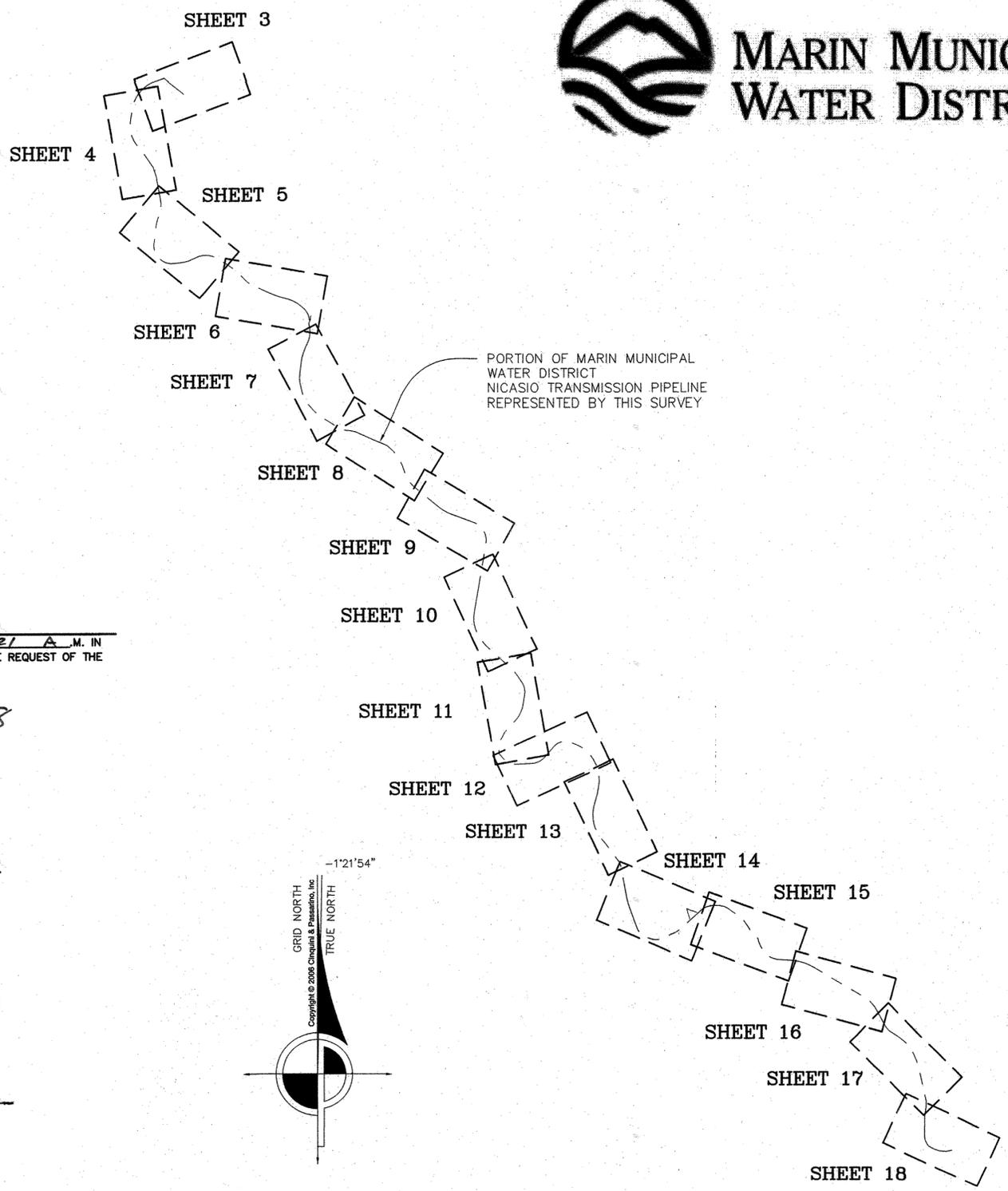
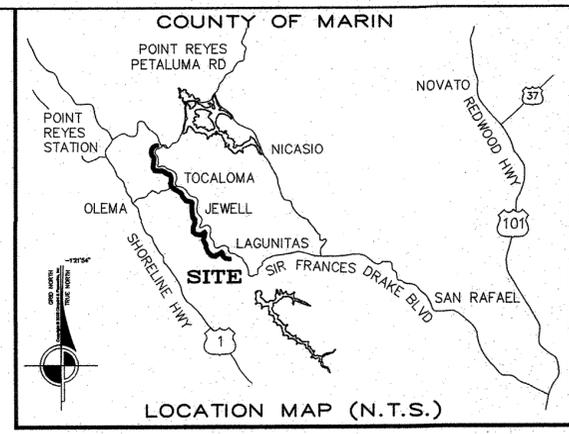




MARIN MUNICIPAL WATER DISTRICT



COUNTY SURVEYORS NOTE
CLOSURE CALCULATIONS AND REFERENCES TO RECORD DIMENSIONS FOR THE TRAVERSE FROM FOUND MONUMENTS TO THE PIPELINE EASEMENT ON PAGE 3, 6, AND 11 WERE NOT PROVIDED TO THIS OFFICE FOR REVIEW. CALCULATIONS USED IN THE BOUNDARY ADJUSTMENT METHOD TO DETERMINE THE SCALE FACTOR AND ROTATION WERE ALSO NOT PROVIDED. PURSUANT TO THIS, THE COUNTY SURVEYOR'S OFFICE WAS UNABLE TO REVIEW THE ACCURACY OF MATHEMATICAL DATA SPECIFICALLY RELATED TO THESE ITEMS AS REQUIRED BY SECTION 8766(A)(1) OF THE BUSINESS AND PROFESSIONS CODE.

SURVEYORS RESPONSE NOTE
INFORMATION FOR THE REQUIRED MAP CHECKING WAS PROVIDED WHICH WAS NEEDED TO REVIEW THIS MAP. THE RECORDS FOR THIS PROJECT ARE HARD TO READ AND FOLLOW. THE TRAVERSE BEING THE EASEMENT LINE THAT WAS RETRACED WAS LABELED WITH THE MEASURED AND RECORD INFORMATION FOR THE LINE AND SHOULD PROVIDE THE NEEDED INFORMATION TO DO A REVIEW.

RECORDER'S STATEMENT

FILED THIS 17 DAY OF JUNE, 2019, AT 9:21 A.M. IN BOOK 2019 OF MAPS AT PAGE(S) 36 AT THE REQUEST OF THE COUNTY SURVEYOR.

Shelly Scott COUNTY RECORDER DOC. NO. 2019-0020778
A.R. Scheto DEPUTY COUNTY RECORDER FEES \$ 122.00

COUNTY SURVEYOR'S STATEMENT

THIS MAP HAS BEEN EXAMINED IN ACCORDANCE WITH SECTION 8766 OF THE PROFESSIONAL LAND SURVEYORS' ACT THIS 11 DAY OF JUNE, 2019.

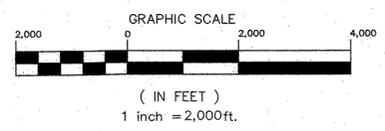
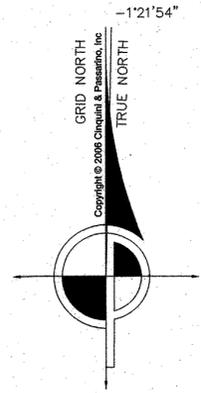
TRACY PARK, COUNTY SURVEYOR
[Signature]
DEPUTY COUNTY SURVEYOR



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 SURVEYOR'S ACT AT THE REQUEST OF KEITH VINCENT IN AUGUST 2016.

[Signature] JAMES M. DICKEY (LS 7835) EXP. DATE 12/31/19
6/10/19
DATE: _____



BASIS OF BEARINGS
THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83, EPOCH 2011.00 AS DETERMINED LOCALLY BY A LINE BETWEEN CONTINUOUS GLOBAL POSITIONING SYSTEMS (CGPS) STATION TIBB AND STATION P194; BEING NORTH 43°22'29\" WEST AS DERIVED FROM GEODETIC VALUES PUBLISHED BY THE CALIFORNIA SPATIAL REFERENCE CENTER (CSRC).

NOTES

ALL DISTANCES AND DIMENSIONS ARE IN FEET AND DECIMALS THEREOF. ALL DISTANCES ARE GRID VALUES, USE THE APPROPRIATE COMBINATION FACTOR TO CONVERT TO GROUND DISTANCES (SEE SHEET 19 & 20 FOR VALUES).
GRID MAPPING ANGLE SHOWN IS BASED AT CONTROL POINT NUMBER 18. ROADS AND CREEKS ARE FOR GRAPHICAL DEPICTION ONLY.
ADJOINER PROPERTY LINES SHOWN WITHOUT MONUMENT TIES ARE FOR GRAPHICAL DEPICTION ONLY.

RECORD OF SURVEY

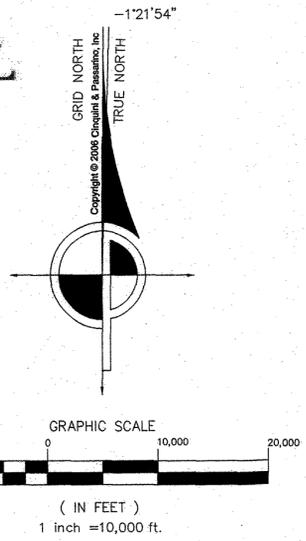
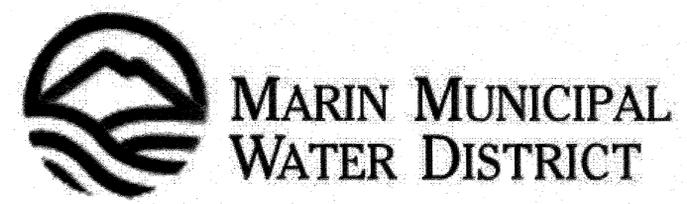
EASEMENT RETRACEMENT SURVEY FOR THE MARIN MUNICIPAL WATER DISTRICT NICASIO TRANSMISSION LINE SURVEY PROJECT

COUNTY OF MARIN STATE OF CALIFORNIA
MAY 2018 SCALE: 1" = 2000'



CINQUINI & PASSARINO, INC.
LAND SURVEYING

▲ BOUNDARY 1360 No. Dutton Ave.
▲ TOPOGRAPHIC Santa Rosa, Ca. 95401
▲ CONSTRUCTION Phone: (707) 542-6268
▲ SUBDIVISIONS Fax: (707) 542-2106
WWW.CINQUINIPASSARINO.COM



Code	Station Name	NADLat_sig (ft 95%)	NADLong_sig (ft 95%)	NADhght_sig (ft 95%)
p194	WalkerCrk_CN2007	0.0027	0.0027	0.0096
ptrb	Point Reyes Lighthouse	0.0010	0.0013	0.0038
tibb	Tiburon Peninsula	0.0014	0.0016	0.0059
svin	St Vincents	0.0011	0.0011	0.0041

BASIS OF BEARINGS
 THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83, EPOCH 2011.00 AS DETERMINED LOCALLY BY A LINE BETWEEN CONTINUOUS GLOBAL POSITIONING SYSTEMS (CGPS) STATION TIBB AND STATION P194; BEING NORTH 43°22'29" WEST AS DERIVED FROM GEODETIC VALUES PUBLISHED BY THE CALIFORNIA SPATIAL REFERENCE CENTER (CSRC).

NOTES
 ALL DISTANCES AND DIMENSIONS ARE IN FEET AND DECIMALS THEREOF.
 ALL DISTANCES ARE GRID VALUES, USE THE APPROPRIATE COMBINATION FACTOR TO CONVERT TO GROUND DISTANCES.
 GRID MAPPING ANGLE SHOWN IS BASED AT CONTROL POINT NUMBER 18. ROADS AND CREEKS ARE FOR GRAPHICAL DEPICTION ONLY.
 ADJOINER PROPERTY LINES SHOWN WITHOUT MONUMENT TIES ARE FOR GRAPHICAL DEPICTION ONLY.

LEGEND
 * SET 3/4" IRON PIPE & 2" ALUMINUM CAP STAMPED "MARIN MUNICIPAL WATER DISTRICT NACASIO CONTROL NO."
 ■ CONTINUOUSLY OPERATING REFERENCE STATION VALUES BASED ON CALIFORNIA'S SPATIAL REFERENCE CENTER ADJUSTMENT SEE SHEET 20 FOR VALUES

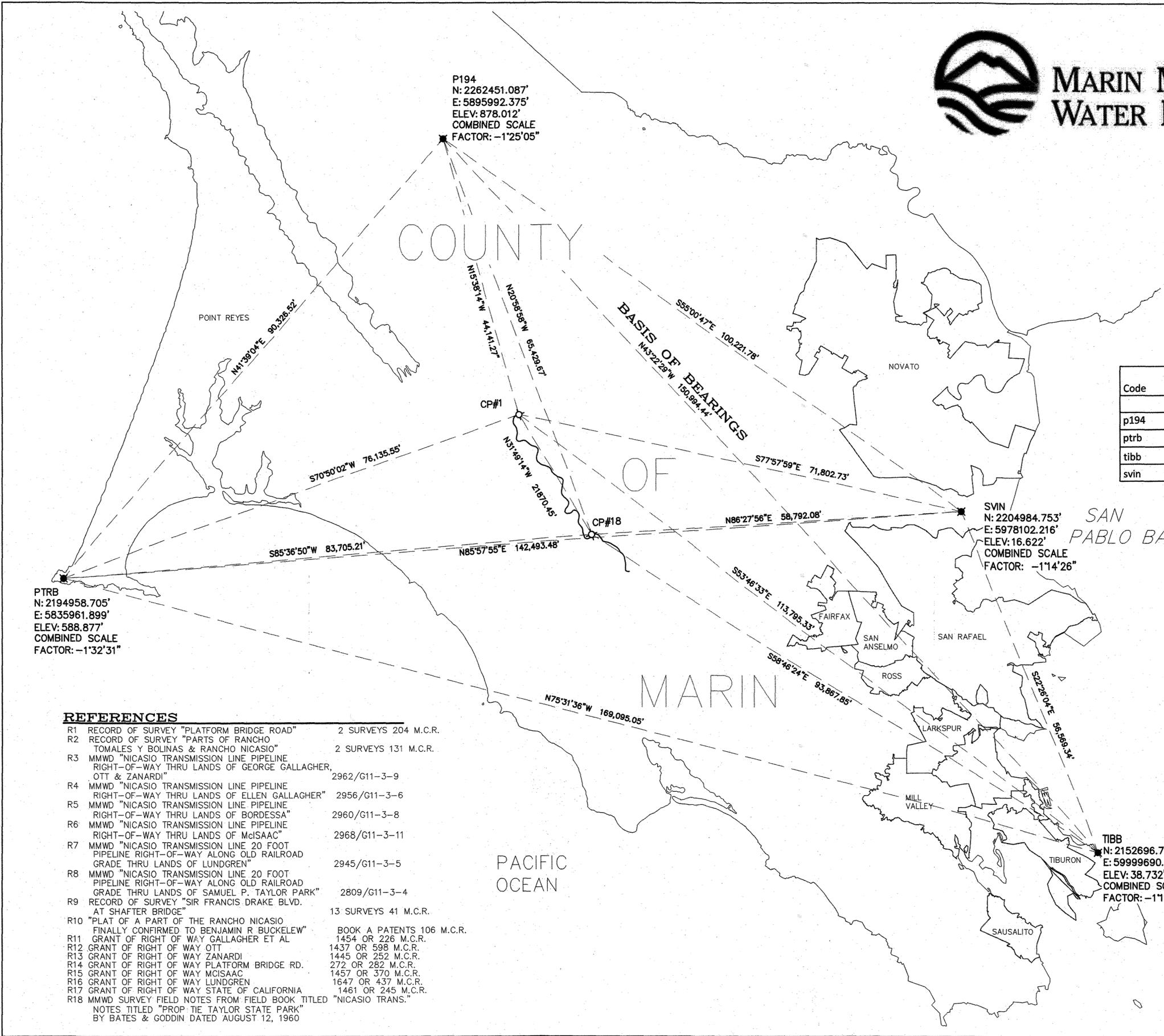
RECORD OF SURVEY

EASEMENT RETRACEMENT SURVEY FOR THE
 MARIN MUNICIPAL WATER DISTRICT
 NICASIO TRANSMISSION LINE SURVEY PROJECT

COUNTY OF MARIN STATE OF CALIFORNIA
 DATE: OCTOBER 2015 SCALE: 1" = 10,000'

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PTRB
 N: 2194958.705'
 E: 5835961.899'
 ELEV: 588.877'
 COMBINED SCALE
 FACTOR: -1'32'31"

P194
 N: 2262451.087'
 E: 5895992.375'
 ELEV: 878.012'
 COMBINED SCALE
 FACTOR: -1'25'05"

SVIN
 N: 2204984.753'
 E: 5978102.216'
 ELEV: 16.622'
 COMBINED SCALE
 FACTOR: -1'14'26"

TIBB
 N: 2152696.754'
 E: 59999690.528'
 ELEV: 38.732'
 COMBINED SCALE
 FACTOR: -1'11'33"

REFERENCES

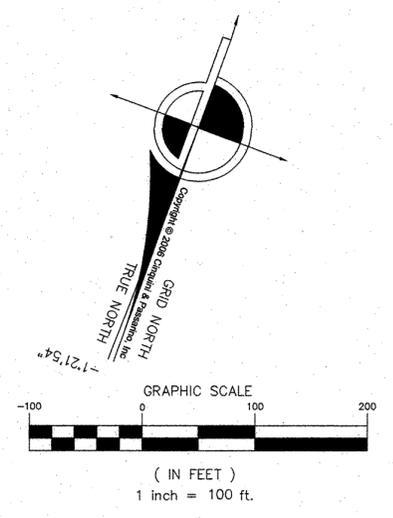
- R1 RECORD OF SURVEY "PLATFORM BRIDGE ROAD" 2 SURVEYS 204 M.C.R.
- R2 RECORD OF SURVEY "PARTS OF RANCHO TOMALES Y BOLINAS & RANCHO NICASIO" 2 SURVEYS 131 M.C.R.
- R3 MMWD "NICASIO TRANSMISSION LINE PIPELINE RIGHT-OF-WAY THRU LANDS OF GEORGE GALLAGHER, OTT & ZANARDI" 2962/G11-3-9
- R4 MMWD "NICASIO TRANSMISSION LINE PIPELINE RIGHT-OF-WAY THRU LANDS OF ELLEN GALLAGHER" 2956/G11-3-6
- R5 MMWD "NICASIO TRANSMISSION LINE PIPELINE RIGHT-OF-WAY THRU LANDS OF BORDESSA" 2960/G11-3-8
- R6 MMWD "NICASIO TRANSMISSION LINE PIPELINE RIGHT-OF-WAY THRU LANDS OF McISAAC" 2968/G11-3-11
- R7 MMWD "NICASIO TRANSMISSION LINE 20 FOOT PIPELINE RIGHT-OF-WAY ALONG OLD RAILROAD GRADE THRU LANDS OF LUNDGREN" 2945/G11-3-5
- R8 MMWD "NICASIO TRANSMISSION LINE 20 FOOT PIPELINE RIGHT-OF-WAY ALONG OLD RAILROAD GRADE THRU LANDS OF SAMUEL P. TAYLOR PARK" 2809/G11-3-4
- R9 RECORD OF SURVEY "SIR FRANCIS DRAKE BLVD. AT SHAFTER BRIDGE" 13 SURVEYS 41 M.C.R.
- R10 "PLAT OF A PART OF THE RANCHO NICASIO FINALLY CONFIRMED TO BENJAMIN R. BUCKELEW" BOOK A PATENTS 106 M.C.R.
- R11 GRANT OF RIGHT OF WAY GALLAGHER ET AL 1454 OR 226 M.C.R.
- R12 GRANT OF RIGHT OF WAY OTT 1437 OR 598 M.C.R.
- R13 GRANT OF RIGHT OF WAY ZANARDI 1445 OR 252 M.C.R.
- R14 GRANT OF RIGHT OF WAY PLATFORM BRIDGE RD. 272 OR 282 M.C.R.
- R15 GRANT OF RIGHT OF WAY McISAAC 1457 OR 370 M.C.R.
- R16 GRANT OF RIGHT OF WAY LUNDGREN 1647 OR 437 M.C.R.
- R17 GRANT OF RIGHT OF WAY STATE OF CALIFORNIA 1461 OR 245 M.C.R.
- R18 MMWD SURVEY FIELD NOTES FROM FIELD BOOK TITLED "NICASIO TRANS." NOTES TITLED "PROP TIE TAYLOR STATE PARK" BY BATES & GODDIN DATED AUGUST 12, 1960

MMWD NICASIO TRANSMISSION LINE		
Line #	Bearing	Distance
L1	N52°00'05"W	564.83'
L2	S72°28'46"W	184.83'

COURSES OF RECORD PER R3, R11, R12 & R13		
Line #	Bearing	Distance
L101	N51°56'36"W	564.74'
L102	S72°32'14"W	184.80'

MMWD NICASIO TRANSMISSION LINE			
Curve #	Radius	Delta	Distance
C1	764.07'	64°07'13"	855.07'

COURSES OF RECORD PER R3 & R11			
Curve #	Radius	Delta	Distance
C101	763.94'	64°07'13"	854.93'



HELD CALCULATED POSITION OF EC (STA) 105+45.83 PER R1 FOR GRANT BOUNDARY ADJUSTMENT METHOD ALONG R1 FOR MONUMENTS WHICH HAVE BEEN DESTROYED

FORMER LANDS OF LOUIS ZANARDI 498 OR 280 MMWD EASEMENT 1445 OR 252

FORMER LANDS OF FRANK OTT 569 OR 50 MMWD EASEMENT 1437 OR 598

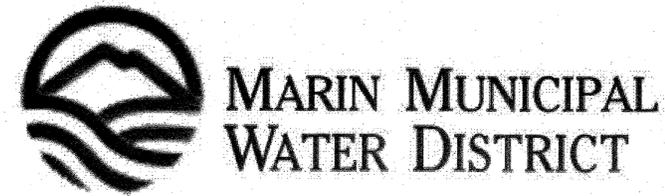
LANDS OF GALLAGHER FAMILY LLC ET AL. DN 15-043930 APN 119-050-17

FORMER LANDS OF GEORGE GALLAGHER 759 OR 272 MMWD EASEMENT 1454 OR 226

CONTROL POINT TRAVERSE DATA		
Points	Bearings	Distance
1-103	S72°26'58"W	448.35'
103-102	S59°29'17"W	202.08'
102-101	S43°07'25"W	223.96'

NOTES
 ALL DISTANCES AND DIMENSIONS ARE IN FEET AND DECIMALS THEREOF.
 ALL DISTANCES ARE GRID VALUES, USE THE APPROPRIATE COMBINATION FACTOR TO CONVERT TO GROUND DISTANCES.
 GRID MAPPING ANGLE IS TAKEN AT CONTROL POINT NUMBER 18.
 ADJOINER PROPERTY LINES SHOWN WITHOUT MONUMENT TIES ARE FOR GRAPHICAL DEPICTION ONLY

- LEGEND**
- SET 3/4" IRON PIPE WITH 2" ALUMINUM CAP STAMPED "MMWD NICASIO CONTROL NO#"
 - ⊙ SET 2" ALUMINUM DISK STAMPED "MMWD NICASIO CONTROL NO#" RECESSED IN ASPHALT PAVEMENT
 - △ SET MAG NAIL AND 2" BRASS WASHER STAMPED "MMWD NICASIO CONTROL NO#"
 - FOUND BRASS DISK IN STANDARD MONUMENT WELL AS NOTED
 - FOUND MONUMENT AS NOTED
 - (R) RADIAL
 - MARIN WATER DISTRICT EASEMENT CENTERLINE
 - - - MARIN WATER DISTRICT EASEMENT
 - CREEK
 - MAJOR ROADWAYS
 - SEARCH FOR NOT FOUND



CINQUINI & PASSARINO, INC.
LAND SURVEYING

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 Santa Rosa, Ca. 95401
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RECORD OF SURVEY
 EASEMENT RETRACEMENT SURVEY FOR THE
 MARIN MUNICIPAL WATER DISTRICT
 NICASIO TRANSMISSION LINE SURVEY PROJECT
 COUNTY OF MARIN STATE OF CALIFORNIA
 OCTOBER 2015 SCALE: AS SHOWN

Points	Bearing	Distance
101-2	S25°49'09"W	285.93'
2-3	S07°09'06"W	489.28'
3-104	S19°49'31"W	265.71'
104-105	S35°42'56"E	824.96'
105-106	S11°32'51"E	662.94'

PLATFORM BRIDGE ROAD

LAGUNITAS CREEK

20' PIPELINE RIGHT OF WAY

MATCHLINE SEE SHEET 3

MATCHLINE SEE SHEET 5

#255 FOUND 6" CONC. MON. IN MONUMENT WELL WITH BRASS PIN WITH NO TAG PER R1

#105

#101

#2

#3

#104

LANDS OF GALLAGHER FAMILY LLC ET AL.
DN 15-043930
APN 119-050-17

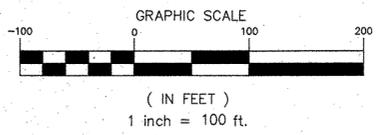
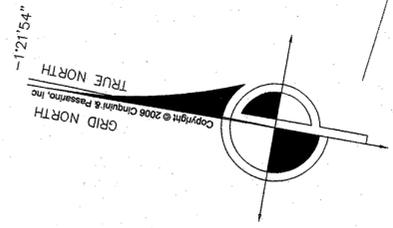
FORMER LANDS OF GEORGE GALLAGHER 759 OR 272
MMWD EASEMENT 1454 OR 226

LANDS OF UNITED STATES OF AMERICA
GOLDEN GATE NATIONAL RECREATION AREA
APN 166-010-26 & 05

FORMER LANDS OF ELLEN GALLAGHER 315 OR 341
MMWD EASEMENT 1454 OR 226
DN87-82337

LANDS OF UNITED STATES OF AMERICA
GOLDEN GATE NATIONAL RECREATION AREA
APN 166-010-24 & -07

FORMER LANDS OF RICO BORDESSA 982 OR 613
MMWD EASEMENT 1451 OR 370
DN89-01210



LEGEND

- SET 3/4" IRON PIPE WITH 2" ALUMINUM CAP STAMPED "MMWD NICASIO CONTROL NO"
- ⊙ SET 2" ALUMINUM CAP STAMPED "MMWD NICASIO CONTROL NO" RECESSED IN ASPHALT PAVEMENT
- △ SET MAG NAIL AND 2" BRASS WASHER STAMPED "MMWD NICASIO CONTROL NO"
- FOUND BRASS DISK IN STANDARD MONUMENT WELL AS NOTED
- FOUND MONUMENT AS NOTED
- (R) RADIAL
- MARIN WATER DISTRICT EASEMENT CENTERLINE
- MARIN WATER DISTRICT EASEMENT
- CREEK
- MAJOR ROADWAYS



MARIN MUNICIPAL WATER DISTRICT



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Phone: (707) 542-6268
Fax: (707) 542-2106
WWW.CINQUINIPASSARINO.COM

MMWD NICASIO TRANSMISSION LINE		
Line #	Bearing	Distance
L3	S08°21'33"W	43.10'
L4	S08°21'33"W	246.55'
L5	S37°50'24"E	293.51'
L6	S35°03'29"E	340.06'
L7	S18°51'37"E	203.14'
L8	S10°09'58"E	548.57'

MMWD NICASIO TRANSMISSION LINE			
Curve #	Radius	Delta	Distance
C2	636.73'	35°58'16"	399.75'
C3	636.73'	10°13'41"	113.66'

COURSES OF RECORD PER R3, R11, R12 & R13		
Line #	Bearing	Distance
L103	S08°25'02"W	43.09'

COURSES OF RECORD PER R4		
Line #	Bearing	Length
L104	S08°25'02"W	246.51'

COURSES OF RECORD PER R5 & R14		
Line #	Bearing	Length
L105	S37°46'55"E	293.46'
L106	S35°00'00"E	340.00'
L107	S18°48'08"E	203.11'
L108	S10°06'29"E	548.48'

COURSES OF RECORD PER R4			
Curve #	Radius	Delta	Length
C102	636.62'	35°58'16"	399.68'

COURSES OF RECORD PER R5 & R14			
Curve #	Radius	Delta	Length
C103	636.62'	10°13'41"	113.65'

NOTES

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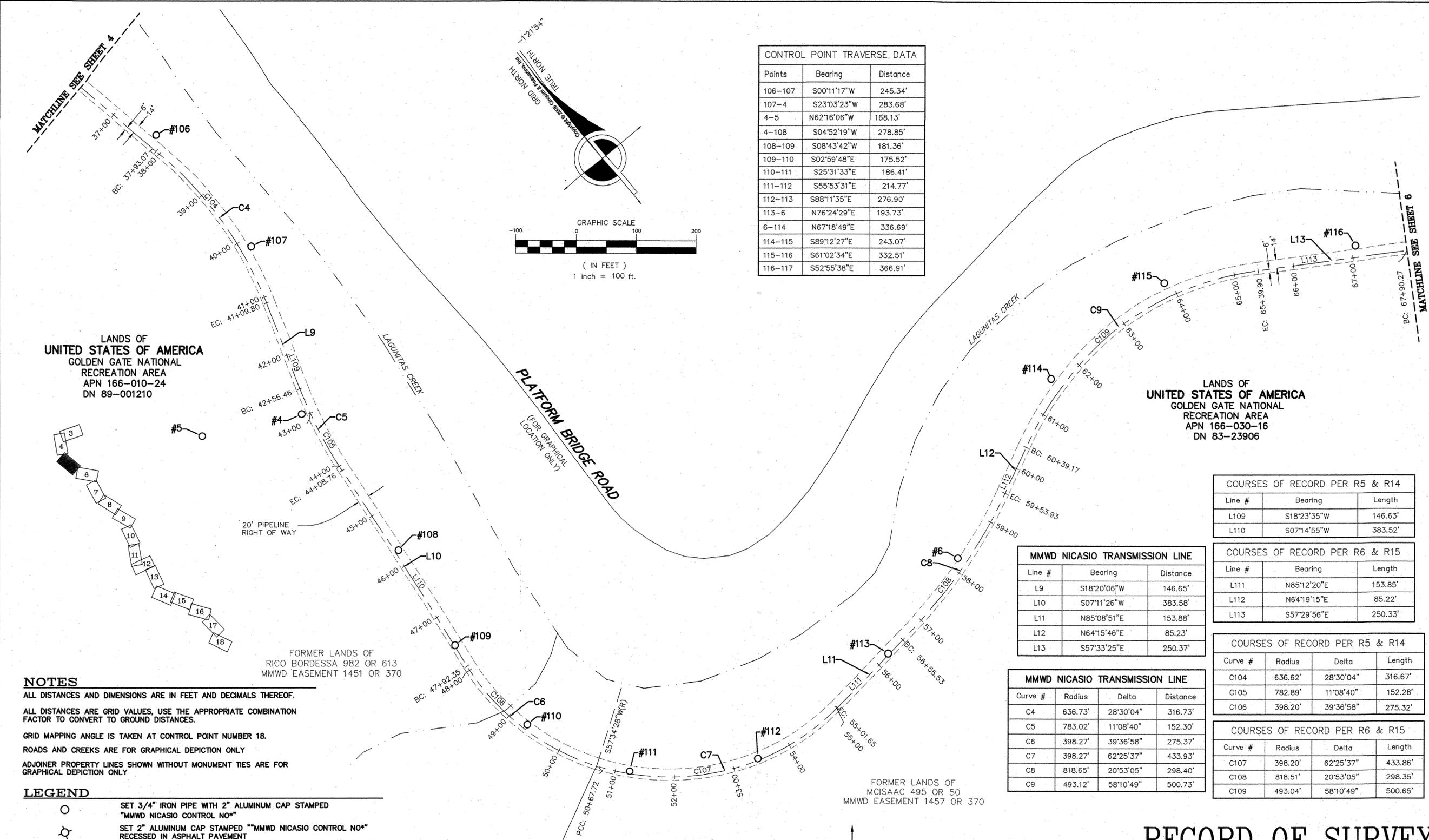
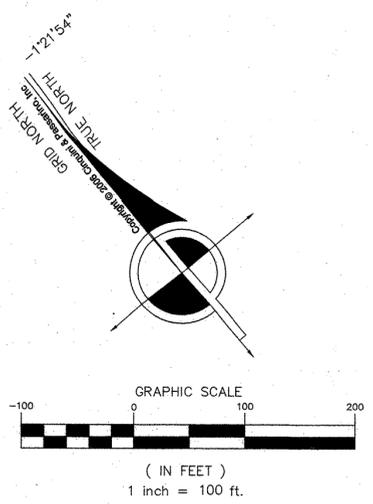
RECORD OF SURVEY

EASEMENT RETRACEMENT SURVEY FOR THE
MARIN MUNICIPAL WATER DISTRICT
NICASIO TRANSMISSION LINE SURVEY PROJECT

COUNTY OF MARIN STATE OF CALIFORNIA
OCTOBER 2015 SCALE: 1" = 100'

CONTROL POINT TRAVERSE DATA

Points	Bearing	Distance
106-107	S00°11'17"W	245.34'
107-4	S23°03'23"W	283.66'
4-5	N62°16'06"W	168.13'
4-108	S04°52'19"W	278.85'
108-109	S08°43'42"W	181.36'
109-110	S02°59'48"E	175.52'
110-111	S25°31'33"E	186.41'
111-112	S55°53'31"E	214.77'
112-113	S88°11'35"E	276.90'
113-6	N76°24'29"E	193.73'
6-114	N67°18'49"E	336.69'
114-115	S89°12'27"E	243.07'
115-116	S61°02'34"E	332.51'
116-117	S52°55'38"E	366.91'



LANDS OF UNITED STATES OF AMERICA
GOLDEN GATE NATIONAL RECREATION AREA
APN 166-010-24
DN 89-001210

LANDS OF UNITED STATES OF AMERICA
GOLDEN GATE NATIONAL RECREATION AREA
APN 166-030-16
DN 83-23906

FORMER LANDS OF RICO BORDESSA 982 OR 613
MMWD EASEMENT 1451 OR 370

FORMER LANDS OF MCISAAC 495 OR 50
MMWD EASEMENT 1457 OR 370

NOTES
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- LEGEND**
- SET 3/4" IRON PIPE WITH 2" ALUMINUM CAP STAMPED "MMWD NICASIO CONTROL NO"
 - ⊙ SET 2" ALUMINUM CAP STAMPED "MMWD NICASIO CONTROL NO" RECESSED IN ASPHALT PAVEMENT
 - △ SET MAG NAIL AND 2" BRASS WASHER STAMPED "MMWD NICASIO CONTROL NO"
 - FOUND BRASS DISK IN STANDARD MONUMENT WELL AS NOTED
 - FOUND MONUMENT AS NOTED
 - (R) RADIAL
 - MARIN WATER DISTRICT EASEMENT CENTERLINE
 - - - MARIN WATER DISTRICT EASEMENT
 - CREEK
 - MAJOR ROADWAYS

COURSES OF RECORD PER R5 & R14

Line #	Bearing	Length
L109	S18°23'35"W	146.63'
L110	S07°14'55"W	383.52'

COURSES OF RECORD PER R6 & R15

Line #	Bearing	Length
L111	N85°12'20"E	153.85'
L112	N64°19'15"E	85.22'
L113	S57°29'56"E	250.33'

COURSES OF RECORD PER R5 & R14

Curve #	Radius	Delta	Length
C104	636.62'	28°30'04"	316.67'
C105	782.89'	11°08'40"	152.28'
C106	398.20'	39°36'58"	275.32'

COURSES OF RECORD PER R6 & R15

Curve #	Radius	Delta	Length
C107	398.20'	62°25'37"	433.86'
C108	818.51'	20°53'05"	298.35'
C109	493.04'	58°10'49"	500.65'

MMWD NICASIO TRANSMISSION LINE

Line #	Bearing	Distance
L9	S18°20'06"W	146.65'
L10	S07°11'26"W	383.58'
L11	N85°08'51"E	153.88'
L12	N64°15'46"E	85.23'
L13	S57°33'25"E	250.37'

MMWD NICASIO TRANSMISSION LINE

Curve #	Radius	Delta	Distance
C4	636.73'	28°30'04"	316.73'
C5	783.02'	11°08'40"	152.30'
C6	398.27'	39°36'58"	275.37'
C7	398.27'	62°25'37"	433.93'
C8	818.65'	20°53'05"	298.40'
C9	493.12'	58°10'49"	500.73'



MARIN MUNICIPAL WATER DISTRICT

CINQUINI & PASSARINO, INC.
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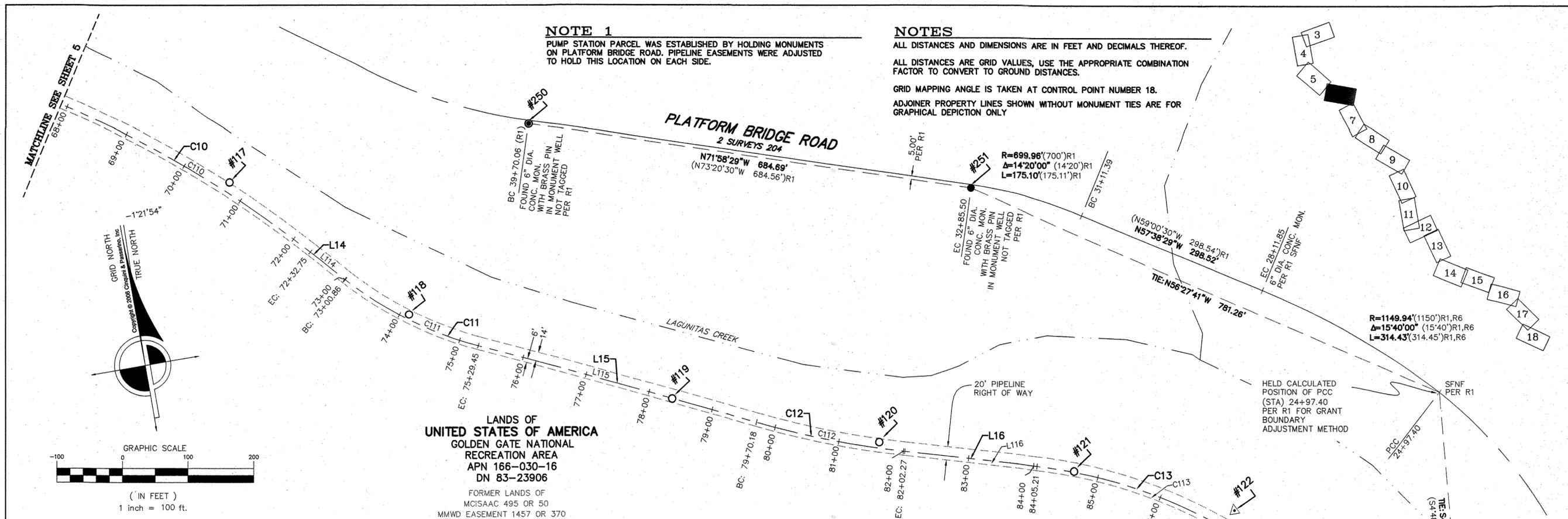
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RECORD OF SURVEY
EASEMENT RETRACEMENT SURVEY FOR THE
MARIN MUNICIPAL WATER DISTRICT
NICASIO TRANSMISSION LINE SURVEY PROJECT

COUNTY OF MARIN STATE OF CALIFORNIA
OCTOBER 2015 SCALE: 1" = 100'

NOTE 1
 PUMP STATION PARCEL WAS ESTABLISHED BY HOLDING MONUMENTS ON PLATFORM BRIDGE ROAD. PIPELINE EASEMENTS WERE ADJUSTED TO HOLD THIS LOCATION ON EACH SIDE.

NOTES
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LANDS OF UNITED STATES OF AMERICA
 GOLDEN GATE NATIONAL RECREATION AREA
 APN 166-030-16
 DN 83-23906
 FORMER LANDS OF MCISAAC 495 OR 50
 MMWD EASEMENT 1457 OR 370

MMWD NICASIO TRANSMISSION LINE

Line #	Bearing	Distance
L14	S41°49'06"E	68.11'
L15	S64°40'26"E	440.72'
L16	S73°57'22"E	202.94'
L17	S49°36'45"E	86.94'
L18*	S09°44'43"E	60.00'
L19*	S18°15'17"W	57.51'
L20*	S09°44'43"E	110.00'

COURSES OF RECORD PER R6 & R15

Line #	Bearing	Length
L114	S41°45'37"E	68.10'
L115	S64°36'57"E	440.65'
L116	S73°53'53"E	202.91'
L117	S49°33'16"E	86.82'
L118*	N09°45'00"W	60.00'
L119*	S18°15'00"W	57.51'
L120*	S09°45'00"E	110.00'

CONTROL POINT TRAVERSE DATA

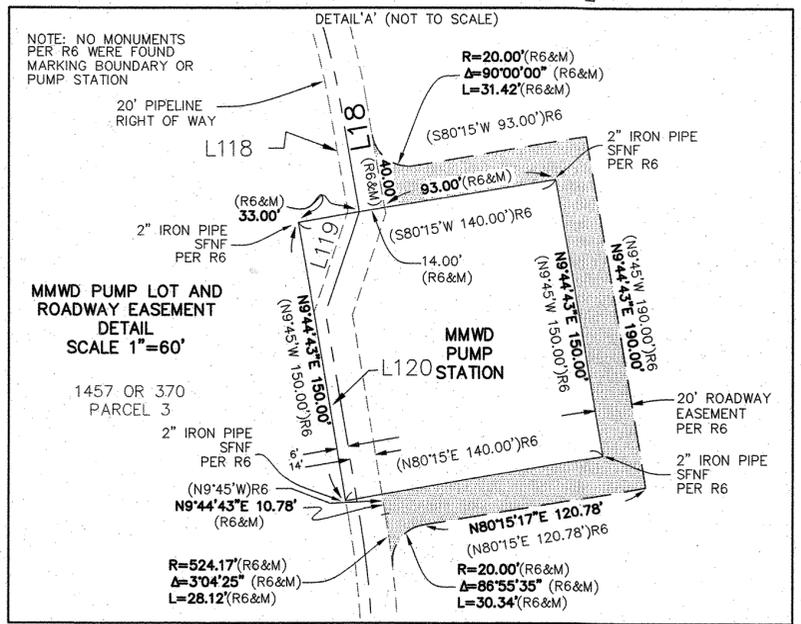
Points	Bearing	Distance
117-118	S43°45'07"E	340.75'
118-119	S62°03'52"W	422.11'
119-120	S68°32'40"W	323.57'
120-121	S71°56'23"E	301.15'
121-122	S66°39'30"E	252.06'
122-7	S29°20'38"E	222.63'
7-8	S10°42'53"E	472.75'

MMWD NICASIO TRANSMISSION LINE

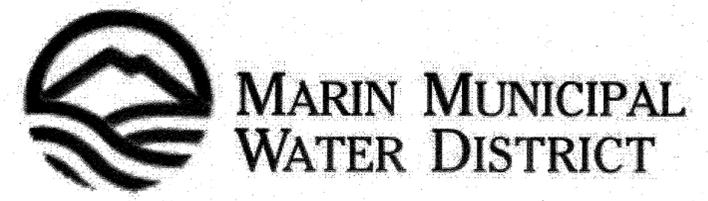
Curve #	Radius	Delta	Distance
C10	1610.84'	15°44'19"	442.48'
C11	573.04'	22°51'20"	228.59'
C12	1432.62'	9°16'56"	232.09'
C13	738.97'	24°20'37"	313.97'
C14	382.27'	39°47'39"	265.50'

COURSES OF RECORD PER R6 & R15

Curve #	Radius	Delta	Length
C110	1610.57'	15°44'19"	442.41'
C111	572.95'	22°51'20"	228.55'
C112	1432.38'	9°16'56"	232.05'
C113	738.85'	24°20'37"	313.95'
C114	382.21'	39°48'16"	265.53'



- LEGEND**
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 Fax: (707) 542-2106
 WWW.CINQUINIPASSARINO.COM

RECORD OF SURVEY

EASEMENT RETRACEMENT SURVEY FOR THE
 MARIN MUNICIPAL WATER DISTRICT
 NICASIO TRANSMISSION LINE SURVEY PROJECT
 COUNTY OF MARIN STATE OF CALIFORNIA
 OCTOBER 2015 SCALE: 1" = 100'

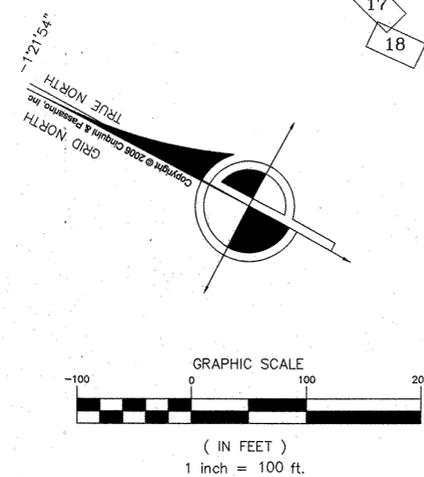
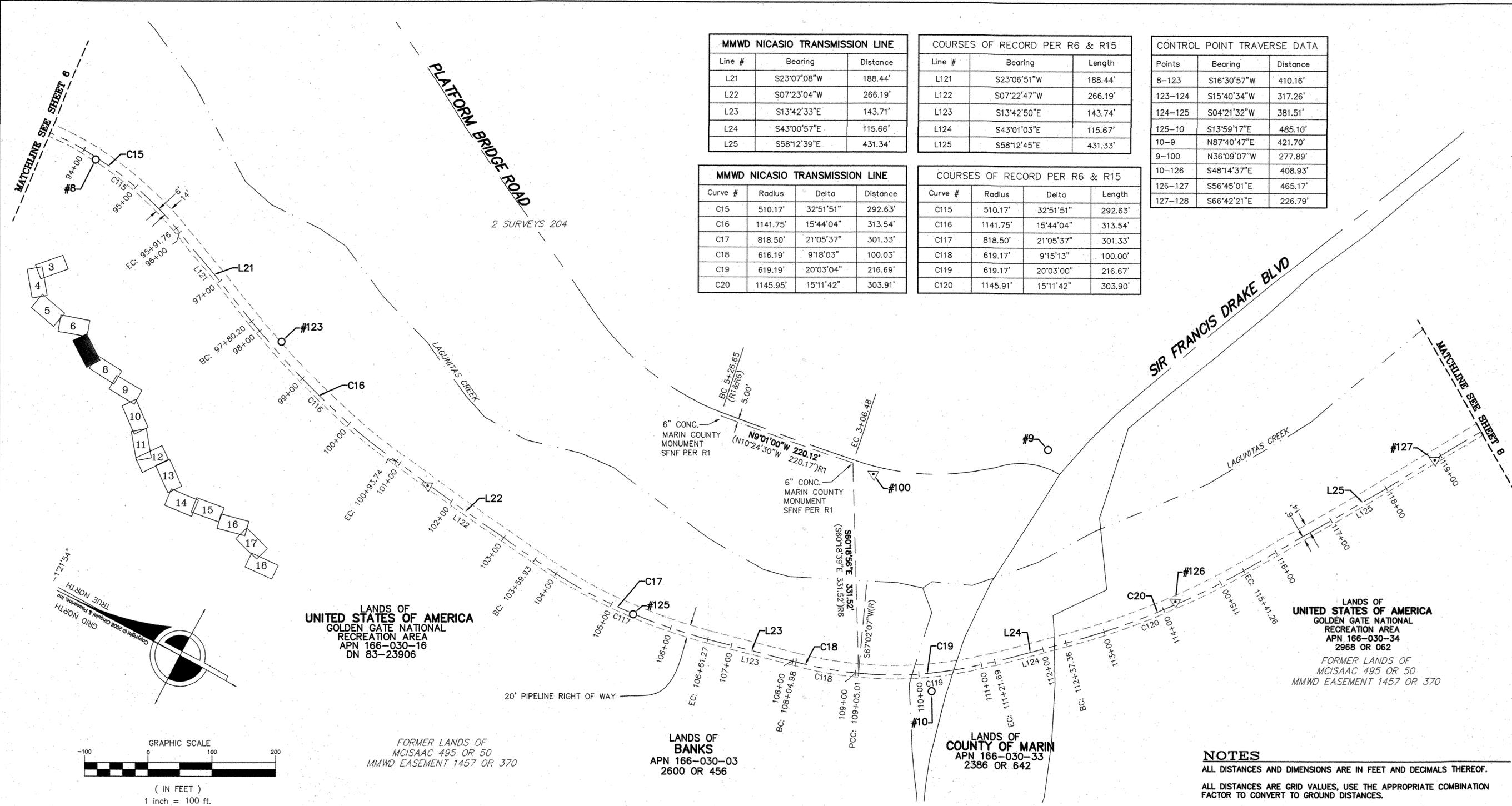
MMWD NICASIO TRANSMISSION LINE		
Line #	Bearing	Distance
L21	S23°07'08"W	188.44'
L22	S07°23'04"W	266.19'
L23	S13°42'33"E	143.71'
L24	S43°00'57"E	115.66'
L25	S58°12'39"E	431.34'

COURSES OF RECORD PER R6 & R15		
Line #	Bearing	Length
L121	S23°06'51"W	188.44'
L122	S07°22'47"W	266.19'
L123	S13°42'50"E	143.74'
L124	S43°01'03"E	115.67'
L125	S58°12'45"E	431.33'

CONTROL POINT TRAVERSE DATA		
Points	Bearing	Distance
8-123	S16°30'57"W	410.16'
123-124	S15°40'34"W	317.26'
124-125	S04°21'32"W	381.51'
125-10	S13°59'17"E	485.10'
10-9	N87°40'47"E	421.70'
9-100	N36°09'07"W	277.89'
10-126	S48°14'37"E	408.93'
126-127	S56°45'01"E	465.17'
127-128	S66°42'21"E	226.79'

MMWD NICASIO TRANSMISSION LINE			
Curve #	Radius	Delta	Distance
C15	510.17'	32°51'51"	292.63'
C16	1141.75'	15°44'04"	313.54'
C17	818.50'	21°05'37"	301.33'
C18	616.19'	9°18'03"	100.03'
C19	619.19'	20°03'04"	216.69'
C20	1145.95'	15°11'42"	303.91'

COURSES OF RECORD PER R6 & R15			
Curve #	Radius	Delta	Length
C115	510.17'	32°51'51"	292.63'
C116	1141.75'	15°44'04"	313.54'
C117	818.50'	21°05'37"	301.33'
C118	619.17'	9°15'13"	100.00'
C119	619.17'	20°03'00"	216.67'
C120	1145.91'	15°11'42"	303.90'



LANDS OF UNITED STATES OF AMERICA
 GOLDEN GATE NATIONAL RECREATION AREA
 APN 166-030-16
 DN 83-23906

FORMER LANDS OF MCISAAC 495 OR 50
 MMWD EASEMENT 1457 OR 370

LANDS OF BANKS
 APN 166-030-03
 2600 OR 456

LANDS OF COUNTY OF MARIN
 APN 166-030-33
 2386 OR 642

LANDS OF UNITED STATES OF AMERICA
 GOLDEN GATE NATIONAL RECREATION AREA
 APN 166-030-34
 2968 OR 062
 FORMER LANDS OF MCISAAC 495 OR 50
 MMWD EASEMENT 1457 OR 370

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MARIN MUNICIPAL WATER DISTRICT

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NOTES

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GRID MAPPING ANGLE IS TAKEN AT CONTROL POINT NUMBER 18.

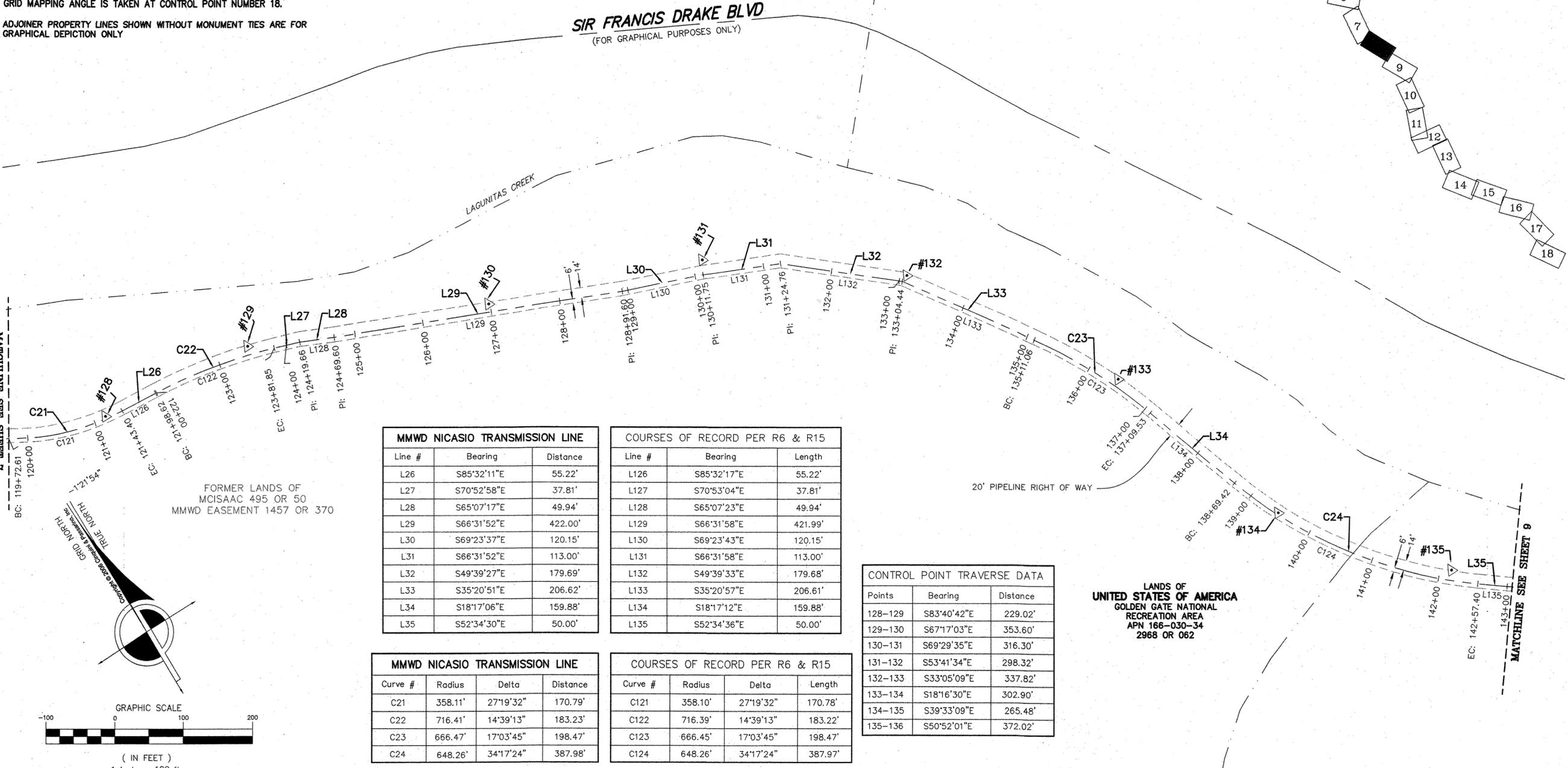
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RECORD OF SURVEY
 EASEMENT RETRACEMENT SURVEY FOR THE
 MARIN MUNICIPAL WATER DISTRICT
 NICASIO TRANSMISSION LINE SURVEY PROJECT

COUNTY OF MARIN STATE OF CALIFORNIA
 OCTOBER 2015 SCALE: 1" = 100'

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MMWD NICASIO TRANSMISSION LINE

Line #	Bearing	Distance
L26	S85°32'11"E	55.22'
L27	S70°52'58"E	37.81'
L28	S65°07'17"E	49.94'
L29	S66°31'52"E	422.00'
L30	S69°23'37"E	120.15'
L31	S66°31'52"E	113.00'
L32	S49°39'27"E	179.69'
L33	S35°20'51"E	206.62'
L34	S18°17'06"E	159.88'
L35	S52°34'30"E	50.00'

COURSES OF RECORD PER R6 & R15

Line #	Bearing	Length
L126	S85°32'17"E	55.22'
L127	S70°53'04"E	37.81'
L128	S65°07'23"E	49.94'
L129	S66°31'58"E	421.99'
L130	S69°23'43"E	120.15'
L131	S66°31'58"E	113.00'
L132	S49°39'33"E	179.68'
L133	S35°20'57"E	206.61'
L134	S18°17'12"E	159.88'
L135	S52°34'36"E	50.00'

MMWD NICASIO TRANSMISSION LINE

Curve #	Radius	Delta	Distance
C21	358.11'	27°19'32"	170.79'
C22	716.41'	14°39'13"	183.23'
C23	666.47'	17°03'45"	198.47'
C24	648.26'	34°17'24"	387.98'

COURSES OF RECORD PER R6 & R15

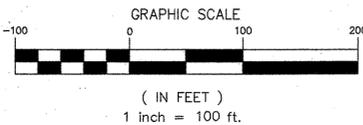
Curve #	Radius	Delta	Length
C121	358.10'	27°19'32"	170.78'
C122	716.39'	14°39'13"	183.22'
C123	666.45'	17°03'45"	198.47'
C124	648.26'	34°17'24"	387.97'

CONTROL POINT TRAVERSE DATA

Points	Bearing	Distance
128-129	S83°40'42"E	229.02'
129-130	S67°17'03"E	353.60'
130-131	S69°29'35"E	316.30'
131-132	S53°41'34"E	298.32'
132-133	S33°05'09"E	337.82'
133-134	S18°16'30"E	302.90'
134-135	S39°33'09"E	265.48'
135-136	S50°52'01"E	372.02'

LEGEND

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MARIN MUNICIPAL WATER DISTRICT



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RECORD OF SURVEY

EASEMENT RETRACEMENT SURVEY FOR THE
 MARIN MUNICIPAL WATER DISTRICT
 NICASIO TRANSMISSION LINE SURVEY PROJECT

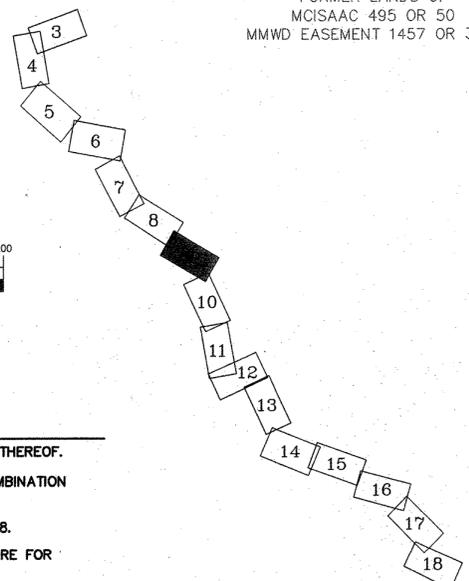
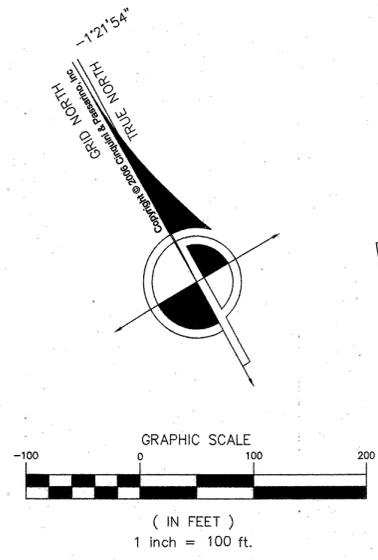
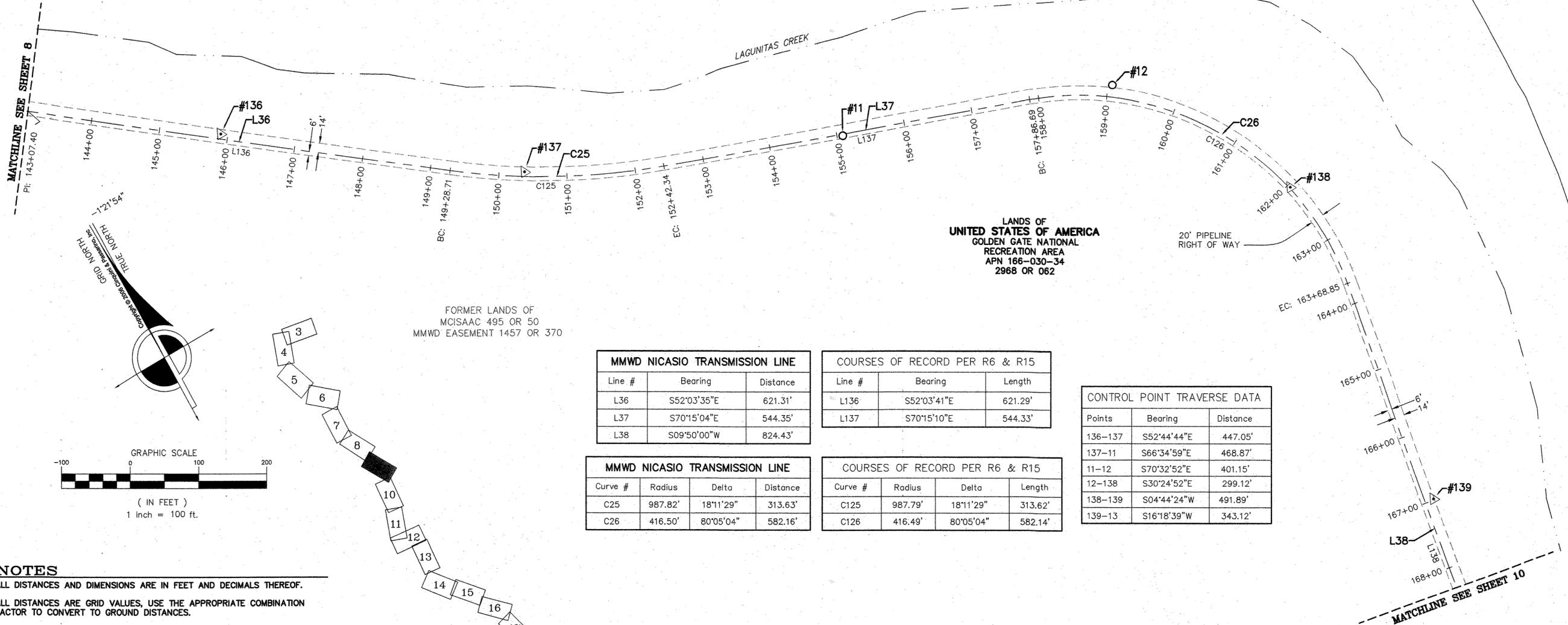
COUNTY OF MARIN STATE OF CALIFORNIA
 OCTOBER 2015 SCALE: 1" = 100'

SIR FRANCIS DRAKE BLVD (FOR GRAPHICAL PURPOSES ONLY)

LAGUNITAS CREEK

LANDS OF UNITED STATES OF AMERICA GOLDEN GATE NATIONAL RECREATION AREA APN 166-030-34 2968 OR 062

FORMER LANDS OF MCISAAC 495 OR 50 MMWD EASEMENT 1457 OR 370



MMWD NICASIO TRANSMISSION LINE		
Line #	Bearing	Distance
L36	S52°03'35"E	621.31'
L37	S70°15'04"E	544.35'
L38	S09°50'00"W	824.43'

COURSES OF RECORD PER R6 & R15		
Line #	Bearing	Length
L136	S52°03'41"E	621.29'
L137	S70°15'10"E	544.33'

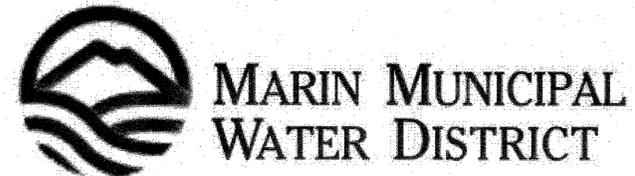
MMWD NICASIO TRANSMISSION LINE			
Curve #	Radius	Delta	Distance
C25	987.82'	18°11'29"	313.63'
C26	416.50'	80°05'04"	582.16'

COURSES OF RECORD PER R6 & R15			
Curve #	Radius	Delta	Length
C125	987.79'	18°11'29"	313.62'
C126	416.49'	80°05'04"	582.14'

CONTROL POINT TRAVERSE DATA		
Points	Bearing	Distance
136-137	S52°44'44"E	447.05'
137-11	S66°34'59"E	468.87'
11-12	S70°32'52"E	401.15'
12-138	S30°24'52"E	299.12'
138-139	S04°44'24"W	491.89'
139-13	S16°18'39"W	343.12'

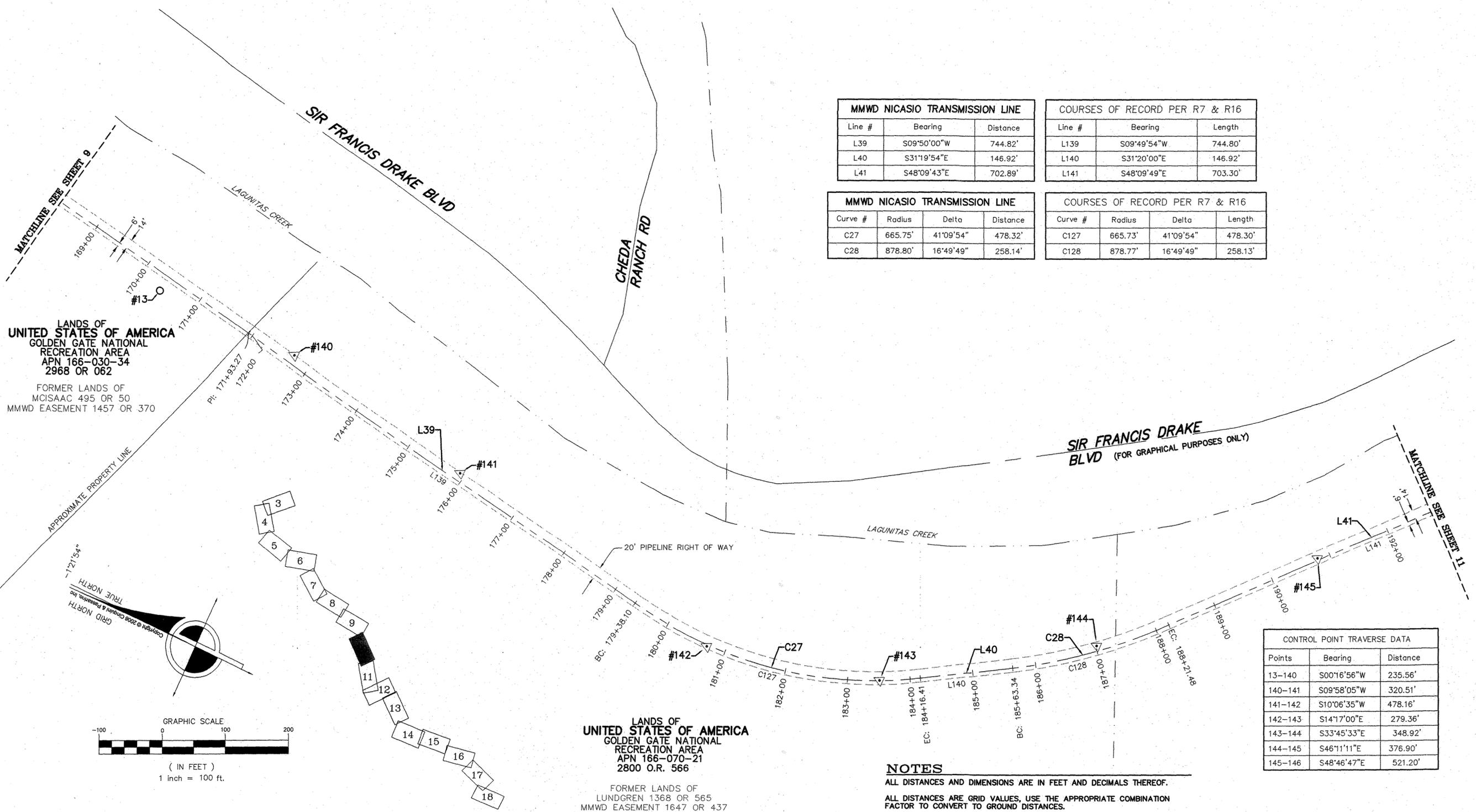
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 COUNTY OF MARIN STATE OF CALIFORNIA
 OCTOBER 2015 SCALE: 1" = 100'



MMWD NICASIO TRANSMISSION LINE		
Line #	Bearing	Distance
L39	S09°50'00"W	744.82'
L40	S31°19'54"E	146.92'
L41	S48°09'43"E	702.89'

COURSES OF RECORD PER R7 & R16		
Line #	Bearing	Length
L139	S09°49'54"W	744.80'
L140	S31°20'00"E	146.92'
L141	S48°09'49"E	703.30'

MMWD NICASIO TRANSMISSION LINE			
Curve #	Radius	Delta	Distance
C27	665.75'	41°09'54"	478.32'
C28	878.80'	16°49'49"	258.14'

COURSES OF RECORD PER R7 & R16			
Curve #	Radius	Delta	Length
C127	665.73'	41°09'54"	478.30'
C128	878.77'	16°49'49"	258.13'

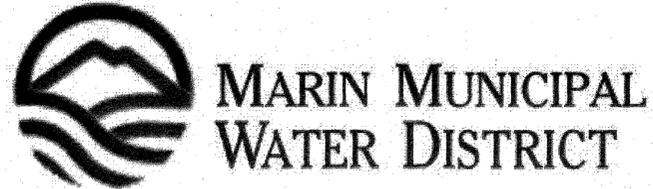
LANDS OF UNITED STATES OF AMERICA
 GOLDEN GATE NATIONAL RECREATION AREA
 APN 166-030-34
 2968 OR 062
 FORMER LANDS OF MCISAAC 495 OR 50
 MMWD EASEMENT 1457 OR 370

LANDS OF UNITED STATES OF AMERICA
 GOLDEN GATE NATIONAL RECREATION AREA
 APN 166-070-21
 2800 O.R. 566
 FORMER LANDS OF LUNDGREN 1368 OR 565
 MMWD EASEMENT 1647 OR 437

CONTROL POINT TRAVERSE DATA		
Points	Bearing	Distance
13-140	S00°16'56"W	235.56'
140-141	S09°58'05"W	320.51'
141-142	S10°06'35"W	478.16'
142-143	S14°17'00"E	279.36'
143-144	S33°45'33"E	348.92'
144-145	S46°11'11"E	376.90'
145-146	S48°46'47"E	521.20'

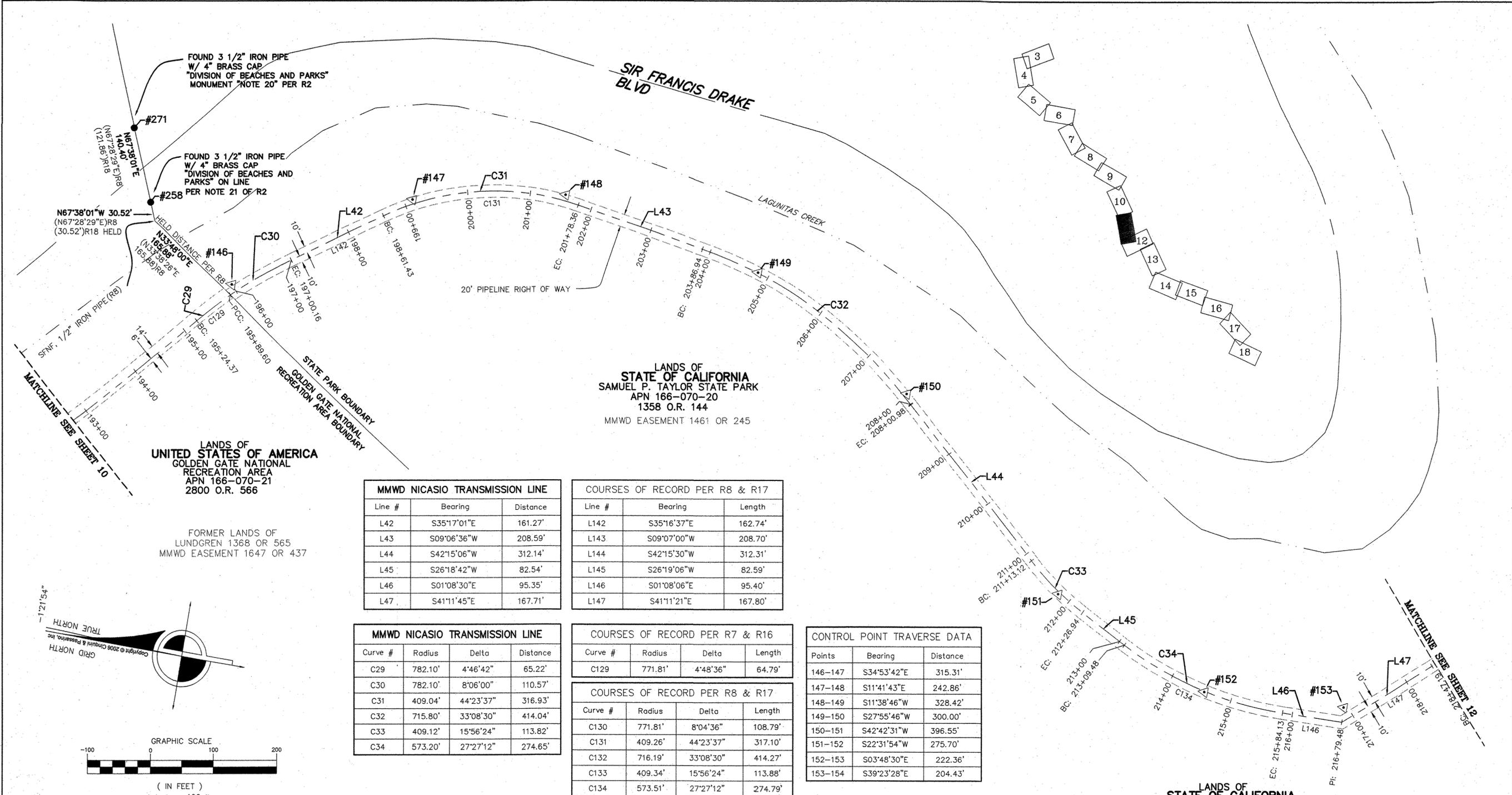
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LANDS OF UNITED STATES OF AMERICA
GOLDEN GATE NATIONAL RECREATION AREA
APN 166-070-21
2800 O.R. 566

FORMER LANDS OF LUNDGREN 1368 OR 565
MMWD EASEMENT 1647 OR 437

LANDS OF STATE OF CALIFORNIA
SAMUEL P. TAYLOR STATE PARK
APN 166-070-20
1358 O.R. 144
MMWD EASEMENT 1461 OR 245

Line #	Bearing	Distance
L42	S35°17'01"E	161.27'
L43	S09°06'36"W	208.59'
L44	S42°15'06"W	312.14'
L45	S26°18'42"W	82.54'
L46	S01°08'30"E	95.35'
L47	S41°11'45"E	167.71'

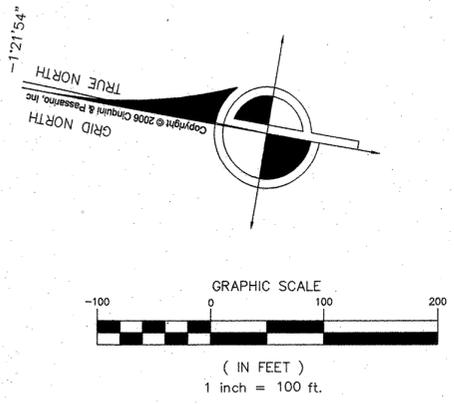
Line #	Bearing	Length
L142	S35°16'37"E	162.74'
L143	S09°07'00"W	208.70'
L144	S42°15'30"W	312.31'
L145	S26°19'06"W	82.59'
L146	S01°08'06"E	95.40'
L147	S41°11'21"E	167.80'

Curve #	Radius	Delta	Distance
C29	782.10'	4°46'42"	65.22'
C30	782.10'	8°06'00"	110.57'
C31	409.04'	44°23'37"	316.93'
C32	715.80'	33°08'30"	414.04'
C33	409.12'	15°56'24"	113.82'
C34	573.20'	27°27'12"	274.65'

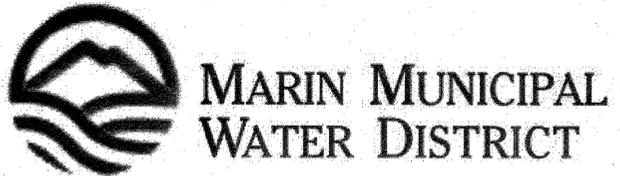
Curve #	Radius	Delta	Length
C129	771.81'	4°48'36"	64.79'

Curve #	Radius	Delta	Length
C130	771.81'	8°04'36"	108.79'
C131	409.26'	44°23'37"	317.10'
C132	716.19'	33°08'30"	414.27'
C133	409.34'	15°56'24"	113.88'
C134	573.51'	27°27'12"	274.79'

Points	Bearing	Distance
146-147	S34°53'42"E	315.31'
147-148	S11°41'43"E	242.86'
148-149	S11°38'46"W	328.42'
149-150	S27°55'46"W	300.00'
150-151	S42°42'31"W	396.55'
151-152	S22°31'54"W	275.70'
152-153	S03°48'30"E	222.36'
153-154	S39°23'28"E	204.43'



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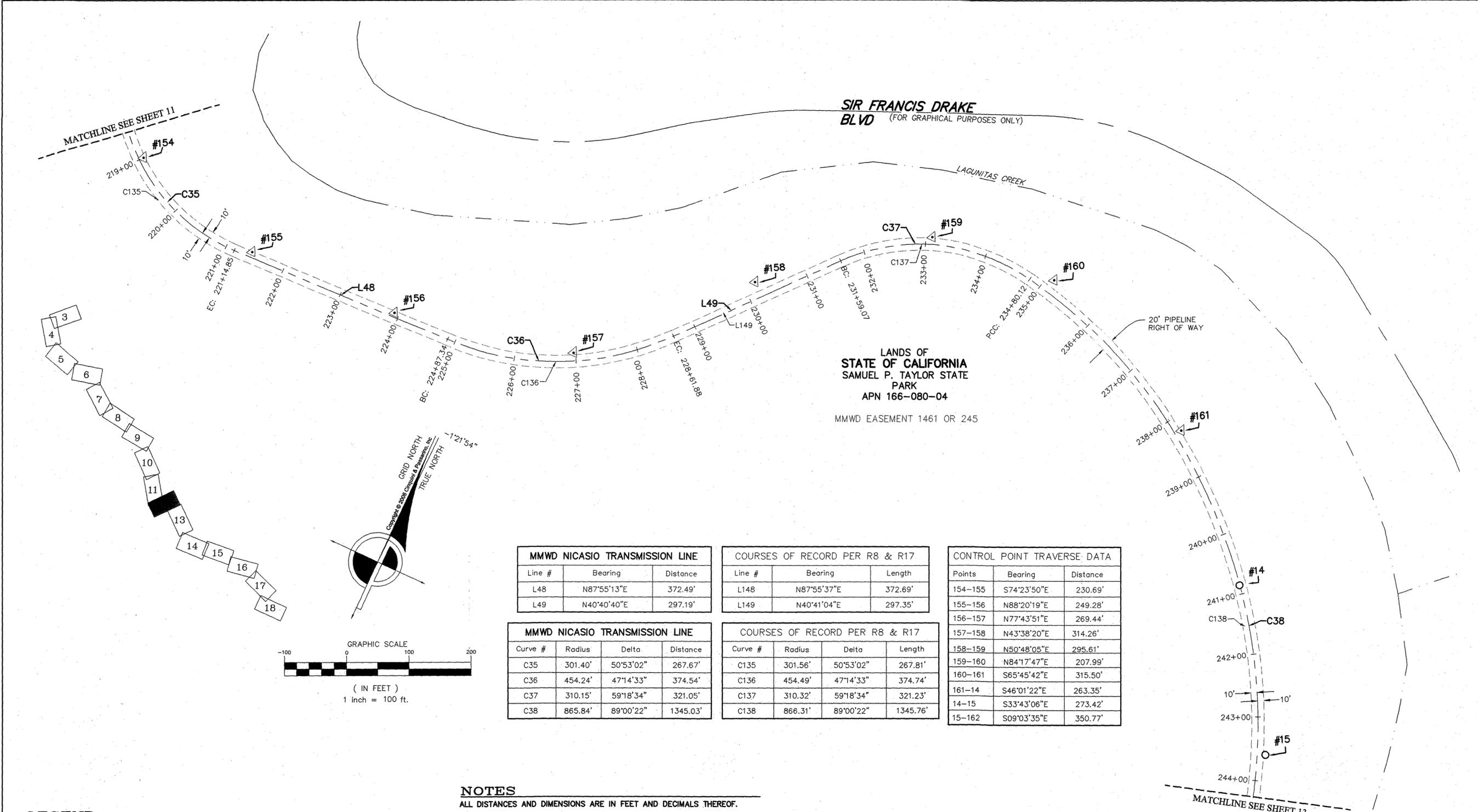
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OCTOBER 2015 SCALE: 1" = 100'



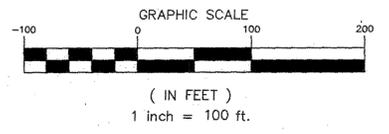
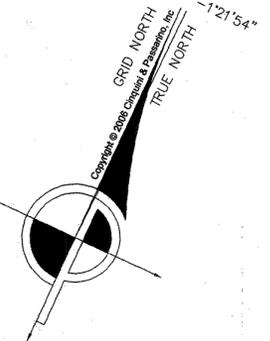
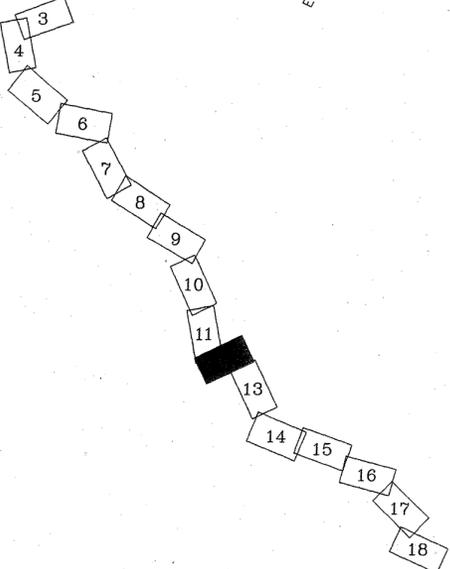
SIR FRANCIS DRAKE BLVD
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LAGUNITAS CREEK

LANDS OF STATE OF CALIFORNIA
SAMUEL P. TAYLOR STATE PARK
APN 166-080-04
MMWD EASEMENT 1461 OR 245

MATCHLINE SEE SHEET 11

MATCHLINE SEE SHEET 13



MMWD NICASIO TRANSMISSION LINE		
Line #	Bearing	Distance
L48	N87°55'13\"E	372.49'
L49	N40°40'40\"E	297.19'

COURSES OF RECORD PER R8 & R17		
Line #	Bearing	Length
L148	N87°55'37\"E	372.69'
L149	N40°41'04\"E	297.35'

CONTROL POINT TRAVERSE DATA		
Points	Bearing	Distance
154-155	S74°23'50\"E	230.69'
155-156	N88°20'19\"E	249.28'
156-157	N77°43'51\"E	269.44'
157-158	N43°38'20\"E	314.26'
158-159	N50°48'05\"E	295.61'
159-160	N84°17'47\"E	207.99'
160-161	S65°45'42\"E	315.50'
161-14	S46°01'22\"E	263.35'
14-15	S33°43'06\"E	273.42'
15-162	S09°03'35\"E	350.77'

MMWD NICASIO TRANSMISSION LINE			
Curve #	Radius	Delta	Distance
C35	301.40'	50°53'02\"	267.67'
C36	454.24'	47°14'33\"	374.54'
C37	310.15'	59°18'34\"	321.05'
C38	865.84'	89°00'22\"	1345.03'

COURSES OF RECORD PER R8 & R17			
Curve #	Radius	Delta	Length
C135	301.56'	50°53'02\"	267.81'
C136	454.49'	47°14'33\"	374.74'
C137	310.32'	59°18'34\"	321.23'
C138	866.31'	89°00'22\"	1345.76'

LEGEND

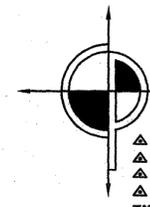
- SET 3/4" IRON PIPE WITH 2" ALUMINUM CAP STAMPED "MMWD NICASIO CONTROL NO"
- ⊗ SET 2" ALUMINUM CAP STAMPED "MMWD NICASIO CONTROL NO" RECESSED IN ASPHALT PAVEMENT
- △ SET MAG NAIL AND 2" BRASS WASHER STAMPED "MMWD NICASIO CONTROL NO"
- ⊙ FOUND BRASS DISK IN STANDARD MONUMENT WELL AS NOTED
- FOUND MONUMENT AS NOTED
- (R) RADIAL
- MARIN WATER DISTRICT EASEMENT CENTERLINE
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- CREEK
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NOTES

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MARIN MUNICIPAL WATER DISTRICT



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RECORD OF SURVEY

EASEMENT RETRACEMENT SURVEY FOR THE
MARIN MUNICIPAL WATER DISTRICT
NICASIO TRANSMISSION LINE SURVEY PROJECT
COUNTY OF MARIN STATE OF CALIFORNIA
OCTOBER 2015 SCALE: 1" = 100'

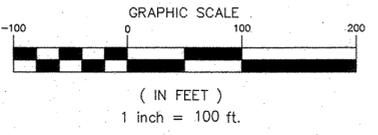
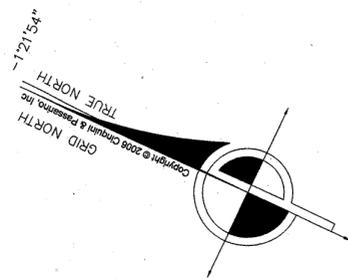
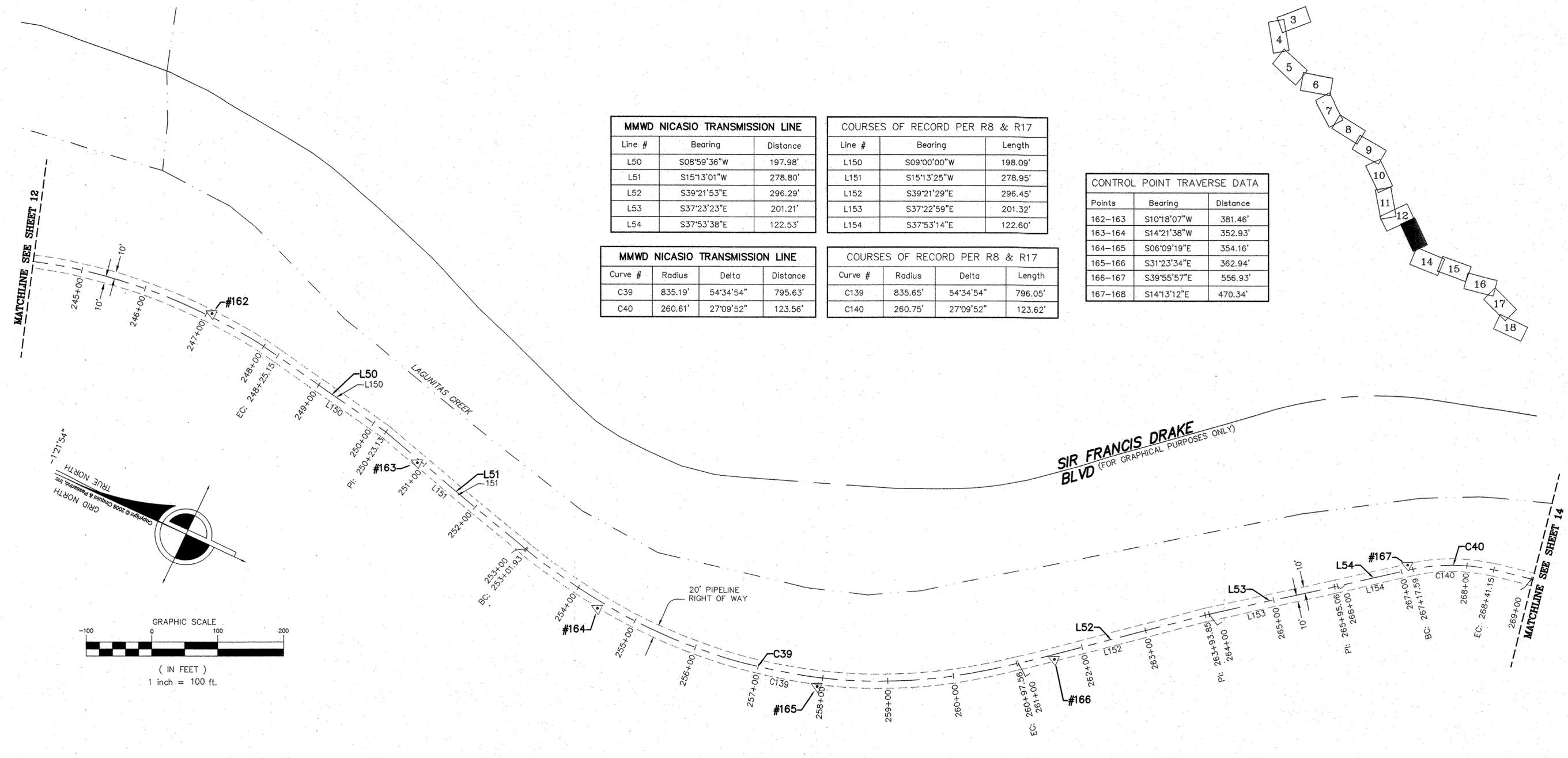
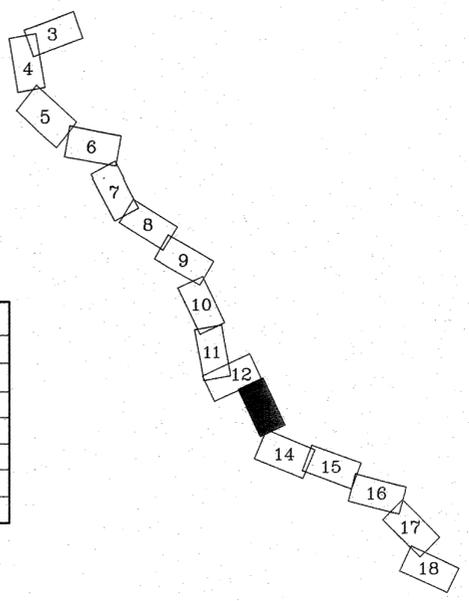
MMWD NICASIO TRANSMISSION LINE		
Line #	Bearing	Distance
L50	S08°59'36"W	197.98'
L51	S15°13'01"W	278.80'
L52	S39°21'53"E	296.29'
L53	S37°23'23"E	201.21'
L54	S37°53'38"E	122.53'

COURSES OF RECORD PER R8 & R17		
Line #	Bearing	Length
L150	S09°00'00"W	198.09'
L151	S15°13'25"W	278.95'
L152	S39°21'29"E	296.45'
L153	S37°22'59"E	201.32'
L154	S37°53'14"E	122.60'

MMWD NICASIO TRANSMISSION LINE			
Curve #	Radius	Delta	Distance
C39	835.19'	54°34'54"	795.63'
C40	260.61'	27°09'52"	123.56'

COURSES OF RECORD PER R8 & R17			
Curve #	Radius	Delta	Length
C139	835.65'	54°34'54"	796.05'
C140	260.75'	27°09'52"	123.62'

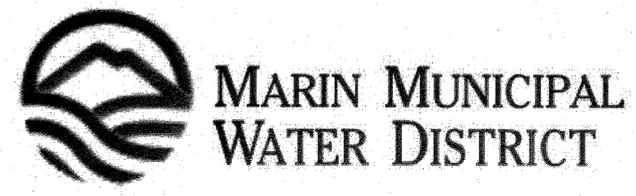
CONTROL POINT TRAVERSE DATA		
Points	Bearing	Distance
162-163	S10°18'07"W	381.46'
163-164	S14°21'38"W	352.93'
164-165	S06°09'19"E	354.16'
165-166	S31°23'34"E	362.94'
166-167	S39°55'57"E	556.93'
167-168	S14°13'12"E	470.34'



LANDS OF
STATE OF CALIFORNIA
SAMUEL P. TAYLOR STATE PARK
APN 166-080-04
MMWD EASEMENT 1461 OR 245

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NICASIO TRANSMISSION LINE SURVEY PROJECT
COUNTY OF MARIN STATE OF CALIFORNIA
OCTOBER 2015 SCALE: 1" = 100'

MATCHLINE SEE SHEET 13

MATCHLINE SEE SHEET 15

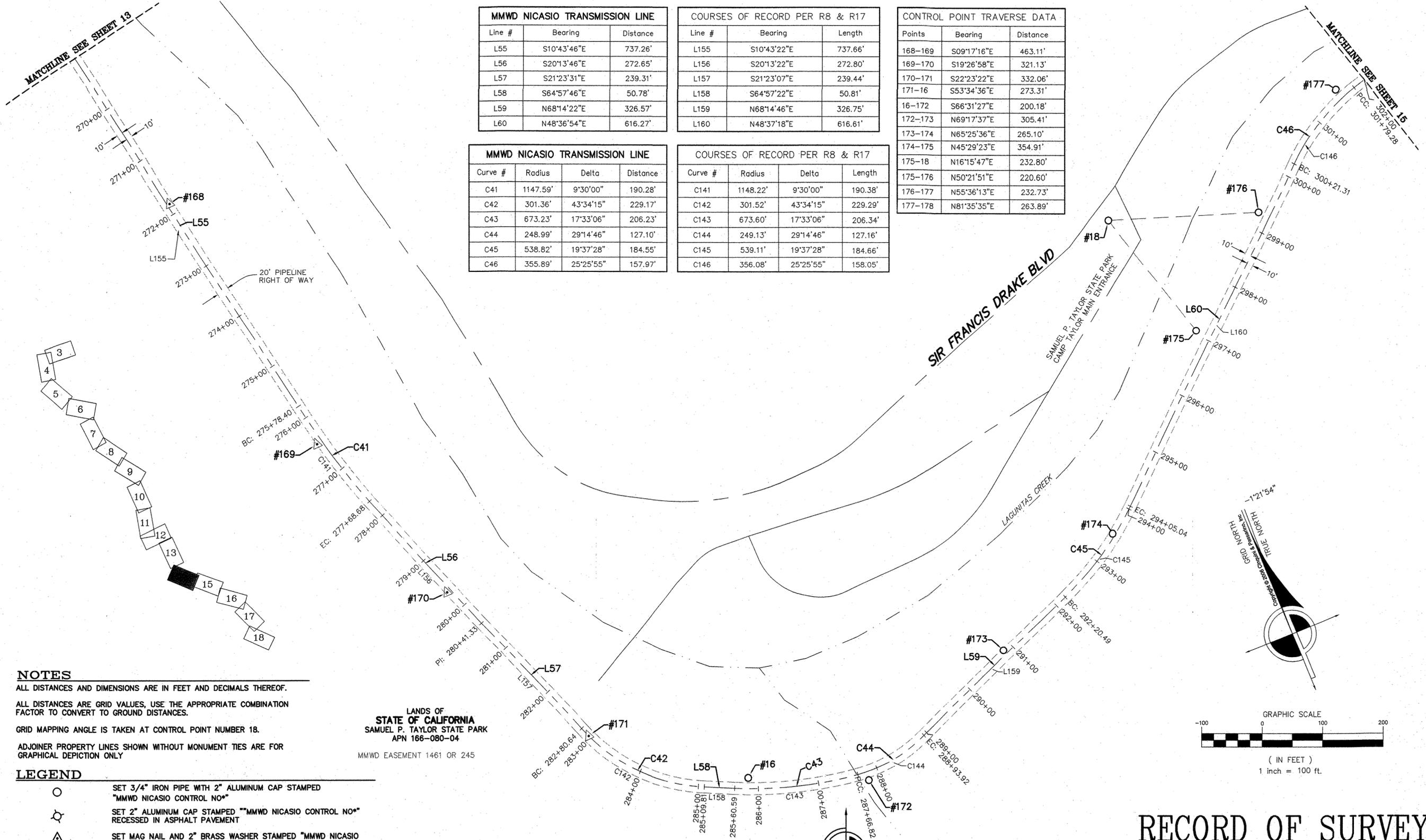
MMWD NICASIO TRANSMISSION LINE		
Line #	Bearing	Distance
L55	S10°43'46"E	737.26'
L56	S20°13'46"E	272.65'
L57	S21°23'31"E	239.31'
L58	S64°57'46"E	50.78'
L59	N68°14'22"E	326.57'
L60	N48°36'54"E	616.27'

COURSES OF RECORD PER R8 & R17		
Line #	Bearing	Length
L155	S10°43'22"E	737.66'
L156	S20°13'22"E	272.80'
L157	S21°23'07"E	239.44'
L158	S64°57'22"E	50.81'
L159	N68°14'46"E	326.75'
L160	N48°37'18"E	616.61'

CONTROL POINT TRAVERSE DATA		
Points	Bearing	Distance
168-169	S09°17'16"E	463.11'
169-170	S19°26'58"E	321.13'
170-171	S22°23'22"E	332.06'
171-16	S53°34'36"E	273.31'
16-172	S66°31'27"E	200.18'
172-173	N69°17'37"E	305.41'
173-174	N65°25'36"E	265.10'
174-175	N45°29'23"E	354.91'
175-18	N16°15'47"E	232.80'
175-176	N50°21'51"E	220.60'
176-177	N55°36'13"E	232.73'
177-178	N81°35'35"E	263.89'

MMWD NICASIO TRANSMISSION LINE			
Curve #	Radius	Delta	Distance
C41	1147.59'	9°30'00"	190.28'
C42	301.36'	43°34'15"	229.17'
C43	673.23'	17°33'06"	206.23'
C44	248.99'	29°14'46"	127.10'
C45	538.82'	19°37'28"	184.55'
C46	355.89'	25°25'55"	157.97'

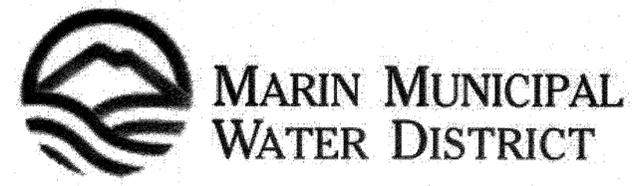
COURSES OF RECORD PER R8 & R17			
Curve #	Radius	Delta	Length
C141	1148.22'	9°30'00"	190.38'
C142	301.52'	43°34'15"	229.29'
C143	673.60'	17°33'06"	206.34'
C144	249.13'	29°14'46"	127.16'
C145	539.11'	19°37'28"	184.66'
C146	356.08'	25°25'55"	158.05'



NOTES
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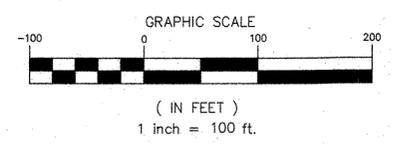
LANDS OF STATE OF CALIFORNIA
 SAMUEL P. TAYLOR STATE PARK
 APN 166-080-04
 MMWD EASEMENT 1461 OR 245



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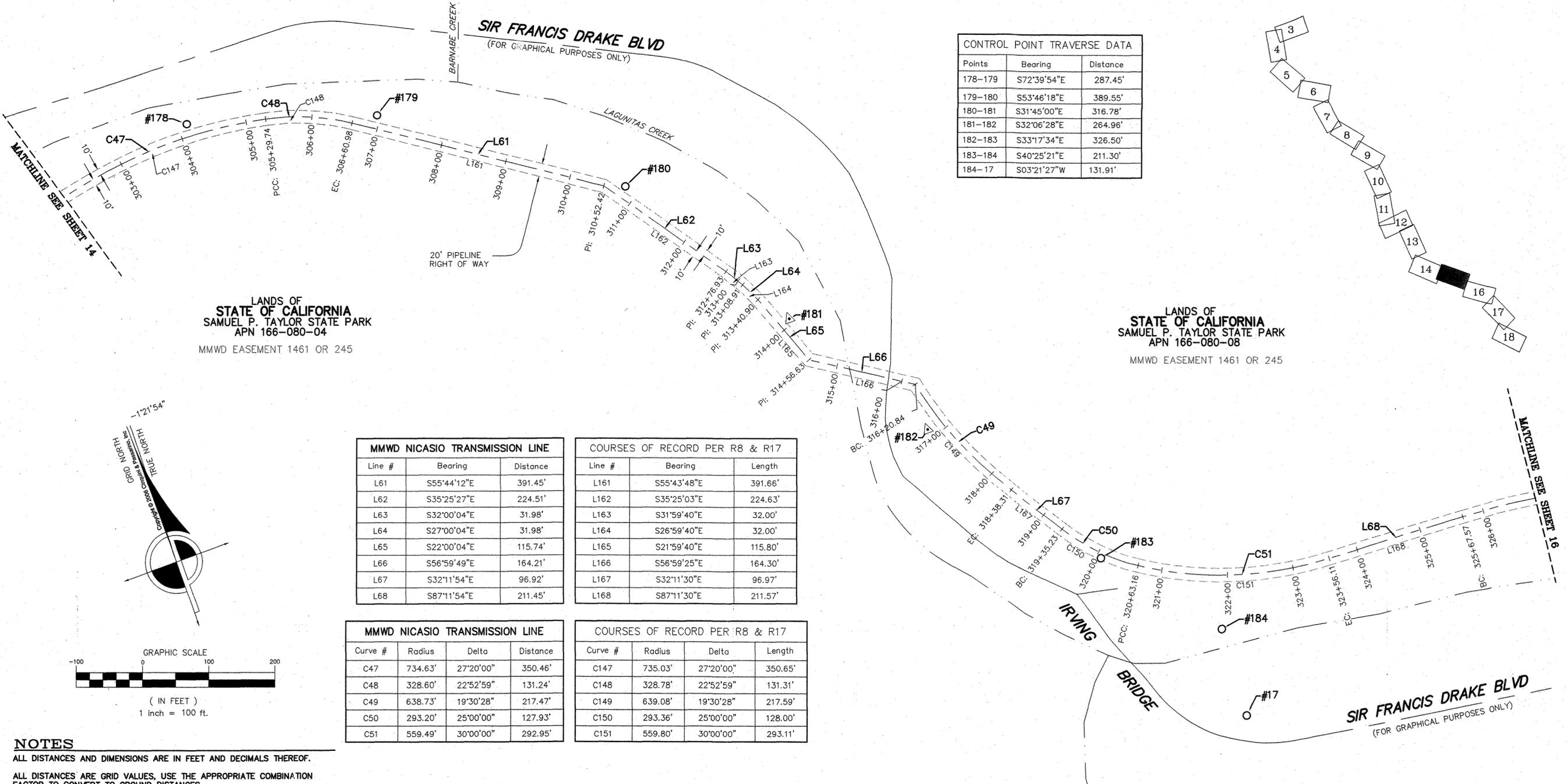
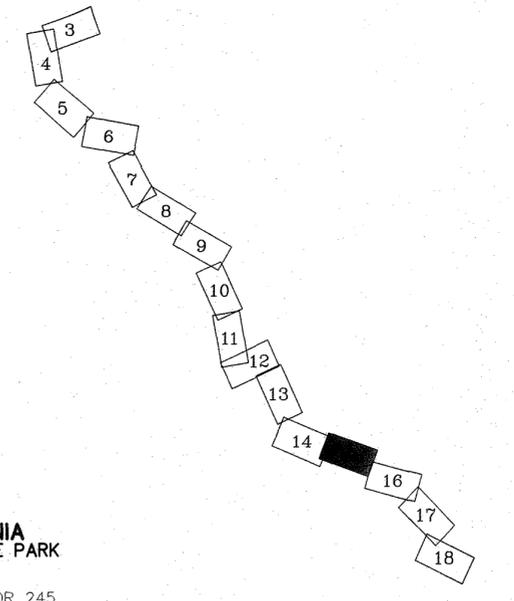
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 MARIN MUNICIPAL WATER DISTRICT
 NICASIO TRANSMISSION LINE SURVEY PROJECT
 COUNTY OF MARIN STATE OF CALIFORNIA
 OCTOBER 2015 SCALE: 1" = 100'

Points	Bearing	Distance
178-179	S72°39'54"E	287.45'
179-180	S53°46'18"E	389.55'
180-181	S31°45'00"E	316.78'
181-182	S32°06'28"E	264.96'
182-183	S33°17'34"E	326.50'
183-184	S40°25'21"E	211.30'
184-17	S03°21'27"W	131.91'



LANDS OF
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SAMUEL P. TAYLOR STATE PARK
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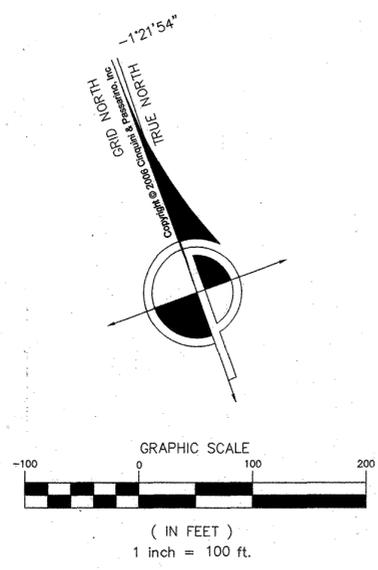
LANDS OF
STATE OF CALIFORNIA
SAMUEL P. TAYLOR STATE PARK
APN 166-080-08
MMWD EASEMENT 1461 OR 245

Line #	Bearing	Distance
L61	S55°44'12"E	391.45'
L62	S35°25'27"E	224.51'
L63	S32°00'04"E	31.98'
L64	S27°00'04"E	31.98'
L65	S22°00'04"E	115.74'
L66	S56°59'49"E	164.21'
L67	S32°11'54"E	96.92'
L68	S87°11'54"E	211.45'

Line #	Bearing	Length
L161	S55°43'48"E	391.66'
L162	S35°25'03"E	224.63'
L163	S31°59'40"E	32.00'
L164	S26°59'40"E	32.00'
L165	S21°59'40"E	115.80'
L166	S56°59'25"E	164.30'
L167	S32°11'30"E	96.97'
L168	S87°11'30"E	211.57'

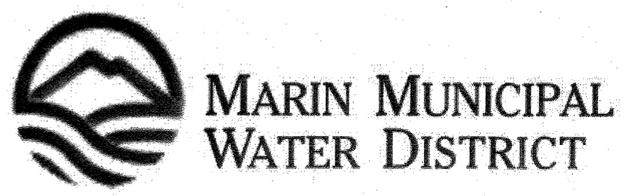
Curve #	Radius	Delta	Distance
C47	734.63'	27°20'00"	350.46'
C48	328.60'	22°52'59"	131.24'
C49	638.73'	19°30'28"	217.47'
C50	293.20'	25°00'00"	127.93'
C51	559.49'	30°00'00"	292.95'

Curve #	Radius	Delta	Length
C147	735.03'	27°20'00"	350.65'
C148	328.78'	22°52'59"	131.31'
C149	639.08'	19°30'28"	217.59'
C150	293.36'	25°00'00"	128.00'
C151	559.80'	30°00'00"	293.11'



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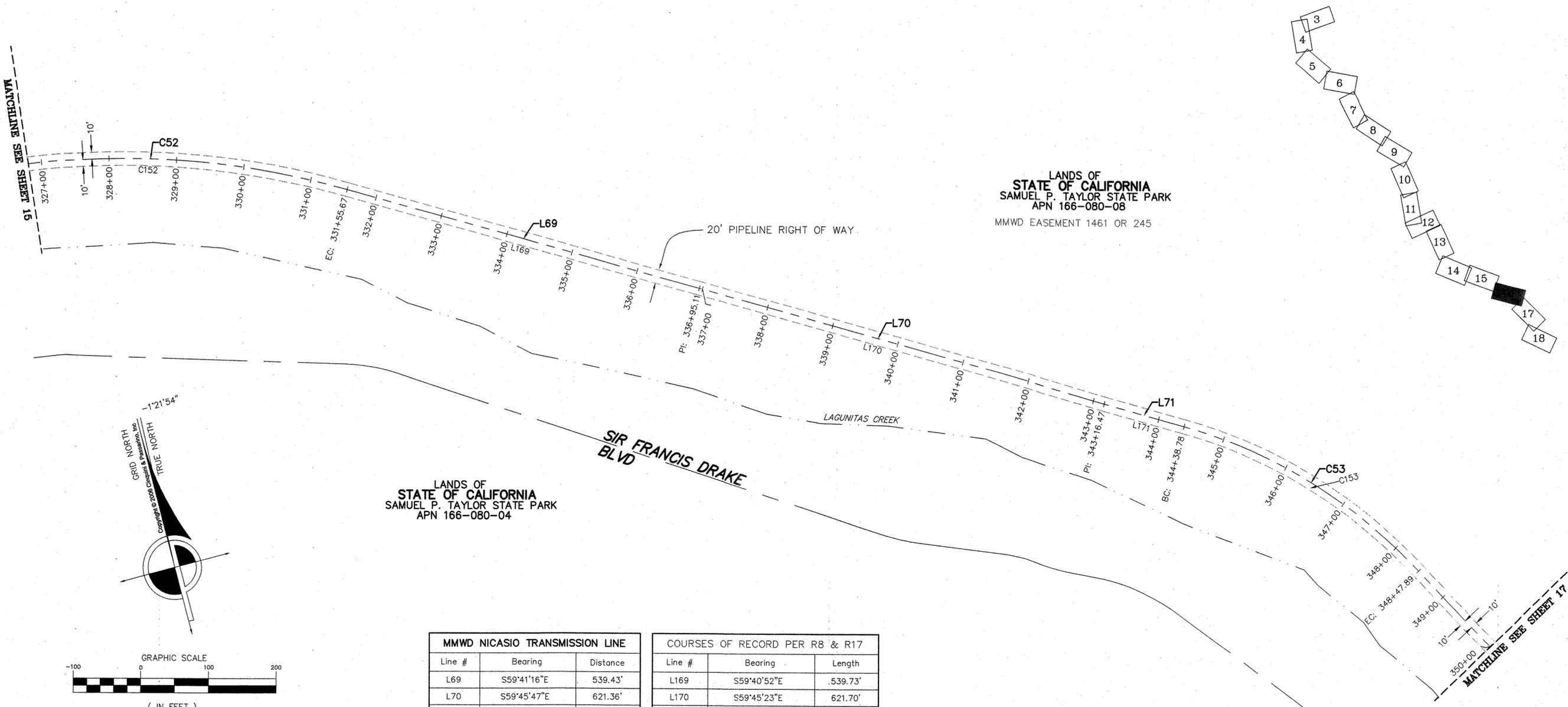


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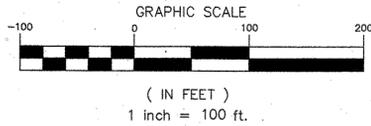
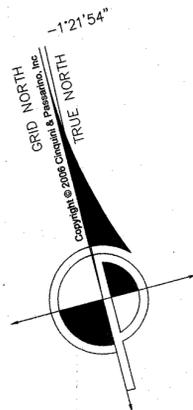
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MMWD EASEMENT 1461 OR 245

LANDS OF
STATE OF CALIFORNIA
SAMUEL P. TAYLOR STATE PARK
APN 166-080-04



MMWD NICASIO TRANSMISSION LINE		
Line #	Bearing	Distance
L69	S59°41'16"E	539.43'
L70	S59°45'47"E	621.36'
L71	S60°09'47"E	122.31'

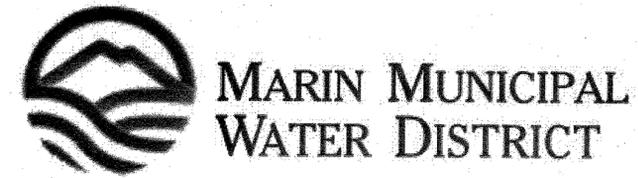
COURSES OF RECORD PER R8 & R17		
Line #	Bearing	Length
L169	S59°40'52"E	539.73'
L170	S59°45'23"E	621.70'
L171	S60°09'23"E	122.38'

MMWD NICASIO TRANSMISSION LINE			
Curve #	Radius	Delta	Distance
C52	1224.84'	27°30'38"	588.11'
C53	748.86'	31°18'04"	409.11'

COURSES OF RECORD PER R8 & R17			
Curve #	Radius	Delta	Length
C152	1225.51'	27°30'38"	588.43'
C153	749.27'	31°18'04"	409.33'

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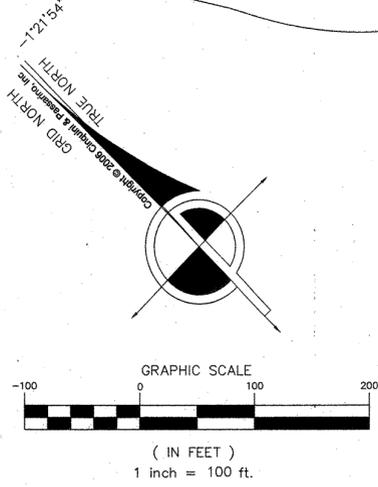
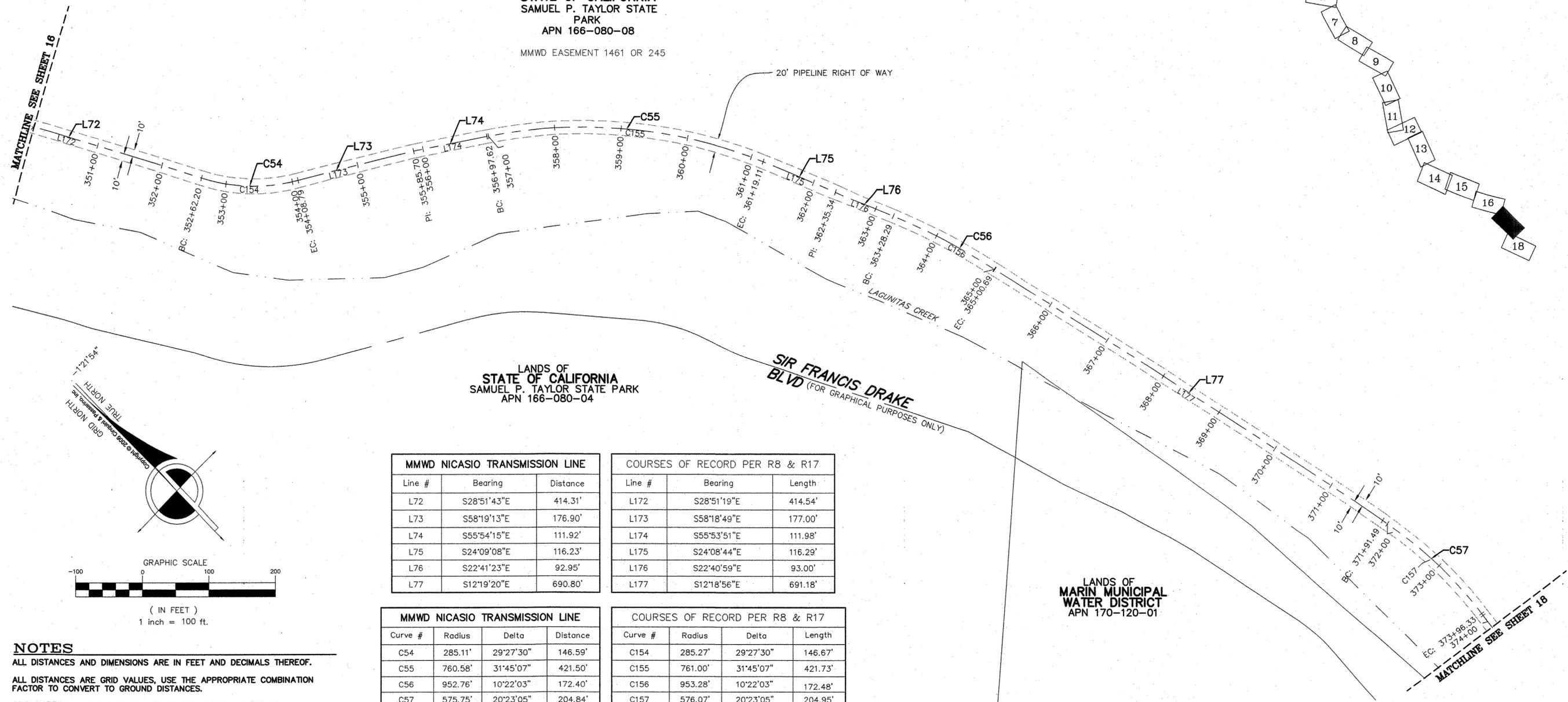
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LANDS OF
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PARK
APN 166-080-04

LANDS OF
MARIN MUNICIPAL
WATER DISTRICT
APN 170-120-01

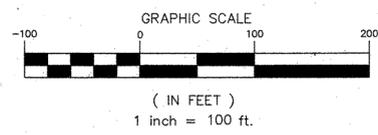


MMWD NICASIO TRANSMISSION LINE		
Line #	Bearing	Distance
L72	S28°51'43"E	414.31'
L73	S58°19'13"E	176.90'
L74	S55°54'15"E	111.92'
L75	S24°09'08"E	116.23'
L76	S22°41'23"E	92.95'
L77	S12°19'20"E	690.80'

COURSES OF RECORD PER R8 & R17		
Line #	Bearing	Length
L172	S28°51'19"E	414.54'
L173	S58°18'49"E	177.00'
L174	S55°53'51"E	111.98'
L175	S24°08'44"E	116.29'
L176	S22°40'59"E	93.00'
L177	S12°18'56"E	691.18'

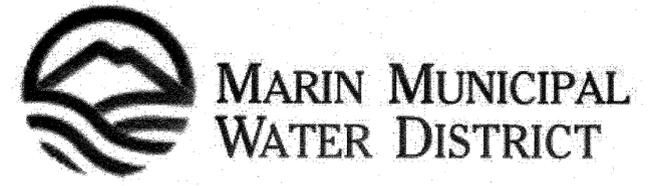
MMWD NICASIO TRANSMISSION LINE			
Curve #	Radius	Delta	Distance
C54	285.11'	29°27'30"	146.59'
C55	760.58'	31°45'07"	421.50'
C56	952.76'	10°22'03"	172.40'
C57	575.75'	20°23'05"	204.84'

COURSES OF RECORD PER R8 & R17			
Curve #	Radius	Delta	Length
C154	285.27'	29°27'30"	146.67'
C155	761.00'	31°45'07"	421.73'
C156	953.28'	10°22'03"	172.48'
C157	576.07'	20°23'05"	204.95'



NOTES
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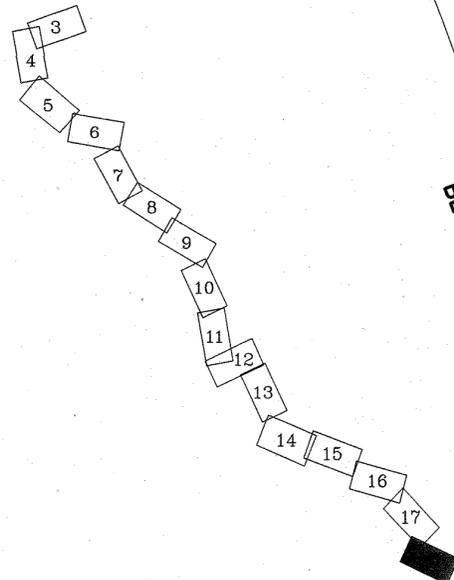
- LEGEND**
- SET 3/4" IRON PIPE WITH 2" ALUMINUM CAP STAMPED "MMWD NICASIO CONTROL NO"
 - ⊙ SET 2" ALUMINUM CAP STAMPED "MMWD NICASIO CONTROL NO" RECESSED IN ASPHALT PAVEMENT
 - △ SET MAG NAIL AND 2" BRASS WASHER STAMPED "MMWD NICASIO CONTROL NO"
 - FOUND BRASS DISK IN STANDARD MONUMENT WELL AS NOTED
 - FOUND MONUMENT AS NOTED
 - (R) RADIAL
 - MARIN WATER DISTRICT EASEMENT CENTERLINE
 - - - MARIN WATER DISTRICT EASEMENT
 - CREEK
 - MAJOR ROADWAYS



CINQUINI & PASSARINO, INC.
 LAND SURVEYING

△ BOUNDARY 1360 No. Dutton Ave.
 △ TOPOGRAPHIC Santa Rosa, Ca. 95401
 △ CONSTRUCTION Phone: (707) 542-6268
 △ SUBDIVISIONS Fax: (707) 542-2106
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RECORD OF SURVEY
 EASEMENT RETRACEMENT SURVEY FOR THE
 MARIN MUNICIPAL WATER DISTRICT
 NICASIO TRANSMISSION LINE SURVEY PROJECT
 COUNTY OF MARIN STATE OF CALIFORNIA
 OCTOBER 2015 SCALE: 1" = 100'

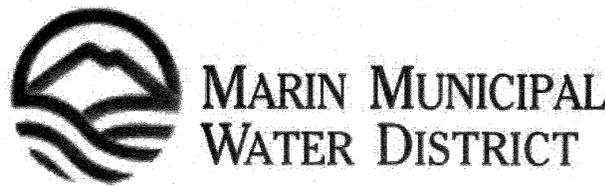


Line #	Bearing	Distance
L78	S08°03'45"W	214.71'
L79	S00°25'54"W	415.20'
L82	S14°31'29"E	31.98'
L83	S19°31'29"E	31.98'
L84	S24°31'29"E	31.98'
L85	S29°31'29"E	31.98'
L86	S34°31'29"E	31.98'
L87	S39°31'29"E	31.98'
L88	S60°00'29"E	63.96'
L89	S65°00'29"E	63.96'
L90	S70°00'29"E	127.93'
L91	S84°31'22"E	152.07'
L92	N78°44'55"E	135.95'

COURSES OF RECORD PER R8 & R17			
L178	S08°03'45"W	214.83'	
L179	S00°26'18"W	415.43'	
L180	S04°31'05"E	32.00'	
L181	S09°31'05"E	32.00'	
L182	S14°31'05"E	32.00'	
L183	S19°31'05"E	32.00'	
L184	S24°31'05"E	32.00'	
L185	S29°31'05"E	32.00'	
L186	S34°31'05"E	32.00'	
L187	S39°31'05"E	32.00'	
L188	S60°00'05"E	64.00'	
L189	S65°00'05"E	64.00'	
L190	S70°00'05"E	128.00'	
L191	S84°30'58"E	152.15'	
L192	N78°45'19"E	136.02'	

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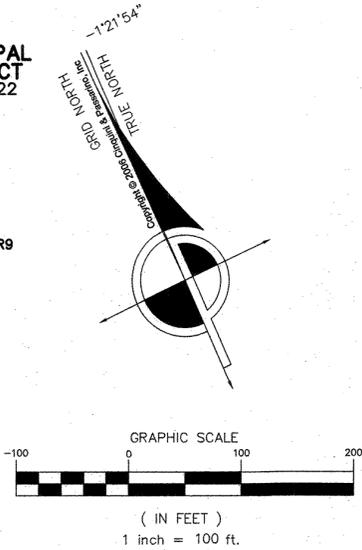
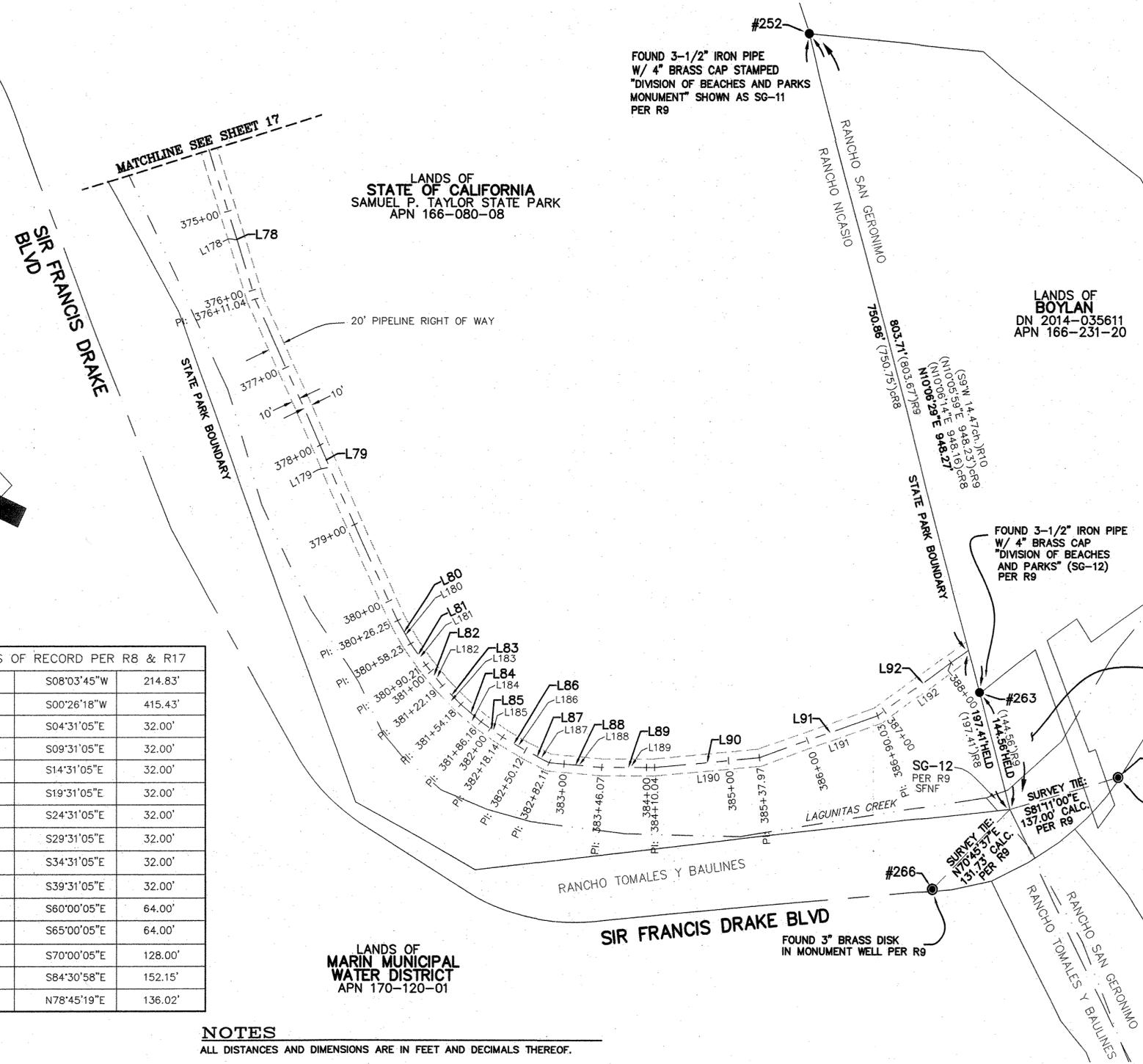
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RECORD OF SURVEY
 EASEMENT RETRACEMENT SURVEY FOR THE
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 NICASIO TRANSMISSION LINE SURVEY PROJECT
 COUNTY OF MARIN STATE OF CALIFORNIA
 OCTOBER 2015 SCALE: 1" = 100'



MARIN MUNICIPAL WATER DISTRICT NICASIO TRANSMISSION LINE
PRIMARY CONTROL NETWORK

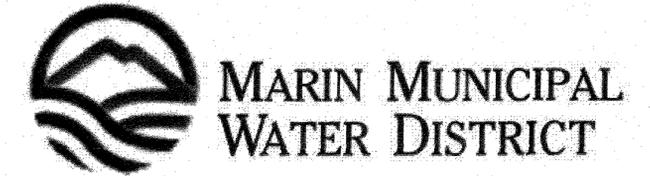


Table with columns: Point No., Station, Offset Distance to Centerline of Alignment, Latitude, Longitude, Northing, Easting, Elevation, Ellipsoid Height, Combined Scale Factor, Meridian convergence angle, Description, Stamped. Contains 144 rows of survey data.

NOTES

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RECORD OF SURVEY

EASEMENT RETRACEMENT SURVEY FOR THE
MARIN MUNICIPAL WATER DISTRICT
NICASIO TRANSMISSION LINE SURVEY PROJECT
COUNTY OF MARIN STATE OF CALIFORNIA
MAY 2018 SCALE: 1" = 100'

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MARIN MUNICIPAL WATER DISTRICT

MARIN MUNICIPAL WATER DISTRICT NICASIO TRANSMISSION LINE PRIMARY CONTROL NETWORK

Point No.	Station	Offset Distance to Centerline of Alignment	Latitude	Longitude	Northing	Easting	Elevation	Ellipsoid Height	Combined Scale Factor	Meridian convergence angle	Description	Stamped
145	190+80.08	-2.95'	N38°02'05.51401"	W122°44'41.71373"	2207036.284'	5915168.432'	110.558'	4.857'	0.999941178	-1°22'28"	SET MAG NAIL & 2" WASHER IN ASPHALT	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 145
146	196+00.18	-12.29'	N38°02'02.21249"	W122°44'36.71193"	2206692.835'	5915560.470'	113.407'	7.711'	0.999940963	-1°22'25"	SET MAG NAIL & 2" WASHER IN ASPHALT	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 146
147	199+13.43	-7.03'	N38°01'59.69924"	W122°44'34.38049"	2206434.220'	5915740.848'	114.317'	8.620'	0.999940859	-1°22'23"	SET MAG NAIL & 2" WASHER IN ASPHALT	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 147
148	201+54.90	-9.72'	N38°01'57.36047"	W122°44'33.69411"	2206196.405'	5915790.077'	117.058'	11.357'	0.999940673	-1°22'23"	SET MAG NAIL & 2" WASHER IN ASPHALT	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 148
149	204+82.61	-0.89'	N38°01'54.16572"	W122°44'34.42618"	2205874.751'	5915723.781'	118.194'	12.483'	0.999940543	-1°22'23"	SET MAG NAIL & 2" WASHER IN ASPHALT	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 149
150	207+83.43	-5.59'	N38°01'51.51275"	W122°44'36.10258"	2205609.693'	5915583.265'	120.433'	14.711'	0.999940374	-1°22'24"	SET MAG NAIL & 2" WASHER IN ASPHALT	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 150
151	211+79.60	3.22'	N38°01'48.56907"	W122°44'39.37608"	2205318.304'	5915314.297'	124.289'	18.551'	0.999940122	-1°22'26"	SET MAG NAIL & 2" WASHER IN ASPHALT	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 151
152	214+55.80	0.89'	N38°01'46.02711"	W122°44'40.61983"	2205063.644'	5915208.649'	125.705'	19.956'	0.999939995	-1°22'27"	SET MAG NAIL & 2" WASHER IN ASPHALT	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 152
153	216+94.26	-18.65'	N38°01'43.83783"	W122°44'40.36880"	2204841.779'	5915223.418'	126.173'	20.420'	0.999939921	-1°22'27"	SET MAG NAIL & 2" WASHER IN ASPHALT	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 153
154	219+00.20	-7.68'	N38°01'42.30712"	W122°44'38.70045"	2204683.791'	5915353.150'	126.788'	21.036'	0.999939856	-1°22'26"	SET MAG NAIL & 2" WASHER IN ASPHALT	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 154
155	221+42.70	-9.01'	N38°01'41.74653"	W122°44'35.90562"	2204621.743'	5915575.341'	126.861'	21.115'	0.999939839	-1°22'24"	SET MAG NAIL & 2" WASHER IN ASPHALT	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 155
156	223+91.98	-7.19'	N38°01'41.87699"	W122°44'32.79432"	2204628.970'	5915824.521'	127.727'	21.990'	0.999939800	-1°22'22"	SET MAG NAIL & 2" WASHER IN ASPHALT	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 156
157	226+97.12	-13.45'	N38°01'42.56820"	W122°44'29.19380"	2204691.965'	5916114.190'	127.259'	21.531'	0.999939838	-1°22'20"	SET MAG NAIL & 2" WASHER IN ASPHALT	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 157
158	230+19.33	-25.90'	N38°01'44.86737"	W122°44'26.55201"	2204919.399'	5916331.066'	126.849'	21.134'	0.999939911	-1°22'19"	SET MAG NAIL & 2" WASHER IN ASPHALT	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 158
159	233+10.82	-11.70'	N38°01'46.76812"	W122°44'23.74543"	2205106.230'	5916560.155'	127.404'	21.703'	0.999939929	-1°22'17"	SET MAG NAIL & 2" WASHER IN ASPHALT	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 159
160	235+12.46	-21.80'	N38°01'47.02137"	W122°44'21.16564"	2205126.900'	5916767.113'	129.907'	24.213'	0.999939815	-1°22'15"	SET MAG NAIL & 2" WASHER IN ASPHALT	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 160
161	238+23.50	-11.62'	N38°01'45.80927"	W122°44'17.53228"	2204997.378'	5917054.798'	131.797'	26.110'	0.999939696	-1°22'13"	SET MAG NAIL & 2" WASHER IN ASPHALT	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 161
162	247+07.52	-5.04'	N38°01'38.42438"	W122°44'12.35167"	2204240.698'	5917451.322'	136.013'	30.323'	0.999939322	-1°22'10"	SET MAG NAIL & 2" WASHER IN ASPHALT	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 162
163	250+89.44	4.53'	N38°01'34.69888"	W122°44'13.09193"	2203865.386'	5917383.103'	136.103'	30.401'	0.999939323	-1°22'10"	SET MAG NAIL & 2" WASHER IN ASPHALT	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 163
164	254+41.15	10.99'	N38°01'31.29901"	W122°44'14.08349"	2203523.483'	5917295.568'	133.320'	27.606'	0.999939286	-1°22'11"	SET MAG NAIL & 2" WASHER IN ASPHALT	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 164
165	257+92.98	12.55'	N38°01'27.82787"	W122°44'13.50385"	2203171.368'	5917333.542'	135.696'	29.981'	0.999939093	-1°22'11"	SET MAG NAIL & 2" WASHER IN ASPHALT	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 165
166	261+54.65	7.13'	N38°01'24.81055"	W122°44'11.04923"	2202861.559'	5917522.597'	138.228'	32.512'	0.999938902	-1°22'09"	SET MAG NAIL & 2" WASHER IN ASPHALT	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 166
167	267+11.49	-8.31'	N38°01'20.67423"	W122°44'06.45535"	2202434.507'	5917880.081'	139.341'	33.627'	0.999938754	-1°22'06"	SET MAG NAIL & 2" WASHER IN ASPHALT	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 167
168	271+82.41	-4.50'	N38°01'16.19535"	W122°44'04.87580"	2201978.580'	5917995.617'	139.469'	33.748'	0.999938646	-1°22'05"	SET MAG NAIL & 2" WASHER IN ASPHALT	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 168
169	276+44.88	9.09'	N38°01'11.69591"	W122°44'03.80566"	2201521.546'	5918070.358'	141.683'	35.954'	0.999938438	-1°22'05"	SET MAG NAIL & 2" WASHER IN ASPHALT	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 169
170	279+65.24	6.74'	N38°01'08.72836"	W122°44'02.37943"	2201218.740'	5918177.286'	142.700'	36.967'	0.999938323	-1°22'04"	SET MAG NAIL & 2" WASHER IN ASPHALT	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 170
171	282+97.15	-0.14'	N38°01'05.72371"	W122°44'00.70769"	2200911.713'	5918303.768'	143.081'	37.345'	0.999938237	-1°22'03"	SET MAG NAIL & 2" WASHER IN ASPHALT	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 171
172	287+81.68	13.56'	N38°01'03.42688"	W122°43'55.59419"	2200669.693'	5918707.297'	143.912'	38.183'	0.999938145	-1°22'00"	SET 3/4" IP W/ 2" ALUMINUM DISK	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 172
173	290+84.89	-7.05'	N38°01'04.56150"	W122°43'52.05735"	2200777.679'	5918992.976'	143.415'	37.699'	0.999938194	-1°21'57"	SET 3/4" IP W/ 2" ALUMINUM DISK	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 173
174	293+51.99	-4.22'	N38°01'05.70791"	W122°43'49.07820"	2200887.923'	5919234.066'	144.187'	38.482'	0.999938182	-1°21'56"	SET 3/4" IP W/ 2" ALUMINUM DISK	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 174
175	297+06.87	-26.16'	N38°01'08.22662"	W122°43'45.99025"	2201136.731'	5919487.165'	145.939'	40.249'	0.999938155	-1°21'54"	SET 3/4" IP W/ 2" ALUMINUM DISK	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 175
176	299+27.37	-19.42'	N38°01'09.65746"	W122°43'43.90966"	2201277.454'	5919657.053'	145.323'	39.643'	0.999938216	-1°21'52"	SET 3/4" IP W/ 2" ALUMINUM DISK	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 176
177	301+55.20	-17.20'	N38°01'11.00209"	W122°43'41.54955"	2201408.929'	5919849.093'	147.800'	42.129'	0.999938128	-1°21'51"	SET 3/4" IP W/ 2" ALUMINUM DISK	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 177
178	304+13.43	-19.68'	N38°01'11.44485"	W122°43'38.29956"	2201447.511'	5920110.147'	150.118'	44.457'	0.999938027	-1°21'49"	SET 3/4" IP W/ 2" ALUMINUM DISK	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 178
179	306+94.65	-21.03'	N38°01'10.66290"	W122°43'34.84599"	2201361.864'	5920384.539'	152.486'	46.832'	0.999937896	-1°21'47"	SET 3/4" IP W/ 2" ALUMINUM DISK	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 179
180	310+79.34	-18.15'	N38°01'08.46135"	W122°43'30.85168"	2201131.639'	5920698.776'	159.511'	53.862'	0.999937510	-1°21'45"	SET 3/4" IP W/ 2" ALUMINUM DISK	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 180
181	313+93.34	-17.08'	N38°01'05.83820"	W122°43'28.68912"	2200862.268'	5920865.468'	161.573'	55.927'	0.999937353	-1°21'43"	SET MAG NAIL & 2" WASHER IN ASPHALT	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 181
182	316+85.73	23.42'	N38°01'03.65311"	W122°43'26.86307"	2200637.836'	5921006.296'	165.460'	59.813'	0.999937118	-1°21'42"	SET MAG NAIL & 2" WASHER IN ASPHALT	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 182
183	320+07.02	7.34'	N38°01'00.99782"	W122°43'24.54298"	2200364.918'	5921185.520'	161.963'	56.315'	0.999937225	-1°21'41"	SET 3/4" IP W/ 2" ALUMINUM DISK	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 183
184	321+91.33	79.52'	N38°00'59.44013"	W122°43'22.78356"	2200204.058'	5921322.532'	153.073'	47.425'	0.999937614	-1°21'40"	SET 3/4" IP W/ 2" ALUMINUM DISK	MARIN MUNICIPAL WATER DISTRICT NICASIO CONTROL NO. 184

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Point No.	Latitude	Longitude	Northing	Easting	Elevation	Ellipsoid Height	Combined Scale Factor	Meridian convergence angle	Description
250	N38°03'28.83409"	W122°45'51.14341"	2215595.5120'	5909819.355'	64.214'	-41.447'	0.999945465	-1°23'10"	FOUND 6" DIA. CONC. MON. w/ BRASS PIN IN MONUMENT WELL NOT TAGGED
251	N38°03'26.89577"	W122°45'42.94098"	2215383.6440'	5910470.438'	65.907'	-39.737'	0.999945334	-1°23'05"	FOUND 6" DIA. CONC. MON. w/ BRASS PIN IN MONUMENT WELL NOT TAGGED
252	N38°00'26.25645"	W122°42'29.77999"	2196748.0580'	5925483.637'	512.700'	407.096'	0.999919719	-1°21'07"	FOUND 3-1/2" IRON PIPE w/ 4" BRASS CAP "DIVISION OF BEACHES AND PARKS"
254	N38°04'10.52203"	W122°44'59.84889"	2219827.915'	5909225.434'	76.911'	-28.666'	0.999945956	-1°23'16"	FOUND 6" CONCRETE MONUMENT IN MONUMENT WELL
253	N38°04'08.03943"	W122°45'54.94847"	2219567.3830'	5909611.105'	58.905'	-46.667'	0.999946749	-1°23'13"	FOUND CL MON. W/ BRASS PIN IN CONC.
255	N38°04'01.40623"	W122°46'23.09619"	2218951.195'	5907344.609'	55.216'	-50.447'	0.999946752	-1°23'30"	FOUND 6" CONCRETE MONUMENT IN MONUMENT WELL NO TAG
258	N38°02'03.70858"	W122°44'35.45400"	2206841.709'	5915664.707'	86.586'	-19.103'	0.999942278	-1°22'24"	FOUND 3-1/2" IRON PIPE w/ 4" BRASS CAP "DIVISION OF BEACHES AND PARKS"
263	N38°00'18.40330"	W122°42'31.30868"	2195956.822'	5925342.580'	216.278'	110.657'	0.999933697	-1°21'08"	FOUND 3-1/2" IRON PIPE w/ 4" BRASS CAP "DIVISION OF BEACHES AND PARKS"
265	N38°00'16.81483"	W122°42'29.88638"	2195793.507'	5925452.591'	194.143'	88.515'	0.99993472	-1°21'07"	FOUND 3" BRASS DISK IN MON. WELL
266	N38°00'16.53276"	W122°42'33.12434"	2195771.099'	5925192.838'	181.722'	76.092'	0.999935307	-1°21'09"	FOUND 3" BRASS DISK IN MON. WELL
271	N38°02'04.19186"	W122°44'34.06466"	2206887.915'	5915776.998'	157.075'	51.391'	0.999938925	-1°22'23"	FOUND 3-1/2" IRON PIPE w/ 4" BRASS CAP "DIVISION OF BEACHES AND PARKS"

RECORD OF SURVEY

EASEMENT RETRACEMENT SURVEY FOR THE
 MARIN MUNICIPAL WATER DISTRICT
 NICASIO TRANSMISSION LINE SURVEY PROJECT
 COUNTY OF MARIN STATE OF CALIFORNIA
 MAY 2018 SCALE: 1" = 100'

CGPS ACCURACY TABLE

CODE	Latitude	Longitude	Northing	Easting	Elevation	Ellipsoid Height	Combined Scale Factor	Meridian Convergence Angle	Description	Station Name	NADLat sig (ft 95%)	NADLong sig (ft 95%)	NADHght sig (ft 95%)
P194	N38°11'08.56594"	W122°48'58.47415"	2262451.087'	5895992.375'	878.012'	773.058'	0.999920995	-1°25'05"	CGPS STATION	WalkerCrk_CN2007	0.0027	0.0027	0.0096
PTRB	N37°59'46.22254"	W123°01'07.34031"	2194958.705'	5835961.899'	588.877'	479.820'	0.999915401	-1°32'31"	CGPS STATION	Point Reyes Lighthouse	0.0010	0.0013	0.0038
SVIN	N38°01'59.43424"	W122°31'34.69807"	2204984.753'	5978102.216'	16.622'	-88.714'	0.999945498	-1°14'26"	CGPS STATION	Tiburon Peninsula	0.0014	0.0016	0.0059
TIBB	N37°53'27.13998"	W122°26'51.31816"	2152696.754'	5999690.528'	38.732'	-67.481'	0.999935365	-1°11'33"	CGPS STATION	St Vincents	0.0011	0.0011	0.0041

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