

**PURPOSE OF THE SURVEY:**

THE PURPOSE OF THE SURVEY WAS TO RECOVER THE REMAINS OF THE MOUNT DIABLO "INITIAL POINT", ESTABLISHED BY LEANDER RANSOM, UNITED STATES DEPUTY SURVEYOR, IN JULY OF 1851.

THE SURVEY WAS LIMITED TO DETERMINING THE LOCATION OF THE POINT ESTABLISHED BY RANSOM IN 1851, AND NOT IN DETERMINING THE TRUE CORNER OF TOWNSHIPS 1 NORTH AND 1 SOUTH, RANGE 1 EAST AND RANGE 1 WEST.

**RECORD INFORMATION:**

RECORDS OF THE UNITED STATES BUREAU OF LAND MANAGEMENT (USBLM), FORMERLY THE GENERAL LAND OFFICE (GLO), CALIFORNIA STATE OFFICE:

SPECIAL INSTRUCTIONS FROM SAMUEL D. KING, SURVEYOR GENERAL FOR CALIFORNIA, DATED JULY 8, 1851:

"AN EAST AND WEST BASE AND NORTH AND SOUTH MERIDIAN LINE SHALL BE RUN AND ESTABLISHED, PASSING THROUGH THE MOST PROMINENT PEAK OF MOUNT DIABLO."

(R1) VOLUME 231 - FIELD NOTES OF LEANDER RANSOM (GENERAL REPORT OF SURVEY):

"ARRIVING AT THE SUMMIT OF THE MOUNTAIN WE WERE FORTUNATE IN FINDING A VERY PROMINENT, NARROW, AND PRECIPITOUS 'HOGBACK' RIDGE, RUNNING UP TO A POINT AT THE EXTREME EAST, AND THEN FALLING OFF RAPIDLY SEVERAL HUNDRED FEET ON THE SIDES AS WELL AS THE END. AT THIS EXTREME POINT, WHICH IS VERY APPARENTLY THE HIGHEST POINT, WE FOUND A PROMINENCE OF SOLID ROCK NOT UNLIKE A SMALL 'HAY COCK', IN THE TOP OF WHICH WE EXCAVATED A HOLE NINE INCHES DEEP AND SIX INCHES SQUARE AS THE POINT THROUGH WHICH TO RUN AN EAST AND WEST BASE, AND NORTH AND SOUTH MERIDIAN LINE."

(R2) VOLUME 201, FIELD NOTES OF LEANDER RANSOM (EXTENDED NOTES OF SURVEY):

"JULY 18 - HAVING PROVIDED OURSELVES WITH MATERIALS FOR A FLAG STAFF AND FLAG, WITH THE NECESSARY INSTRUMENTS, AND TWO MULES, AND A HORSE FROM BISHOPS RANCH, WE ASCEND THE MOUNTAIN, AND AFTER SELECTING THE MOST ELEVATED AND PROMINENT PEAK OF THE MOUNTAIN, WHICH IS THE EXTREME NORTH EAST PEAK, AND A PROMINENT RIDGE OF ROCKS RISING TO A POINT. IN THIS POINT PICKED OR EXCAVATED A HOLE 6 INCHES SQUARE, AND 9 INCHES DEEP. IN THIS HOLE PLACED A STAFF 28 FEET HIGH WITH A FLAG 9 FEET LONG, AND FOUR FEET WIDE MADE OF RED AND WHITE COTTON."

RECORDS OF THE UNITED STATES COAST AND GEODETIC SURVEY (USC&GS), RECORDS GROUP 23 OF THE NATIONAL ARCHIVES, SUITLAND, MARYLAND:

(R3) REPORT OF R.D. CUTTS, ASSISTANT, UNITED STATES COAST AND GEODETIC SURVEY, DATED 1852:

"THE HIGHEST ROCK ON THE SUMMIT HAS BEEN SELECTED AS THE STARTING POINT FOR THE SURVEY OF THE PUBLIC LANDS OF CALIFORNIA.

IN A S. 20° W. DIRECTION FROM THE ABOVE - MENTIONED ROCK, AND 3 FEET BELOW ITS LEVEL AND 3 FEET DISTANT IS THE COAST SURVEY STATION. THIS IS SECURED BY A HOLE 8 INCHES IN DIAMETER, AND 6 INCHES IN DEPTH - DRILLED IN THE SOLID ROCK - AND IN THE CENTRE OF THIS, A SMALLER HOLE 2 INCHES IN DIAMETER & 1 1/2 INCHES IN DEPTH - THE CENTRE OF WHICH BEING THE CENTRE OF STATION.

THREE OTHER & SIMILAR HOLES TO THE LATTER WERE DRILLED IN THE ROCK - EACH 6 FEET FROM THE CENTRE OF STATION - AND BEARING RESPECTIVELY FROM THE CENTRE N 35° W - S. 35° E - AND S. 70° W." THE BLACK CIRCLE REPRESENTS THE ROCK - THE STARTING POINT FOR THE SURVEY OF U.S. GOVERNMENT LANDS. THE THREE SQUARE BLACK SPOTS ARE THE COAST SURVEY MARKS - SHOWING CENTER OF STATION.

(R4) REPORT OF GEORGE DAVIDSON, ASSISTANT, UNITED STATES COAST AND GEODETIC SURVEY, DATED DECEMBER 21 - 29, 1858:

"THIS STATION IS ONE SELECTED BY ASSISTANT CUTTS, AND IS THE STARTING POINT OF THE STATE LAND SURVEY. STATION PIER WHICH STANDS FOUR FEET HIGH OVER STATION HAS A HOLE ABOUT SIX INCHES SQUARE CORED IN CONCRETE TO ALLOW FOR DROPPING A PLUMB LINE TO STATION MARK, WHICH IS A COPPER BOLT IN BEDROCK."

"THE HIGHEST POINT IS NOT THAT CHOSEN BY THE COAST SURVEY, BUT A SPOT SO CLOSE BESIDE THE HIGHEST ROCK (AS DESCRIBED IN ASSISTANT CUTTS ACCOUNT) THAT THE SIGNAL POLE BEARS AGAINST IT AT ITS FOOT."

RECORDS OF THE UNITED STATES DEPARTMENT OF COMMERCE, COAST AND GEODETIC SURVEY, HORIZONTAL CONTROL DATA (FOR MT. DIABLO), WASHINGTON, D.C., 1963:

CONTAINS THE DESCRIPTIONS OF THE TRIANGULATION STATION ON THE TOP OF MOUNT DIABLO, BEGINNING WITH THE ESTABLISHMENT IN 1852 BY CUTTS, AND RECOVERY NOTES FOR 1858, 1876, 1892, 1922, 1935, 1946, 1948, AND OTHER RECOVERIES BETWEEN 1951 AND 1972.

(R5) THE 1946 RECOVERY NOTES READ AS FOLLOWS: "SINCE THE 1935 RECOVERY OF THIS STATION A LARGE CONCRETE BUILDING, WITH OBSERVATION TOWER, HAS BEEN ERRECTED OVER IT. A FLASHING, RED BEACON LIGHT, ABOUT 40 FEET DIRECTLY ABOVE THE STATION MARK, IS ON THE APEX OF THE TOWER. THE STATION MARK, UNSTAMPED, IS A BRASS BOLT, 1/2" IN DIAMETER, PROJECTING 1/2" ABOVE THE BASEMENT FLOOR OF THE TOWER, WHICH IS THE SOUTHERN PART OF THE BUILDING, A TAPERED, OCTAGONAL, CONCRETE SHAFT, HOLLOW IN THE CENTER, HAS BEEN ERRECTED OVER THE MARK AND EXTENDS INTO THE SECOND STORY OF THE TOWER. TWO OPENINGS, 8 INCHES SQUARE, ARE AT THE BASE OF THE SHAFT AND AT THE LEVEL WITH THE MARK. OBSERVATIONS MUST BE MADE FROM THE THIRD (TOP) STORY, AND A ROUND OPENING, 10 INCHES IN DIAMETER, IS IN THE THE CENTER OF THE FLOOR TO ENABLE PLUMBING TO THE MARK."

(R6) RECORD OF SURVEY NO. 946 FILED IN BOOK 18 OF MAPS, AT PAGES 17-37, RECORDS OF ALAMEDA COUNTY, FILED BY EARL R. CROSS, PLS 3242

**OTHER REFERENCES:**

"INITIAL POINTS OF THE RECTANGULAR SURVEY SYSTEM" - C. ALBERT WHITE - THE PUBLISHING HOUSE, P.O. BOX 215, WESTMINSTER, COLORADO, 80030

"THE RE-DISCOVERY OF THE MOUNT DIABLO INITIAL POINT" - JOHN W. PETTLEY, JOURNAL OF AMERICAN CONGRESS ON SURVEYING AND MAPPING, VOLUME 48, NO. 2, JUNE, 1988.

CALIFORNIA STATE PARK SERVICE, MOUNT DIABLO STATE PARK - PARK HISTORY BINDER, SECTION ENTITLED "THE SURVEY MONUMENT", MOUNT DIABLO STATE PARK FILES.

GEODETIC GLOSSARY, NATIONAL GEODETIC SURVEY, ROCKVILLE, MARYLAND, DATED SEPTEMBER, 1986.

**CHRONOLOGY OF RECORD DATA DESCRIBING THE MOUNT DIABLO INITIAL POINT:**

1851 - (LEANDER RANSOM OF THE GLO) - EXCAVATED A HOLE NINE INCHES DEEP AND SIX INCHES SQUARE AS THE POINT THROUGH WHICH TO RUN AN EAST AND WEST BASE, AND NORTH AND SOUTH MERIDIAN LINE."

1852 - (R.D. CUTTS OF THE USC&GS) - "THE HIGHEST ROCK ON THE SUMMIT HAS BEEN SELECTED AS THE STARTING POINT FOR THE SURVEY OF THE PUBLIC LANDS OF CALIFORNIA. IN A S. 20° W. DIRECTION FROM THE ABOVE MENTIONED ROCK, AND 3 FEET BELOW ITS LEVEL AND 3 FEET DISTANT IS THE COAST SURVEY STATION.

1858 - (GEORGE DAVIDSON OF THE USC&GS) - "THIS STATION IS ONE SELECTED BY ASSISTANT CUTTS, AND IS THE STARTING POINT OF THE STATE LAND SURVEY. STATION PIER WHICH STANDS FOUR FEET HIGH OVER STATION HAS A HOLE ABOUT SIX INCHES SQUARE CORED IN CONCRETE TO ALLOW FOR DROPPING A PLUMB LINE TO STATION MARK, WHICH IS A COPPER BOLT IN BEDROCK."

"THE HIGHEST POINT IS NOT THAT CHOSEN BY THE COAST SURVEY, BUT A SPOT SO CLOSE BESIDE THE HIGHEST ROCK (AS DESCRIBED IN ASSISTANT CUTTS ACCOUNT) THAT THE SIGNAL POLE BEARS AGAINST IT AT ITS FOOT."

(UPON EXAMINING THE RECORD EVIDENCE, THERE APPEARS TO BE A DISCREPANCY BETWEEN THE DESCRIPTION GIVEN BY CUTTS IN 1852 AND DAVIDSON IN 1858. CUTTS SAYS THAT THE COAST SURVEY STATION IS LOCATED THREE FEET AWAY, AND THREE FEET BELOW THE INITIAL POINT (THE STARTING POINT FOR THE SURVEY OF THE PUBLIC LANDS IN CALIFORNIA). DAVIDSON, HOWEVER, APPEARS TO SAY THAT THE COAST SURVEY STATION AND THE INITIAL POINT ARE THE SAME.

**FIELD INVESTIGATION AND SURVEY:**

ON JULY 26, 1987, A VISIT WAS MADE TO THE TOP OF MOUNT DIABLO TO INVESTIGATE THE EXISTING FIELD CONDITIONS, AND TO DETERMINE IF THERE WAS ANY ORIGINAL EVIDENCE OF RANSOM'S POINT, THREE FEET NORTHEAST FROM THE COAST SURVEY STATION, WHICH IS NOW MARKED BY A COPPER BOLT (R5).

THE STONE OBSERVATION TOWER ON THE SUMMIT OF MOUNT DIABLO IS LOCATED AT THE EASTERLY END OF AN ASPHALT PARKING LOT, AND ON THE SOUTHERLY END OF A RECTANGULAR STONE BUILDING. INSIDE THE BASEMENT OF THE TOWER IS AN OCTAGONAL CONCRETE PILLAR, AS DESCRIBED IN THE 1946 RECOVERY NOTES OF THE USC&GS (R5). AT THE BASE OF THE PILLAR ARE TWO OPENINGS, ALSO DESCRIBED IN THE NOTES, WHICH GIVE ACCESS TO A COPPER BOLT SET IN THE FLOOR OF THE BUILDING. THIS BOLT IS VERY APPARENTLY THE COAST SURVEY MARK. (SEE SHEET 2 OF 3 SHEETS).

THE BASEMENT FLOOR IS PAVED WITH CONCRETE, AND A WALKWAY SURROUNDS THE CONCRETE PILLAR. THERE ARE STEPS UP AS YOU GO AROUND THE PILLAR, AND TO THE NORTHEAST OF THE CONCRETE PILLAR IS AN OUTCROPPING OF ROCK, WHICH PROTRUDES ABOVE THE CONCRETE FLOOR. PARK RANGERS REFER TO THE OUTCROPPING AS "THE MOST PROMINENT PEAK OF MOUNT DIABLO". IN THE NORTHERLY PART OF THE OUTCROPPING IS A RECTANGULAR DEPRESSION, WHICH MEASURES APPROXIMATELY 11 INCHES BY NINE INCHES, AND 2.5 INCHES DEEP. IT APPEARS TO BE MAN-MADE. AN APPROXIMATE BEARING MEASURED WITH A HAND COMPASS GAVE A BEARING OF S 30° W, AND THE DISTANCE FROM THE DEPRESSION TO THE COPPER BOLT WAS ESTIMATED TO BE ABOUT THREE FEET. THE COPPER BOLT WAS ESTIMATED TO BE 18 INCHES BELOW THE DEPRESSION (SEE SHEET 2 OF 3 SHEETS).

IN AUGUST OF 1987, A FIELD SURVEY WAS CONDUCTED TO DETERMINE A PRECISE BEARING, DISTANCE, AND DIFFERENCE IN ELEVATION BETWEEN THE TWO POINTS. (SEE SHEET 2 OF 3 SHEETS)

**INDEX OF SHEETS**

SHEET 1 - REVIEW AND ANALYSIS OF RECORD DATA

SHEET 2 - RESULTS OF FIELD SURVEY

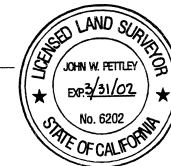
SHEET 3 - CONCLUSIONS AND DISCUSSIONS

**SURVEYOR'S STATEMENT:**

THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION IN CONFORMANCE WITH THE REQUIREMENTS OF THE LAND SURVEYOR'S ACT IN JULY, 1987.

*John W. Pettley*  
JOHN W. PETTLEY, PLS 6202  
LICENSE EXPIRATION DATE: 3/31/02

July 18, 2001



**COUNTY SURVEYOR'S STATEMENT:**

THIS MAP HAS BEEN EXAMINED IN ACCORDANCE WITH SECTION 8766 OF THE LAND SURVEYOR'S ACT THIS 26<sup>th</sup> DAY OF JULY, 2001.

MARICE M. SHIJI  
COUNTY ROAD COMMISSIONER - SURVEYOR



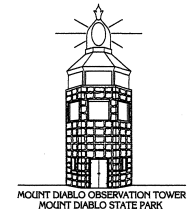
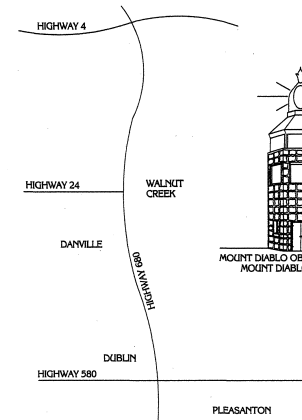
*Reza Fidarman*  
DEPUTY COUNTY ROAD  
COMMISSIONER - SURVEYOR  
I.S. NO.: 5999  
LICENSE EXPIRATION DATE: 12/31/04

**RECORD OF SURVEY**

RS 2582

TO DETERMINE THE LOCATION  
OF  
THE MOUNT DIABLO INITIAL POINT  
LOCATED ON  
THE TOP OF MOUNT DIABLO  
CONTRA COSTA COUNTY, CALIFORNIA

Prepared By:  
JOHN W. PETTLEY, PLS  
JULY 2001



VICINITY MAP  
NTS

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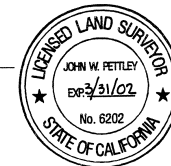
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*Reza Fidarman*  
DEPUTY COUNTY ROAD  
COMMISSIONER - SURVEYOR  
I.S. NO.: 5999  
LICENSE EXPIRATION DATE: 12/31/04

**RECORDER'S STATEMENT:**

FILED THIS 27<sup>th</sup> DAY OF JULY, 2001, AT 11:34 A.M.

IN BOOK 121 OF L.S.M. AT PAGE 13 AT THE

REQUEST OF JOHN W. PETTLEY. #2001-218293

STEPHEN L. WEIR  
COUNTY RECORDER

*Stephen L. Weir*  
DEPUTY COUNTY RECORDER

SHEET 1 OF 3 SHEETS

121 LSM 13

7-27-2001 11:34 AM 121-13