

RECORD OF SURVEY 23-01023

SHEET 1 OF 4

IN THE COUNTY OF SAN BERNARDINO

BEING A PORTION OF TOWNSHIP 1 SOUTH, RANGES 6 AND 7 WEST,
TOWNSHIP 1 NORTH, RANGES 5 AND 6 WEST, TOWNSHIP 2 NORTH, RANGES 5 AND 6 WEST,
TOWNSHIP 3 NORTH, RANGES 5 AND 6 WEST, TOWNSHIP 4 NORTH, RANGES 4 AND 5 WEST,
TOWNSHIP 5 NORTH, RANGES 4 AND 5 WEST, TOWNSHIP 6 NORTH, RANGES 3 AND 4 WEST,
TOWNSHIP 7 NORTH, RANGES 3 WEST, TOWNSHIP 8 NORTH, RANGES 2 AND 3 WEST,
TOWNSHIP 9 NORTH, RANGES 1 AND 2 WEST, SAN BERNARDINO MERIDIAN,
SAN BERNARDINO COUNTY, STATE OF CALIFORNIA

LEGEND:

- NGS CORS STATION
- PRIMARY CONTROL PER R1
- NGS BENCHMARK
- CALTRANS BENCHMARK PER R2
- FOUND CALTRANS CONTROL
- SET PROJECT CONTROL
- GIS LINES
- SHEET INDEX
- NGS CORS TIE LINES
- NETWORK CONTROL TIE LINE

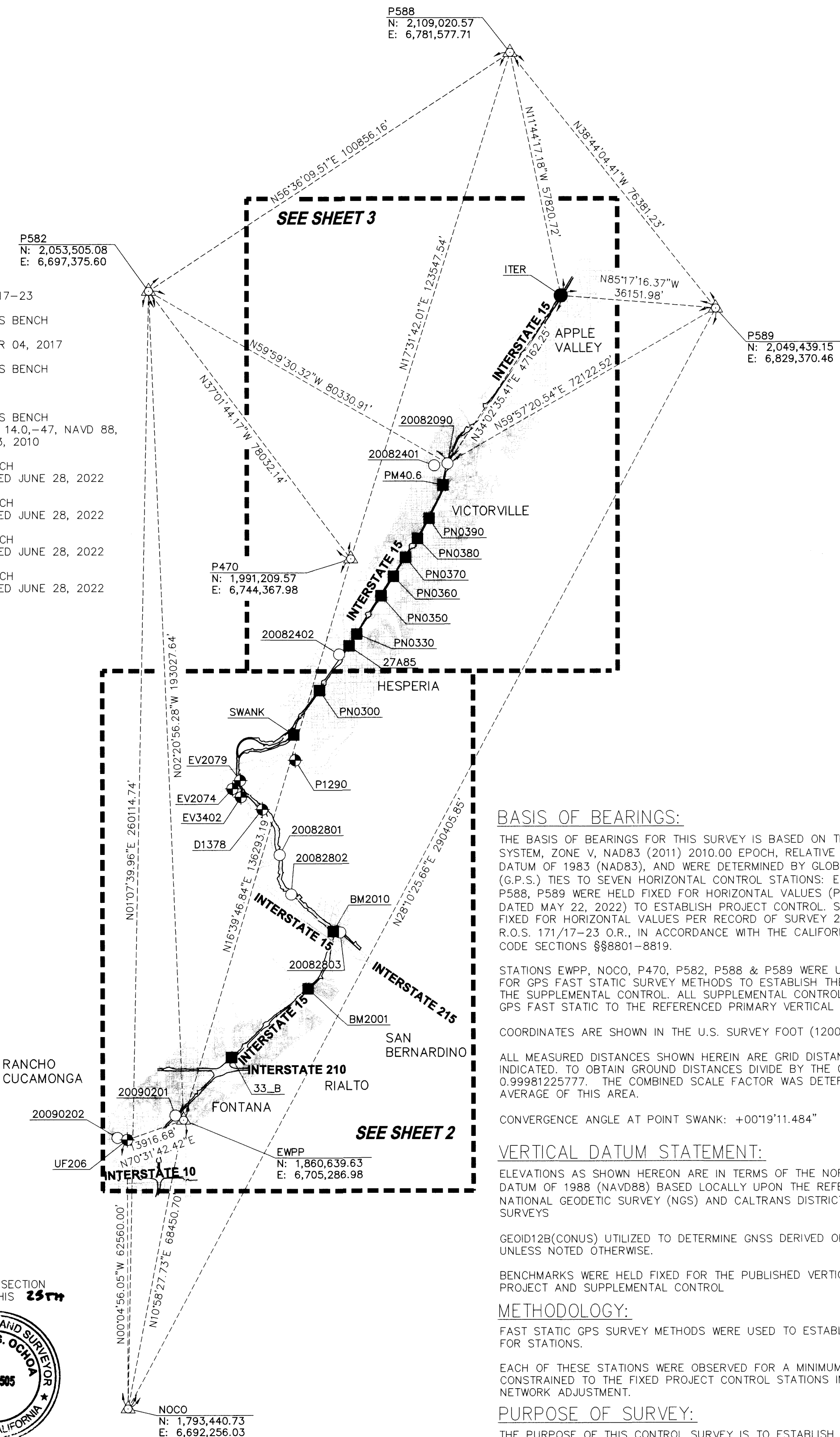
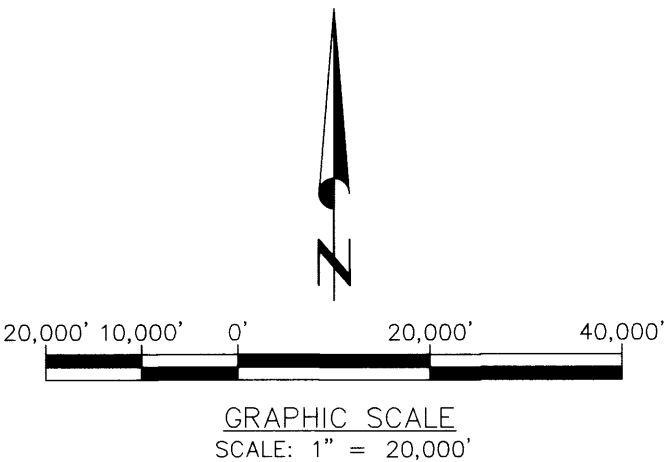
SEAN M. SMITH, PLS 8233

PSOMAS

JULY 2022

REFERENCES:

- R1 - RECORD OF SURVEY 20-0257, R.O.S. 171/17-23
- R2 - PUBLISHED CONTROL VALUES PER CALTRANS BENCH SUMMARY SBD 15 PM 25.5-47, NAVD 88, FILE OK122_BENCHSUM.TXT, DATED OCTOBER 04, 2017
- R3 - PUBLISHED CONTROL VALUES PER CALTRANS BENCH SUMMARY 15 PM 2-14, NAVD 88, FILE 5654SUM_LEV.TXT, DATED JUNE, 2010
- R4 - PUBLISHED CONTROL VALUES PER CALTRANS BENCH SUMMARY SBD 215 PM 14.1 TO SBD 15 PM 14.0,-47, NAVD 88, FILE 567201FINAL.TXT, DATED NOVEMBER 03, 2010
- R5 - PUBLISHED CONTROL VALUES PER NGS BENCH SUMMARY EV2074 DATA SHEETS.HTML, DATED JUNE 28, 2022
- R6 - PUBLISHED CONTROL VALUES PER NGS BENCH SUMMARY EV2079 DATA SHEETS.HTML, DATED JUNE 28, 2022
- R7 - PUBLISHED CONTROL VALUES PER NGS BENCH SUMMARY EV3402 DATA SHEETS.HTML, DATED JUNE 28, 2022
- R8 - PUBLISHED CONTROL VALUES PER NGS BENCH SUMMARY AB8219 DATA SHEETS.HTML, DATED JUNE 28, 2022



BASIS OF BEARINGS:

THE BASIS OF BEARINGS FOR THIS SURVEY IS BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE V, NAD83 (2011) 2010.00 EPOCH, RELATIVE TO THE NORTH AMERICAN DATUM OF 1983 (NAD83), AND WERE DETERMINED BY GLOBAL POSITIONING SYSTEM (G.P.S.) TIES TO SEVEN HORIZONTAL CONTROL STATIONS: EWPP, NOCO, P470, P582, P588, P589 WERE HELD FIXED FOR HORIZONTAL VALUES (PER NGS DATA SHEETS DATED MAY 22, 2022) TO ESTABLISH PROJECT CONTROL. STATION "ITER" WAS HELD FIXED FOR HORIZONTAL VALUES PER RECORD OF SURVEY 20-0257, R.O.S. 171/17-23 O.R., IN ACCORDANCE WITH THE CALIFORNIA PUBLIC RESOURCES CODE SECTIONS §§8801-8819.

STATIONS EWPP, NOCO, P470, P582, P588 & P589 WERE USED AS BASE STATIONS FOR GPS FAST STATIC SURVEY METHODS TO ESTABLISH THE HORIZONTAL POSITION OF THE SUPPLEMENTAL CONTROL. ALL SUPPLEMENTAL CONTROL WAS TIED VERTICALLY BY GPS FAST STATIC TO THE REFERENCED PRIMARY VERTICAL CONTROL NETWORK.

COORDINATES ARE SHOWN IN THE U.S. SURVEY FOOT (1200/3937).

ALL MEASURED DISTANCES SHOWN HEREIN ARE GRID DISTANCES, UNLESS OTHERWISE INDICATED. TO OBTAIN GROUND DISTANCES DIVIDE BY THE COMBINED SCALE FACTOR OF 0.99981225777. THE COMBINED SCALE FACTOR WAS DETERMINED BY A PROJECT AVERAGE OF THIS AREA.

CONVERGENCE ANGLE AT POINT SWANK: +00°19'11.484"

VERTICAL DATUM STATEMENT:

ELEVATIONS AS SHOWN HEREON ARE IN TERMS OF THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) BASED LOCALLY UPON THE REFERENCED BENCHMARKS BY NATIONAL GEODETIC SURVEY (NGS) AND CALTRANS DISTRICT 8 OFFICE OF LAND SURVEYS

GEOD12B(CONUS) UTILIZED TO DETERMINE GNSS DERIVED ORTHOMETRIC HEIGHTS UNLESS NOTED OTHERWISE.

BENCHMARKS WERE HELD FIXED FOR THE PUBLISHED VERTICAL VALUES TO ESTABLISH PROJECT AND SUPPLEMENTAL CONTROL

METHODOLOGY:

FAST STATIC GPS SURVEY METHODS WERE USED TO ESTABLISH HORIZONTAL POSITIONS FOR STATIONS.

EACH OF THESE STATIONS WERE OBSERVED FOR A MINIMUM OF 15 MINUTES AND CONSTRAINED TO THE FIXED PROJECT CONTROL STATIONS IN A LEAST SQUARES NETWORK ADJUSTMENT.

PURPOSE OF SURVEY:

THE PURPOSE OF THIS CONTROL SURVEY IS TO ESTABLISH PROJECT CONTROL TO SUPPORT THE MAPPING OF THE I-15 CORRIDOR FROM DALE EVANS PARKWAY NEAR VICTORVILLE, CA TO A POINT JUST SOUTH OF THE A.T. & S.F. RAILWAY WEST OF THE I-15 CORRIDOR IN RANCHO CUCAMONGA, CA. THE SURVEY CONSISTED OF 28 STATION MONUMENTS AND 6 CORS (CONTINUOUSLY OPERATION REFERENCE STATIONS) STATIONS SPANNING A DISTANCE OF 49 MILES ALONG THE INTERSTATE 15 CORRIDOR IN CONJUNCTION PER R1.

SAN BERNARDINO COUNTY RECORDER'S CERTIFICATE:

THIS MAP HAS BEEN FILED UNDER DOCUMENT NUMBER 2024-0178474
THIS DAY OF July, 2024 AT 3:06 p.m.
IN BOOK 179 OF RECORDS OF SURVEY, AT PAGES 71-74, AT
THE REQUEST OF Brightline West IN THE AMOUNT OF \$ 17.-

CHRIS WILHITE
ASSESSOR-RECORDER
SAN BERNARDINO COUNTY

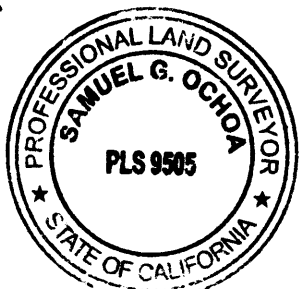
BY: *Ravi Vasquez*
DEPUTY RECORDER

COUNTY SURVEYOR'S STATEMENT:

THIS MAP HAS BEEN EXAMINED IN ACCORDANCE WITH SECTION 8766 OF THE PROFESSIONAL LAND SURVEYORS ACT THIS DAY OF July, 2024.

THOMAS P. HERRIN, COUNTY SURVEYOR
SAN BERNARDINO COUNTY

BY: *[Signature]* DEPUTY
L.S. NO. 9505



SURVEYOR'S STATEMENT:

THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION IN CONFORMANCE WITH THE REQUIREMENTS OF THE PROFESSIONAL LAND SURVEYORS' ACT AT THE REQUEST OF BRIGHTLINE WEST IN JULY, 2022.

[Signature]
SEAN M. SMITH, L.S. NO. 8233



05/30/2024
DATE

NOTE:

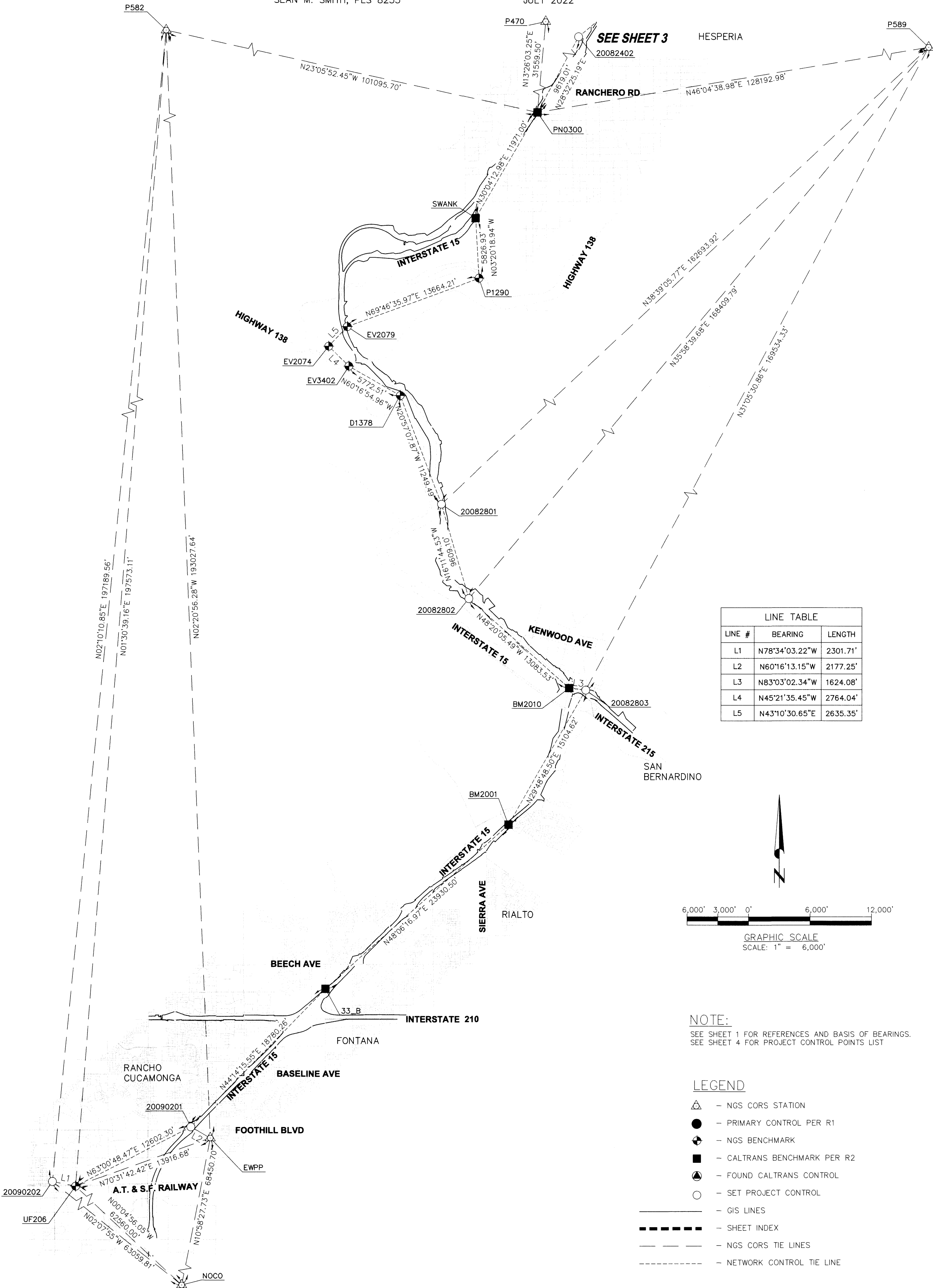
SEE SHEET 4 FOR PROJECT CONTROL POINTS LIST

RECORD OF SURVEY 23-01023

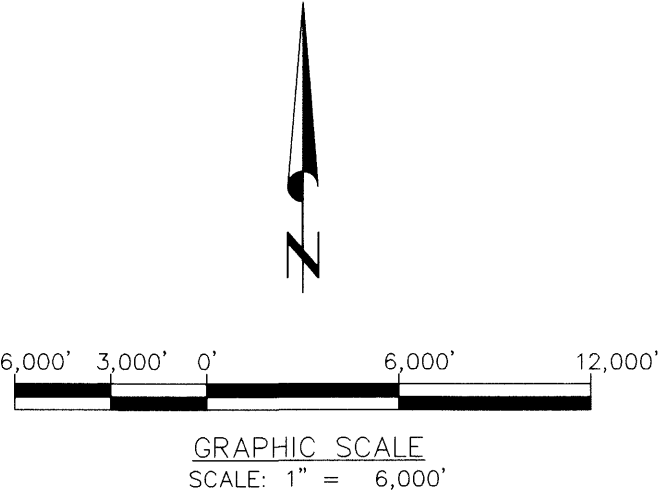
179/72

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SAN BERNARDINO COUNTY, STATE OF CALIFORNIA

SEAN M. SMITH, PLS 8233 PSOMAS JULY 2022



LINE TABLE		
LINE #	BEARING	LENGTH
L1	N78°34'03.22"W	2301.71'
L2	N60°16'13.15"W	2177.25'
L3	N83°03'02.34"W	1624.08'
L4	N45°21'35.45"W	2764.04'
L5	N43°10'30.65"E	2635.35'



NOTE:
SEE SHEET 1 FOR REFERENCES AND BASIS OF BEARINGS.
SEE SHEET 4 FOR PROJECT CONTROL POINTS LIST

LEGEND

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179/72

82/621

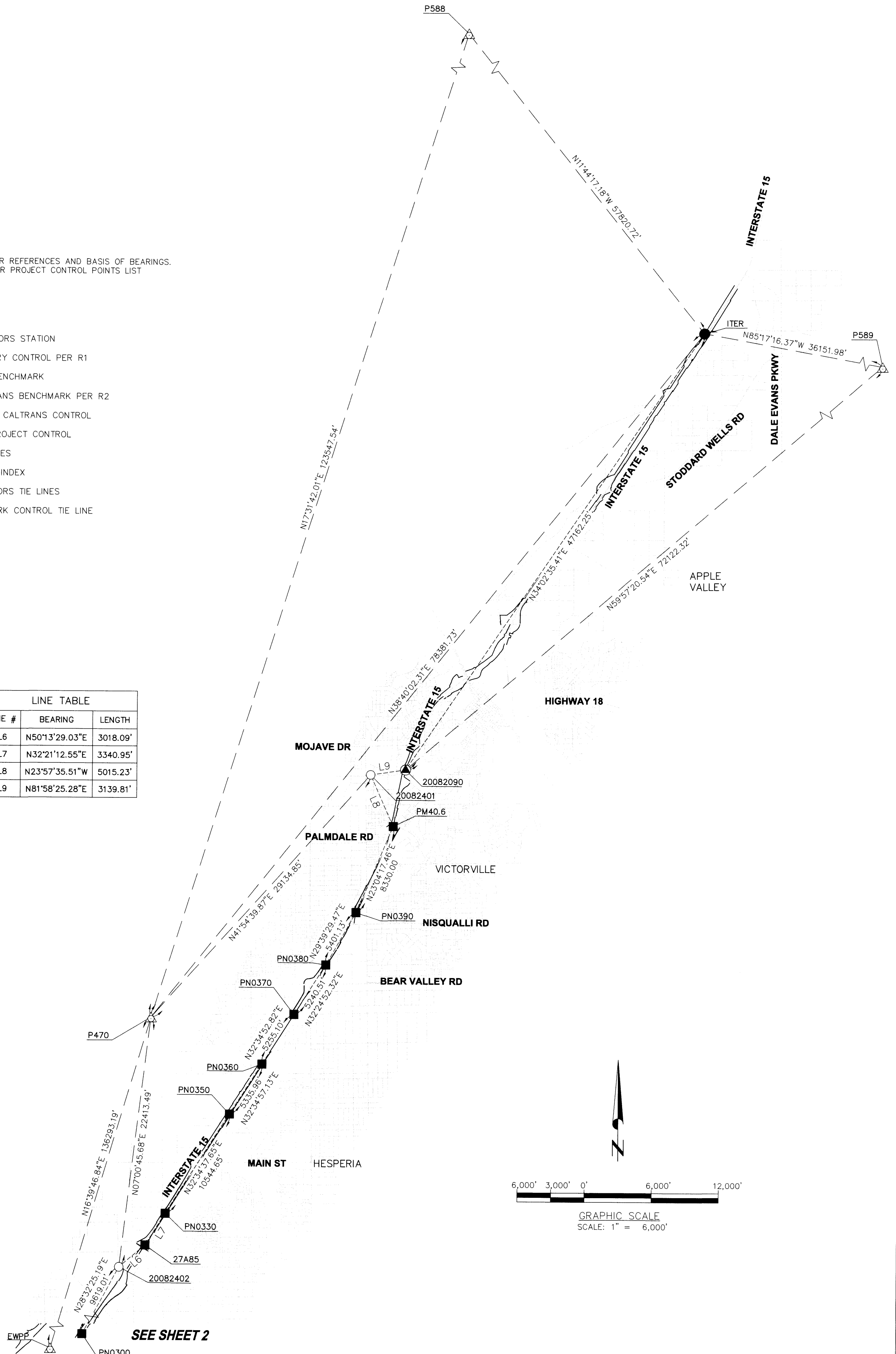
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LINE TABLE		
LINE #	BEARING	LENGTH
L6	N50°13'29.03"E	3018.09'
L7	N32°21'12.55"E	3340.95'
L8	N23°57'35.51"W	5015.23'
L9	N81°58'25.28"E	3139.81'



h-l/b-l

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NOTE:
SEE SHEET 1 FOR CONTROL TABLE REFERENCES
AND BASIS OF BEARINGS.

SEAN M. SMITH, PLS 8233
PSOMAS
JULY 2022

PROJECT CONTROL POINT LIST

POINT IDENTIFICATION	NORTHING	EASTING	ORTHOMETRIC ELEVATION	LATITUDE	LONGITUDE	ELLIPSOID HT.	DESCRIPTION
PRIMARY CONTROL - NGS CORS							
EMPP	--	--	--	34°06'15.10155"	-117°31'32.05852"	1086.60	CORS: EMPP_SCGN_CS1999 CORS ARP
NOCO	--	--	--	33°55'10.93865"	-117°34'10.44334"	615.26	CORS: NORCO COLLEGE CORS ARP
P470	--	--	--	34°27'44.64375"	-117°23'37.95181"	3254.90	CORS: BALDYWESA_CS2004 CORS ARP
P582	--	--	--	34°38'03.31739"	-117°32'55.84555"	2784.53	CORS: EL_MIRAGE_CS2008 CORS ARP
P588	--	--	--	34°47'07.56156"	-117°16'03.30863"	2331.01	CORS: DEVRIERGHCS2005 CORS ARP
P589	--	--	--	34°37'14.38811"	-117°06'36.63381"	3768.92	CORS: BLACKMTORYCS2005 CORS ARP
PRIMARY CONTROL							
ITER	2052409.01	6793340.67	3211.75	34°37'46.70814"	-117°13'47.47882"	3108.08	FD. STD. TRIANGULATION STATION DISK UP 4" FROM GROUND, STAMPED "ITER 1965" PER R1
VERTICAL CONTROL							
27A85	1970894.66	6743951.12	3679.31	--	--	--	FD. CADT BRASS DISK IN CONCRETE FLUSH, STAMPED "BM 27*A*85", DOWN 0.4', 35' EASTERLY OF EP PER R2
33_B	1875174.51	6716498.10	1455.57	--	--	--	FD. MWDSC 3" BRASS DISK W/PUNCH STAMPED "33B 1992" FLUSH IN TOP OF A 15' CONCRETE HEADWALL PER R3
BM2001	1891154.61	6734311.16	2036.37	--	--	--	FD. 2" BRASS DISK IN CONC. STAMPED, "D8-SCN SBD-15 PM 13.4 08.04.08", FLUSH, AKA AE142 PER R3
BM2010	1904456.61	6740208.69	2179.09	--	--	--	FD. 2-1/2" BRASS DISK W/PUNCH "D8-SCN SBD-15 PM 16.3 08 04-08" DN 0.4' IN WELL MONUMENT PER R4
D1378	1932887.65	6723731.88	2958.39	--	--	--	FD. 3" BRASS DISK W/PUNCH ON NLY CORNER OF ABANDONED CONCRETE ABUTMENT STAMPED "D1378 1985 NGS VERTICAL CONTROL MARK", FLUSH PER R3
EV2074	1937691.43	6716751.89	3211.45	--	--	--	FD. STD. USC&GS BRASS DISK IN CONCRETE STAMPED "M516 1956", FLUSH PER R5
EV2079	1939613.30	6718555.08	3270.22	--	--	--	FD. 3-1/2" BRASS DISK W/CROSS PUNCH STAMPED "K2 RESET 1951 USCGS BENCHMARK", FLUSH PER R6
EV3402	1935749.27	6718718.60	3122.51	--	--	--	FD. STD. BRASS DISK STAMPED "USCGS REF. MARK CROSSING Z NO.4 1963", FLUSH PER R7
P1290	1944336.75	6731376.92	3734.50	--	--	--	FD. 3-1/2" BRASS DISK ON POWER TRANSMISSION TOWER LEG BASE STAMPED "VERTICAL CONTROL MARK NGS P1290 1977", FLUSH PER R2
PM40.6	2008308.14	6765866.04	2958.50	--	--	--	FD. CADT BRASS DISK W/PUNCH IN CONCRETE STAMPED "SBD 15-PM40.6 5-16-2012", FLUSH PER R2
PN0300	1960513.63	6737035.79	3935.15	--	--	--	FD. 2" IP WITH CADT BRASS DISK FLUSH IN CONCRETE, 0.4' BELOW NATURAL GROUND STAMPED "D8 SCN SBD 15 PM 30.0 8-2017" PER R2
PN0330	1973716.97	6745739.00	3612.62	--	--	--	FD. 2" IP WITH CADT BRASS DISK FLUSH IN CONCRETE, 0.4' BELOW NATURAL GROUND STAMPED "D8 SCN SBD 15 PM 32.0 8-2017" PER R2
PN0350	1982602.60	6751416.60	3412.71	--	--	--	FD. 2" IP WITH CADT BRASS DISK FLUSH IN CONCRETE, 0.4' BELOW NATURAL GROUND STAMPED "D8 SCN SBD 15 PM 35.0 8-2017" PER R2
PN0360	1987098.77	6754290.09	3307.17	--	--	--	FD. 2" IP WITH CADT BRASS DISK FLUSH IN CONCRETE, 0.4' BELOW NATURAL GROUND STAMPED "D8 SCN SBD 15 PM 36.0 8-2017" PER R2
PN0370	1991526.86	6757119.94	3210.51	--	--	--	FD. 2" IP WITH CADT BRASS DISK FLUSH IN CONCRETE, 0.4' BELOW NATURAL GROUND STAMPED "D8 SCN SBD 15 PM 37.0 8-2017" PER R2
PN0380	1995950.86	6759929.07	3131.74	--	--	--	FD. 2" IP WITH CADT BRASS DISK FLUSH IN CONCRETE, 0.4' BELOW NATURAL GROUND STAMPED "D8 SCN SBD 15 PM 38.0 8-2017" PER R2
PN0390	2000644.40	6762601.68	3047.34	--	--	--	FD. 2" IP WITH CADT BRASS DISK FLUSH IN CONCRETE, 0.4' BELOW NATURAL GROUND STAMPED "D8 SCN SBD 15 PM 39.0 8-2017" PER R2
SWANK	1950153.79	6731037.58	4257.03	--	--	--	FD. 3-1/2" CADH BRASS DISK W/PUNCH STAMPED "CALIFORNIA DIVISION OF HIGHWAYS SWANK 1977" FLUSH IN HEXAGON CONCRETE PER R2
UF206	1856000.66	6692166.24	1114.07	--	--	--	FD. 3" BRASS DISK W/PUNCH ON TOP OF CONCRETE WALL FLUSH STAMPED "METROPOLITAN WATER DISTRICT UF 206 1994" PER R8
PROJECT CONTROL							
20090202	1856456.89	6689910.20	1123.25	--	--	--	SET 1" IRON PIPE W/PLASTIC PLUG & TACK STAMPED "PSOMAS CONTROL", FLUSH
20090201	1861719.35	6703396.31	1228.81	--	--	--	SET 1" IRON PIPE W/PLASTIC PLUG & TACK STAMPED "PSOMAS CONTROL", FLUSH
20082803	1904260.11	6741820.84	2140.85	--	--	--	SET 5/8" REBAR W/PLASTIC PLUG STAMPED "PSOMAS CONTROL", FLUSH
20082802	1913154.23	6730434.73	2667.94	--	--	--	SET 5/8" REBAR W/PLASTIC PLUG STAMPED "PSOMAS CONTROL", FLUSH
20082801	1922381.99	6727754.57	2855.35	--	--	--	SET 1" IRON PIPE W/PLASTIC PLUG & TACK STAMPED "PSOMAS CONTROL", FLUSH
20082402	1968963.75	6741631.54	3718.79	--	--	--	SET MAG NAIL & WASHER STAMPED "PSOMAS CONTROL", FLUSH
20082401	2012891.21	6763829.37	2940.37	--	--	--	SET MAG NAIL & WASHER STAMPED "PSOMAS CONTROL", FLUSH
20082090	2013329.62	6766938.43	2929.41	--	--	--	FD. 1" IRON PIPE W/PLASTIC PLUG STAMPED "CALTRANS CONTROL" DN 0.4', NO REFERENCE

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