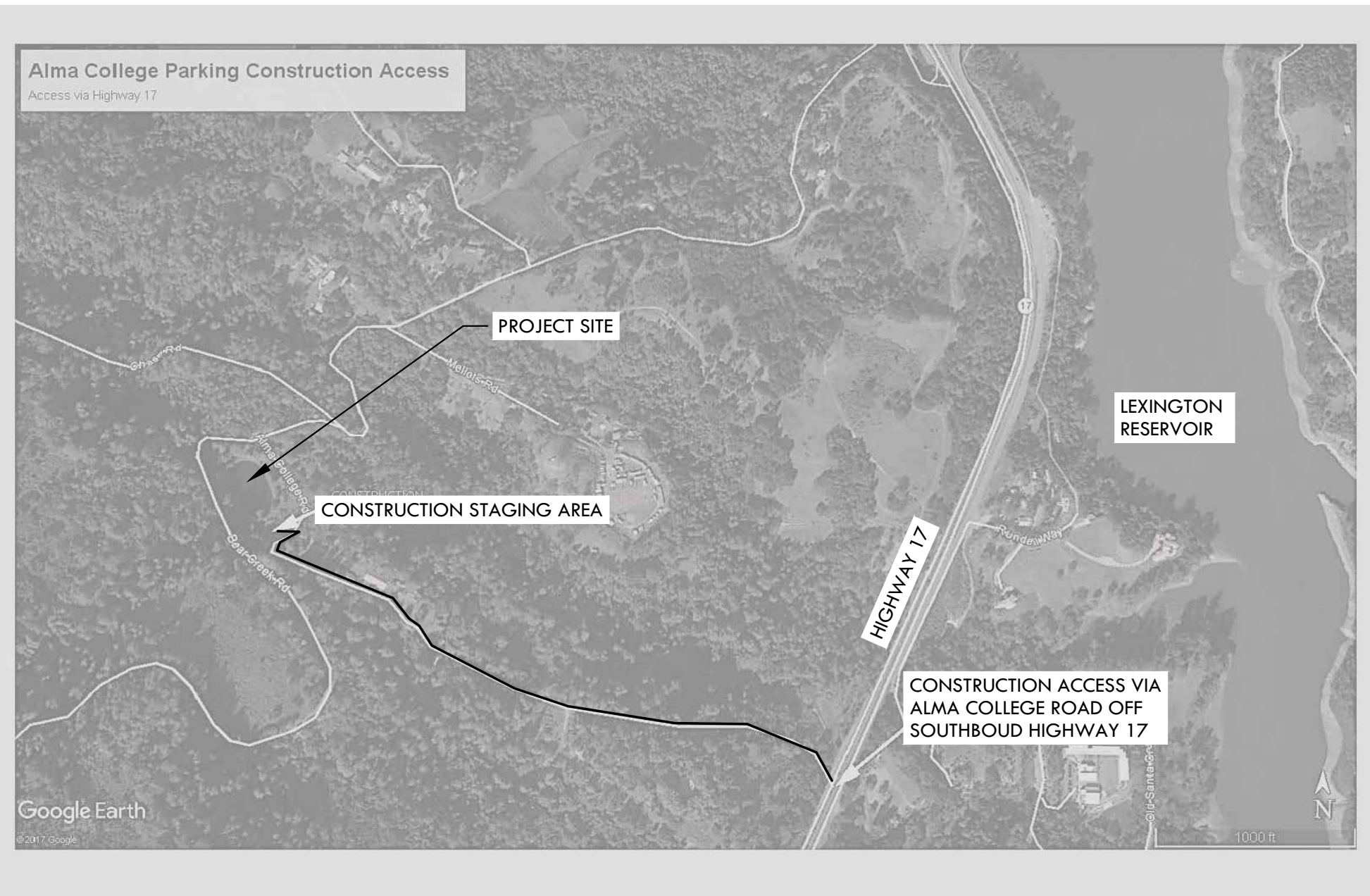
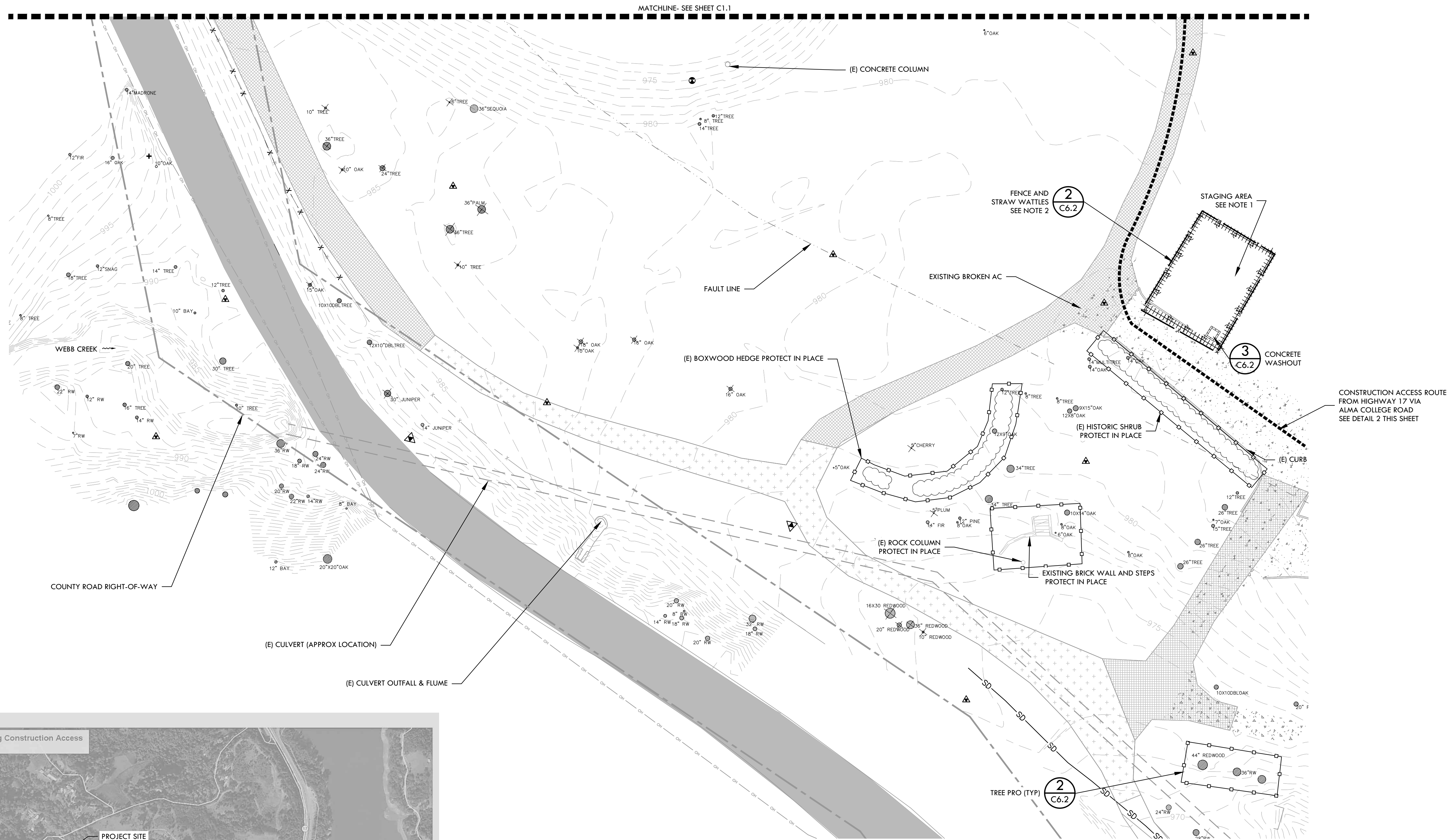
Drawing Title :
**CONSTRUCTION
ACCESS AND
STAGING-
PARKING LOT
LAYOUT**

Date : 10/10/17

Scale : AS SHOWN

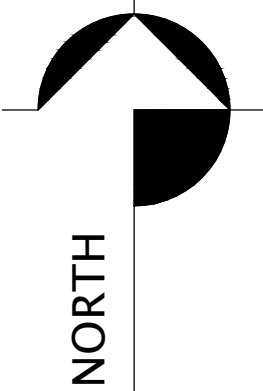
Project Number : 16.04

Sheet Number : **C1.1**



1 CONSTRUCTION ACCESS AND STAGING- PARKING LOT LAYOUT

SCALE: 1" = 20' @ 24"X36"



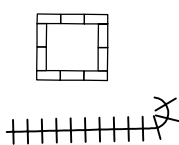
0 50' 100'

SCALE: 1" = 20' @ 24"X36"

NOTES:

1. CONTRACTOR MAY PROPOSE SPECIFIC CONFIGURATION, AREA SHOWN DIAGRAMMATICALLY.
2. STAGING AREA SHALL BE FENCED WITH A TYPICAL TEMPORARY CHAIN LINK FENCE.

LEGEND:



CONCRETE WASHOUT

STRAW WATTLE

2 CONSTRUCTION ACCESS ROUTE VIA ALMA COLLEGE ROAD

SCALE AS DIMENSIONED

A. COORDINATE LISTING OF CONTROL POINTS			
CONTROL POINT	EASTING	NORTHING	ELEVATION
1	1892990.761	6123514.207	976.097
2	1892844.489	6123633.644	976.434
3	1892948.993	6123633.644	979.250
4	1893025.880	6123529.521	975.893
5	1893030.115	6123192.635	992.844
6	1892857.617	6123247.042	992.811
7	1892589.633	6123342.434	991.301
8	1892536.983	6123315.845	987.294
9	1892922.535	6123515.253	978.450
10	1892673.635	6123521.459	975.110
11	1892898.202	6123533.005	978.665
12	1892854.080	6123283.008	980.399
13	1892944.186	6123291.339	980.392
14	1892751.264	6123324.164	982.858
15	1892714.264	6123339.091	984.339
16	1892633.092	6123429.798	983.604
17	1892550.042	6123465.803	982.679
18	1892606.959	6123575.598	980.061
19	1892588.255	6123679.591	981.531
20	1892684.220	6123713.615	978.390
21	1892527.220	6123757.520	983.410
22	1892436.035	6123626.634	974.498
23	1892527.515	6123672.547	980.549
24	1892366.571	6123721.636	967.333
25	1892302.326	6123802.273	961.962
26	1892214.581	6123914.473	958.408

[illegible]

Seals and Signatures



1525 SEABRIGHT AVE
SANTA CRUZ, CA
95062

(831) 426-9054

Drawn by : ARS
Checked by : RLC
Drawing Title :

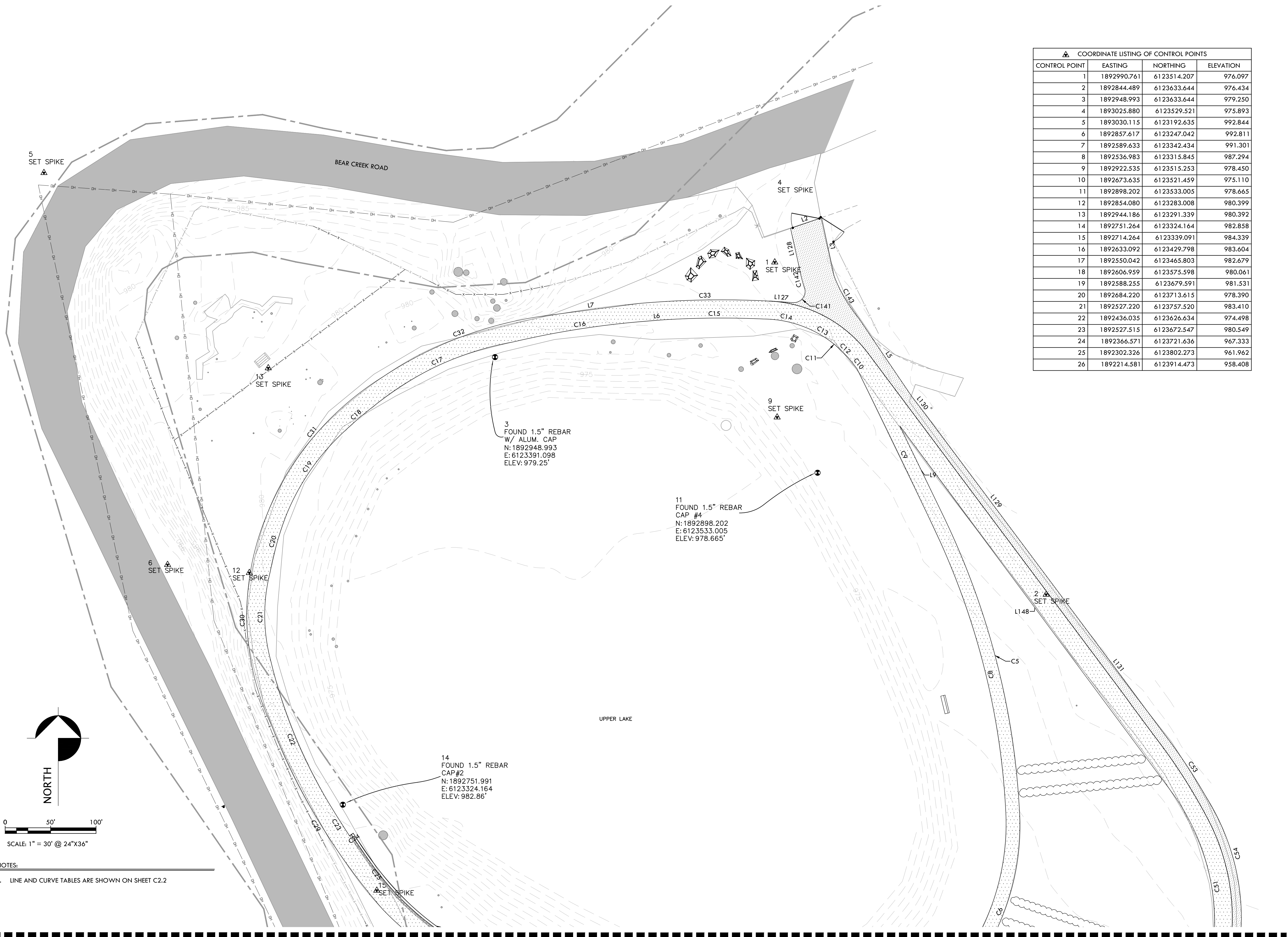
HORIZONTAL
CONTROL PLAN -
POND LAYOUT

Date : 10/10/17

Scale : AS SHOWN

Project Number : 16.04

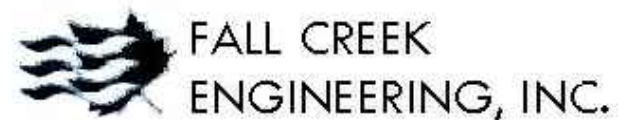
Sheet Number : **C2.0**



MATCHLINE- SEE SHEET C2.1

1) HORIZONTAL CONTROL PLAN - POND LAYOUT

Seals and Signatures



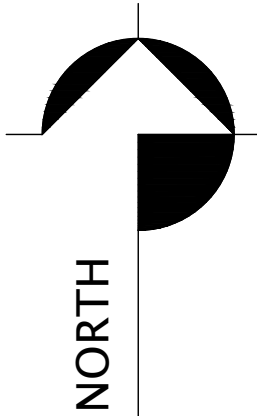
Drawn by : ARS
Checked by : RLC
Drawing Title :

Date : 10/10/17

Scale : AS SHOWN

Project Number : 16.04

Sheet Number : **C2.1**



0 20' 40'

SCALE: 1" = 20' @ 24"X36"

NOTES:

1. LINE AND CURVE TABLES ARE SHOWN ON SHEET C2.2

Alma College Parking Area and Trailhead

HARRIS DESIGN



**Landscape Architecture
Park & Recreation Planning
Urban Design**

755 Folger Avenue
Berkeley, CA 94710
t: 510.647.3792
f: 501.647.3712
www.hd-la.com

Seals and Signatures

Drawn by : ARS
Checked by : RLC

Drawing Title :

Date : 10/10/17

Scale : AS SHOWN

Project Number : 16.04

Sheet Number : **C2.2**

Parcel Table				
NUMBER	RADIUS	LENGTH	LINE/CHORD DIRECTION	DELTA
L34		5.38	S29° 51' 58.03"E	
L33		8.09	S26° 57' 03.86"E	
L37		7.84	N24° 38' 50.24"W	
L38		5.95	N29° 13' 00.41"W	
L39		17.50	N64° 08' 16.16"E	
C64	26.74	40.23	N79° 22' 36.36"W	86° 11' 50"
C63	54.22	59.26	S81° 26' 52.62"E	62° 37' 27"
C41	453.24	59.75	N63° 34' 11.28"W	7° 33' 14"
C38	9.00	13.51	S77° 13' 17.19"W	86° 01' 49"
L20		18.15	S30° 15' 43.12"W	
L16		2.99	S65° 22' 36.15"W	
C37	10.84	6.09	S51° 32' 30.09"W	32° 10' 55"
L15		11.01	S24° 35' 54.99"E	
L19		32.74	N64° 40' 16.04"E	
L18		12.96	S65° 37' 01.85"W	

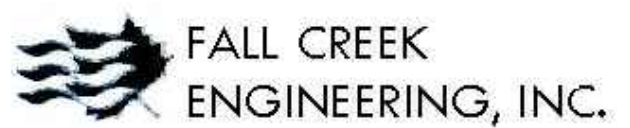
VEHICULAR SIGN SCHEDULE				
SCHEDULE	DESCRIPTION	CA MUTCD DESIGNATION	NO. SIGNS	SIZE (W X H, INCHES)
1.1	STOP	R1-1	1	30 X 30
1.2	ADA ACCESSIBLE PARKING	R99	2	8.5 X 8.5
1.3	VAN ACCESSIBLE	R7-8b	1	4.25 X 8.5

NOTE:

1. DETAIL 1 ON SHEET C5.1 PROVIDES DETAILS ON SIGN MATERIALS AND INSTALLATION.

[illegible]

Seals and Signatures



1525 SEABRIGHT AVE
SANTA CRUZ, CA
95062

(831) 426-9054

Drawn by : ARS
Checked by : RLC
Drawing Title :

Drawing Title :

**SIGNAGE,
STRIPING, AND
PAVEMENT
PLAN-PARKING
LOT LAYOUT**

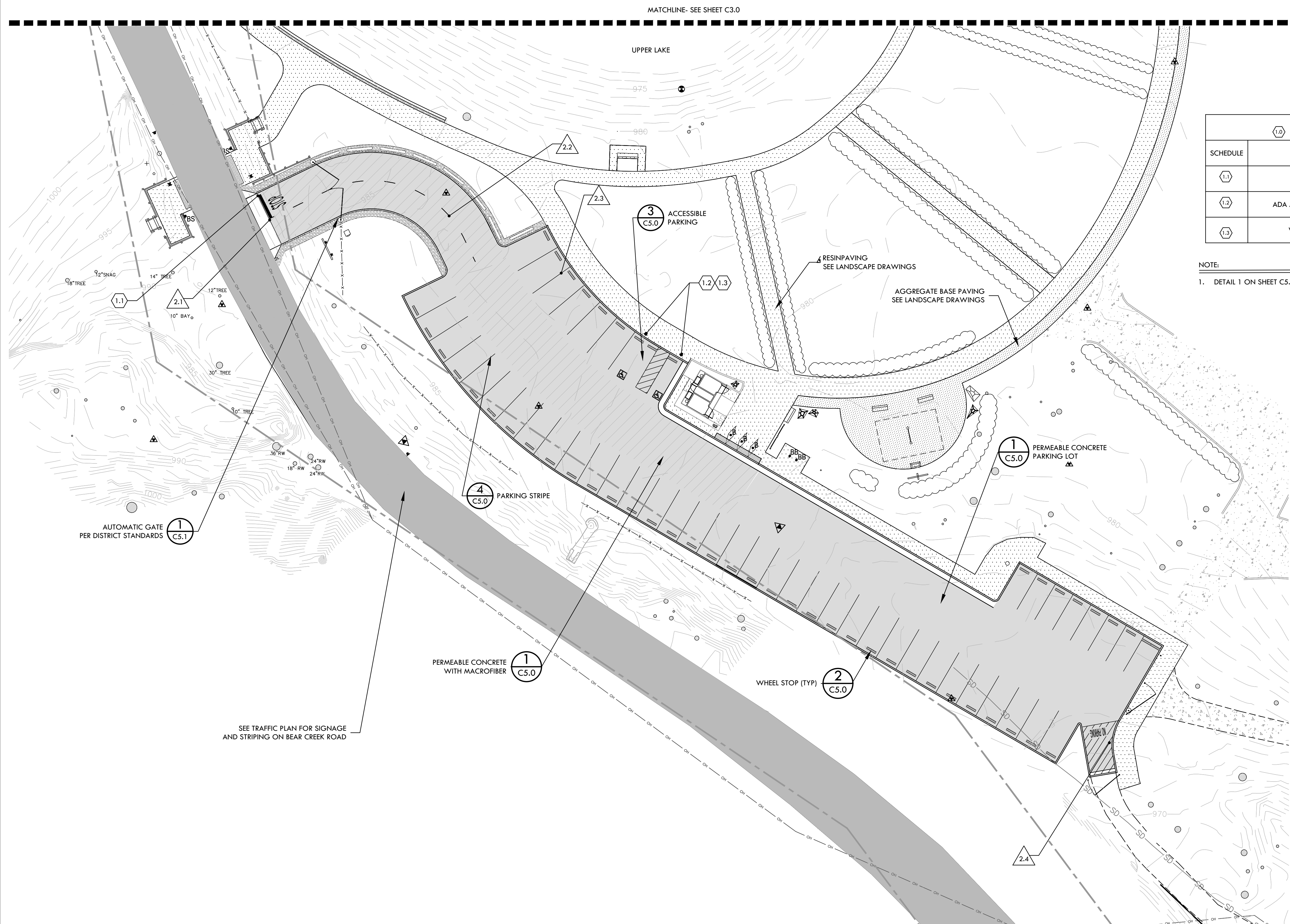
Date : 10/10/17

Scale : AS SHOWN

Project Number : 16.04

Sheet Number :

C3.0



1 SIGNAGE, STRIPING, AND PAVEMENT PLAN-PARKING LOT LAYOUT
SCALE: 1" = 20' @ 24"x36"

[illegible]

Seals and Signatures



1525 SEABRIGHT AVE
SANTA CRUZ, CA
95062
(831) 426-9054

Drawn by : ARS
Checked by : RLC
Drawing Title :

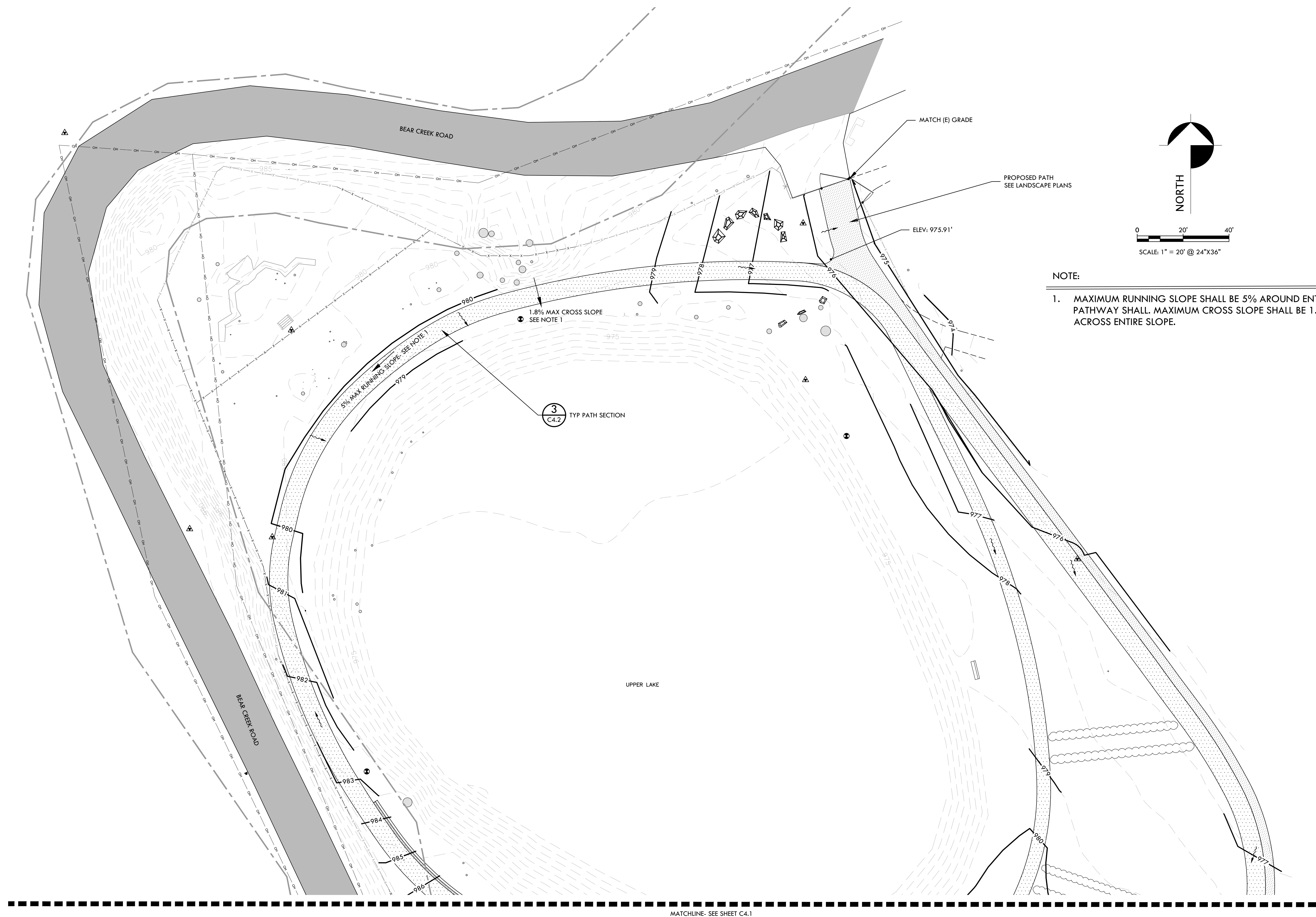
GRADING AND DRAINAGE PLAN - POND LAYOUT

Date : 10/10/17

Scale : AS SHOWN

Project Number :	16.04
------------------	-------

Sheet Number : C4.0



[illegible]

Seals and Signatures



1525 SEABRIGHT AVE
SANTA CRUZ, CA
95062
(831) 426-9054

Drawn by : ARS
Checked by : RLC
Drawing Title :

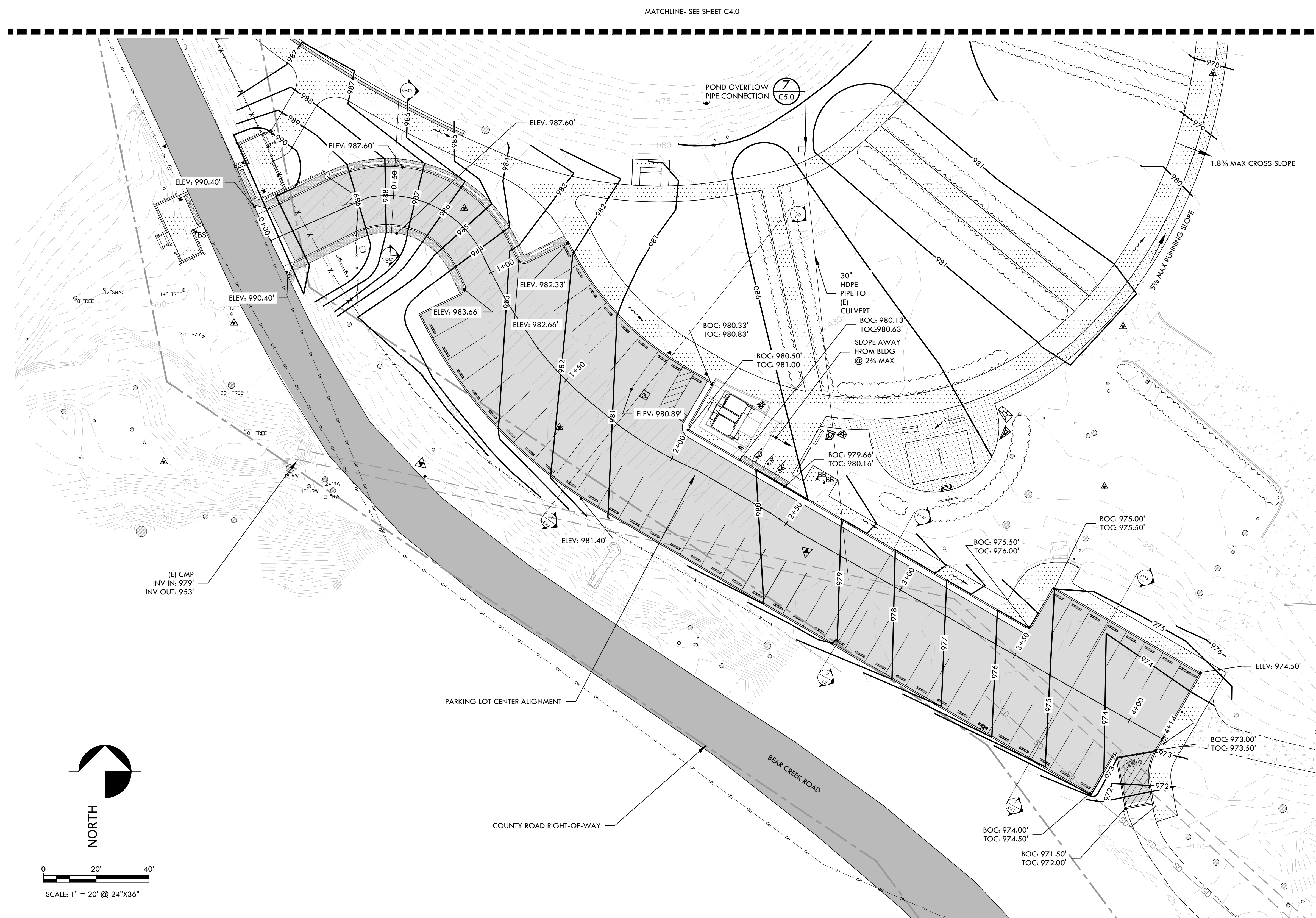
GRADING AND DRAINAGE PLAN-PARKING LOT LAYOUT

Date : 10/10/17

Scale : AS SHOWN

Project Number :	16.04
------------------	-------

Sheet Number : C4.1



NOTE:

1. MAXIMUM RUNNING SLOPE SHALL BE 5% AROUND ENTIRE PATHWAY SHALL. MAXIMUM CROSS SLOPE SHALL BE 1.8% ACROSS ENTIRE SLOPE.

[illegible]

Seals and Signatures



Drawn by : ARS
Checked by : RLC
Drawing Title :

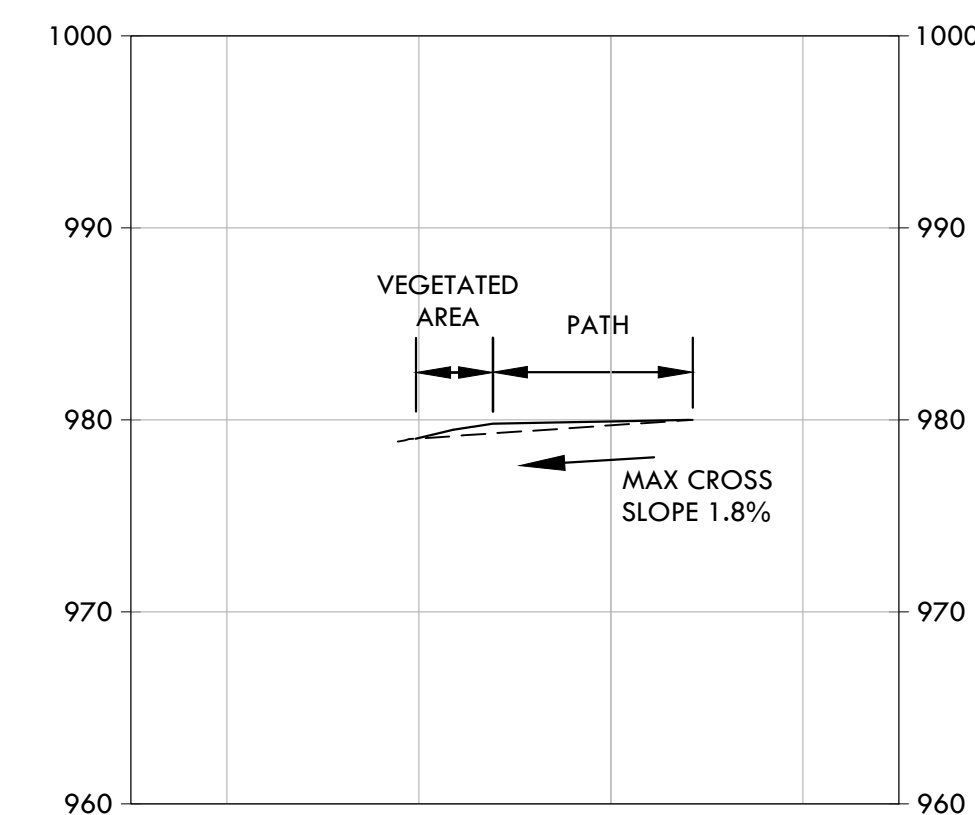
GRADING AND DRAINAGE PLAN-SECTIONS AND PROFILES

Date : 10/10/17

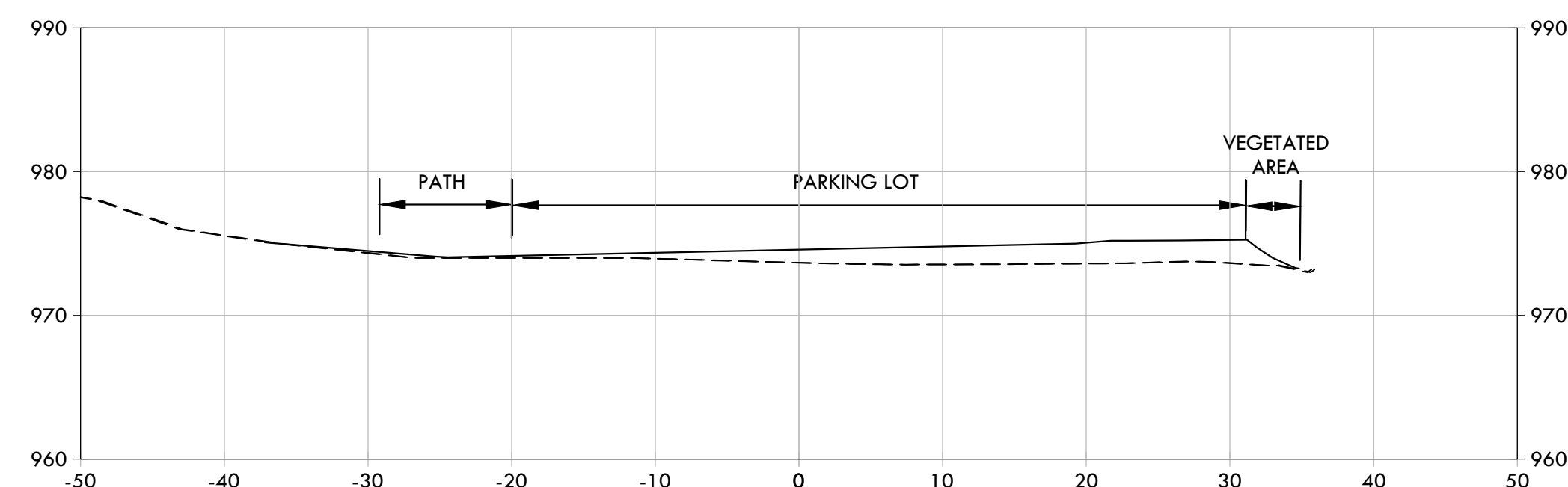
Scale : AS SHOWN

Project Number :	16.04
------------------	-------

Sheet Number : C4.2

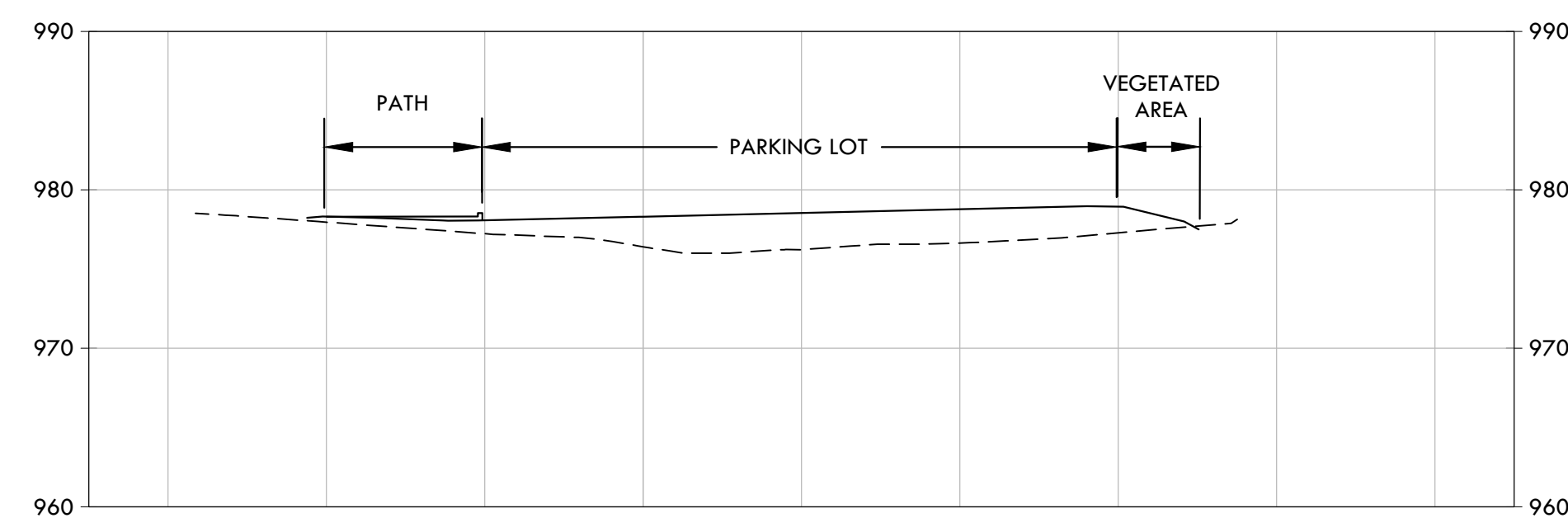


NO SCALE



TYP DRIVEWAY ENTRANCE SECTION FOR STATIONS 0+00 TO 1+00

TYP PARKING SECTION FOR STATIONS 3+50 TO 4+00



TYP PARKING SECTION FOR STATIONS 1+00 TO 2+00

TYP PARKING SECTION WITH 6" CURB FOR STATIONS 2+00 TO 3+50

NO SCALE

[illegible]

Deals and Signatures



525 SEABRIGHT AVE
SANTA CRUZ, CA
95062
(831) 426-9054

rawn by : ARS
hecked by : RLC
rawing Title :

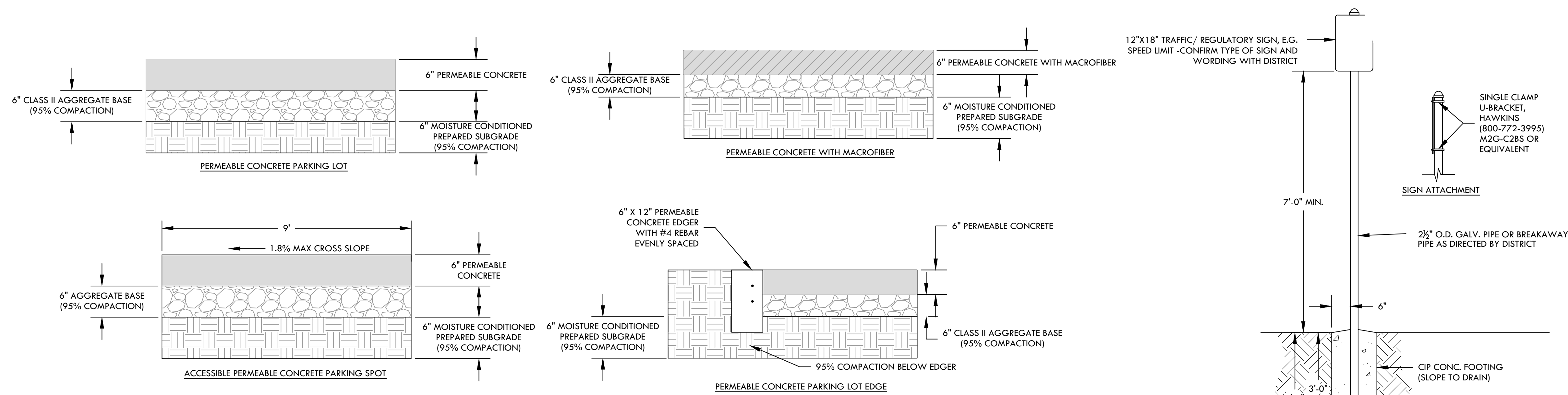
CIVIL DETAILS-
PARKING LOT
DETAILS

ate : 10/10/17

Scale : AS SHOWN

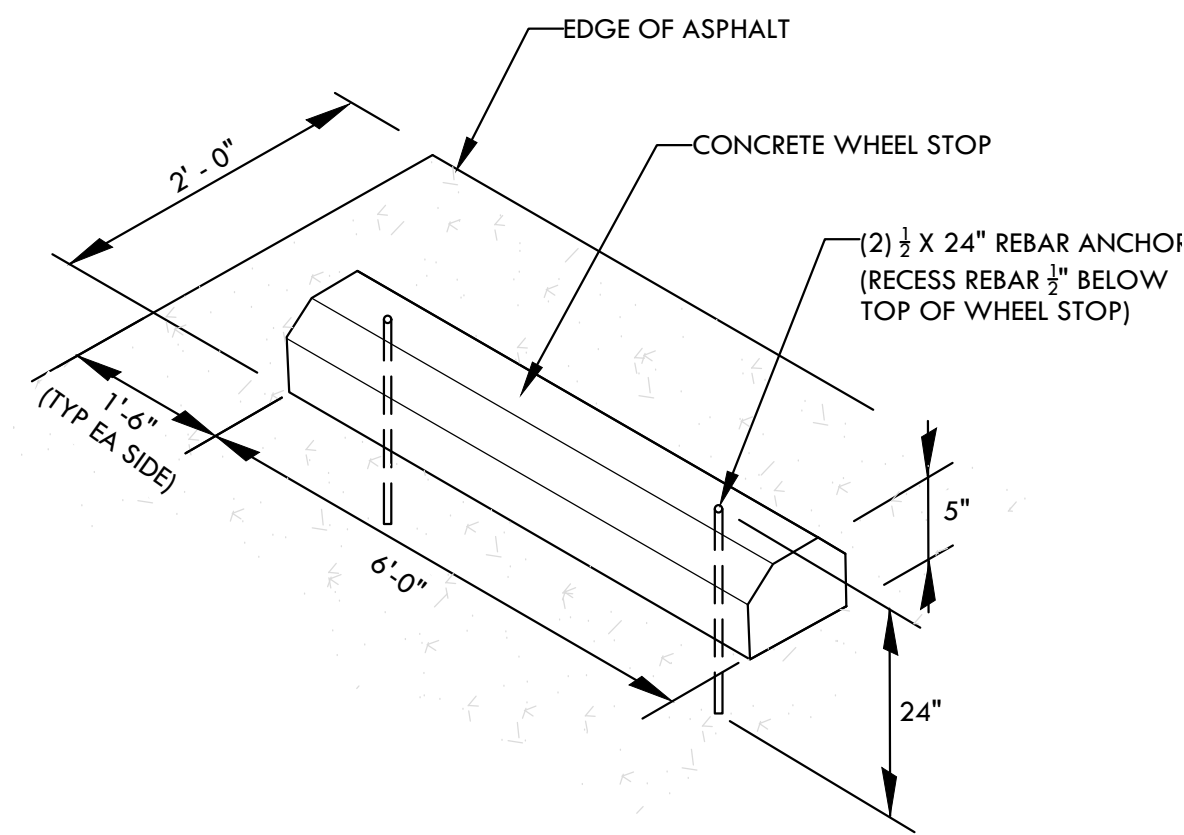
Project Number : 16.04

Sheet Number : C5.0



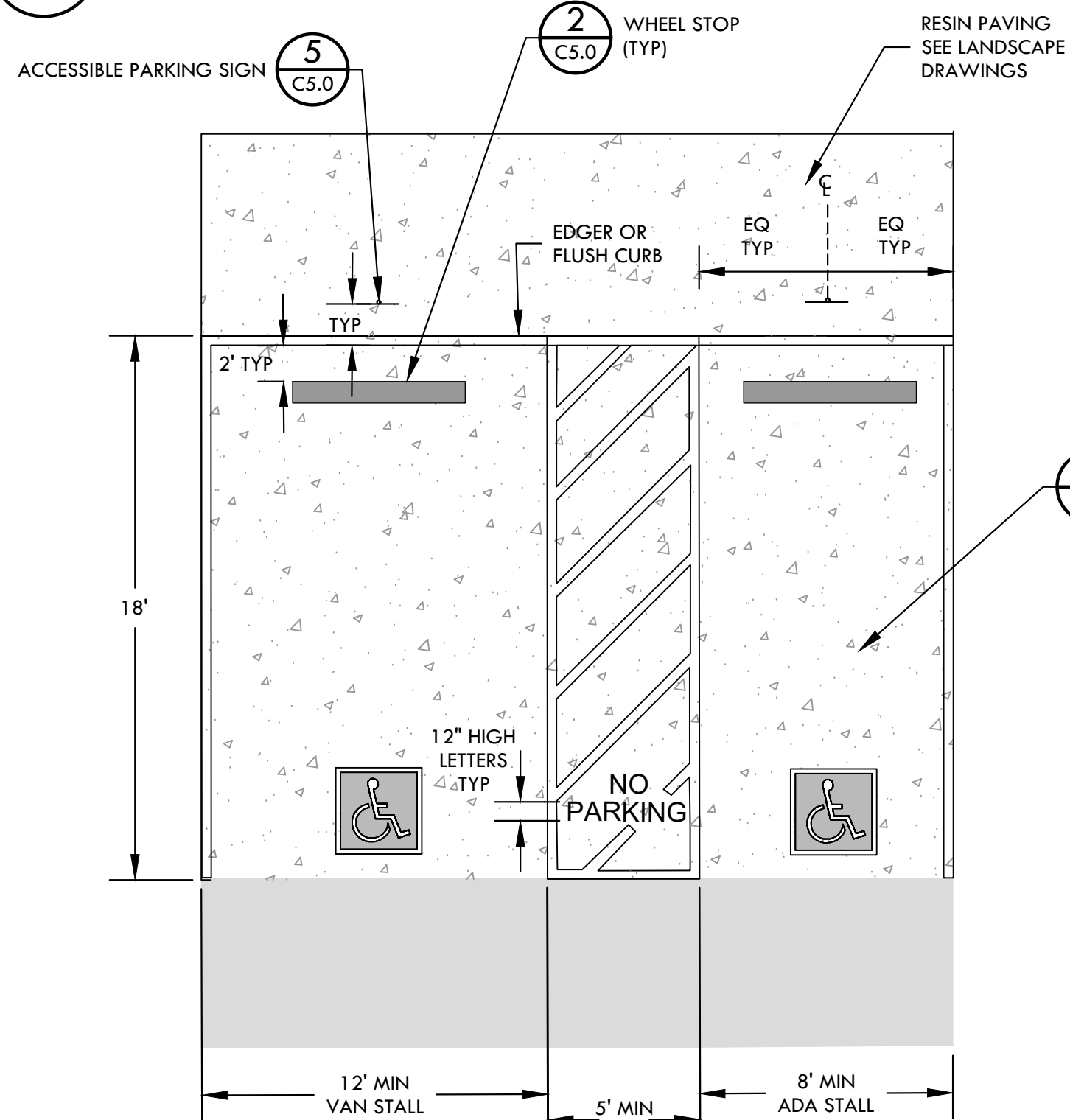
1 PAVING AND PARKING SECTIONS

SCALE: AS DIMENSIONED



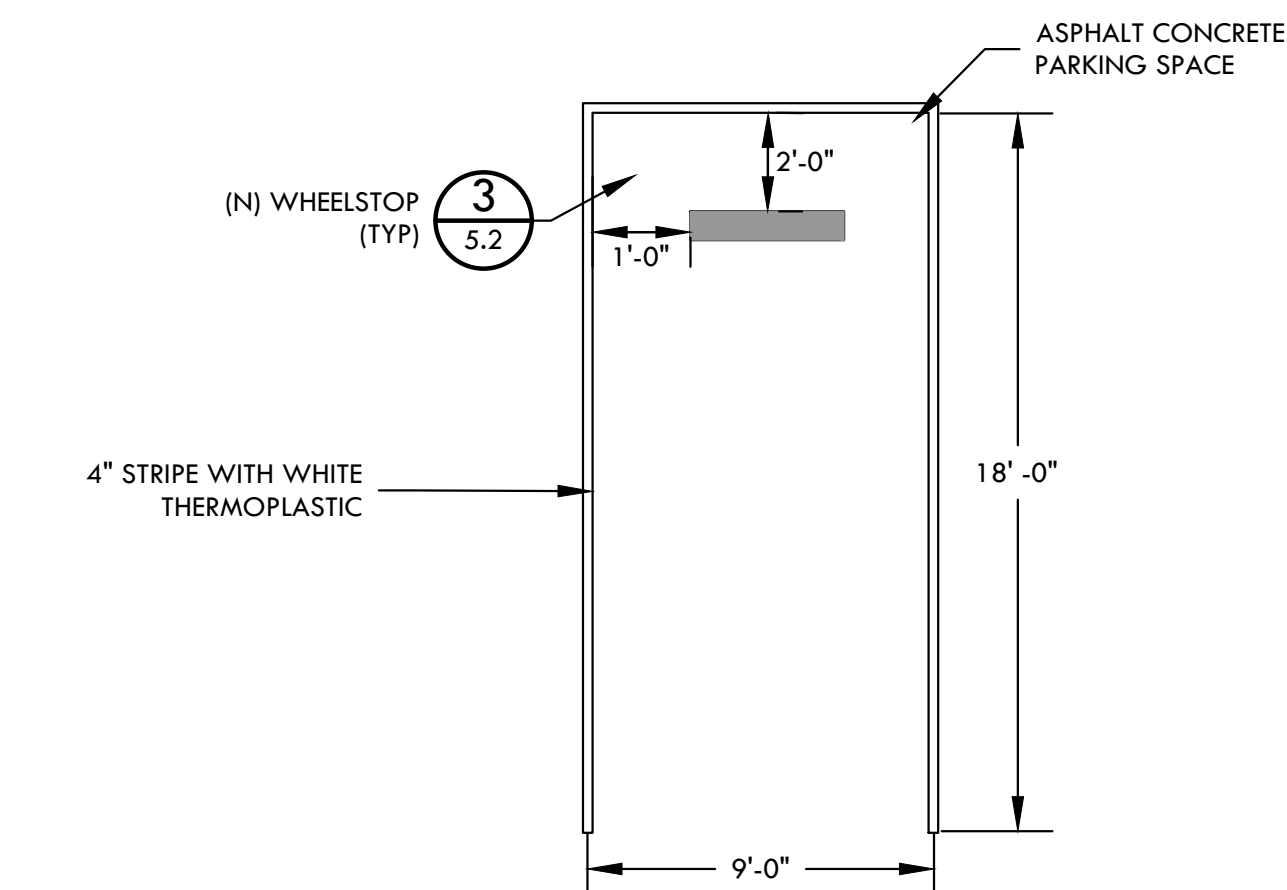
2 WHEEL STOP

SCALE: AS DIMENSIONED



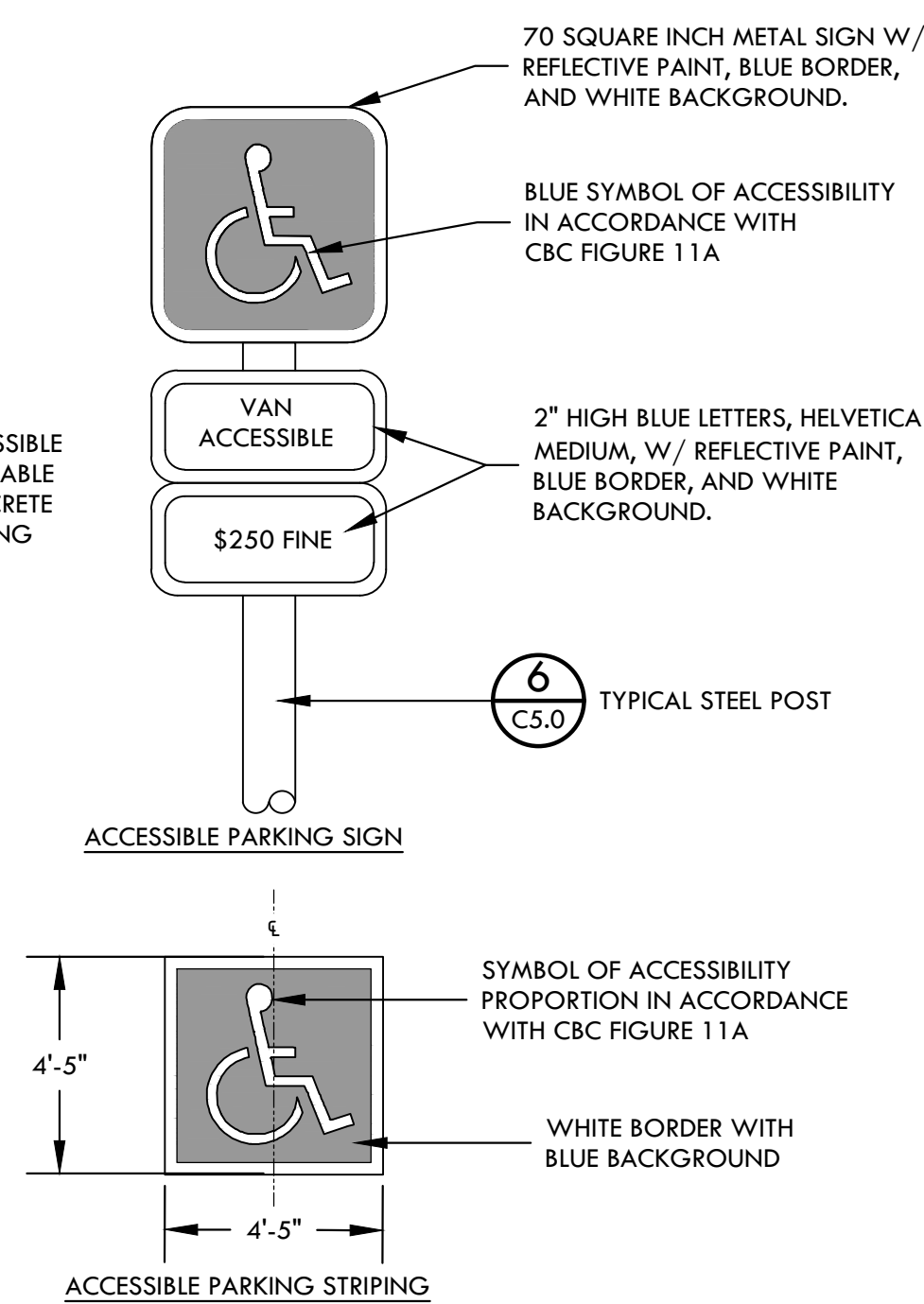
3 ACCESSIBLE PARKING DIMENSIONS

SCALE: AS DIMENSIONED



PARKING SPOT DIMENSIONS

SCALE: AS DIMENSIONED

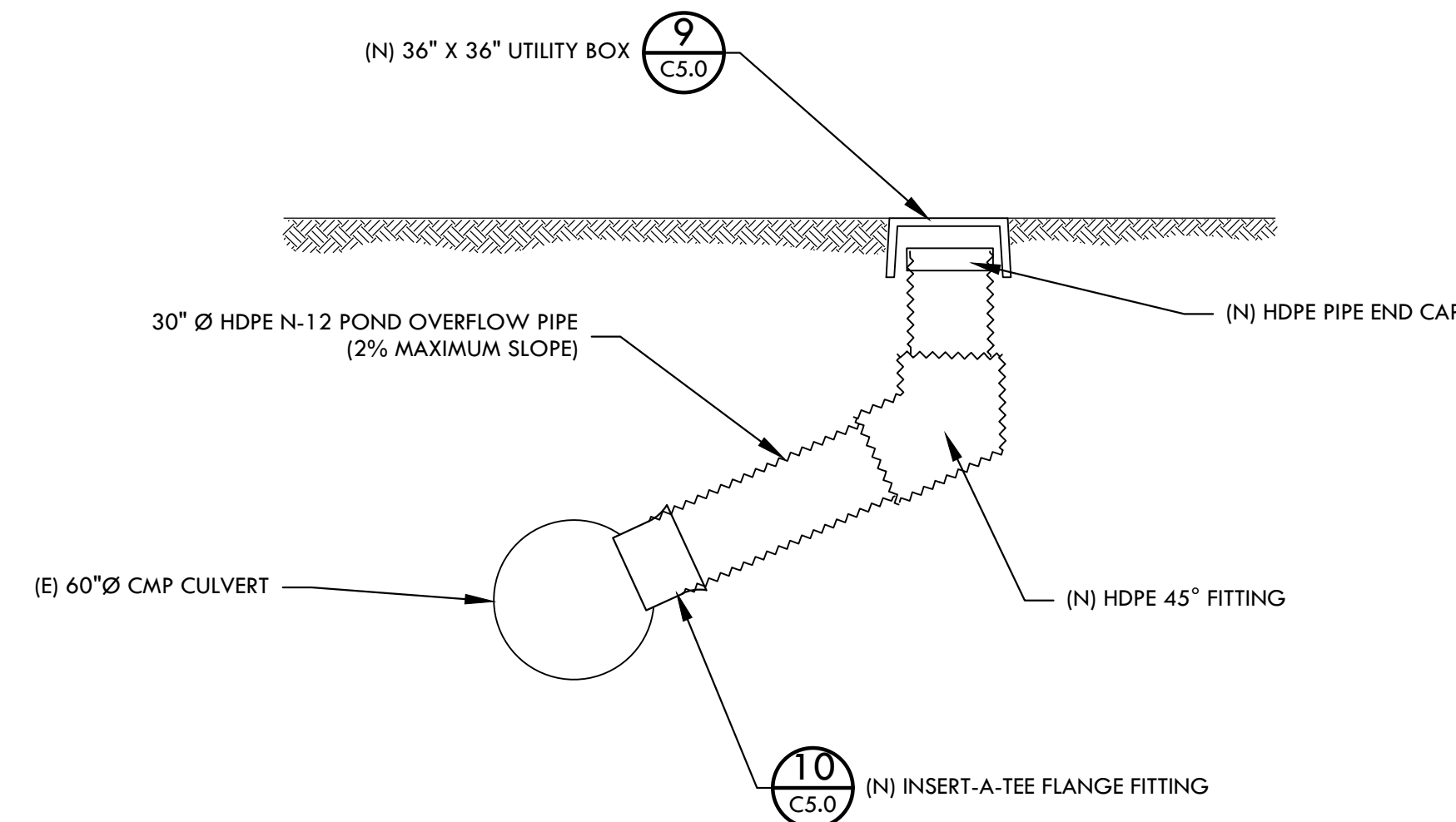


ACCESSIBLE PARKING SIGN AND STRIPING

SCALE: AS DIMENSIONED

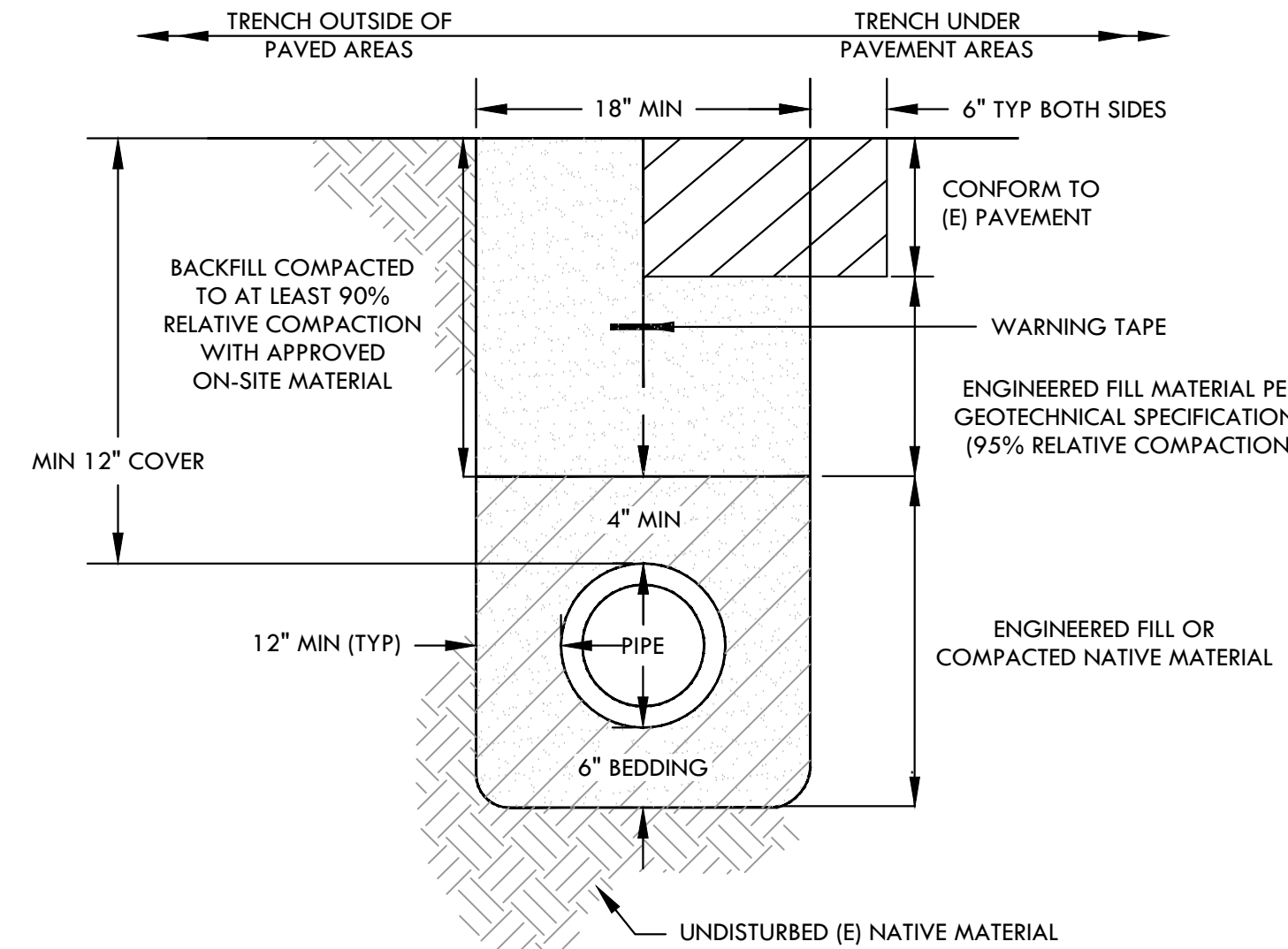
4 SIGN INSTALLATION

SCALE: AS DIMENSIONED



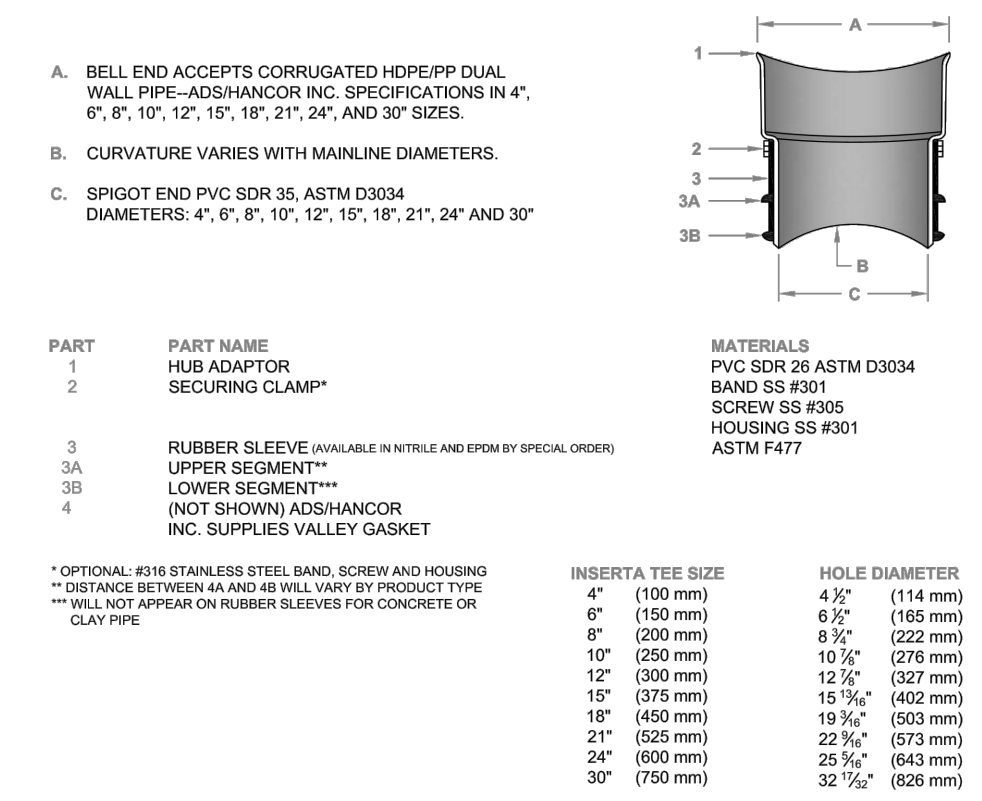
7 POND OVERFLOW PIPE CONNECTION

SCALE: AS DIMENSIONED



TYPICAL TRENCH DETAIL

SCALE: AS DIMENSIONED



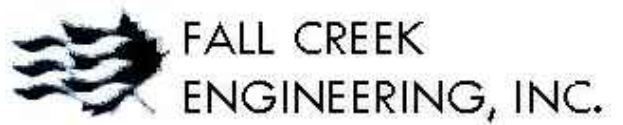
10 INSERT-A-TEE FLANGE FITTING

SCALE: AS DIMENSIONED

SCALE: AS DIMENSIONED

[illegible]

Seals and Signatures



525 SEABRIGHT AVE
SANTA CRUZ, CA
95062
(831) 426-9054

Drawn by : ARS
Checked by : RLC
Drawing Title :

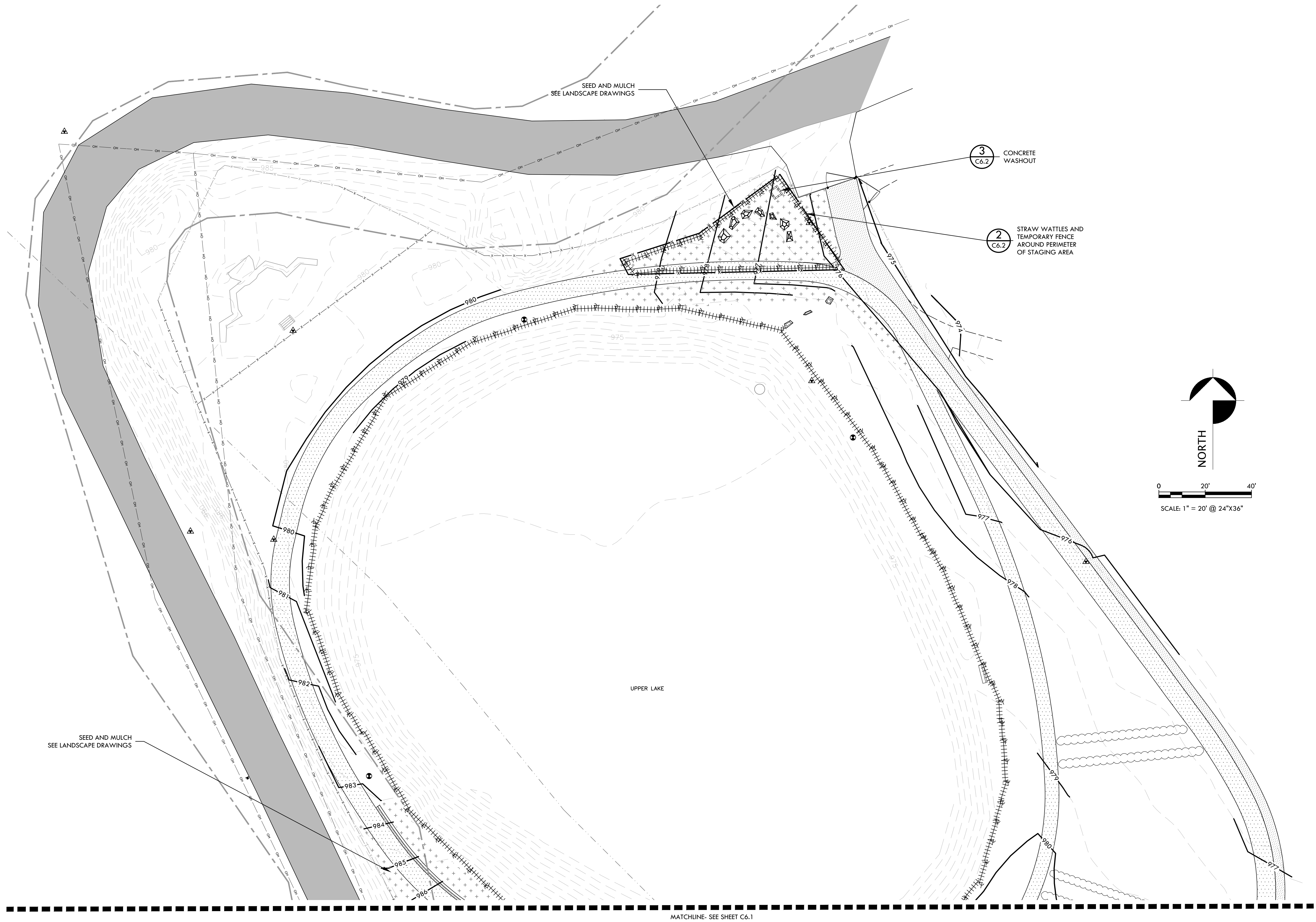
EROSION CONTROL PLAN - POND LAYOUT

Date : 10/10/17

Scale : AS SHOWN

Project Number : 16.04

Sheet Number : **C6.0**



1 EROSION CONTROL PLAN - POND LAYOUT

SCALE: 1" = 20' @ 24"X36"

[illegible]

Seals and Signatures



FALL CREEK
ENGINEERING, INC.

525 SEABRIGHT AVE
SANTA CRUZ, CA
95062
(831) 426-9054

Drawn by : ARS
Checked by : RLC
Drawing Title :

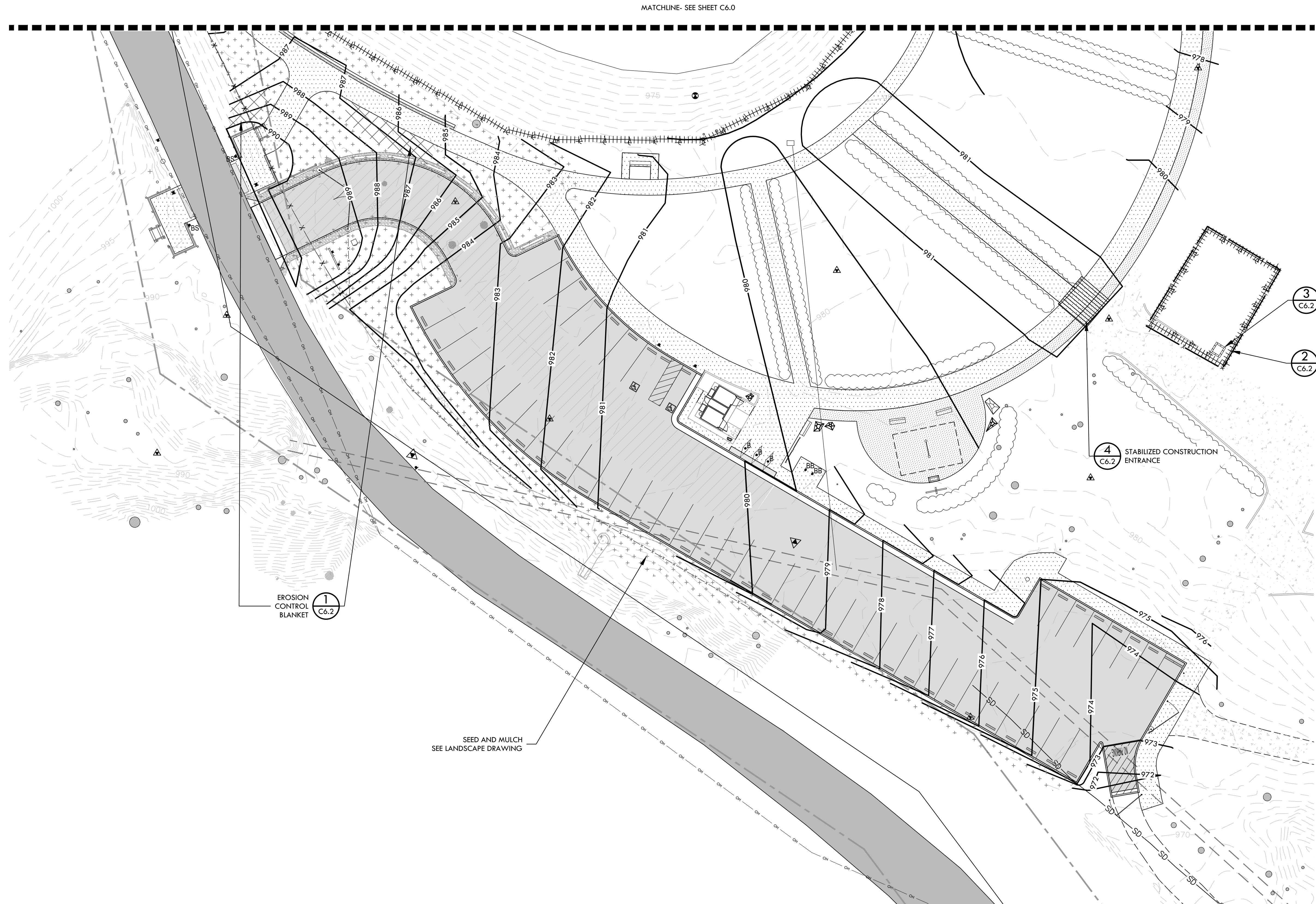
EROSION
CONTROL PLAN-
PARKING LOT
LAYOUT

Date : 10/10/17

Scale : AS SHOWN

Project Number : 16.04

Sheet Number : C6.1



Alma College Parking Area and Trailhead

HARRIS DESIGN



**Landscape Architecture
Park & Recreation Planning
Urban Design**

755 Folger Avenue
Berkeley, CA 94710
t: 510.647.3792
f: 501.647.3712
www.hd-la.com

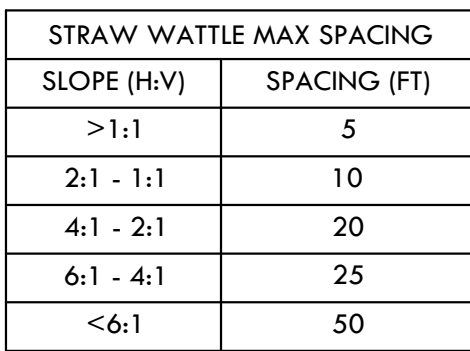
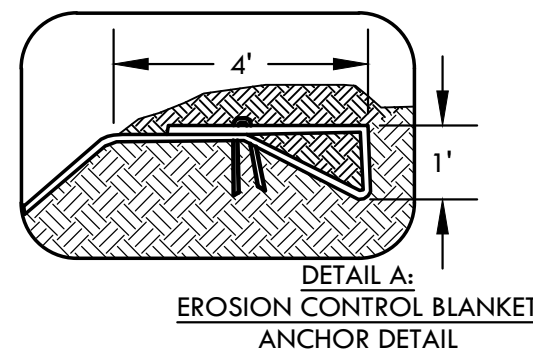
Seals and Signatures



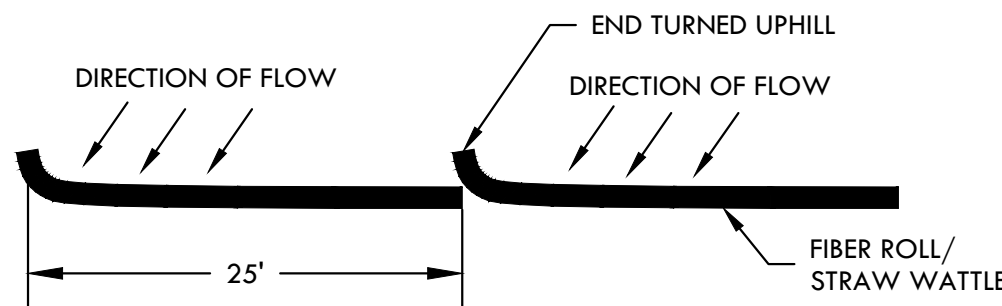
(831) 426-9054

EROSION
CONTROL PLAN -
DETAILS AND
NOTES

Sheet Number : Co.2



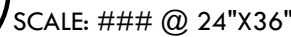
SCALE: 1:2 @ 24"X36'



SCALE: ### @ 24"X36'



-
- Diagram illustrating the plan view of the bridge deck. The deck is composed of corrugated steel panels, indicated by the label "CORRUGATED STEEL PANELS" with an arrow pointing to the panel pattern. The width of the deck is specified as "10 FT. MIN." with a vertical dimension line.



Alma College Parking Area and Trailhead

HARRIS DESIGN



**Landscape Architecture
Park & Recreation Planning
Urban Design**

755 Folger Avenue
Berkeley, CA 94710
t: 510.647.3792
f: 501.647.3712
www.hd-la.com

[illegible]

Seals and Signatures



1525 SEABRIGHT AVE
SANTA CRUZ, CA
95062
(831) 426-9054

Drawn by : ARS
Checked by : RLC
Drawing Title :

STORMWATER CONTROL PLAN

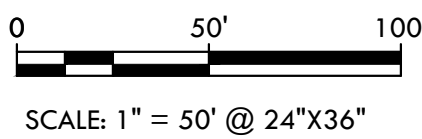
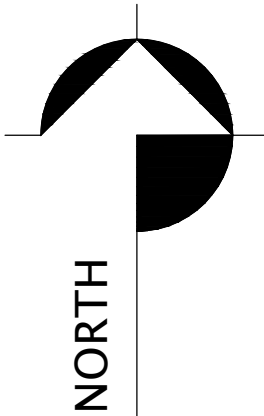
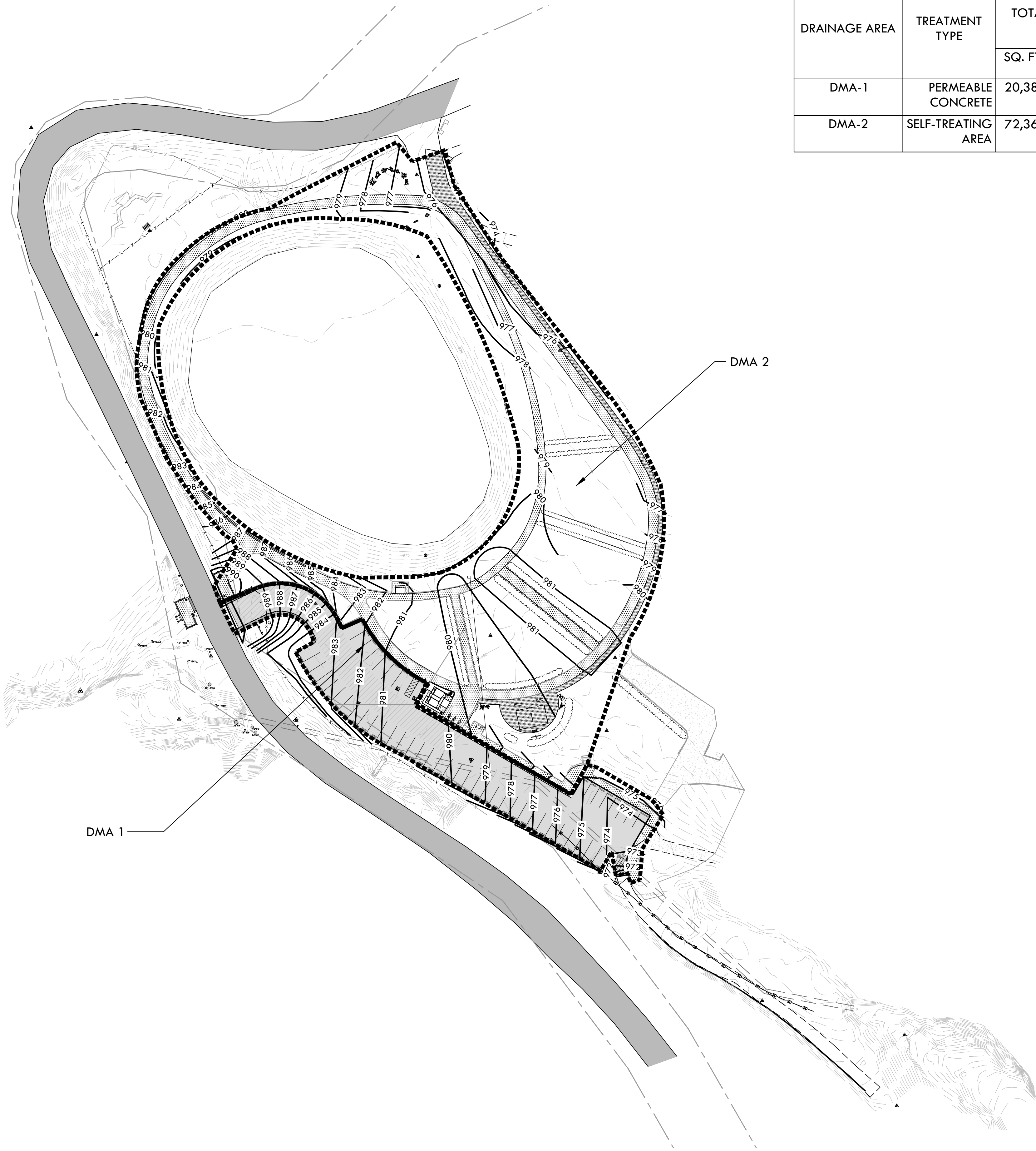
Date : 10/10/17

Scale : AS SHOWN

Project Number : 16.04

Sheet Number : **C7.0**

STORMWATER DATA TABLE												
DRAINAGE AREA	TREATMENT TYPE	TOTAL AREA		IMPERVIOUS AREA		PERVIOUS AREA		PERCENT IMPERVIOUS	SIZING METHOD	RUNOFF COEFFICIENT, C	TREATMENT REQUIRED (CF)	TREATMENT PROVIDED (CF)
		SQ. FT	ACRES	SQ. FT	ACRES	SQ. FT	ACRES					
DMA-1	PERMEABLE CONCRETE	20,380	0.47	900	0.02	19,480	0.45	77	VOLUME BASED	0.30	1,873	9,740
DMA-2	SELF-TREATING AREA	72,360	1.66	9,760	0.22	39,400	0.90	20	N/A	0.10	N/A	N/A



LEGEND:

■■■■■■■■■ DMA BOUNDARY

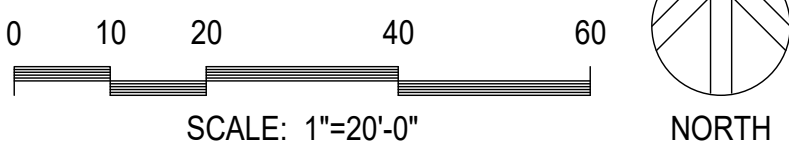
1 STORMWATER CONTROL PLAN

SCALE: 1" = 50' @ 24"x36"

Seals and Signatures

SITE CONSTRUCTION PLAN

Sheet Number : L2.1



SEE SHEET L2.2 FOR LEGEND & NOTES

[illegible]

Seals and Signatures



Drawn by : ZD
Checked by : BH

Drawing Title :

SITE CONSTRUCTION PLAN

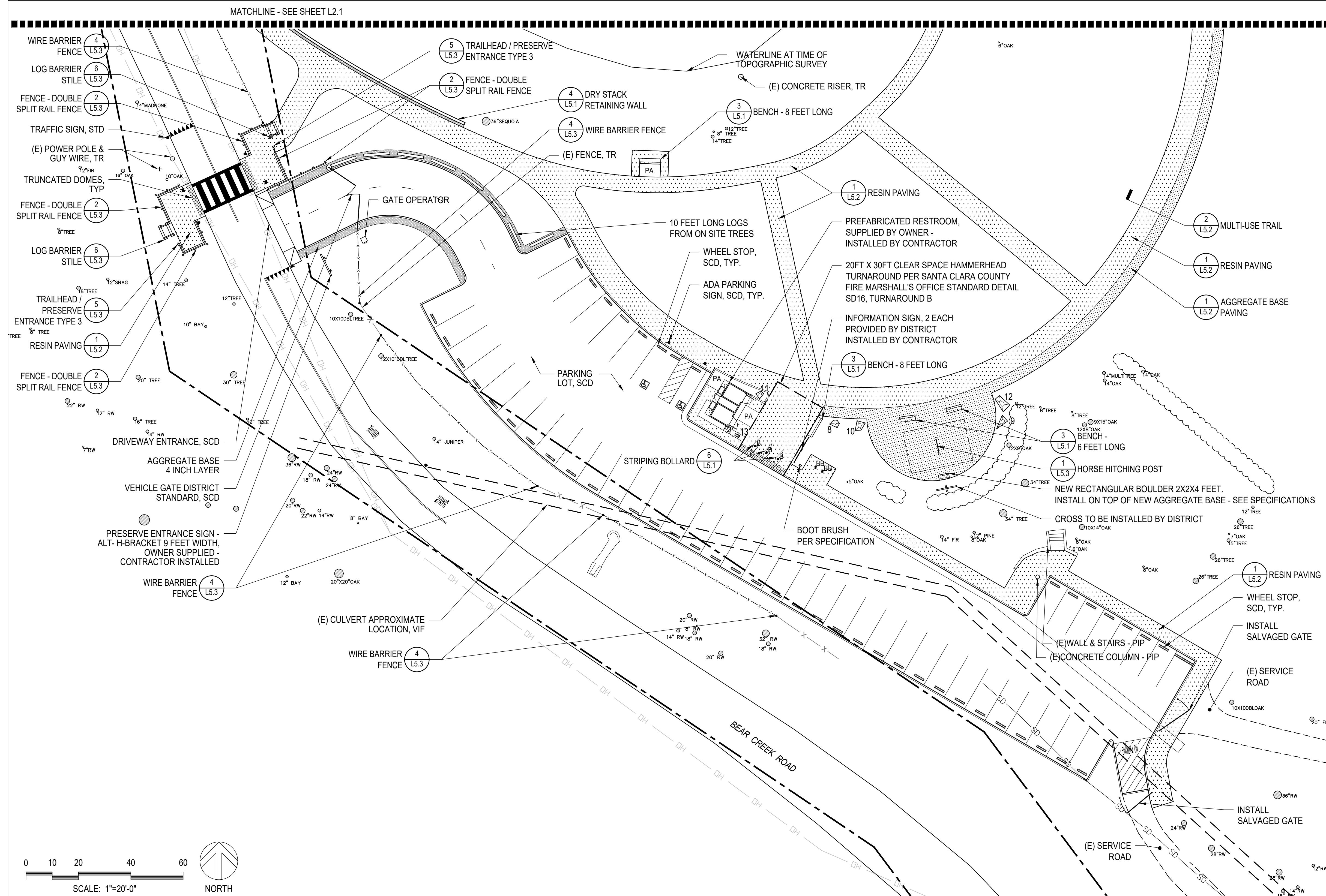
Date : 10/10/17

Scale : $1'' = 20'-0''$

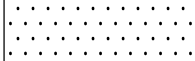
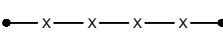
Project Number : 16.04

122

Sheet Number : **L2.2**



SITE CONSTRUCTION LEGEND

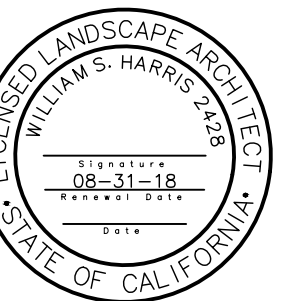
	RESIN PAVING	
	AGGREGATE BASE PAVING	
	TRUNCATED DOMES DETECTABLE WARNING SURFACE PER SPECIFICATIONS	
	EXISTING WIRE FENCE	
	PROPOSED WIRE FENCE	
	BENCH, PER SPECIFICATIONS 8 FEET OR 6 FEET LONG AS SHOWN	
	BICYCLE BOLLARD PER SPECIFICATIONS	
	NEW LOCATION FOR EXISTING BOULDER TO BE RELOCATED. SEE DEMOLITION PLAN FOR EXISTING LOCATIONS.	
	FOLDING BOLLARD	
	EXISTING TREE TO REMAIN	
(E)	EXISTING	
PA	PLANTING AREA	
PIP	PROTECT IN PLACE	
SCD	SEE CIVIL DRAWINGS	
STD	SEE TRAFFIC DRAWINGS	
TR	TO REMAIN	
VIF	VERIFY IN FIELD	
	BEAR CREEK ROAD RIGHT OF WAY PLOTTED FROM RECORD INFORMATION.	

CONSTRUCTION NOTES

1. REFER TO SPECIFICATIONS FOR SITE FURNISHINGS.
2. SEE COVER SHEET FOR ADDITIONAL ABBREVIATIONS AND LEGEND.

[illegible]

Seals and Signatures



Drawn by : ZD
Checked by : BH

Drawing Title :

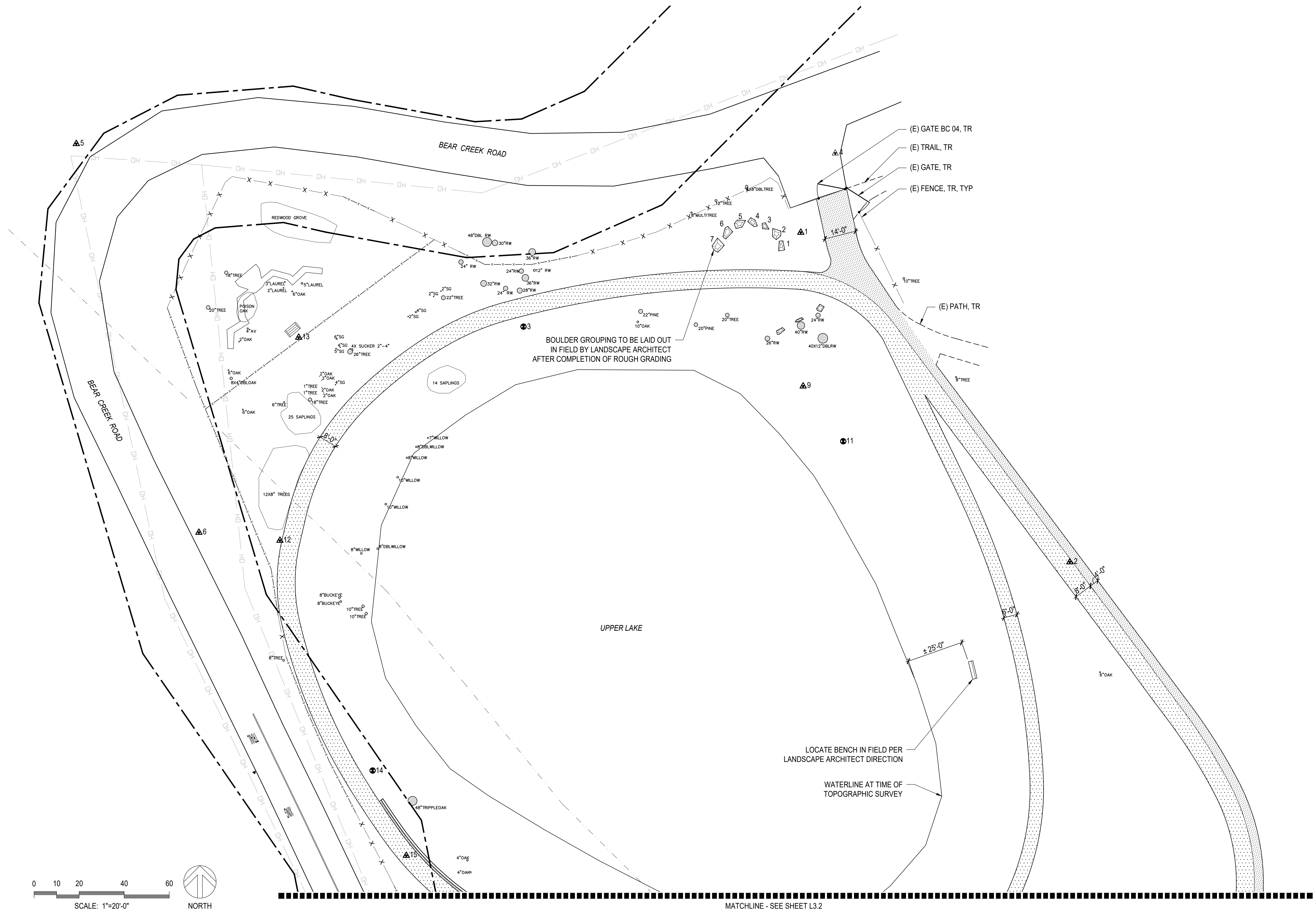
LANDSCAPE LAYOUT PLAN

Date : 10/10/17

Scale : $1" = 20'-0"$

Project Number : 16.04

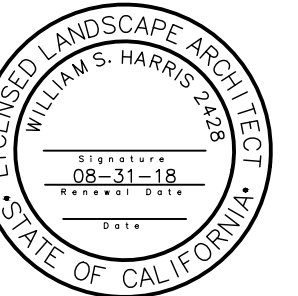
Sheet Number : L3.1



SEE SHEET L3.2 FOR LEGEND & NOTES

[illegible]

Seals and Signatures



Drawn by : ZD
Checked by : BH

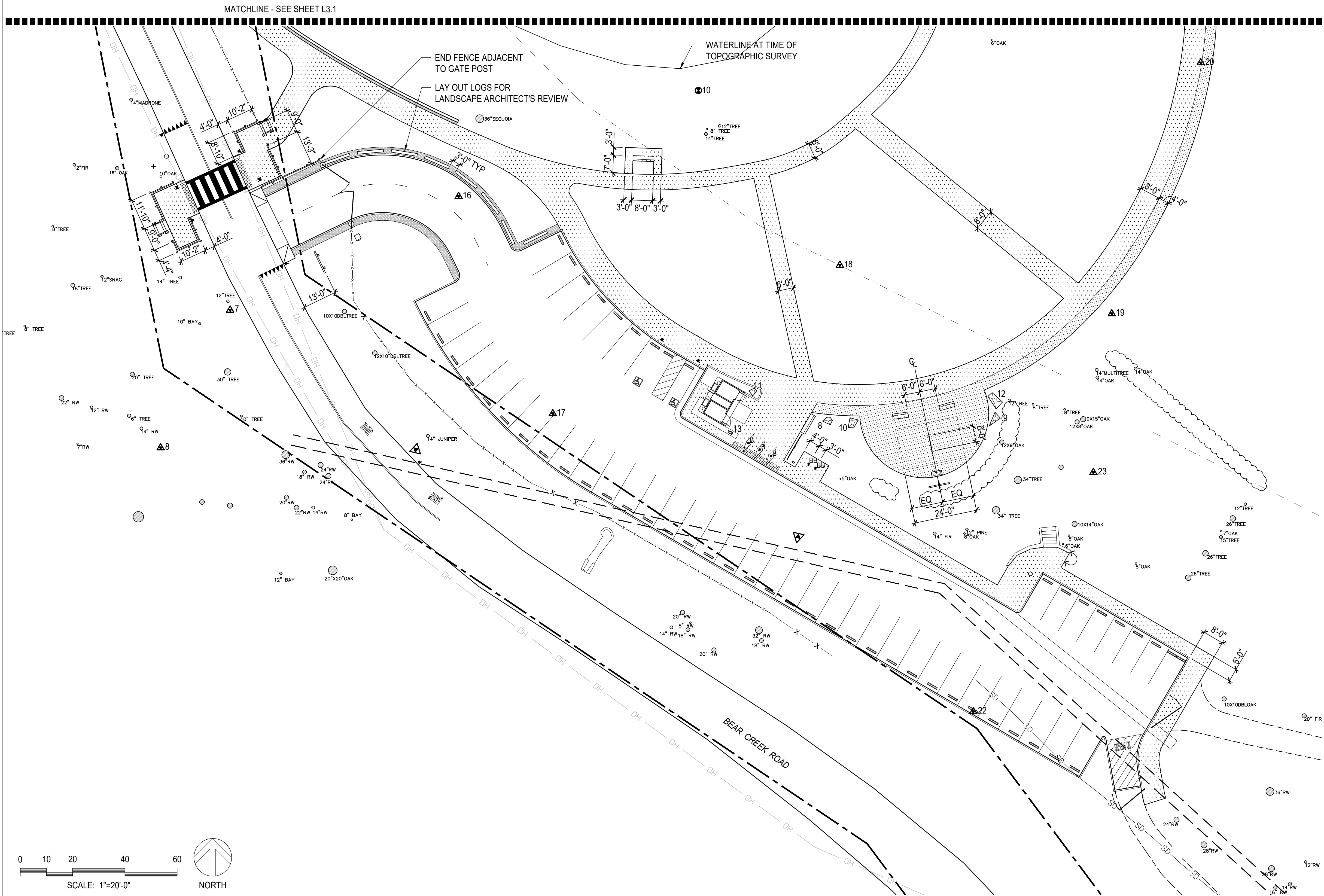
Drawing Title :

LANDSCAPE LAYOUT PLAN

Date : 10/10/17

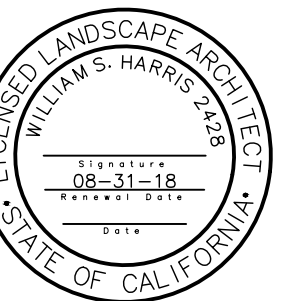
Scale : $1" = 20'-0"$

Project Number : 16.04

Sheet Number : **LS.2**

[illegible]

Seals and Signatures



Drawn by : ZD
Checked by : BH

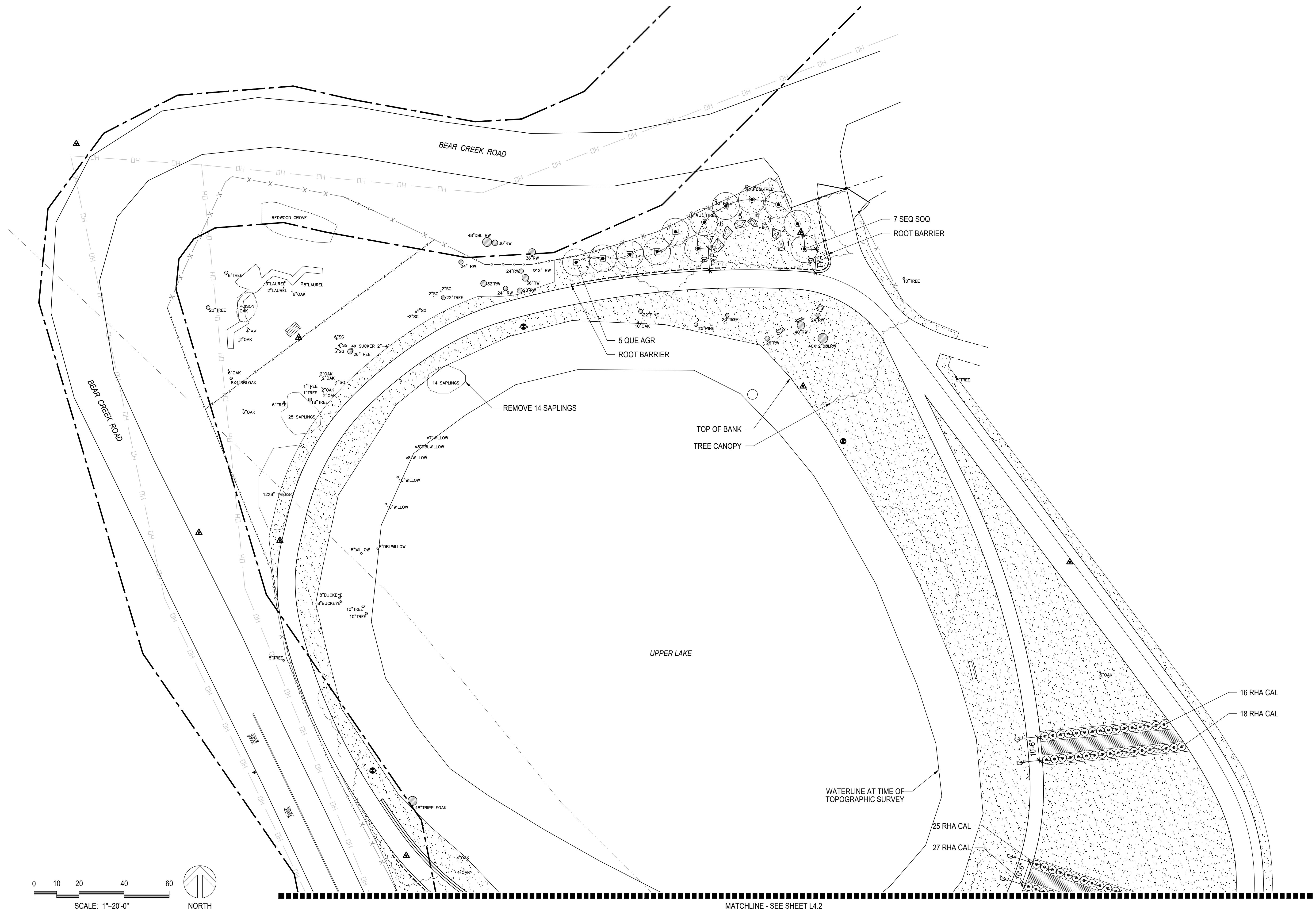
Drawing Title :

PLANTING PLAN

Date : 10/10/17

Scale : $1'' = 20'-0''$

Project Number : 16.04

Sheet Number : L4.1

SEE SHEET L4.2 FOR LEGEND & NOTES

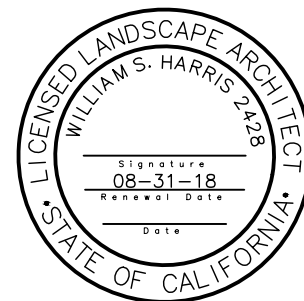
Alma College Parking Area and Trailhead

HARRIS DESIGN



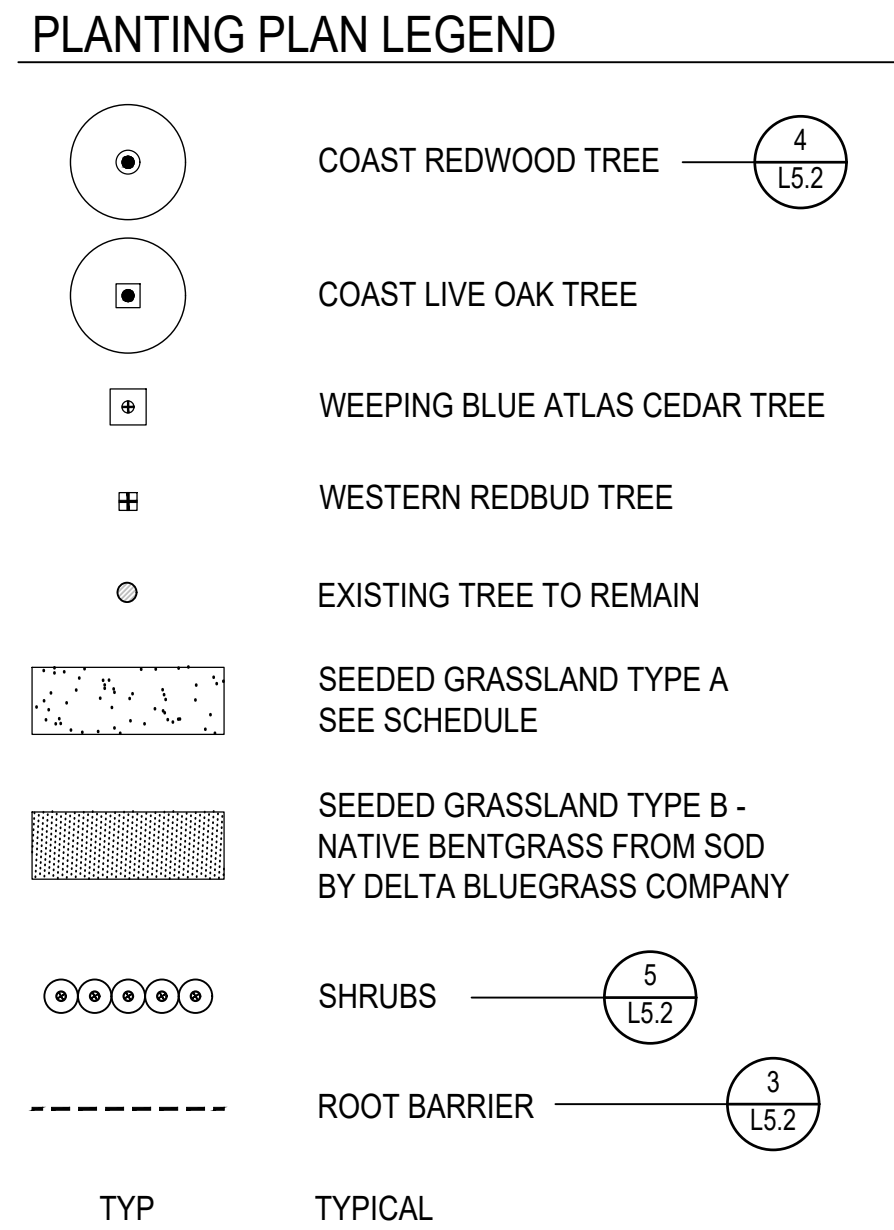
**Landscape Architecture
Park & Recreation Planning
Urban Design**

755 Folger Avenue
Berkeley, CA 94710
t: 510.647.3792
f: 501.647.3712
www.hd-la.com

Seals and Signatures

PLANTING PLAN

Date :	10/10/17
Scale :	1" = 20'-0"
Project Number :	16.04
Sheet Number :	L4.2

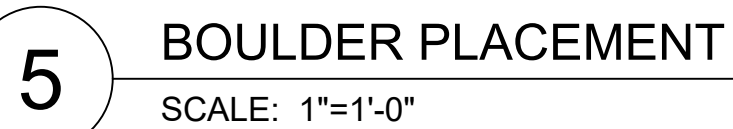
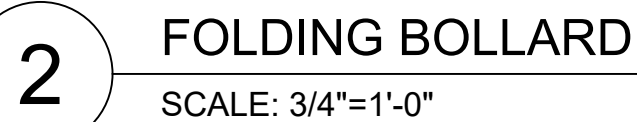
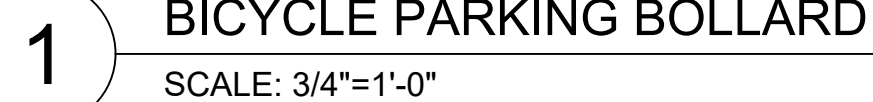


1. SPECIFICATIONS: SEE PLANTING SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. TOPSOIL: ALL PLANTING AREAS SHALL RECEIVE A SIX INCH LAYER OF NATIVE TOPSOIL AMENDED PER SPECIFICATION, INCLUDING ALL AREAS TO BE SEEDDED.
3. TREES: ALL TREES SHALL HAVE STRAIGHT TRUNKS OF UNIFORM TAPER, LARGER AT THE BOTTOM. TRUNKS SHALL BE FREE OF DAMAGED BARK, WITH ALL MINOR ABRASIONS AND CUTS SHOWING HEALING TISSUE. SUCKER BASAL GROWTH AND SUCKER LATERAL GROWTH SHALL BE REMOVED AND TREATED TO ELIMINATE RESPROUTING. NORMAL LOWER SIDE BRANCHING SHALL REMAIN. TREES UNABLE TO SUPPORT THEMSELVES WITHOUT STAKING SHALL BE REJECTED.
4. PROTECTION OF PLANTS: CONTRACTOR SHALL MAINTAIN ALL PLANT MATERIAL IN A HEALTHY GROWING CONDITION PRIOR TO AND DURING PLANTING OPERATIONS.
5. ROOT BARRIER: INSTALL TO DIMENSIONS SHOWN. WHERE NO DIMENSION IS SHOWN, PROVIDE 10' MIN. LENGTH CENTERED ON TREE.
6. BASINS: CONSTRUCT BASINS AS NECESSARY TO WATER PLANTS. BASINS FOR PLANTS TO BE HAND WATERED SHALL REMAIN IN PLACE. BASIN BOTTOMS SHALL DRAIN TO BERM AWAY FROM PLANT STEM.
7. MULCH: INSTALL A 3 INCH DEEP LAYER OF MULCH PER SPECIFICATIONS BENEATH ALL SHRUBS; TAPER TO ADJACENT GRADE AT EDGES.
8. QUALITY: MINIMUM QUALITY OF ALL PLANT MATERIAL SHALL CONFORM TO PREVAILING PUBLISHED SPECIFICATIONS OF THE CALIFORNIA ASSOCIATION OF NURSERYMEN AND THE AMERICAN ASSOCIATION OF NURSERYMEN UNLESS OTHERWISE INDICATED. ADDITIONAL SPECIFICATIONS SHALL BE AS INDICATED ON THE DRAWINGS. ALL CONTAINER-GROWN STOCK SHALL BE GROWN IN ITS CONTAINER FOR AT LEAST SIX MONTHS PRIOR TO ITS PLANTING. CONTRACTOR SHALL ALLOW 1% OF THE QUANTITY OF PLANTS FOR REMOVAL AND INSPECTION. FOLIAGE, ROOTS, AND STEMS OF ALL PLANTS SHALL BE OF VIGOROUS HEALTH AND NORMAL HABIT OF GROWTH FOR ITS SPECIES. ALL PLANTS SHALL BE FREE OF DISEASES, INSECT STAGES, BURNS OR DISFIGURING CHARACTERISTICS.
9. SOD: SOD SHALL HAVE A WELL-DEVELOPED ROOT STRUCTURE SUFFICIENTLY MATURE SO THAT IT WILL HOLD TOGETHER WHEN HELD BY ONE END OF THE ROLL. YELLOWING, BROWN, DISEASED, DRIED, OR PEST INFESTED SOD SHALL NOT BE INSTALLED. ALL SOD SHALL BE INSTALLED IN ACCORDANCE WITH THE GROWER'S RECOMMENDATIONS.
10. QUANTITIES: THE QUANTITIES SHOWN ON THE PLANT LIST AND IN LABELS ARE FOR THE LANDSCAPE ARCHITECT'S USE AND ARE NOT TO BE CONSTRUED AS THE COMPLETE AND ACCURATE LIMITS OF THE CONTRACT. CONTRACTOR SHALL FURNISH AND INSTALL ALL PLANTS SHOWN SCHEMATICALLY ON THE DRAWINGS.
11. SOILS TESTING: SEE SPECIFICATIONS FOR REQUIRED TESTING OF TOPSOIL AND AMENDMENTS.
12. DO NOT APPLY SEEDING TO AREAS BENEATH SHRUBS.

QUANTITY	ABBREVIATION	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	WATER USE	HT / SPD	REMARKS
<u>TREES</u>								
3	CED ATL	CEDRUS ATLANTICA 'GLAUCA PENDULA'	WEEPING BLUE ATLAS CEDAR	MINIMUM 8 YEARS OF GROWTH	PER PLAN	MODERATE	10'-12' HT 3'-4' SPD	SERPENTINE VARIETY NOT ACCEPTABLE
1	CER OCC	CERCIS OCCIDENTALIS	WESTERN REDBUD	15 GAL	AS SHOWN	VERY LOW	7'-8' HT 2'-3' SPD	STANDARD
5	QUE AGR	QUERCUS AGRIFOLIA	COAST LIVE OAK	ACORN	PER PLAN	VERY LOW	-	
10	SEQ SOQ	SEQUOIA SEMPERVIRENS 'SQUEL'	COAST REDWOOD	15 GAL	PER PLAN	LOW / MODERATE	6'-7' HT 2'-3' SPD	

QUANTITY	ABBREVIATION	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	WATER USE
<u>SHRUBS</u>						
10	BUX SEM	BUXUS SEMPERVIRENS 'SUFFRUTICOSA'	TRUE DWARF BOXWOOD	5 GAL	3'-0" OC	MODERATE
6	MAH AQU	MAHONIA AQUIFOLIUM 'COMPACTA'	OREGON GRAPE	1 GAL	2'-0" OC	MODERATE
12	MYR COM	MYRTUS COMMUNIS	TRUE MYRTLE	15 GAL	6'-0" OC	MODERATE
14	POL MUN	POLYSTICHUM MUNITUM	WESTERN SWORD FERN	1 GAL	2'-0" OC	MODERATE
189	RHA CAL	RHAMNUS CALIFORNICA 'EVE CASE'	COFFEE BERRY	5 GAL	3'-6" OC	LOW
1	RIB SAN	RIBES SANGUINEUM	WINTER FLOWERING CURRANT	5 GAL	AS SHOWN	LOW
11	VAC OVA	VACCINIUM OVATUM	EVERGREEN HUCKLEBERRY	1 GAL	2'-0" OC	MODERATE

		APPLICATION RATE BROADCAST SEED PLS SEED (LBS/ACRE)
BOTANICAL NAME	COMMON NAME	
BROMUS CARINATUS	CALIFORNIA BROME	8
ELYMUS GLAUCUS	BLUE WILD RYE	6
HORDEUM BRACHYANTHERUM	MEADOW BARLEY	8
FESTUCA RUBRA, MOLATE	MOLATE RED FESCUE	6
KOELERIA MACRANTHA	JUNEGRASS	1
MELICA CALIFORNICA	CALIFORNIA MELIC GRASS	3
NASSELLA PULCHRA	PURPLE NEEDLEGRASS	4
NASSELLA CERNUA	NODDING NEEDLEGRASS	4
TOTAL LBS PER ACRE SEE SPECIFICATIONS		40



[illegible]

Seals and Signatures



rawn by : ZD
hecked by : BH
rawing Title :

ate : 10/10/17

cale : AS SHOWN

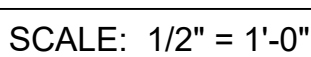
Sheet Number : **L5.2**

NOTE:

1. SEE DETAIL 1 SHEET L5.2 FOR NOTES.



SCALE: 1'=1'-0"



SCALE: N.T.S.



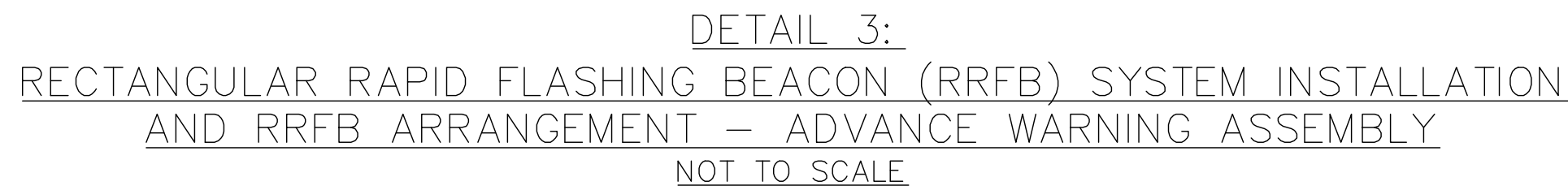
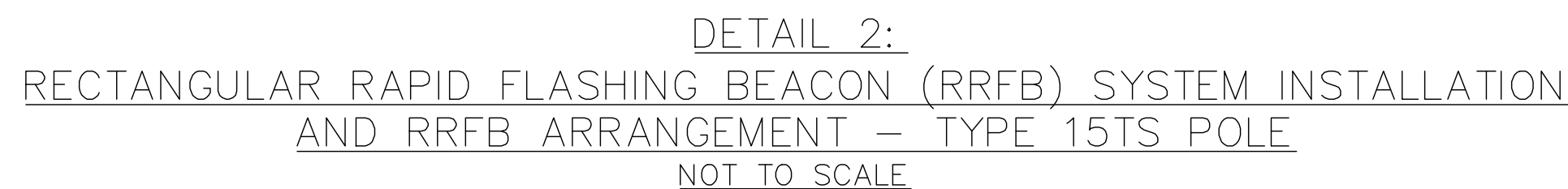
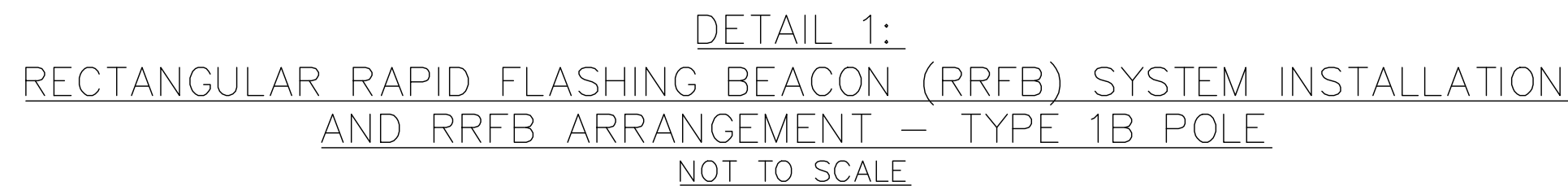
1. PLACE NO MULCH ON TOP OF ROOTBALL.



SCALE: N.T.S.

SCALE: N.T.S.

6 LOG BARRIER STILE
SCALE: 1/2"=1'-0"



REVIEW SUBMITTAL
OCTOBER 2017
NOT FOR CONSTRUCTION

1. ALL WORK AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE 2015 STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) STANDARD PLANS AND STANDARD SPECIFICATIONS, ANY SUBSEQUENT STANDARD PLANS AND STANDARD SPECIFICATIONS REVISIONS ADOPTED BY CALTRANS, AND APPLICABLE SANTA CLARA COUNTY STANDARD DRAWINGS.
2. REFER TO CALTRANS STANDARD PLAN RSP ES-1A, RSP ES-1B, RSP ES-1C, AND THE LEGEND ON SHEET E-2 FOR SIGNAL, LIGHTING, AND ELECTRICAL SYMBOLS AND ABBREVIATIONS.
3. LOCATIONS OF ALL UNDERGROUND UTILITIES ARE APPROXIMATE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATIONS AND VERIFY ALL CONDITIONS ON THE JOB SITE AND PROTECT UTILITIES TO REMAIN. HAND DIG TO DETERMINE EXACT UTILITY LOCATIONS AS REQUIRED FOR FOUNDATIONS UNTIL CLEAR OF OBSTRUCTIONS. CALL UNDERGROUND SERVICE ALERT AT (800) 227-2600 PRIOR TO ANY EXCAVATION.
4. ALL EQUIPMENT IS SHOWN IN APPROXIMATE LOCATIONS ONLY. OBTAIN COUNTY ENGINEER APPROVAL FOR EXACT EQUIPMENT LOCATIONS PRIOR TO FINAL PLACEMENT. COORDINATE WITH ENGINEER ON EXACT PLACEMENT OF SIGNAL EQUIPMENT. IF MEMBER OF LOCALITY HAS DETERMINED EXACT LOCATION OF ALL UTILITIES, THE CONTRACTOR SHALL GIVE 24 HOUR NOTICE TO THE ENGINEER FOR VERIFICATION OF EQUIPMENT LOCATIONS.
5. ALL PEDESTRIAN PUSH BUTTONS (PPB'S) SHALL BE POLARA BULLDOG, OR APPROVED EQUAL. PPBs SHALL BE INSTALLED SUCH THAT THE CENTER OF THE PPB IS 42 INCHES ABOVE THE SURFACE WHERE A PERSON WOULD BE LOCATED TO ACTUATE THE SIGNAL. THE SECONDARY PUSH BUTTON FOR EQUESTRIANS SHALL BE MOUNTED 36" ABOVE THE LOWER BUTTON. ALL PPB DEVICES SHALL BE APPROVED BY THE COUNTY PRIOR TO PURCHASE AND INSTALLATION.
6. A LIST OF MATERIALS PROPOSED BY THE CONTRACTOR TO BE USED ON THIS WORK FOR ELECTRICAL EQUIPMENT SHALL BE SUBMITTED TO THE COUNTY ENGINEER FOR APPROVAL PRIOR TO THE START OF WORK. THE LIST SHALL INCLUDE MANUFACTURER, MODEL NUMBER, AND ALL APPLICABLE SPECIFICATIONS.
7. EXISTING PAVEMENT STRIPING, MARKINGS, OR MARKERS THAT ARE NOT TO BE REMOVED SHALL BE PROTECTED BY THE CONTRACTOR, ANY STRIPING, MARKINGS, OR MARKERS THAT ARE DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THE ORIGINAL CONDITION AT THE CONTRACTOR'S SOLE EXPENSE.
8. COUNTY ENGINEER OR REPRESENTATIVE SHALL BE PRESENT DURING INITIAL SYSTEM ACTIVATION.

- 1 FURNISH AND INSTALL TYPE III AF SERVICE EQUIPMENT ENCLOSURE. PROVIDE EQUIPMENT ITEMS 1 THROUGH 8 (10 (EXTERNAL), 13, 15, 16, 20, 22, AND 23 PER THE SERVICE WIRING DIAGRAM ON CALTRANS REVISED STANDARD PLAN RSP ES-2D. INSTALL LEVEL PCC WORK PAD AROUND SERVICE PEDESTAL.
- 2 FURNISH AND INSTALL 14.5' MINIMUM CALTRANS TYPE 1-B SIGNAL POLE WITH TWO (2) RFB UNITS, TWO (2) 30"x30" W11-15 WARNING SIGNS, TWO (2) 24"x18" W11-15p PLAQUES, TWO (2) 24"x12" W16-7P (DIAGONAL DOWNWARD ARROW) PLAQUES, AND TWO (2) PUSH BUTTONS. FLASHING BEACONS SHALL BE INSTALLED FOLLOWING THE RECOMMENDATIONS FROM THE SYSTEM MANUFACTURER. COLOR OF FLASHING BEACON UNIT HOUSING SHALL BE YELLOW. SEE DETAIL 1, SHEET E-1.
- 3 FURNISH AND INSTALL TYPE 15TS SIGNAL POLE WITH POLE-TOP PEU UNIT, TWO (2) RFB UNITS, BEACON CONTROL UNIT, TWO (2) 30"x30" W11-15 WARNING SIGNS, TWO (2) 24"x18" W11-15p PLAQUES, TWO (2) 24"x12" W16-7P (DIAGONAL DOWNWARD ARROW) PLAQUES, AND TWO (2) PUSH BUTTONS. FLASHING BEACONS SHALL BE INSTALLED FOLLOWING THE RECOMMENDATIONS FROM THE SYSTEM MANUFACTURER. COLOR OF FLASHING BEACON UNIT HOUSING SHALL BE YELLOW. SEE DETAIL 2, SHEET E-1. VERIFY HEIGHT OF OVERHEAD LINES BEFORE ORDERING SIGNAL POLE.
- 4 FURNISH AND INSTALL 12.5' MINIMUM CALTRANS TYPE 1-B SIGNAL POLE WITH RFB UNIT, 30"x30" W11-15 WARNING SIGN, AND 24"x12" W16-9P ("AHEAD") PLAQUE. FLASHING BEACON SHALL BE INSTALLED FOLLOWING THE RECOMMENDATIONS FROM THE SYSTEM MANUFACTURER. COLOR OF FLASHING BEACON UNIT HOUSING SHALL BE YELLOW. SEE DETAIL 3, SHEET E-1.

LOCATION	STANDARD			VEHICLE SIGNAL MOUNTING		PED SIGNAL MOUNTING	PPB		LUMINAIRE	SPECIAL REQUIREMENTS**
	TYPE	SIGNAL MAST ARM	LUMINAIRE MAST ARM	MAST ARM	POLE		Ø	ARROW		
(A)	1-B (14.5')						N/A	→		INSTALL BI-DIRECTIONAL AC POWERED RRFBS*** ON POLE. INSTALL TWO PUSH BUTTON UNITS ON POLE WITH R10-25. INSTALL BEACON CONTROL UNIT.
(B)	15TS		15'				N/A	←	LED (TBD)	INSTALL BI-DIRECTIONAL AC POWERED RRFBS*** ON POLE. INSTALL TWO PUSH BUTTON UNITS ON POLE WITH R10-25. INSTALL POLE-TOP PEU.
(C)	1-B (12.5')									INSTALL ONE-DIRECTIONAL AC POWERED RRFB*** ON POLE. RRFB SHALL FACE SOUTH.

[illegible]

CONDUCTOR SCHEDULE				
AWG OR CABLE	CIRCUIT	NUMBER OF CONDUCTORS/ CABLES		
		RUN NUMBER		
NO. 8	CONTROLLER SERVICE (120V)	2	2	
	SAFETY LIGHTING (240V)	2	2	
	EQUIPMENT GROUND (BARE CU)	1	1	1
	TOTAL NO. 14	5	5	1
NO. 14	RRFB		2	2
	NEUTRAL		1	1
	PPB		1	
	PPB COMMON		1	
	PEU	3	3	
	TOTAL NO. 14	3	8	3
CONDUIT SIZE		2"	3"	2"
NEW (N) OR EXISTING (E)		N	N	N
FOOTNOTE REFERENCE				

Ⓐ FURNISH AND INSTALL NEW CONDUIT AND CABLES/CONDUCTORS.

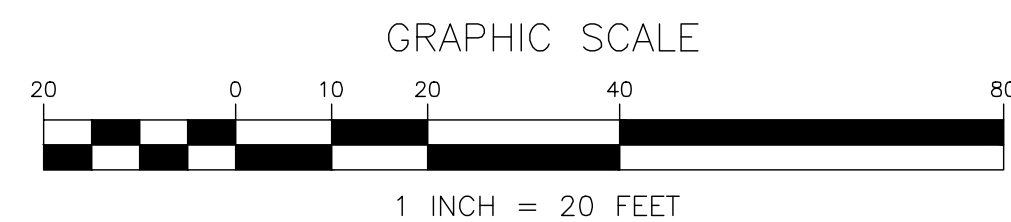
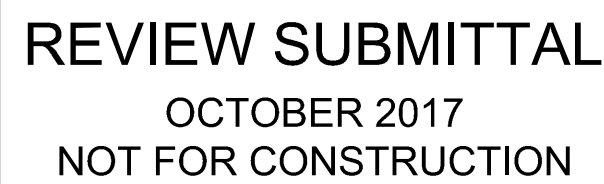
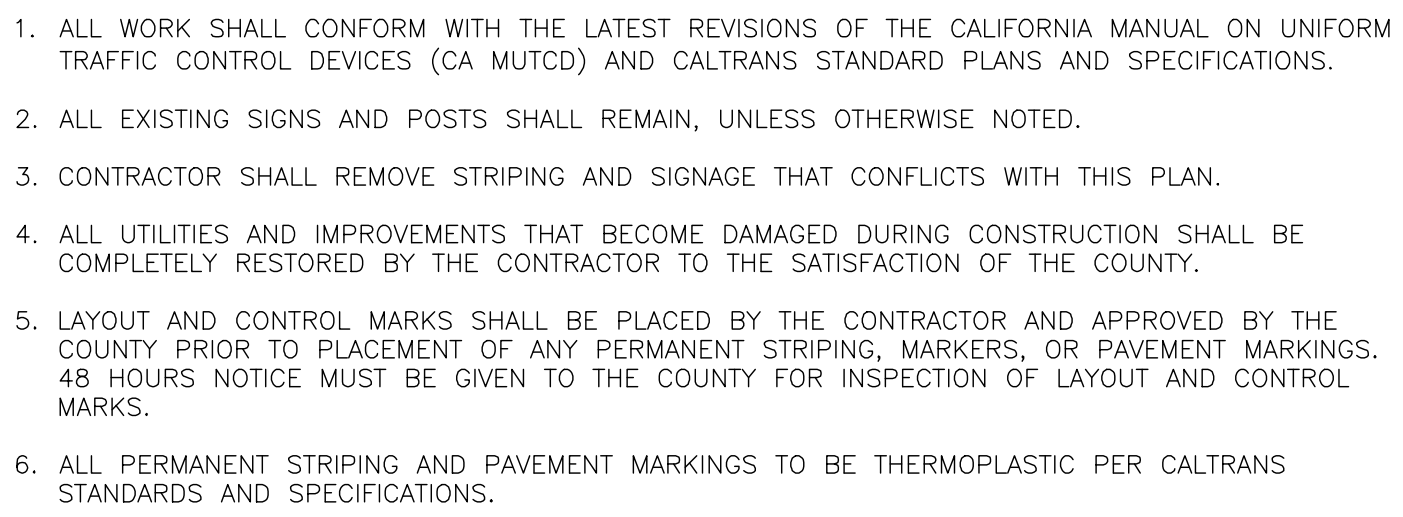
	BI-DIRECTIONAL RECTANGULAR RAPID FLASHING BEACONS (RRFB), AND PEDESTRIAN CROSSING SIGNS ON TYPE 1-B POLE.
	BI-DIRECTIONAL RECTANGULAR RAPID FLASHING BEACONS (RRFB), AND PEDESTRIAN CROSSING SIGNS ON TYPE 15TS POLE WITH LUMINAIRE.
	NO. 5 PULL BOX WITH GROUND ROD
	NEW CONDUIT, SIZE AS SHOWN.

REVIEW SUBMITTAL
OCTOBER 2017
NOT FOR CONSTRUCTION



Sheet Number : 2 OF 3

1	ALL EXISTING SIGNAGE AND STRIPING SHALL REMAIN, UNLESS OTHERWISE NOTED.
2	SEE DETAIL 1, THIS SHEET, FOR LADDER STYLE CROSSWALK STRIPING DIMENSIONS. STRIPING SHALL BE WHITE THERMOPLASTIC.
3	SEE SHEET E-2 FOR RRFB INSTALLATION AND SIGNS ON SIGNAL POLES.



SS-1