APPENDIX I

PREFERRED ALTERNATIVE MEMORANDUM

SAN BERNARDINO CLASS 1 BIKE TRAIL PROJECT Federal Aid No. STPL 5925(162)

Preferred Alternative Memorandum





EIP #03.01.02.0040

County of El Dorado Department of Transportation

October 2019

TABLE OF CONTENTS

1.0	Executive Summary	. 1
2.0	Introduction	. 1
3.0	Existing Conditions	. 1
4.0	Preferred Project Alternative	.1
5.0	Capital Cost	.5
	Schedule	
	References	
-		

LIST OF FIGURES

Figure 1 - Project Location Map	3
Figure 2 - Preferred Alternative	4

LIST OF TABLES

Table 1 - Construction Cost Estimate	.5
Table 2 – Project Schedule	. 6

List of Appendices

Appendix A – Preliminary Plans (30% level design)

1.0 Executive Summary

This Preferred Project Alternative Memorandum (PAM) summarizes the work that was done in developing the Project Alternatives for the San Bernardino Class 1 Bike Trail Project (Project) and presents the results of the analysis of those Alternatives. The PAM also includes the selection of the Preferred Alternative, which will be further studied and designed prior to being constructed.

2.0 Introduction

The Project is part of a series of active transportation projects to be constructed within the Lake Tahoe Basin by the County of El Dorado, Department of Transportation (Transportation). In October 2018, Transportation held a Project Development Team (PDT) meeting and in December 2018, a public meeting, to discuss the Feasibility Report for the Project. That report identified alignment alternatives, compiled Best Management Practices (BMP) alternatives for mitigating specific problem areas, and presented the evaluation of the alternatives. This PAM presents the preferred alternative based on input from those meetings, correspondence received, and the results of the analyses contained in the Feasibility Report.¹

The Project is located in the south section of the Lake Tahoe Basin within portions of Sections 30 and 31, Township 12 North, Range 18 East, Mount Diablo Meridian. The Project is bordered by North Upper Truckee Road on the west, Washoe Meadows State Parks on the north, U.S. Highway 50 (US 50) on the south and Apache Avenue on the east. The total Project area is approximately 10.0 acres and encompasses County Right of Way (ROW), Tahoe Paradise Park, and United States Forest Service (USFS) parcels (Figure 1).

3.0 Existing Conditions

For a description of the Project area, goals and objectives of the Project, past projects, site topography, soils, hydrologic and hydraulic conditions, land use, storm water quality, soil erosion problems, alternatives, BMPs, and an evaluation of the alternatives, refer to the Feasibility Report.²

4.0 Preferred Project Alternative

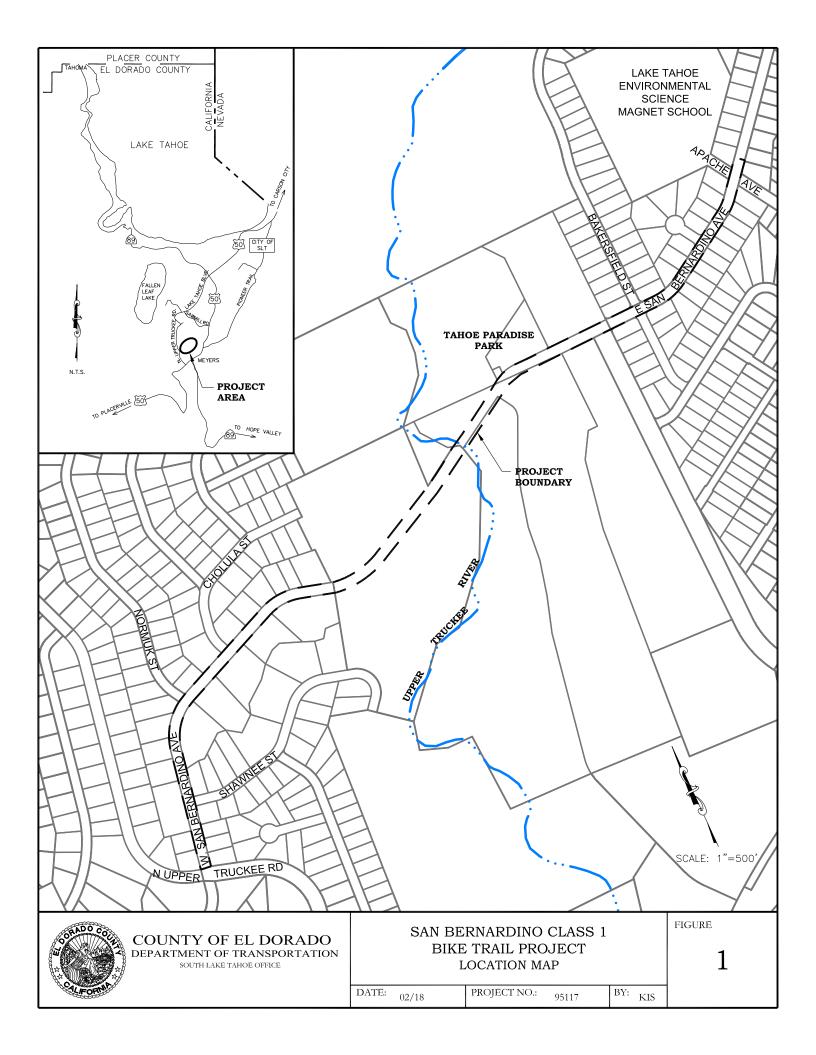
In order to meet the goals and objectives of the Project, the Feasibility Report outlined three alternatives for consideration by the public and the PDT. Based on the comments received, the professional judgment of Transportation personnel, and the analyses outlined in the Feasibility Report, Alternative 1 was selected as the preferred alternative and presented in Figure 2.

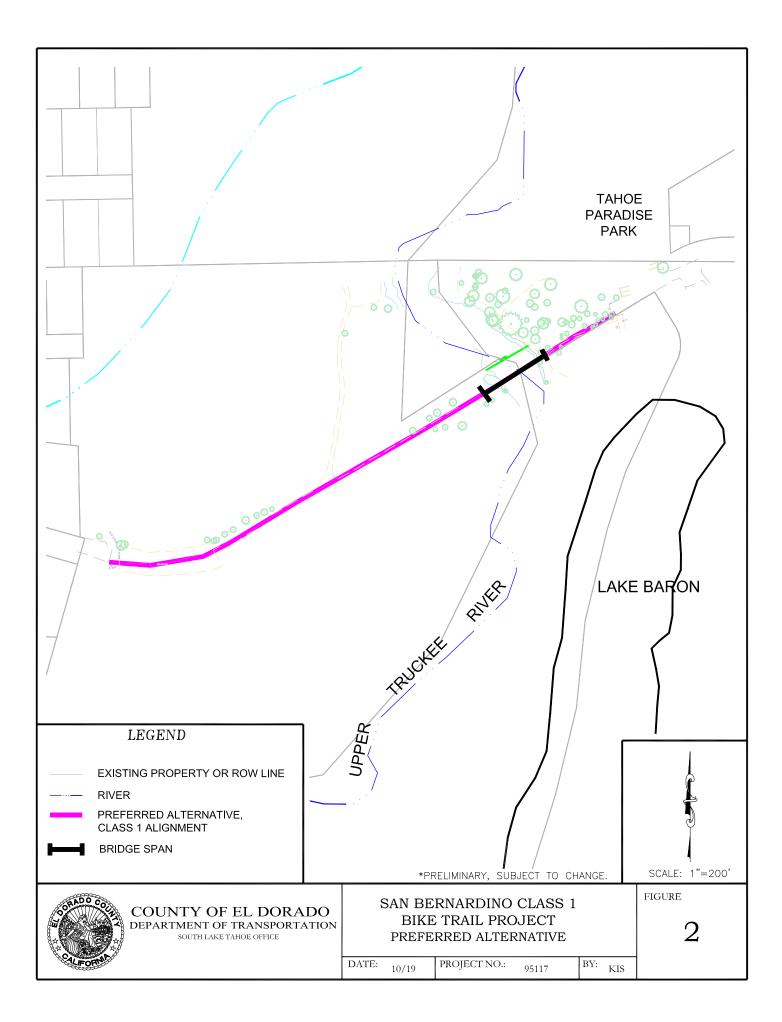
Alternative 1 is the least impact to its surrounding environment. The preferred pathway alignment generally follows the existing utility access road and the most direct alignment outside of the subdivision limits. Along the existing road right-of-way of West and East San Bernardino Avenues, the pathway will be designated as a Class 3 Bike Route by installing appropriate signage and pavement markings, as applicable. The Class 3 bike route designation will begin at the intersection of North Upper Truckee Road and West San Bernardino Avenue and continue to the end of the subdivision limits, approximately 0.4 miles. From the westerly end of the parking lot of Tahoe Paradise Park, the Class 3 designation will resume by installing signage to direct users toward Bakersfield Street along East San Bernardino Avenue and terminate at the intersection at Apache Avenue.

The Class 1 pathway segment begins at the easterly limit of the subdivision at West San Bernardino Avenue conforming to the minimum standard section consisting of an eight-foot wide pavement with two-foot compacted aggregate base shoulders on each side. Pavement

thickness will be three inches of asphalt concrete over eight inches of compacted aggregate base. The pathway crosses over the Upper Truckee River via a weathered steel truss bridge towards Tahoe Paradise Park and tie-in at the westerly portion of the existing parking lot. The bridge elevation will clear the 100-year base flood elevation; details of the bridge to be determined during the design phase.

Drainage, water quality improvement features, and best management practices (BMPs) associated with the new pathway will also be constructed.





5.0 Capital Cost

A Rough Order of Magnitude (ROM) construction cost estimate was prepared for the Preferred Alternative with the quantities based on the proposed improvements (Table 1). The unit costs for each facility were estimated using bid summaries from Transportation's capital improvement program projects within the Lake Tahoe Basin constructed between 2010 and 2018.

ltem No.	Description	Quantity	Unit	Unit Price	Cost
1	Mobilization	1	LS	\$60,000	\$60,000
2	Traffic Control	1	LS	\$10,000	\$10,000
3	Sweeping	100	DAY	\$250	\$25,000
4	Trench and Excavation Safety	1	LS	\$10,000	\$10,000
5	Install & Maintain Temporary BMPs	1	LS	\$30,000	\$30,000
6	Clearing & Grubbing	1	LS	\$25,000	\$25,000
7	Tree Removal	10	EA	\$1,000	\$10,000
8	Roadway Excavation	675	CY	\$50	\$33,733
9	Class 2 Aggregate Base	181	CY	\$200	\$36,200
10	Hot Mix Asphalt (Type A)	364	TON	\$150	\$54,648
11	Structure Excavation (Bridge)	100	CY	\$200	\$20,000
13	Structure Backfill (Bridge)	120	CY	\$150	\$18,000
12	Import Borrow	815	CY	\$50	\$40,750
14	Structural Concrete, Bridge Footing	50	CY	\$1,200	\$60,000
15	Structural Concrete, Bridge	100	CY	\$1,500	\$150,000
16	Bar Reinforcing Steel (Bridge)	9,500	LB	\$3	\$28,500
17	Prefabricated Steel Truss Bridge	1	LS	\$500,000	\$500,000
18	18" Plastic Pipe	80	LF	200	\$16,000
19	18" Steel Flared End Section	4	EA	\$1,000	\$4,000
20	Rock Slope Protection	436	CY	\$150	\$65,400
21	Tubular Steel Railing	1	LS	\$15,000	\$15,000
22	Furnish Single Sheet Aluminum Sign	57	SQFT	\$100	\$5,650
23	Roadsign Sign - One Post	16	EA	\$300	\$4,800
24	Paint Traffic Stripe (1-Coat)	1,214	LF	\$2	\$2,429
25	Pavement Markings	230	SQFT	\$2	\$460
26	Revegetation	1	LS	\$30,000	\$30,000

Table 1 - Construction Cost Estimate

Subtotal \$1,255,570

20% Contingency \$251,115

Total \$1,506,685

6.0 Schedule

Table 2 shows the current proposed schedule for the Project. The Anticipated Completion Dates shown are subject to change.

Project Stage Milestone/Task	Anticipated Completion Date				
Alternatives Report Stage					
Draft Feasibility Report (Existing Conditions, Project Alternatives Selection and Evaluation)	October 2018				
PDT Feasibility Report Meeting	December 2018				
Public Feasibility Report Meeting	December 2018				
Final Feasibility Report	September 2019				
Complete Preferred Alternative Memorandum (PAM)	October 2019				
Environmental Assessment Stage					
Environmental Field Surveys	Spring and Summer 2019				
Draft California Environmental Quality Act (CEQA), Draft National Environmental Policy Act (NEPA) and TRPA Initial Environmental Checklist (IEC) Submittals	December 2019				
CEQA Mitigated Negative Declaration (MND) and NEPA Categorical Exclusion Approval	April 2020				
Pre-Final Plans, Specifications & Reports Stage					
Complete Pre-Final Project Design Plans and Contract Specifications	November 2020				
PDT Permit Applications Submittal	December 2020				
PDT Pre-Final Project Design Plans, Contract Specifications, and Design Report Meeting	December 2020				
Construction					
Notice to Proceed ** (Funding Dependent)	May 2021				

Table 2 – Project Schedule

7.0 References

² Ibid.

¹ County of El Dorado, *San Bernardino Class 1 Bike Trail Project Feasibility Report*, September 2019.

Appendix A

PRELIMINARY PLANS (30% level design)

INDEX OF SHEETS

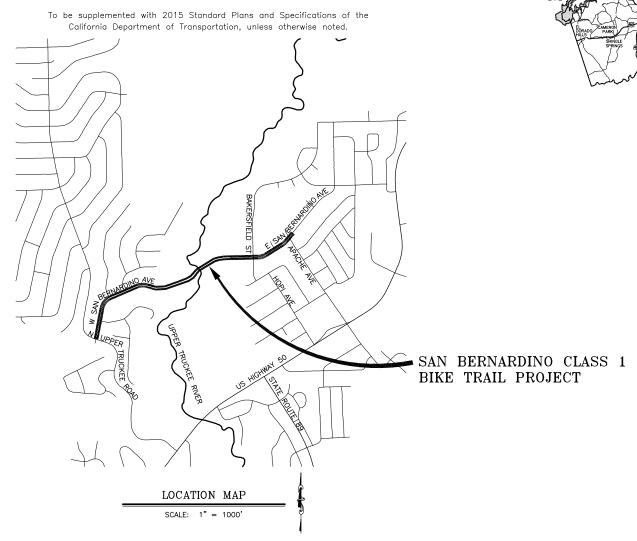
SHEET I	NO. SHEET NAME	TITLE
1	i	TITLE SHEET
2	ï	GENERAL NOTES, ABBREVIATIONS, AND LEGEND
×	L-1	LAYOUT STA 10+ 00 - 14+00
х	L-2	LAYOUT STA 14+00 – 18+00
х	L-3	LAYOUT STA 18+00 – XX+XX
х	C-1	CONSTRUCTION DETAILS
х	EC-1	TEMPORARY EROSION CONTROL PLAN
х	EC-2	TEMPORARY EROSION CONTROL DETAILS
х	PD-1	SIGNING AND PAVEMENT DELINEATION
х	PD-2	SIGNING AND PAVEMENT DELINEATION
х	PD-3	SIGNING AND PAVEMENT DELINEATION

COUNTY OF EL DORADO, CA DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR THE CONSTRUCTION OF THE 2021

SAN BERNARDINO CLASS 1 BIKE TRAIL PROJECT

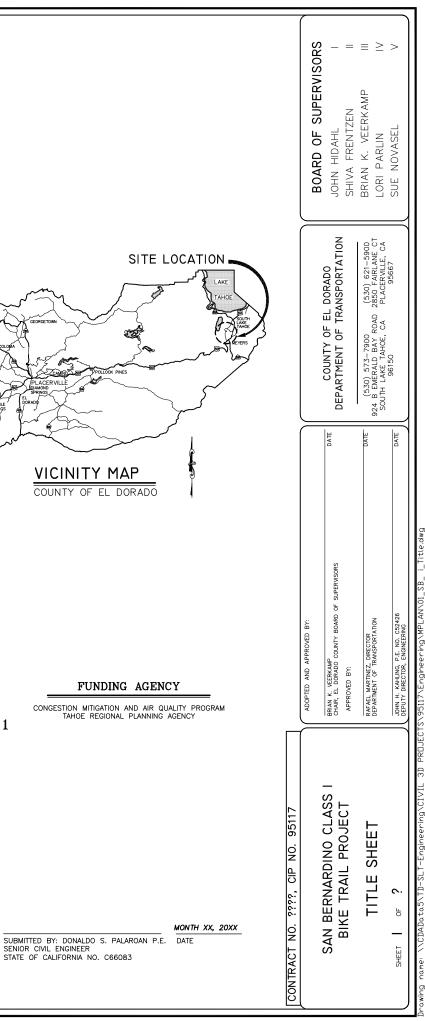
IN THE COUNTY OF EL DORADO, DISTRICT 5, PORTION OF SEC 29, PORTION OF EAST 1/4 SEC 30, PORTION OF SOUTH 1/4 SEC 20, T12N, R18E, MDM



CONTRACTOR'S LICENSE CLASSIFICATION: Bidders shall be properly licensed to perform the Work pursuant to the State Contractor's License Law (Business and Professions Code section 7000 et seq.) and shall possess a CLASS A LICENSE or equivalent combination of Classes required by the categories and type of Work included in the Contract Documents and Plans, at the time the Contract is awarded, and shall maintain a valid license through completion and acceptance of the Work including guarantee and worranty period. If the Contract possesses a CLASS C27 "Landscaping Contractor" license. Failure of the successful Bidder to obtain proper and adequate licensing for an award of the Bidders security.

			REVISIONS
			Preliminary
			For information purposes only.
			Not for Construction.
MARK	DATE	BY	





GENERAL NOTES

- ALL IMPROVEMENTS WILL BE ACCOMPLISHED UNDER THE APPROVAL, INSPECTION, AND TO THE SATISFACTION OF THE COUNTY OF EL DORADO DEPARTMENT OF TRANSPORTATION (DOT). IMPROVEMENT CONSTRUCTION MUST COMPLY WITH THESE PLANS AND THE 2015 CALTRANS STANDARD PLANS, UNLESS NOTED OTHERWISE. ALL REFERENCES TO THE "STANDARD SPECIFICATIONS" MEAN THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION (CALTRANS) 2015 STANDARD SPECIFICATIONS. CONSTRUCTION NOT SPECIFIED ON THESE PLANS OR IN SPECIFIC COUNTY OF EL DORADO (COUNTY) ORDINANCES MUST CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS. YOU ARE OBLIGATED TO BE FAMILIAR WITH APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS NOT DISCUSSED IN THE GENERAL NOTES. THE CONTRACT SPECIAL PROVISIONS SUPERSEDE THE STANDARD SPECIFICATIONS WHERE DISCREPANCIES OCCUR.
- 2 CONSTRUCTION HOURS WILL BE WEEKDAYS BETWEEN 8:00 A.M. AND 6:30 P.M. UNLESS PRIOR APPROVAL IS RECEIVED FROM DOT.
- THE LOCATIONS AND EXTENT OF UNDERGROUND UTILITIES IN THE WORK AREA AS SHOWN ARE APPROXIMATE AND ARE NOT NECESSARILY 3. COMPLETE. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE UTILITIES BASED UPON AVAILABLE RECORDS. YOU MUST DETERMINE THE TYPE, LOCATION, SIZE, AND/OR DEPTH OF THE UTILITIES WITHIN THE WORK AREA BEFORE STARTING WORK. YOU OR ANY SUBCONTRACTOR FOR THIS CONTRACT ARE RESPONSIBLE FOR DAMAGES DUE TO THE FAILURE TO EXACTLY LOCATE AND PRESERVE UNDERGROUND UTILITIES. YOU MUST CONTACT UNDERGROUND SERVICE ALERT AT (800) 642-2444 AT LEAST 48 HOURS BEFORE ANY CONSTRUCTION. YOU ASSUME COMPLETE RESPONSIBILITY FOR DAMAGED UTILITIES.
- UNLESS SHOWN OTHERWISE. YOU ARE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING SURVEY MONUMENTS AND OTHER SURVEY MARKERS, NCLUDING CONSTRUCTION STAKES DURING CONSTRUCTION AND YOU ARE RESPONSIBLE FOR THE COST TO REPLACE ANY SUCH SURVEY MONUMENTS, MARKERS, OR STAKES,
- YOU WILL PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FLAGGERS, PILOT CAR, OR OTHER DEVICES NECESSARY TO CONTROL TRAFFIC THROUGH THE 5. JOB SITE AND FOR PUBLIC SAFETY UNDER THESE PLANS, THE STANDARD SPECIFICATIONS, AND CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- YOU AGREE TO ASSUME SOLE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF THE WORK, INCLUDING SAFETY OF ALL 6. PERSONS AND PROPERTY, AND FURTHER AGREE THAT THIS REQUIREMENT APPLIES CONTINUOUSLY AND IS NOT LIMITED TO NORMAL WORKING HOURS UNDER THE CONTRACT AND STANDARD SPECIFICATIONS.
- THERE WILL BE NO GRADING OR LAND DISTURBANCE BETWEEN OCTOBER 15 AND MAY 1 UNLESS APPROVALS ARE OBTAINED FROM THE TAHOE REGIONAL PLANNING AGENCY (TRPA), AS PROVIDED IN THE LIMITED EXEMPTION DESCRIBED IN CHAPTER 64, SUBSECTION 64.2.B. OF THE TRPA CODE OF ORDINANCES. APPROVALS FOR GRADING BETWEEN OCTOBER 15 AND MAY 1 MUST ALSO BE OBTAINED FROM THE LAHONTAN REGIONAL WATER QUALITY CONTROL BOARD. IF REQUIRED, DOT WILL OBTAIN THESE APPROVALS.
- YOU WILL MAINTAIN A SET OF PLANS ON THE JOB SITE SHOWING "AS-CONSTRUCTED" CHANGES MADE TO DATE. UPON COMPLETION OF THE 8. WORK, YOU WILL GIVE TO THE COUNTY A SET OF PLANS, MARKED UP TO THE SATISFACTION OF DOT, REFLECTING THE AS-CONSTRUCTED
- ALL CONTROL STATIONING AND DATA DIMENSIONING REFERENCE THE CENTERLINE OF THE FACILITY SHOWN, UNLESS NOTED OTHERWISE. 9.
- YOU WILL NOT CLOSE OFF ANY UTILITY LINES OR OPEN VALVES OR TAKE ANY OTHER ACTION WHICH WOULD AFFECT THE OPERATION OF WATER OR SEWER SYSTEMS WITHOUT APPROVAL FROM THE SOUTH TAHOE PUBLIC UTILITY DISTRICT (STPUD). APPROVAL MUST BE REQUESTED AT LEAST 48 HOVRS BEFORE INTERRUPTION OF THE UTILITY SERVICE IS REQUIRED. ANY INTERRUPTION TO ACTIVE WATER OR SEWER SERVICES, INCLUDING FIRE HYDRANTS, WHETHER INTENTIONAL OR NOT, MUST BE KEPT TO A MINIMUM TIME PERIOD. IF SERVICE TO BUILDINGS IS TO BE 10. OFF FOR MORE THAN FOUR HOURS, YOU MUST ADVISE STPUD.
- 11. YOU ARE REQUIRED TO IMPLEMENT DUST CONTROL MEASURES TO ENSURE THAT DUST RESULTING FROM YOUR ACTIVITIES IS CONTROLLED AND COMPLIES WITH THE PROVISIONS OF SECTION 7, "LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC," AND SECTION 14, "ENVIRONMENTAL STEWARDSHIP," OF THE STANDARD SPECIFICATIONS, COUNTY, AND LOCAL ORDINANCES.
- YOU ARE RESPONSIBLE FOR IMPLEMENTING ALL TEMPORARY EROSION CONTROL MEASURES. THE TEMPORARY EROSION CONTROL MEASURES 12. MUST COMPLY WITH THE TRPA "HANDBOOK OF BEST MANAGEMENT PRACTICES" AND THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP). DOT WILL CONTACT TRPA BEFORE THE START OF THE WORK FOR A PRE-GRADE INSPECTION OF THE INSTALLED TEMPORARY EROSION CONTROL FACILITIES. YOU ARE RESPONSIBLE FOR THE MAINTENANCE AND PERFORMANCE OF THE TEMPORARY EROSION CONTROL MEASURES THROUGHOUT THE DURATION OF THE WORK
- CONSTRUCTION LIMITS SHOWN DELINEATE THE BOUNDARIES FOR YOUR ACTIVITIES BEYOND THE COUNTY ROAD RIGHT-OF-WAY. TEMPORARY 13. FENCE (TYPE ESA) MUST BE ERECTED ALONG THESE BOUNDARIES BEFORE WORK STARTS. VEGETATION WITHIN THESE LIMITS MUST BE PROTECTED TO THE EXTENT FEASIBLE. ALL TREES MUST BE PROTECTED UNLESS SHOWN TO BE REMOVED.
- 14. UNLESS NOTED OTHERWISE, ALL REVEGETATION IS TO BE COMPLETED BY OTHERS.
- 15. YOU WILL ONLY USE THE DESIGNATED SITES SHOWN FOR STORAGE OF EQUIPMENT AND MATERIALS. YOU ARE RESPONSIBLE FOR THE SECURITY OF EQUIPMENT AND MATERIALS.
- 16. IT IS YOUR AND YOUR SUBCONTRACTOR(S) RESPONSIBILITY TO EXAMINE THE JOB SITE BEFORE THE OPENING OF BID PROPOSALS. YOU MUST BECOME FAMILIAR WITH THE NATURE AND LOCATION OF THE WORK AND THE GENERAL AND LOCAL CONDITIONS, PARTICULARLY THOSE AFFECTING DECOME FAMILY OF TRANSPORTATION, THE DISPOSAL, HANDLING, AND STORAGE OF MATERIAS, AVAILABILITY OF LABOR, WATER, ELECTRICITY, THE AVAILABILITY OF TRANSPORTATION, THE DISPOSAL, HANDLING, AND STORAGE OF MATERIAS, AVAILABILITY OF LABOR, WATER, ELECTRICITY, ROADS, THE UNCERTAINTIES OF WEATHER, THE CONDITIONS OF THE GROUND, SURFACE AND SUBSURFACE MATERIALS, THE EQUIPMENT AND FACILITIES NEEDED FOR AND DURING THE PERFORMANCE OF THE WORK. FAILURE BY YOU OR YOUR SUBCONTRACTOR(S) FOR ACQUAINT YOURSELVES WITH THE INFORMATION AVAILABLE WILL NOT RELIEVE YOU OR YOUR SUBCONTRACTOR(S) FROM RESPONSIBILITY FOR PROPERLY ESTIMATING THE DIFFICULTY AND COST OF SUCCESSFULLY PERFORMING THE WORK.
- ELEVATIONS FOR PIPE INVERTS, FLOWLINES, TOPS OF GRATES, RIMS, ETC., ARE BASED ON THE TOPOGRAPHIC INFORMATION SHOWN, YOU WILL 17. VERIFY ALL NECESSARY SURFACE ELEVATIONS IN THE FIELD AND NOTIFY THE TD OF ANY DISCREPANCIES WHICH MIGHT AFFECT THE OPERATION OF THE NEW FACILITIES BEFORE BREAKING GROUND FOR THE INSTALLATION. DOT MUST BE CONTACTED IF ELEVATIONS ARE INCORRECT SO PROPER ADJUSTMENTS CAN BE MADE BEFORE THE INSTALLATION OF THE FACILITIES.
- 18. EXCEPT FOR THOSE OBTAINED BY DOT. YOU MUST OBTAIN, AT YOUR EXPENSE, ALL PERMITS, LICENSES, INSURANCE POLICIES, ETC., NECESSARY TO COMPLY WITH STATE AND LOCAL LAWS ASSOCIATED WITH THE PERFORMANCE OF THE WORK.
- 19. YOU ARE RESPONSIBLE TO REVIEW THE CONTRACT DOCUMENTS FOR SUBMITTALS REQUIRED FOR COUNTY REVIEW AND ACCEPTANCE.
- 20. THE COUNTY WILL PROVIDE CONSTRUCTION STAKING IN COMPLIANCE WITH SECTION 5-1.26 OF THE STANDARD SPECIFICATIONS.
- 21. THE PLANS SHOW SLOPE LENGTHS FOR PIPE ROUNDED TO THE NEAREST FOOT. ALL PIPE LENGTHS AND INVERT ELEVATIONS SHOWN ON THE PLANS ARE TO THE CENTERLINE OF THE STRUCTURES TO WHICH THE PIPES ARE ATTACHED. SEE THE STANDARD SPECIFICATIONS FOR THE MAXIMUM ALLOWABLE DEFLECTION ANGLE AT EACH PIPE JOINT.
- 22. YOU ARE RESPONSIBLE TO MAINTAIN THE GRADING LIMITS AS SHOWN ON THE PLANS, DETAILS, CROSS SECTIONS, AND AS DIRECTED BY THE ENGINEER

ABBREVIATIONS

NOTE: LOWER CASE TEXT WITHIN PLAN SET INDICATES EXISTING

	NUTE: LOWER CASE TEXT	WITHIN PLAN SET	NDICATES EXISTING
\triangle	DELTA = DEFLECTION ANGLE	MAT'L	MATERIAL
A	ARCH OR ASPEN	MISC	MISCELLANEOUS
AB	AGGREGATE BASE	MOC	MID POINT ON CURVE
ABAND	ABANDONED	MOD	MODIFIED
ABC	ARTICULATED BLOCK CHANNEL	N	NORTH
AC	ASPHALT CONCRETE	NIC	NOT IN CONTRACT
AP	ANGLE POINT	NGVD	NATIONAL GEODETIC VERTICAL DATUM
APN	ASSESSOR'S PARCEL NUMBER	NTS	NOT TO SCALE
BC	BEGIN CURVE	OAE	OR APPROVED EQUAL
BCR	BEGIN CURB RETURN	OC	ON CENTER
BGN	BEGIN	OD	OUTSIDE DIAMETER
BLC	BLANKET-LINED CHANNEL	OG	ORIGINAL GROUND
BV	BAY VIEW	ОН	OVERHEAD
BVCE	BEGIN VERTICAL CURVE ELEVATION	OVEREX OR	D/X OVEREXCAVATION
BVCS	BEGIN VERTICAL CURVE STATION	P	PINE
С	CEDAR	PC	POINT OF BEGINNING OF CURVE
CALCS	CALCULATIONS	PCC	PORTLAND CEMENT CONCRETE OR
CATV	CABLE TELEVISION		POINT OF COMPOUND CURVE
CC	CENTER TO CENTER	PERF	PERFORATED
CF	CUBIC FEET OR CURB FACE	PL	PROPERTY LINE
CHD	CHORD DIRECTION	PCVCE	POINT OF COMPOUND VERTICAL CURVE ELEVATION
CIR	CIRCLE	PCVCS	POINT OF COMPOUND VERTICAL CURVE STATION
ę	CENTERLINE	POR	PORTION
ČL	CLASS OR CENTERLINE	PRVCE	POINT OF REVERSE VERTICAL CURVE ELEVATION
CLR	CLEAR	PRVCS	POINT OF REVERSE VERTICAL CURVE STATION
со	CURB OPENING OR CLEANOUT	PP	POWER/UTILITY POLE
CO.	COUNTY	PRC	POINT OF REVERSE CURVE
CONC	CONCRETE	PROP	PROPOSED
CONST	CONSTRUCT	PT	POINT OR POINT OF TANGENCY
CMP	CORRUGATED METAL PIPE	PUE	PUBLIC UTILITY EASEMENT
CR	CEDAR RIDGE	PVC	POLYVINYL CHLORIDE
CSP	CORRUGATED STEEL PIPE	PVIE	POINT OF VERTICAL INTERSECTION ELEVATION
CT	CALTRANS OR COURT	PVIS	POINT OF VERTICAL INTERSECTION STATION
CTC	CALIFORNIA TAHOE CONSERVANCY	PVMT	PAVEMENT
CY	CUBIC YARD	R	RADIUS
C&G	CURB AND GUTTER	R&R	REMOVE & REPLACE
D	DEPTH	RC	RELATIVE COMPACTION
DBL	DOUBLE	RCP	REINFORCED CONCRETE PIPE
DET	DETAIL	RD	ROAD
DI	DRAINAGE INLET OR DUCTILE IRON	REF	REFERENCE
DIA OR Ø	DIAMETER	REQ'D	REQUIRED
DISS	DISSIPATOR	RLC	ROCK-LINED CHANNEL
DR	DRIVE	ROW	RIGHT-OF-WAY
D/W	DRIVEWAY	RSP	ROCK SLOPE PROTECTION
E	EAST	RT	RIGHT
EA	EACH	RW	RETAINING WALL
EC	END OF CURVE	S	SOUTH OR SANITARY SEWER
ECR	END OF CURB RETURN	SCO	SEWER CLEAN OUT
ELEV	ELEVATION	SD	STORM DRAIN
ELEC	ELECTRIC	SDMH	STORM DRAIN MANHOLE
ENGR	ENGINEER	SED FB	SEDIMENT FOREBAY
EP	EDGE OF PAVEMENT	SEZ	STREAM ENVIRONMENT ZONE
ESA	ENVIRONMENTALLY SENSITIVE AREA	SF	SQUARE FEET
ESMT	EASEMENT	SHT	SHEET
EVCE	END VERTICAL CURVE ELEVATION	SL	SLOPE LENGTH
EVCS	END VERTICAL CURVE STATION	SMH	SEWER MANHOLE
EX OR EXIST		ST	SEDIMENT TRAP OR STREET
F	FIR	STA	STATION
FES	FLARED END SECTION	STD	STANDARD
FG	FINISHED GRADE	STL	STEEL
FH	FIRE HYDRANT	STPUD	SOUTH TAHOE PUBLIC UTILITY DISTRICT
FL	FLOWLINE	SWPPP	STORM WATER POLLUTION PREVENTION PLAN
FS	FINISH SURFACE	T	TELEPHONE
G	GAS	TBC	TOP BACK OF CURB
GA	GAUGE	TBD	TOP BACK OF DIKE
GB	GRADE BREAK	TD	TOP OF DIKE
GLS	GRASS-LINED SWALE	TBR	TO BE REMOVED
GW	GROUND WATER	TG	TOP OF GRATE
Н	HORIZONTAL	TTL	TOTAL
HDPE	HIGH DENSITY POLYETHYLENE	TRANS	TRANSITION
HP	HIGH POINT	TRM	TURF REINFORCEMENT MAT
HWL	HIGH WATER LINE	TRPA	TAHOE REGIONAL PLANNING AGENCY
ID	INSIDE DIAMETER	TYP	TYPICAL
IE	INVERT ELEVATION	UG	UNDERGROUND
INCR	INCREASE	UKN	UNKNOWN
INST	INSTALL	USFS	UNITED STATES FOREST SERVICE
INTRXN	INTERSECTION	v	VERTICAL
L	LENGTH	Ŵ	WEST OR WATER
LC	LENGTH OF CHORD	 W/	WITH
LF	LINEAR FEET	w/o	WITHOUT
LP	LOW POINT	WC	WILLOW CLUSTER
LT	LEFT	WV	WATER VALVE
LTD	LAKE TAHOE DATUM		

PRELIMINARY



\sum	PREPARED UNDER THE SUPERVISION (DF :	DESIGNED: KIS	DRAWN: KIS	
)			CHECKED: DSP	_{DATE:} 08/08/19	
	REGISTERED CIVIL ENGINEER	MONTH XX, 20XX DATE:	ROAD NUMBER:		



COUNTY OF EL DORADO DEPARTMENT OF TRANSPORTATION

XXX

₹• ₹28″p

(:.)wc

TREE, DIAMETER AND TYPE

STUMP

WILLOW CLUSTER

LANDSCAPE LIGHTING

(SCREENED AN

LEGEND

EXI	STING	PR0	DPOSED
ND/OR DASHED)	EXISTING (AS NOTED)		CENTERLINE
·	RIGHT-OF-WAY OR PROPERTY LINE		SAWCUT (AS NOTED)
	DRAINAGE OR SLOPE EASEMENT		AC PAVEMENT
	UTILITY (PUE) EASEMENT		AC REMOVAL
	LAND CAPABILITY BOUNDARY	XXXX.XX	ELEVATION
	10' SEZ SETBACK	XXXXXX XXXXXX	ELEVATION, EG CL, PROPOSED (PROFILE ONLY)
OR 🔿	ROCK	~~	CSP INLET/RISER OR STORM DRAIN
۲	FOUND MONUMENT	$\bigcirc \Box$	MANHOLE, DRAINAGE INLET
	SURVEY CONTROL POINT	VV	CUT OR FILL SLOPE
XX.X	ELEVATION	$\begin{pmatrix} X \\ X \end{pmatrix}$	DETAIL REF NUMBER SHEET NUMBER
	SEWER MANHOLE	*** **	ROCK
	SEWER CLEAN OUT		SD PIPE (MATERIAL AS NOTED)
	DRAINAGE INLET	-RSF-ESA-	REINFORCED SILT FENCE
gm III	GAS METER		AND TYPE ESA FENCE
Ŵv	WATER VALVE	D	FLARED END SECTION
vm El	WATER METER	#:#	SLOPE RATIO, H:V
0	MONITORING WELL		ARTICULATED BLOCK CHANNEL
- w w -	WATER LINE		BLANKET-LINED CHANNEL
-ss-	SEWER LINE	\mathbf{A}	TREE REMOVAL
— g — — g —	GAS LINE		FLOWLINE
	STORM DRAIN	c c c	CUT
— — oh ——	OVERHEAD UTILITIES	— f — f — f —	FILL
Ū.	POWER/UTILITY POLE		
>	UTILITY POLE & GUY ANCHOR		
0	FIRE HYDRANT		
х ———	FENCE		
	FLOWLINE		

UTILITIES

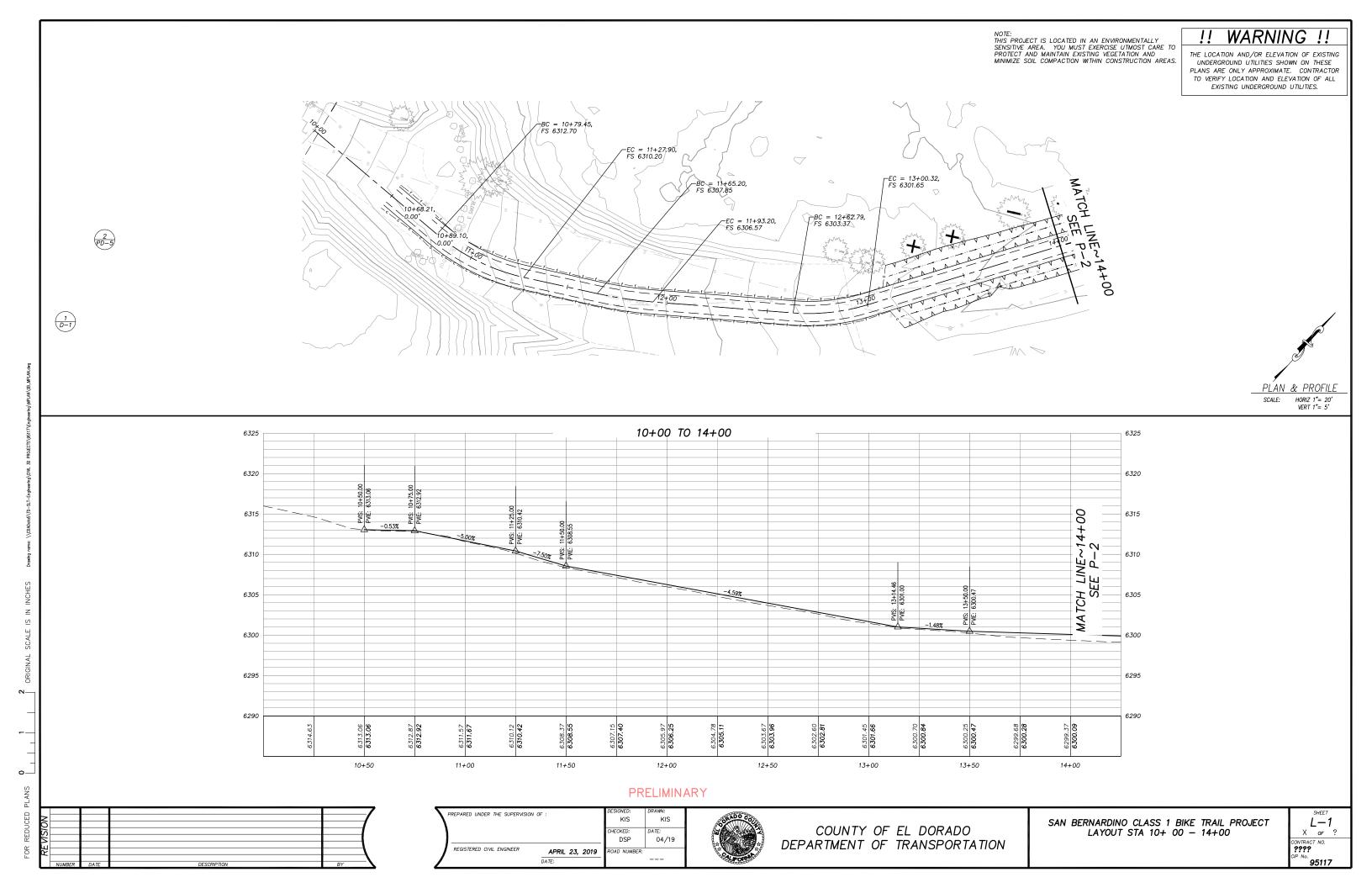
SAN BERNARDINO CLASS 1 BIKE TRAIL PROJECT

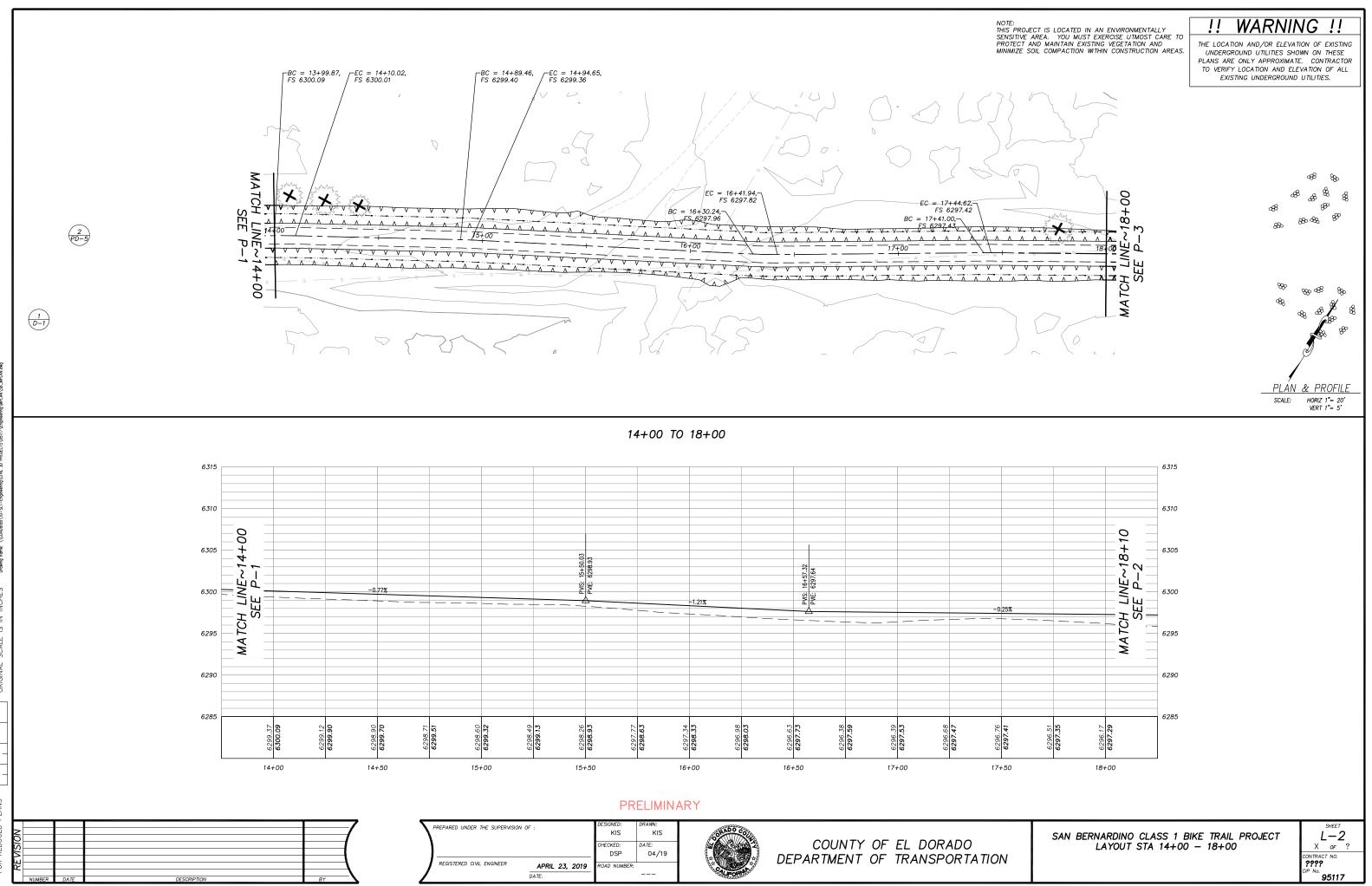
GENERAL NOTES, ABBREVIATIONS, AND LEGEND

CABLE TELEVISION NATURAL GAS ELECTRIC SEWER & WATER TELEPHONE STORM DRAIN

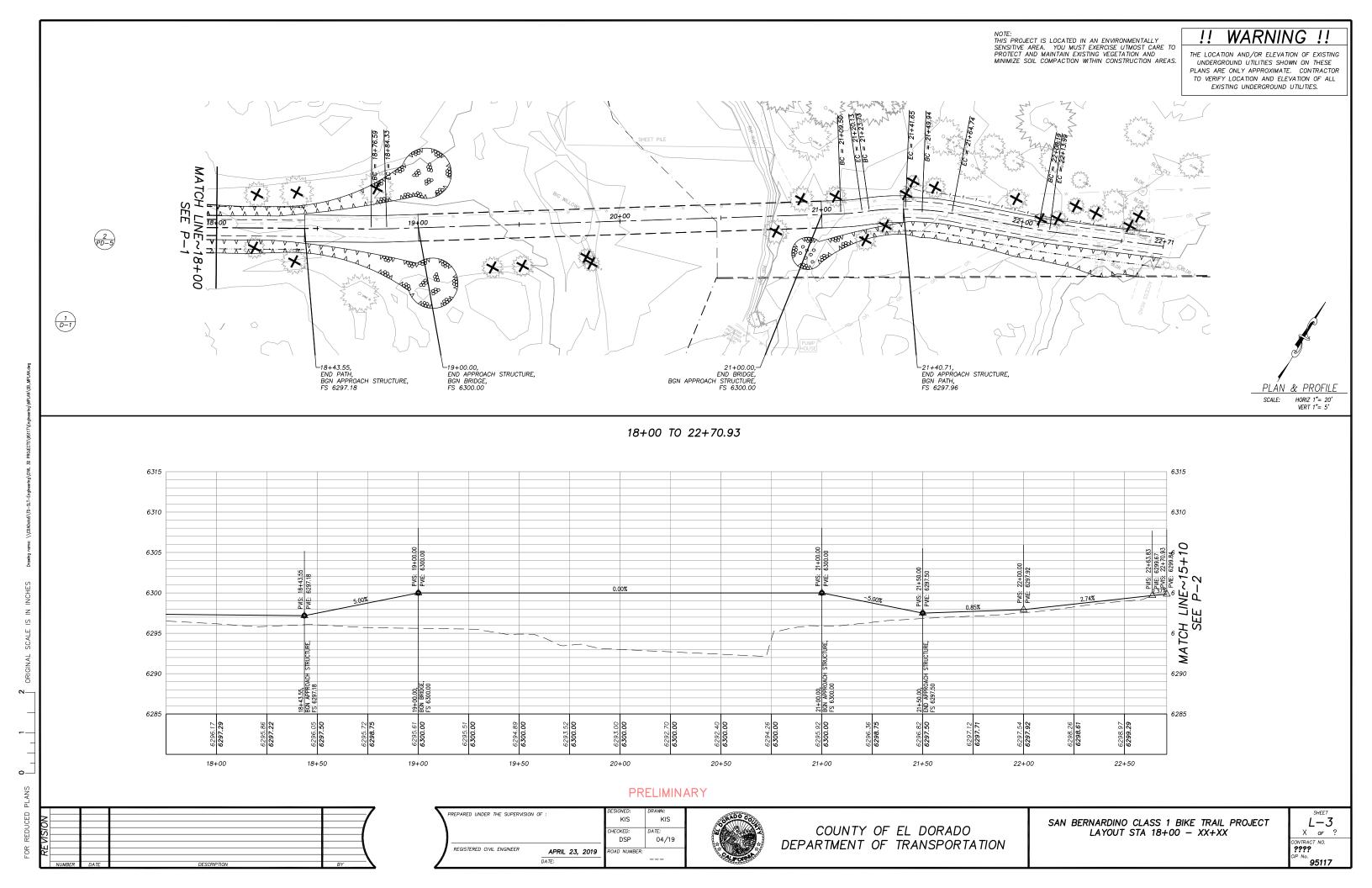
CHARTER COMMUNICATIONS. (775) 233-8706 SOUTHWEST GAS, (530) 543-3225 LIBERTY UTILITIES, (530) 541-6400 SOUTH TAHOE PUD, (530) 544-6474 AT&T, (530) 888-2031 CO. OF EL DORADO DOT, (530) 573-3180

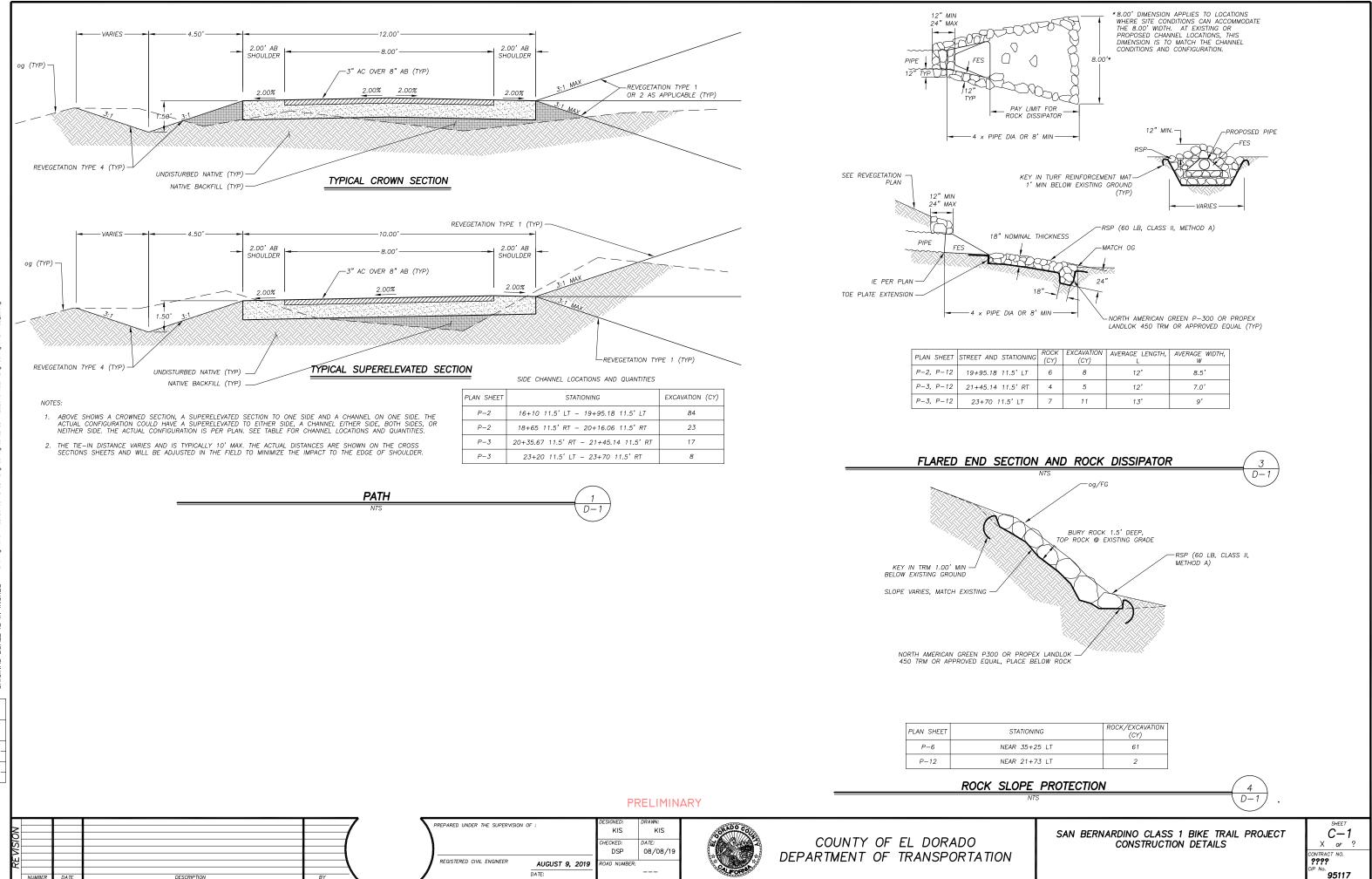
	SHEET	
	ii	
2	OF	?
CONTRACT	NO.	
????		
CIP No. 9	511	7

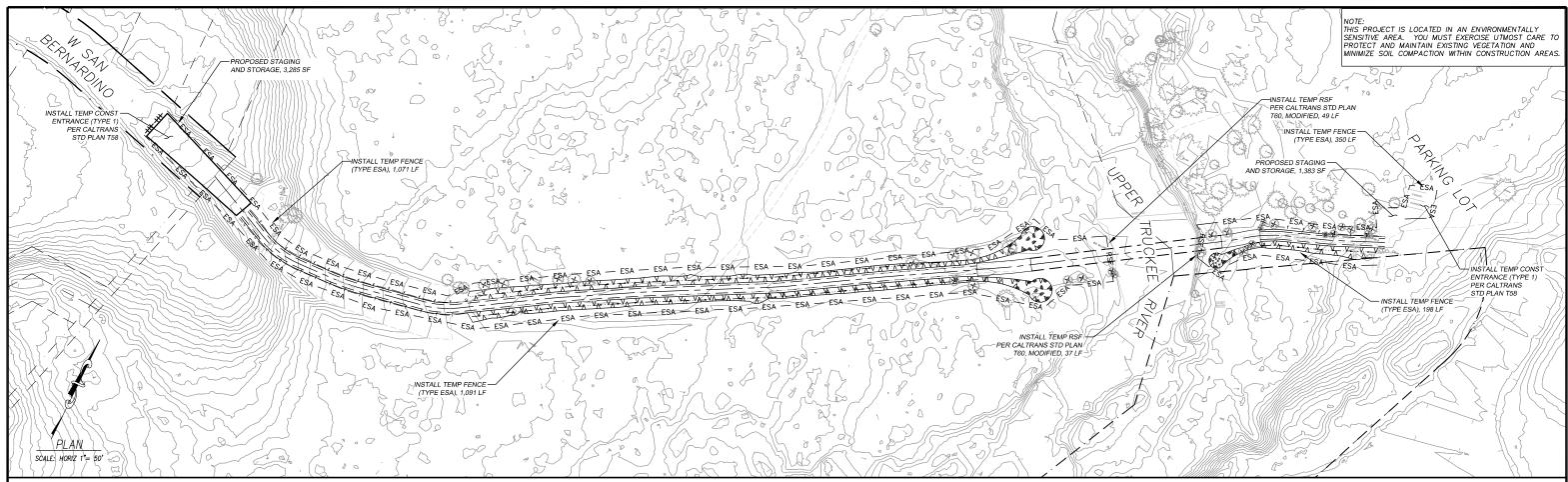




CED PLANS 0 1 2 CED PLANS 1 1 1 1 0 RIGINAL SCALE IS IN INCHES Drawing name: \\Distributions\\D-SI-Fondineerics\Only 33







LEGEND

- > SEDIMENT CONTROL
- TRAFFIC BARRICADE
- TREE TRUNK PROTECTION
- 7 LAND CAPABILITY DESIGNATION
- LAND CAPABILITY DESIGNATION
- _____ LAND CAPABILITY 1B SETBACK
- RSF RSF RSF REINFORCED SILT FENCE
- esa esa Esa TEMPORARY FENCE (TYPE ESA)
- ----- EDGE OF PAVEMENT
- ----- RIGHT OF WAY/PROPERTY LINE
 - PROPOSED ROCK

A A A A A PROPOSED CHANNEL



PROPOSED STAGING, STORAGE, OR TIRE WASH AREAS

NOTES:

PREPARED UNDER THE SUPERVISION OF

AUGUST 9, 2019

DATE:

REGISTERED CIVIL ENGINEER

- 1. FOR ACCESS TO CONSTRUCTION AREA ADJACENT TO BARBARA AVE, THE ACCESS AT SIERRA BLVD AND MARTIN AVE ARE FOR ENTRANCE ONLY. TO LEAVE THE WORK AREA, USE THE ACCESS WITH THE TIRE WASH NEAR THE STA 19+50 LT.
- 2. FOR STAGING AND STORAGE AREAS ON PAVEMENT, PLACE TEMPORARY FENCE (TYPE ESA) IN SHOULDER AND PLACE FIBER ROLLS ON EP TO CONTAIN SEDIMENT WITH IN THE PAVED AREAS.
- YOUR ATTENTION IS DIRECTED TO THE SWPPP, TEMPORARY EROSION CONTROL SHEETS, REVEGETATION PLAN SHEET, AND THE SPECIAL PROVISIONS REGARDING TEMPORARY EROSION CONTROL REQUIREMENTS FOR STAGING AREAS.
- 4. STAGING AREAS SHOWN ARE FOR THE TEMPORARY STORAGE OF CONSTRUCTION MATERIALS AND EQUIPMENT WHICH ARE TO BE USED ON THIS PROJECT.

TEMPORARY EROSION CONTROL SUMMARY OF QUANTITIES								
	TEMPORARY CONSTRUCTION DRAIN INLET TEMPORARY REINFORCED TEMPORARY FENCE ENTRANCE PROTECTION FIBER ROLL SILT FENCE (TYPE ESA) TREE TRUNK PROTECTIO							
	-	-	-	-	-	-		

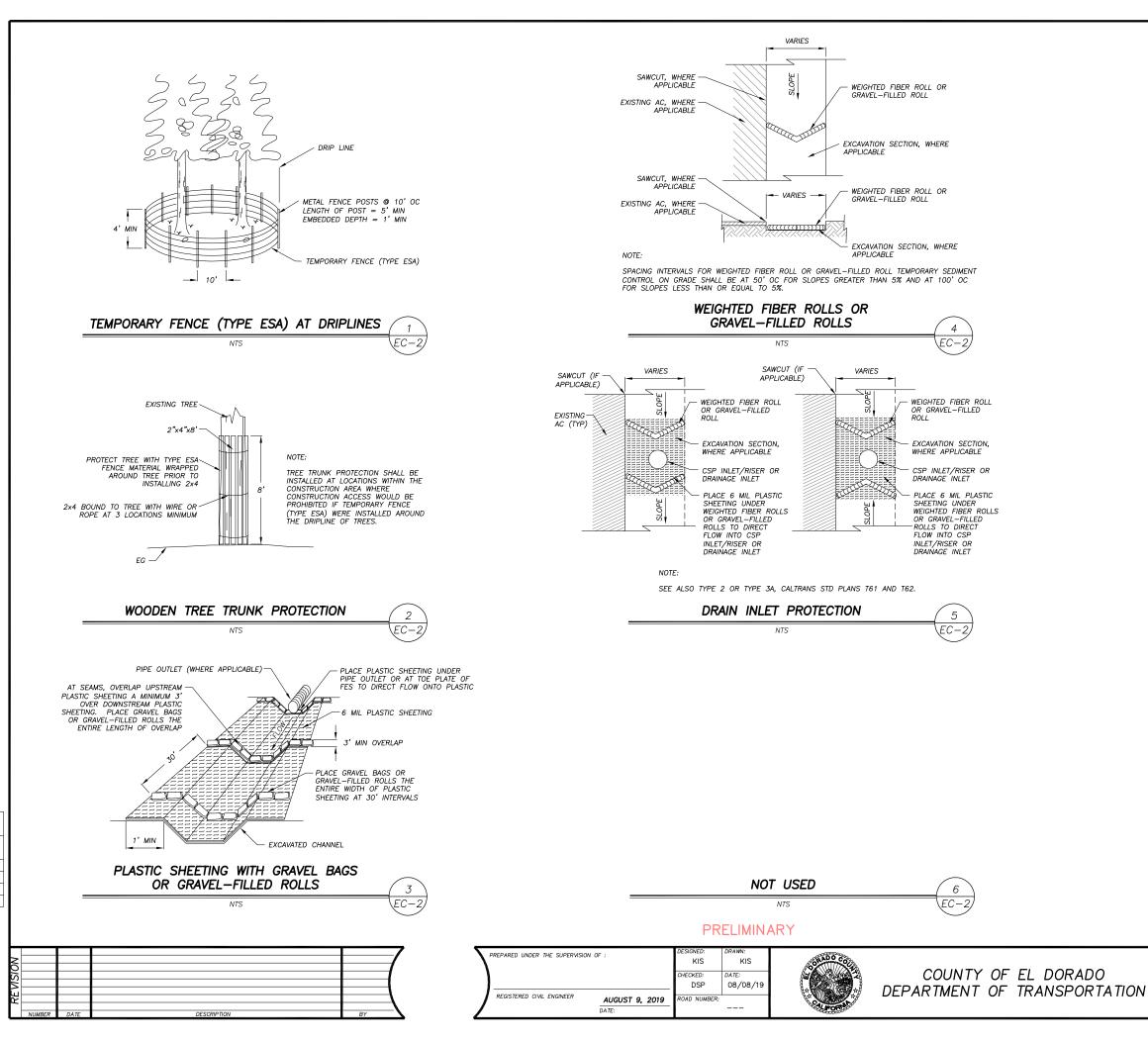
PRELIMINARY





COUNTY OF EL DORADO DEPARTMENT OF TRANSPORTATION SAN BERNARDINO CLASS 1 BIKE TRAIL PROJECT TEMPORARY EROSION CONTROL PLAN

SHEET
EC-1
X OF ?
CONTRACT NO.
????
CIP No. 95117

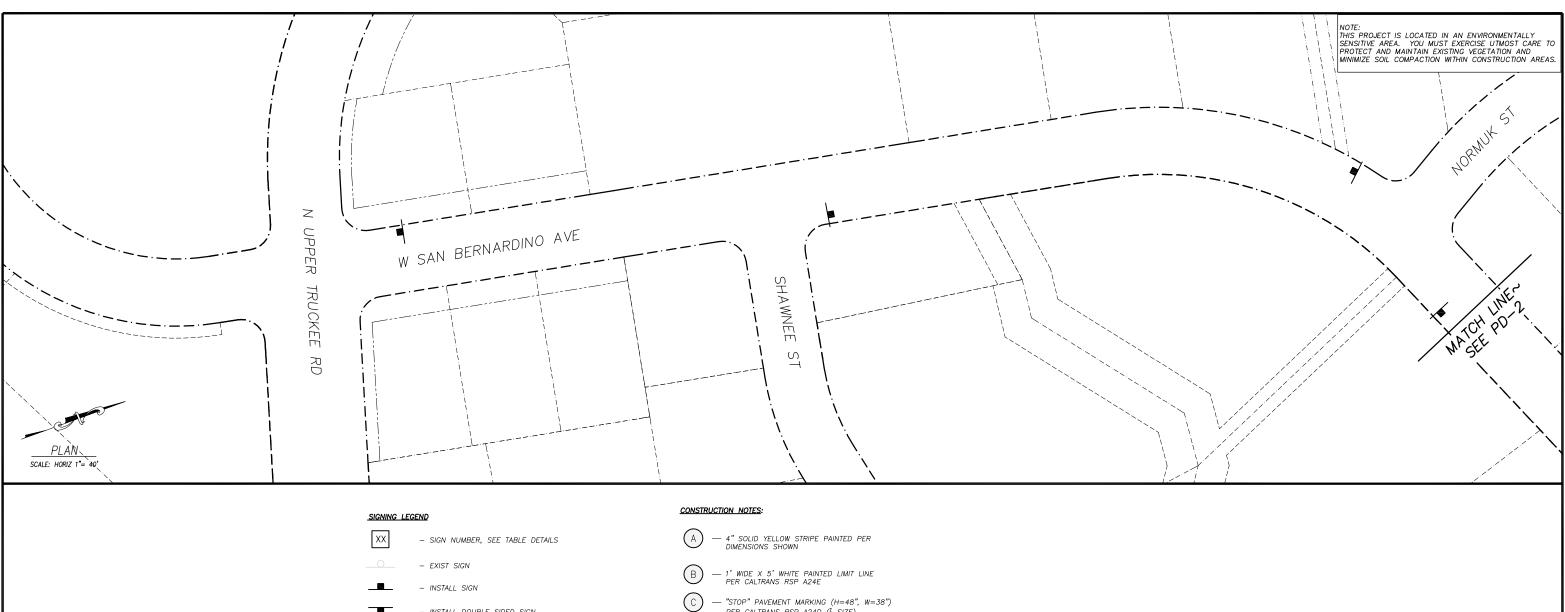


GENERAL NOTES:

- LOCATIONS AND LF OF TEMPORARY REINFORCED SILT FENCE REQUIRED FOR THE STAGING AREAS ARE NOT SHOWN. YOU ARE TO INCLUDE THESE AREAS IN YOUR TEMPORARY EROSION CONTROL PLAN SUBMITTAL.
- LENGTHS OF TEMPORARY REINFORCED SILT FENCE AND TEMPORARY FENCE (TYPE ESA) DOES NOT INCLUDE MINIMUM LIMITS FOR TREE PROTECTION. TREE PROTECTION FENCING IS TO BE AS SHOWN AND/OR AS DETERMINED IN THE FIELD.

SAN BERNARDINO CLASS 1 BIKE TRAIL PROJECT TEMPORARY EROSION CONTROL DETAILS

SHEET	
FC-2	
X OF ?	
CONTRACT NO.	
????	
GIP No. 95117	
95117	



NOTES: 1) FINISH ON BACK OF SIGN: MIDNIGHT GREEN ENDURA SHIELD IV, TNEMEC SEMIGLOSS HIGH BUILD ACRYLIC POLYURETHANE ENAMEL NO. 75-J7751

2) ALL TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH THE LATEST APPROVED CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CA MUTCD).

3) ASTM DESIGNATION APPLIES TO ALL COLORS ON SIGN OR RAIL. BLACK SHALL BE NON-REFLECTIVE.

ROADWAY AND BIKE PATH SIGNS SIGN MESSAGE AND RETROREFLECTIVE SIGN SIGN SIZE QTY SIGN COLORS DESIGNATION DESCRIPTION ASTM TYPE D11-1 "BIKE ROUTE" SIGN 24"x18" WHITE ON GREEN M4 - 11"BEGIN" SIGN 12"x4" WHITE ON GREEN Ш M4-12 "END" SIGN 12"x4" WHITE ON GREEN 111 R1-1 "STOP" SIGN 18"x18" WHITE ON RED 111 R1-5 "YIELD TO PEDESTRIAN" SIGN 36"x36" RED/BLACK ON WHITE R44A (CA) 12"x24" BLACK ON WHITE "NO MOTOR VEHICLES" SIGN 111 18"x18" W7-5 "HILL" (BICYCLE) SIGN BLACK ON YELLOW 111 _ W3-1 "STOP AHEAD" SYMBOL 18"x18" RED/BLACK ON YELLOW 111 BICYCLE/PEDESTRIAN WARNING 36"x36" BLACK ON YELLOW W11-15 _ 111 W16-7P DIAGONAL DOWNWARD RIGHT ARROW 24"x12" BLACK ON YELLOW 111 DIAGONAL DOWNWARD LEFT ARROW 24"x12" BLACK ON YELLOW W16-7P "AHEAD" SIGN W16-9P 24"x12" BLACK ON YELLOW Ш

- INSTALL DOUBLE SIDED SIGN

PREPARED UNDER THE SUPERVISION OF

AUGUST 9, 2019

DATE:

REGISTERED CIVIL ENGINEER

- REMOVE AND REPLACE

					7
•					/
5					1
5					
4				1	
2					1
2					1
-					1
	NUMBER	DATE	DESCRIPTION	BY	<u> </u>

- "STOP" PAVEMENT MARKING (H=48", W=38") PER CALTRANS RSP A24D (½ SIZE) PLACE 5' ♀ FROM LIMIT LINE
- (D DASHED CENTERLINE STRIPING PER CAMUTCD FIG 9C-2

PAVEMENT STRIPING				
TYPE	E SHEET			
		YELLOW		
		FT		
SOLID YELLOW STRIPING	PD-1	-		
	PD-2	-		
	PD-3	-		
BROKEN YELLOW	PD-1	-		
CENTERLINE STRIPING	PD-2	-		
	PD-3	-		
	TOTAL	-		

PRELIMINARY



PAVEMENT MARKINGS						
SYMBOL DESCRIPTION	QUANTITY (EA)	AREA (SF)	TOTAL AREA (SF)			
CROSSWALK	-	-	-			
LIMIT LINE	-	-	-			
YIELD LINE	-	-	-			
STOP	-	-	-			
TOTAL			-			

APPROVED FOR PAVEMENT DELINEATION AND SIGN WORK ONLY

SAN BERNARDINO CLASS 1 BIKE TRAIL PROJECT	Р D—1
SIGNING AND PAVEMENT DELINEATION	Х оғ ?
	CONTRACT NO. ???? CIP No. 95117

