

VERTICAL AND HORIZONTAL SURVEY CONTROL NETWORK

October 2010 Update





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INTRODUCTION

CITY BENCHMARKS - Horizontal and Vertical Control Survey

The City has adopted the 1988 North American Vertical Datum (NAVD88) as its standard for vertical control. Prior maps, drawings and other documents in the City used the 1929 National Geodetic Vertical Datum (NGVD 29).

The City Horizontal and Vertical Control Network is comprised of 132 Benchmarks and nine (9) Horizontal / Vertical Control points. The Benchmark List is expressed in the 1988 North American Vertical Datum. Values for both US Survey Feet and Meters are provided. The Horizontal Control Point List provides horizontal values expressed in both Geodetic (Longitude / Latitude) and the 1983 North American Datum (US Survey Feet) and vertical values expressed in NAVD 88 (US Survey Feet and Meters).

Elevations expressed in the current NAVD 88 datum are generally 2.75 feet (or 0.838 meters) greater than those expressed in the former NAVD 29 datum within the City of Mountain View. This fact is important when comparing maps that may be derived from differing datums.

Disturbance of Horizontal and Vertical Control Points

In accordance with Section 8771 (b) of the Professional Land Surveyors Act, when monuments exist that control the location of subdivisions, tracts, boundaries, roads, streets, or highways, or provide horizontal or vertical survey control, the monuments shall be located and referenced by or under the direction of a licensed land surveyor or registered civil engineer prior to the time when any streets, highways, other rights-of-way, or easements are improved, constructed, reconstructed, maintained, resurfaced, or relocated, and a corner record or record of survey of the references shall be filed with the county surveyor. They shall be reset in the surface of the new construction, a suitable monument box placed thereon, or permanent witness monuments set to perpetuate their location if any monument could be destroyed, damaged, covered, or otherwise obliterated, and a corner record or record of survey filed with the county surveyor prior to the recording of a certificate of completion for the project.

Monuments in the City of Mountain View shall also be reset in accordance with the City of Mountain View Standard Provisions and Standard Details.

Recording with County Surveyor

This horizontal and vertical control survey was recorded with the Office of the County Surveyor of Santa Clara County in March 2011.



City of Mountain View Vertical and Horizontal Control Final Report of Methods, Procedures, and Results

The goal for the survey was to update the establish North American Vertical Datum 1988 (NAVD88) elevations on the existing city benchmarks and establish Geodetic Positions and coordinate values based on the North American Datum of 1983 (NAD83) for nine (9) primary control points on existing monuments. A reconnaissance survey was performed to locate the existing benchmarks. Of the 138 benchmarks outlined in the 1999 survey, 127 benchmarks were recovered. Three were deleted from the survey: (1) V-03 was not accessible to the general public; (2) IV-14 was found damaged with the brass disk removed; (3) II-21 was determined to be in an unstable location. Benchmarks II-25, IV-36 and IV-48 were not reset. Benchmarks III-15, III-57, III-59, IV-07, IV-33, V-23, V-24 and V-41 were reset and noted as such in the detailed listing. Current network includes 132 Benchmarks and 9 primary control points.

Equipment:

Trimble 4800 Dual Frequency GPS Receiver, ID#0220208250 Trimble 4800 Dual Frequency GPS Receiver, ID#0220184850 Trimble 5800 Dual Frequency GPS Receiver, ID#4437137805 Trimble Survey Controller (TSC1), ID#0220208406 Trimble Survey Controller (TSC1), ID#0000420508 Trimble Survey Controller (TSC1), ID#SS10A04530 Seco Precise GPS Fixed Height Tripods (3) Trimble DINI-12 Electronic Digital Level, ID#701578A

Differential Leveling Network Methodology:

All benchmark locations and primary control points were tied together by a closed differential leveling network. A total of 63 level loops with a total of ±160,000 feet or 30 miles were run during the survey from April 19, 2010 through June 23, 2010. The procedure for the project was to use existing National Geodetic Survey (NGS) benchmarks, with a First Order, Stability A rating, available in the immediate area. Our research found the nearest published NAVD88 that meet the specification was in the City of Milpitas over 15 miles away. As an alternate, we utilized benchmarks established by the Santa Clara Valley Water District. The District establishes and maintains benchmarks throughout Santa Clara County as a part of their subsidence monitoring and flood control program. These benchmarks are updated every four (4) years and are based on North American Vertical Datum 1988 (NAVD88). We worked closely with Dan Gilleland of the District to obtain current adjusted values. Our survey held fixed BM149, BM204, BM227, BM232 (MVBM II-15), BM668 (MVBM II-18) and BM711 (MVBM III-60) and tied to BM688 (MVBM III-34), BM689 (MVBM III-35), BM699 (MVBM III-46) and BM703 (MVBM III-53). Datasheets are provided in *Section 1*.

The Loops were run using the Second Order Differential Leveling Survey Specifications outlined in Chapter 8 of the California Department of Transportation Survey Manual. Three main splines were run using a "Double Run" (simultaneous BS-FS/FS-BS) leveling procedure was used for collecting field data for benchmarks for three major splines. This method provides immediate feedback on quality of measurements by allowing you to repeat a measurement until set parameters are met, therefore an



instrument setup will not be vacated until quality parameters have been satisfied. The tolerance for maximum allowed of error closure between the forward and backward difference in elevation observations was set at 0.003 feet per turn. We must qualify that the type of level used for this procedure has a great track record for repeatability and accuracy. Daily calibration checks were performed at morning start of leveling work, and again during the day when conditions and temperature varied greatly from the morning calibration conditions. The set parameter for length of turns was set at 220 feet maximum. We find this length ideal for the measurements to easily meet the accuracy parameters without having to repeat many setups. This distance as a maximum is also a Caltrans requirement to achieve second order accuracy. The secondary loops were run in a single run procedure and closed on adjusted benchmarks or turning points from the major splines.

Horizontal Control Methodology:

Nine (9) primary project control points were selected throughout the city. Their positions were chosen based on suitability for GPS and geometric coverage. The survey was conducted using the Horizontal First Order GPS Survey requirements outlined in Chapter 6 of the California Department of Transportation Survey Manual. The data was collected for a minimum of fifteen (15) minutes per session at five (5) second intervals. The data was then processed with the National Geodetic Surveys (NGS) Precise Ephemeris using Trimble Geomatics Office, Version 1.63. The data was then adjusted to the Height Modernization Survey Stations, maintained by NGS and the California Spatial Reference Center, control monuments OXMT, MONB, LUTZ, WIN2 using Star Net Pro, Version 6.0.31. These control stations have a published EPOCH DATE of 2007.00, NAD83. In a minimally constrained adjustment, MONB was held fixed horizontally and the NOLTE Primary Control Point No. 2 (PC2) was held vertically. In a final adjustment, the network was constrained to the control monuments OXMT, MONB, LUTZ, WIN2 and PC 2.

No. LS 4922 EXP. 12/31/12

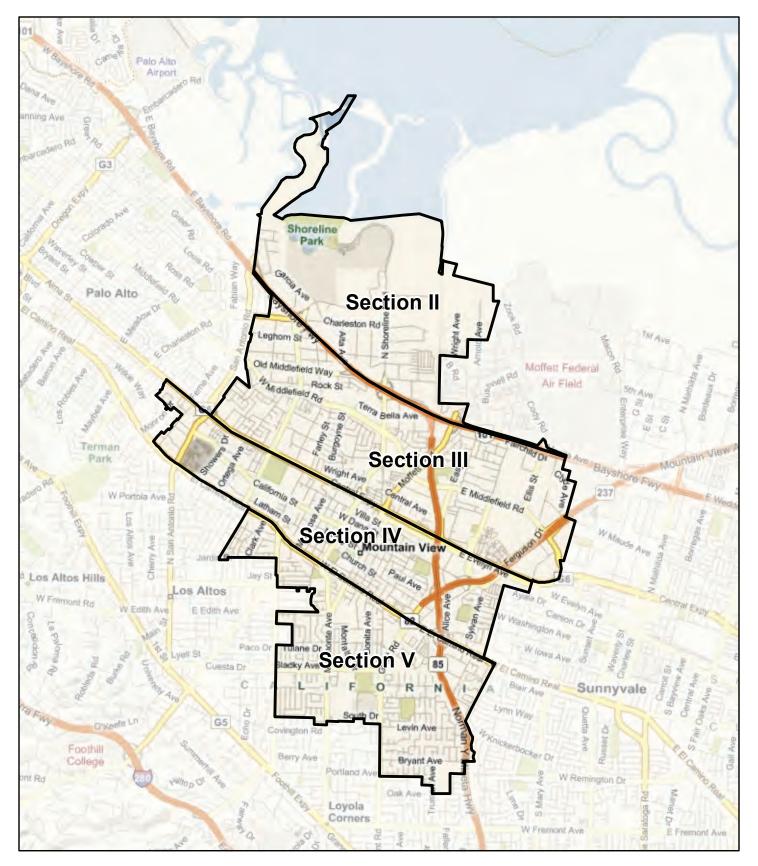
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Respectfully Submitted: NOLTE ASSOCIATES, INC.

Jerome R. Jones, PLS 4922

Expires: 12-31-2012



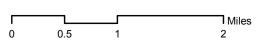


VERTICAL SURVEY - VICINITY MAP

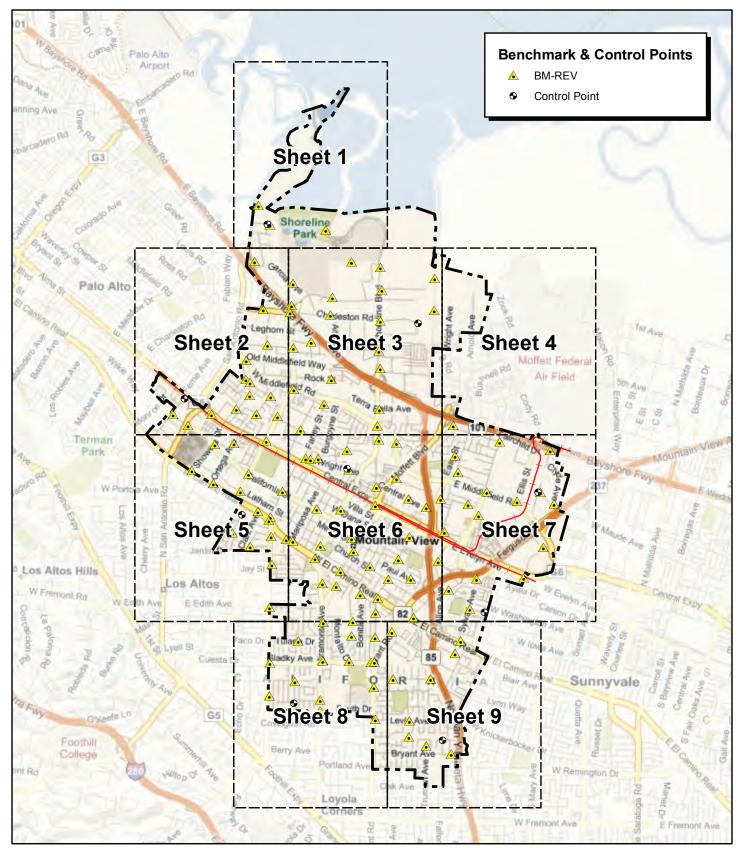
City of Mountain View 2010 Benchmark Survey











KEY MAP

City of Mountain View 2010 Benchmark Survey



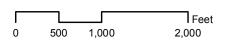


7 Miles

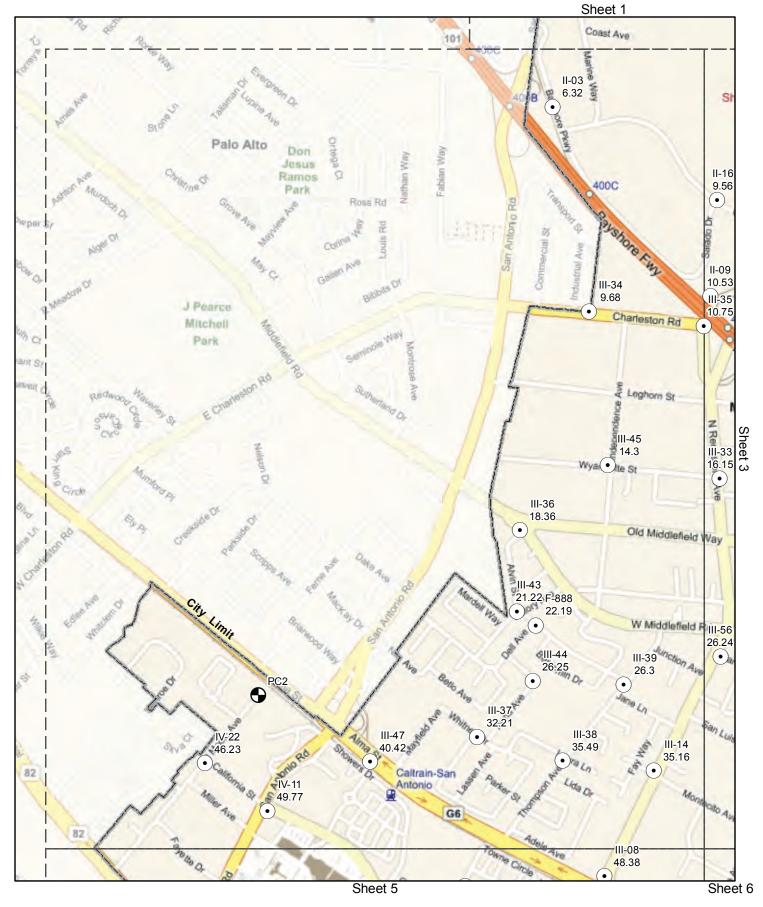






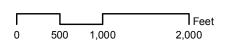






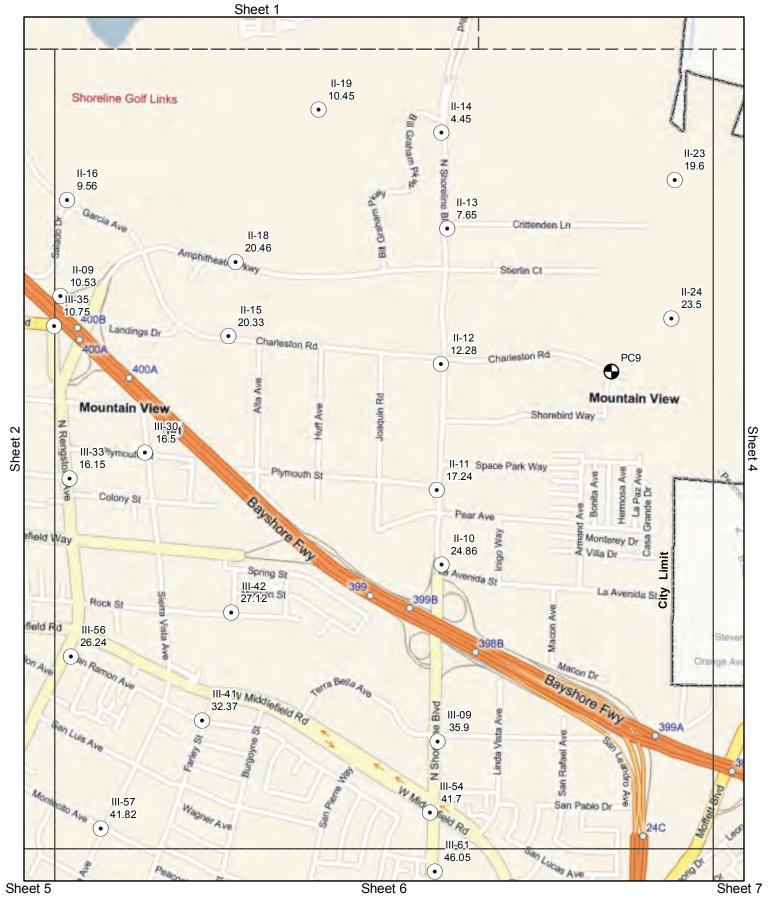








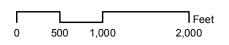
Sheet 2









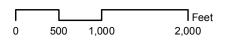




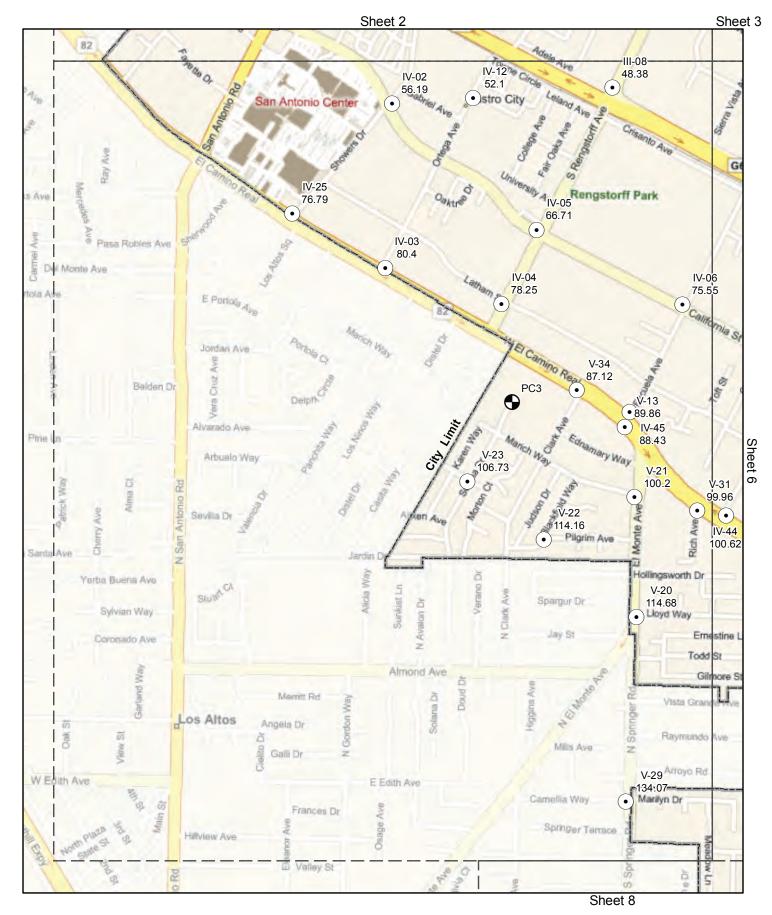






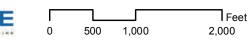




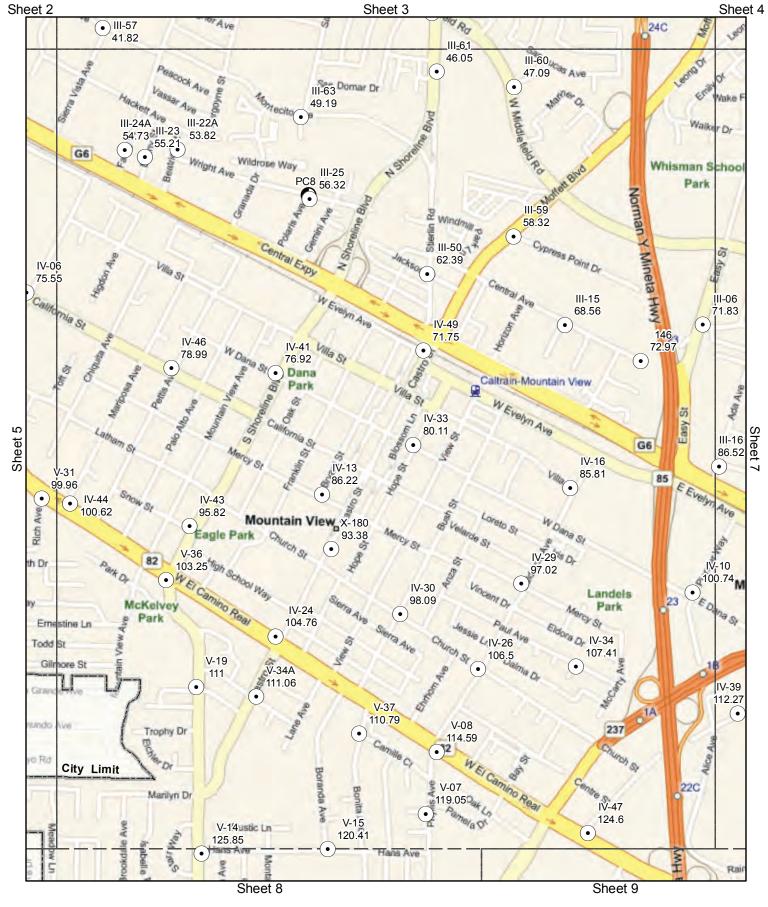






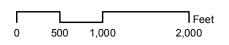






CITY OF MOUNTAIN VIEW



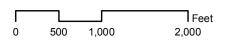




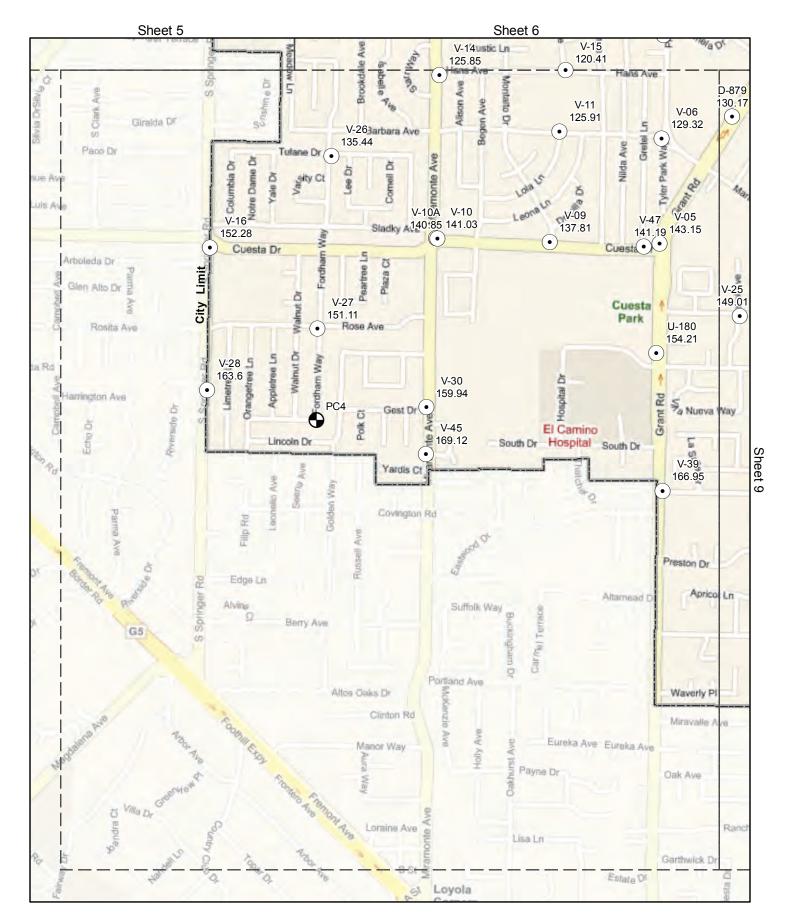
Sheet 3 Sheet 4 Evandale Ave NO OT 41.73 III-65 38.27 III-07 Bayshore Fwy Walker Dr 53.9 101 National Ave ian School Park III-55 Sherland Ave 61.12 Mountain View Al III-05 III-12 63.3 PC7 53.81 III-06 71.83 E Middlefield Rd Kittoe Dr III-02 III-17 59.77 III-11 •) 75.01 55.8 lacksquare**III-62** 77.82 Slater School Park Sheet III-16 86.52 Encinal Minaret Ave Park III-64 76.13 IV-37 Mountain View Arriso Rd IV-10 100.74 Mountain View 18 106.7 W IV-39 Serena Dr 112.27 Sylvan 118.29 2C Rainbow Dr à Sheet 9





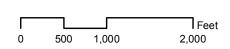




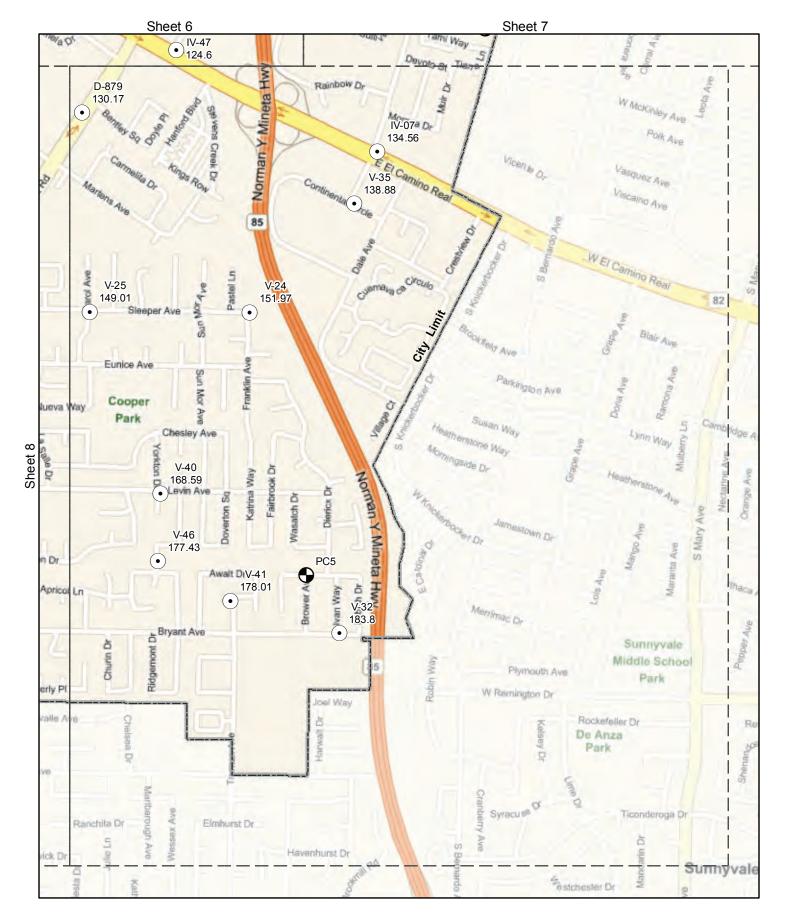






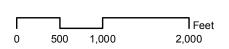














Sheet 9

City of Mountain View

Benchmark Elevation List

Benchmark	Feet	Meters	Proximity:		
146	72.9726	22.2421	Stevens Creek /	Central Avenue	
D879	130.1697	39.6758	Grant Road /	South of El Camino Real	
F888	22.1933	6.7645	Dell Avenue /	Alvin Street	
U180	154.2110	47.0036	Grant Road /	Eunice Avenue	
X180	93.3755	28.4609	Castro Street /	Church Street	
II-03	6.3225	1.9271	Bayshore Parkway /	Garcia Avenue	
II-09	10.5279	3.2089	Bayshore Hwy Entrance /	Amphitheatre Parkway	
II-10R	24.8569	7.5764	North Shoreline Boulevard /	L'Avenida	
II-11	17.2401	5.2548	North Shoreline Boulevard /	Plymouth Street	
II-12	12.2762	3.7418	North Shoreline Boulevard /	Charleston Road	
II-13	7.6500	2.3317	North Shoreline Boulevard /	Crittenden Lane	
II-14	4.4540	1.3576	North Shoreline Boulevard /	South of Amphitheatre Drive	
II-15	20.3300	6.1966	Permanente Creek /	Charleston Road	
II-16	9.5648	2.9154	Salado Drive /	Garcia Avenue	
II-17	6.6946	2.0405	Broderick Way /	Terminal Boulevard	
II-18	20.4552	6.2348	Permanente Creek /	Amphitheatre Parkway	
II-19	10.4450	3.1840	East of Permanente Creek /	Energy Trail	
II-20	8.2356	2.5102	San Antonio Road North Exit /	SF Bay Loop Trail	
II-22	13.8390	4.2181	Charleston Slough West Levee /	Charleston Slough Outer Levee	
II-23	19.6025	5.9749	North Shoreline Boulevard /	Shoreline Lake	
II-24	23.5040	7.1640	Stevens Creek West Levee /	North of Crittenden Lane	
III-02	59.7670	18.2170	Ellis Street /	East Middlefield Road	
III-05	63.3000	19.2939	North Whisman Road /	East Middlefield Road	
III-06	71.8256	21.8925	Easy Street /	Gladys Avenue	
III-07	53.9024	16.4295	Easy Street /	Walker Drive	
III-08	48.3757	14.7449	North Rengstorff Avenue /	North of Central Expressway	
III-09	35.9033	10.9433	North Shoreline Boulevard /	Terra Bella Avenue	
III-11	55.8119	17.0115	Clyde Avenue /	Maude Avenue	
III-12	53.8135	16.4024	Logue Avenue /	Maude Avenue	
III-14	35.1550	10.7153	North Rengstorff Avenue /	Jewell Place	

Benchmark	Feet	Meters		Proximity:		
III-15	68.5600	20.8971	Reset	Andsbury Avenue /	Central Avenue	
III-16	86.5249	26.3728		Ada Avenue /	Minaret Avenue	
III-17	75.0081	22.8625		James Drive /	Gladys Avenue	
III-22A	53.8158	16.4031		Beatrice Street /	Hetch-Hetchy South R/W	
III-23	55.2105	16.8282		Bonny Street /	Hetch-Hetchy North R/W	
III-24A	54.7275	16.6810		Farley Street /	Hetch-Hetchy North R/W	
III-25	56.3209	17.1666		Polaris Avenue /	Wright Avenue	
III-30	16.5014	5.0296		Sierra Vista Avenue /	Plymouth Street	
III-33	16.1520	4.9231		North Rengstorff Avenue /	Wyandotte Street	
III-34	9.6809	2.9507		Industrial Avenue /	East Charleston Road	
III-35	10.7546	3.2780		North Rengstorff Avenue /	East Charleston Road	
III-36	18.3646	5.5975		Alvin Street /	Middlefield Road	
III-37	32.2059	9.8164		Diablo Avenue /	Whitney Drive	
III-38	35.4949	10.8189		Thompson Avenue /	Laura Lane	
III-39	26.2963	8.0151		Thompson Avenue /	Alvin Street	
III-41	32.3743	9.8677		Farley Street /	San Ramon Avenue	
III-42	27.1210	8.2665		Telford Avenue /	Rock Street	
III-43	21.2186	6.4674		Alvin Street /	Victory Avenue	
III-44	26.2474	8.0002		Anna Avenue /	Elka Avenue	
III-45	14.2997	4.3586		Independence Avenue /	Wyandotte Street	
III-46	41.1512	12.5429		Leong Drive /	Evandale Avenue	
III-47	40.4186	12.3196		San Antonio Road /	Central Expressway	
III-50	62.3870	19.0156		Stierlin Road /	Jackson Street	
III-53	41.7253	12.7179		North Whisman Road /	Evandale Avenue	
III-54	41.7044	12.7115		North Shoreline Boulevard /	Middlefield Road	
III-55	61.1243	18.6307		Tyrella Avenue /	Flynn Avenue	
III-56	26.2381	7.9974		North Rengstorff Avenue /	San Ramon Avenue	
III-57	41.8187	12.7464	Reset	Sierra Vista Avenue /	Montecito Avenue	
III-59	58.3232	17.7769	Reset	Moffett Boulevard /	Cypress Point Drive	
III-60	47.0900	14.3531		San Vernon Avenue /	Middlefield Road	
III-61	46.0497	14.0360		North Shoreline Boulevard /	Mountain Shadows Drive	
III-62	77.8150	23.7181		North Whisman Road /	Gladys Avenue	
III-63	49.1883	14.9926		Poppy Place /	Montecito Avenue	

Benchmark	Feet	Meters	Proximity:		
III-64	76.1299	23.2044		Ravendale Drive /	Bernardo Avenue
III-65	38.2707	11.6649		Clyde Avenue /	Clyde Avenue
IV-02	56.1935	17.1278		Showers Drive /	California Street
IV-03	80.4008	24.5062		Ortega Avenue /	El Camino Real
IV-04	78.2487	23.8503		South Rengstorff Avenue /	Latham Street
IV-05	66.7070	20.3323		South Rengstorff Avenue /	California Street
IV-06	75.5520	23.0283		Escuela Avenue /	California Street
IV-07	134.5550	41.0124	Reset	Sylvan Avenue /	El Camino Real
IV-10	100.7444	30.7070		Pioneer Way /	Dana Street
IV-11	49.7670	15.1690		San Antonio Road /	California Street
IV-12	52.0979	15.8795		Ortega Avenue /	Mora Drive
IV-13	86.2180	26.2793		Bryant Street /	Mercy Street
IV-16	85.8092	26.1547		Calderon Avenue /	Villa Street
IV-22	46.2315	14.0914		Del Medio Avenue /	California Street
IV-24	104.7610	31.9310		Castro Street /	El Camino Real
IV-25	76.7886	23.4052		Showers Drive /	El Camino Real
IV-26	106.5046	32.4627		Calderon Avenue /	Church Street
IV-29	97.0199	29.5717		Calderon Avenue /	Mercy Street
IV-30	98.0926	29.8987		Bush Street /	Church Street
IV-33	80.1058	24.4163	Reset	Hope Street /	Dana Street
IV-34	107.4134	32.7397		Patricia Court /	Paul Avenue
IV-35	118.2876	36.0541		Sylvan Avenue /	Sevely Drive
IV-37	106.6996	32.5221		Sylvan Avenue /	Moorpark Way
IV-39	112.2719	34.2205		Dana Street /	Moorpark Way
IV-40	93.9761	28.6440		Bernardo Avenue /	Evelyn Avenue
IV-41	76.9160	23.4440		South Shoreline Boulevard /	Dana Street
IV-43	95.8204	29.2061		South Shoreline Boulevard /	Snow Street
IV-44	100.6220	30.6696		Mariposa Avenue /	El Camino Real
IV-45	88.4320	26.9541		Escuela Avenue /	El Camino Real
IV-46	78.9919	24.0768		Pettis Avenue /	California Street
IV-47	124.6018	37.9787		Yuba Drive /	El Camino Real
IV-49	71.7451	21.8680		Castro Street /	Evelyn Avenue
V-05	143.1504	43.6323		Grant Road /	Cuesta Drive

Benchmark	Feet	Meters	Proximity:		
V-06	129.3214	39.4172		Phyllis Avenue /	Barbara Avenue
V-07	119.0501	36.2865		Phyllis Avenue /	Katie Court
V-08	114.5916	34.9276		Phyllis Avenue /	El Camino Real
V-09	137.8132	42.0055		Montalto Drive /	Cuesta Drive
V-10	141.0323	42.9867		Miramonte Avenue /	Cuesta Drive
V-10A	140.8478	42.9305		Miramonte Avenue /	Cuesta Drive
V-11	125.9101	38.3775		Lola Lane /	Barbara Avenue
V-13	89.8641	27.3906		Escuela Avenue /	El Camino Real
V-14	125.8521	38.3598		Miramonte Avenue /	Hans Avenue
V-15	120.4084	36.7006		Boranda Lane /	Hans Avenue
V-16	152.2834	46.4161		South Springer Road /	Cuesta Drive
V-19	111.0038	33.8340		Miramonte Avenue /	Harpster Drive
V-20	114.6780	34.9539		El Monte Avenue /	Lloyd Way
V-21	100.1959	30.5398		El Monte Avenue /	Marich Way
V-22	114.1559	34.7948		Blackfield Way /	Pilgrim Avenue
V-23	106.7329	32.5323	Reset	Solana Court /	Cecelia Way
V-24	151.9735	46.3216	Reset	Franklin Avenue /	Sleeper Avenue
V-25	149.0148	45.4198		Carol Avenue /	Sleeper Avenue
V-26	135.4354	41.2808		Fordham Way /	Tulane Drive
V-27	151.1089	46.0581		Fordham Way /	Rose Avenue
V-28	163.5987	49.8650		South Springer Road /	Birchwood Court
V-29	134.0664	40.8635		Springer Road /	Marilyn Drive
V-30	159.9434	48.7508		Miramonte Avenue /	Gest Drive
V-31	99.9622	30.4685		Rich Avenue /	El Camino Real
V-32	183.8047	56.0238		Ivan Way /	Bryant Avenue
V-34	87.1248	26.5557		Clark Avenue /	El Camino Real
V-34A	111.0610	33.8515		Castro Street /	Sonia Way
V-35	138.8845	42.3321		The Americana /	Continental Circle
V-36	103.2501	31.4707		Miramonte Avenue /	El Camino Real
V-37	110.7857	33.7675		Bonita Avenue /	Camille Court
V-39	166.9488	50.8861		Grant Road /	Levin Avenue
V-40	168.5943	51.3876		Levin Court /	Levin Avenue
V-41	178.0124	54.2583	Reset	Truman Avenue /	Andre Drive

Benchmark	Feet	Meters	Proximity:		
V-45	169.1221	51.5485	Miramonte Avenue / North of Yardis Court		
V-46	177.4271	54.0799	Saint Giles Lane / Permanente Creek X-Channel		
V-47	141.1857	43.0335	Gretel / Cuesta Drive		

City of Mountain View

Horizontal Control Point List

Control Point	Elevation (Feet)	Elevation (Meters)	Northing	Easting	Latitude	Longitude
PC1	6.675	2.035	1984236.0224	6097875.5733	37°26'00.254710"	122°05'50.736394"
PC2	40.946	12.480	1975526.7836	6093737.6777	37°24'33.455638"	122°06'40.174804"
PC3	92.169	28.093	1969769.5679	6096593.8841	37°23'37.025541"	122°06'03.557156"
PC4	158.874	48.425	1960365.6081	6099181.2207	37°22'04.495853"	122°05'29.517250"
PC5	174.537	53.199	1958515.7975	6106617.535	37°21'47.449088"	122°03'57.026147"
PC6	117.014	35.666	1964874.2392	6108699.8327	37°22'50.651730"	122°03'32.548044"
PC7	54.154	16.506	1970868.7013	6111375.2992	37°23'50.351828"	122°03'00.633596"
PC8	55.742	16.990	1972038.2953	6101854.597	37°24'00.338588"	122°04'58.850204"
PC9	11.787	3.593	1979287.0483	6105397.6837	37°25'12.589205"	122°04'16.454155"



Section I Reference Benchmarks

National Geodetic Surveys (146, D897, F888, U180, X180) SCVWD Benchmarks (BM149, BM204, BM227, BM232, BM668, BM688, BM689, BM699, BM703, BM711)





Elevation Feet: 72.973 Elevation Meters: 22.242 Adjusted: 2010

Datum: NAVD 1988

Description:

Brass disk stamped "SCVWD BM146" set in the top of curb at the end of Central Avenue cul-de-sac adjacent to Electrolier No. 20069

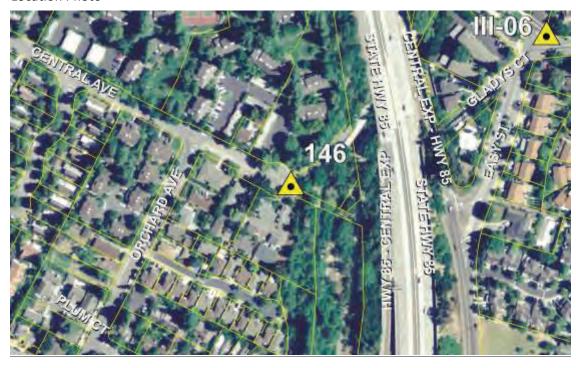
Site Photo



Point Photo



Location Photo





D879

Elevation Feet: 130.170
Elevation Meters: 39.676
Adjusted: 2010
Datum: NAVD 1988

Description:

Brass disk stamped "National Geodetic Surveys Vertical Control Mark D879" set in the top of curb on the west side of Grant Road, 0.2 miles south of El Camino Real opposite Bentley Square

Site Photo





Location Photo





F888

Elevation Feet: 22.193
Elevation Meters: 6.765
Adjusted: 2010

Datum: NAVD 1988

Description:

U.S.C.& G.S. brass disk set in top of curb at the end of the southeast return of Alvin Street at Dell Avenue. Set 1948, reset 1953

Site Photo





Location Photo





U180

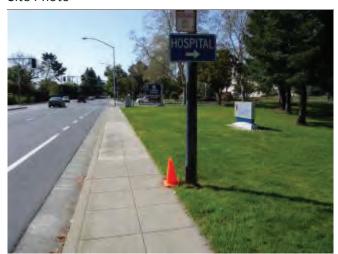
Elevation Feet: 154.211 Elevation Meters: 47.004 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped"National Geodetic Surveys Vertical Control Mark U180" set in the top of a concrete base of Electrolier No 17939 on the west side of Grant Road 140'± north of Eunice Avenue

Site Photo





Location Photo







X180

Elevation Feet: 93.376 Elevation Meters: 28.461 Adjusted: 2010

Datum: NAVD 1988

Description:

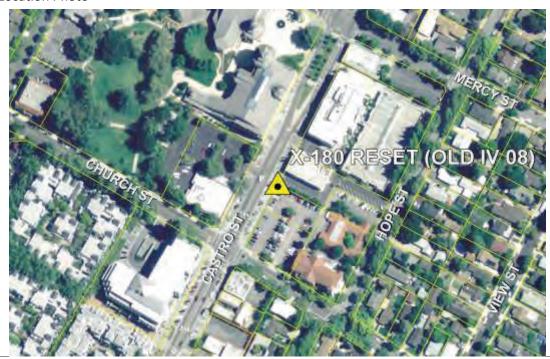
Bronze disk stamped "IV-08" set in the sidewalk on the east side of the 500 block of Castro Street. Same as IV-08

Site Photo





Location Photo





Historical Report for: 10/18/10

Point ID BM149

Projects STEVENS CREEK,BM

MAINTENANCE 1,HEIGHT

MOD

Organization SCVWD

Yellow Book 47

Date Adjusted 05/04/2010

Date Measured 07/11/2006

Elev(NAVD88FT) 131.06

Based On NGS/CS

RC

Datum 2009

Order

2 Class

2

Latitude 37 22 44.74 N

Longitude

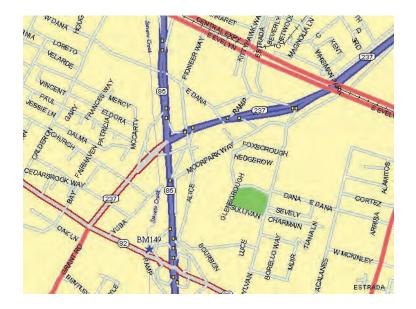
122 04 11.05 W

Northing

1964328.866

Easting

6105582.611





** CAUTION: THE HORIZONTAL LOCATION SHOWN IS NOT ACCURATE **

Brass disk on North side of El Camino Real in back of bridge sidewalk at the westerly corner of El Camino Real bridge over Stevens Creek. City of Mountain View.

Historical Report for: 10/18/10

Point ID BM204

Projects PERMANENTE CREEK,BM

MAINTENANCE 1, HEIGHT

MOD

Organization SCVWD

Yellow Book 47

Date Adjusted 05/04/2010

Date Measured 07/11/2006

Elev(NAVD88FT) 158.81

Based On NGS/CS

RC

Datum 2009

Order

2

Class 2

Latitude 37 22 08.626 N

Longitude

122 05 12.576 W

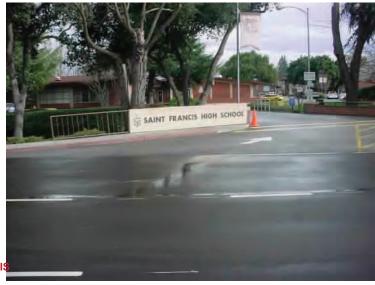
Northing

1960760

Easting

6100556





** CAUTION: THE HORIZONTAL LOCATION SHOWN IS NOT ACCURATE **

Brass disk in top of curb at the Northwesterly corner of entrance road bridge to St. Francis High School over Permanente Creek. Station is on the East side of Miramonte Avenue.

Historical Report for: 10/18/10

Point ID BM227

Projects PERMANENTE CREEK,BM

MAINTENANCE 1, HEIGHT

MOD

Organization SCVWD

Yellow Book 32

Date Adjusted 05/04/2010

Date Measured 07/11/2006

Elev(NAVD88FT) 78.14

Based On NGS/CS

RC

Datum 2009

Order

2

Class 2

Latitude 37 23 45.714 N

Longitude

122 05 31.848 W

Northing

1970605

Easting

6099167





** CAUTION: THE HORIZONTAL LOCATION SHOWN IS NOT ACCURATE **

Brass disk near the Southeasterly corner of the Northeast headwall at California Avenue and Permanente Creek. City of Mountain View.

Historical Report for: 10/18/10

Point ID BM232

Projects PERMANENTE CREEK,BM

MAINTENANCE 1, HEIGHT

MOD

Organization SCVWD

Yellow Book 32

Date Adjusted 05/04/2010

Date Measured 07/11/2006

Elev(NAVD88FT) 20.33

Based On NGS/CS

RC

Datum 2009

Order

2

Class 2

Latitude 37 25 16.031 N

Longitude

122 05 11.809 W

Northing

1979710

Easting

6100939





** CAUTION: THE HORIZONTAL LOCATION SHOWN IS NOT ACCURATE **

Brass disk at the Eastern end of the Northerly headwall at Charleston Road over Permanente Creek. City of Mountain View.

Historical Report for: 10/18/10

Point ID BM668

Projects PERMANENTE CREEK,BM

MAINTENANCE 1, HEIGHT

MOD

Organization SCVWD

Yellow Book 17

Date Adjusted 05/04/2010

Date Measured 07/11/2006

Elev(NAVD88FT) 20.45

Based On NGS/CS

RC

Datum 2009

Order

2

Class 2

Latitude 37 25 24.524 N

Longitude

122 05 10.942 W

Northing

1980568

Easting

6101023





** CAUTION: THE HORIZONTAL LOCATION SHOWN I NOT ACCURATE **

City of Mountain View's brass disk (MVII18). On top of curb; at the northeasterly corner of bridge crossing for Amphitheater Parkway over Permanente Creek . Disk is not stamped. City of Mountain View.

Historical Report for: 10/18/10

Point ID BM688

Projects CROSS VALLEY LEVEL

CIRCUIT,BM MAINTENANCE 1,CVLC LOS ALTOS,HEIGHT

MOD

Organization SCVWD

Yellow Book 32

Date Adjusted 05/04/2010

Date Measured 07/11/2006

Elev(NAVD88FT) 9.67

Based On NGS/CS

RC

Datum 2009

Order

2

Class 2

Latitude 37 25 18.25 N

Longitude

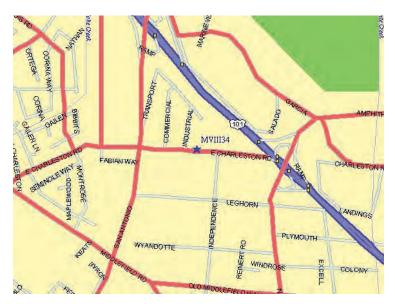
122 05 53.50 W

Northing

1979992

Easting

6097580





** CAUTION: THE HORIZONTAL LOCATION SHOWN IS NOT ACCURATE **

Brass disk (MVIII34); 2-1/2 inch diameter; stamped " CITY OF MTN VIEW BM NO III34"; on top of curb, on northerly side of East Charleston Road; 189 feet east of centerline for Industrial Drive; Address is 1001 East Charleston Road . City of Mountain View.

Historical Report for: 10/18/10

Point ID BM689

Projects CROSS VALLEY LEVEL

CIRCUIT,BM MAINTENANCE 1,CVLC LOS ALTOS,HEIGHT

MOD

Organization SCVWD

Yellow Book 32

Date Adjusted 05/04/2010

Date Measured 02/13/2003

Elev(NAVD88FT) 10.75

Based On NGS/CS

RC

Datum 2009

Order

2

Class 2

Latitude

37 25 16.81 N

Longitude

122 05 37.01 W

Northing

1979824

Easting

6098908





** CAUTION: THE HORIZONTAL LOCATION SHOWN IS NOT ACCURATE **

Brass disk; 2-1/2 inch diameter; stamped "MTN VIEW BM NO III35"; on top of curb; at west end of triangular traffic island; at intersection of Charleston Road and Bayshore Freeway. City of Mountain View.

Historical Report for: 10/18/10

Point ID BM699

Projects CROSS VALLEY LEVEL

CIRCUIT, BM MAINTENANCE 1, CVLC LOS ALTOS, HEIGHT

MOD

Organization SCVWD

Yellow Book 33

Date Adjusted 05/04/2010

Date Measured 07/11/2006

Elev(NAVD88FT) 41.13

Based On NGS/CS

RC

Datum 2009

Order

2

Class 2

Latitude 37 24 22.47 N

Longitude

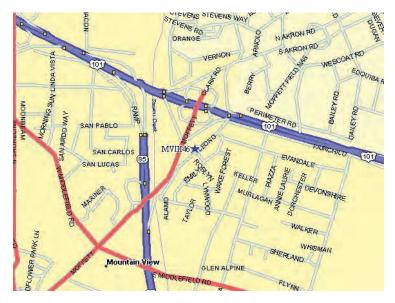
122 03 55.00 W

Northing

1974190

Easting

6107044





** CAUTION: THE HORIZONTAL LOCATION SHOWN IS NOT ACCURATE **

CITY OF MTN VIEW's brass disk (MVIII46); on top of curb; on Leong Drive opposite Evandale Avenue. City of Mountain View.

Santa Clara Valley Water District Vertical Database Report

Historical Report for: 10/18/10

Point ID BM703

Projects CROSS VALLEY LEVEL

CIRCUIT,BM MAINTENANCE

2,HEIGHT MOD

Organization SCVWD

Yellow Book 33

Date Adjusted 05/04/2010

Date Measured 07/11/2006

Elev(NAVD88FT) 41.72

Based On NGS/CS

RC

Datum 2009

Order

2

Class 2

Latitude 37 24 15.06 N

Longitude

122 03 25.85 W

Northing

1973400.93

Easting

6109382.066





** CAUTION: THE HORIZONTAL LOCATION SHOWN IS NOT ACCURATE **

Bronze disk (MVIII53); on top of curb under street stop sign at the southwest corner of Evandale Avenue and Whisman Road. City of Mountain View.

Get Directions

Santa Clara Valley Water District Vertical Database Report

Historical Report for: 10/18/10

Point ID BM711

Projects CROSS VALLEY LEVEL

CIRCUIT,BM MAINTENANCE 1,CVLC LOS ALTOS,HEIGHT

MOD

Organization SCVWD

Yellow Book 32

Date Adjusted 05/04/2010

Date Measured 07/11/2006

Elev(NAVD88FT) 47.09

Based On NGS/CS

RC

Datum 2009

Order

2

Class 2

Latitude

37 24 13.24 N

Longitude

122 04 29.58 W

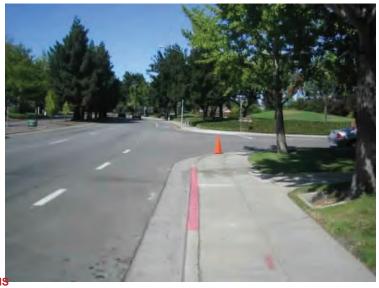
Northing

1973303

Easting

6104238





** CAUTION: THE HORIZONTAL LOCATION SHOWN IS NOT ACCURATE **

CITY OF MTN VIEW's brass disk (MVIII60); on top and at center of curb return; on the northeast corner of San Veron Avenue and West Middlefield Road. Disk is stamped "MTN VIEW BM NO IV16". City of Mountain View.

Get Directions



Section II North Area

(Bayshore Freeway to South San Francisco Bay)





II-03

Elevation Feet: 6.323 Elevation Meters: 1.927 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "II-03" set in top of curb on south side of frontage road which runs parallel to and north of Bayshore Freeway, 300'+/- northwest of Garcia Avenue

Site Photo





Location Photo







II-09



Elevation Feet: 10.528
Elevation Meters: 3.209
Adjusted: 2010

Datum: NAVD 1988

Description:

Top of northwest anchor bolt stamped "II-09" on base of electrolier No. D01319 at the northbound (S.F.) entrance ramp to Bayshore Freeway from the North Frontage Road west of (Rengstorff Avenue or) Amphitheatre Parkway overpass.



Point Photo



Location Photo







Vertical Control
Benchmark: ||I-10R|

Elevation Feet: 24.857 Elevation Meters: 7.576 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "II-10R" set in top of curb, center of return at the northeast corner of L'Avenida and North Shoreline Boulevard

Site Photo





Location Photo







II-11

Elevation Feet: 17.240 Elevation Meters: 5.255 Adjusted: 2010

Datum: NAVD 1988

Description:

Brass disk stamped "II-11" set in top of curb at the southwest return of Plymouth Street and North Shoreline Boulevard

Site Photo





Location Photo







Elevation Feet: 12.276
Elevation Meters: 3.742
Adjusted: 2010
Datum: NAVD 1988

Description:

Brass disk stamped "II-12" set in top of curb at the southwest return of Charleston Road and North Shoreline Boulevard

Site Photo





Location Photo







II-13

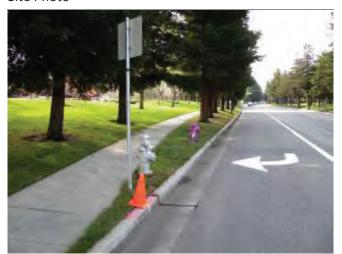
Elevation Feet: 7.650 Elevation Meters: 2.332 Adjusted: 2010

Datum: NAVD 1988

Description:

Brass disk stamped "II-13" set in top of curb 20' south of the southeast return of North Shoreline Boulevard and Crittenden Lane

Site Photo





Location Photo







II-14

Elevation Feet: 4.454
Elevation Meters: 1.358
Adjusted: 2010

Datum: NAVD 1988

Description:

Brass disk stamped "II-14" set in top of curb on the west side of North Shoreline Boulevard opposite entrance to Crittenden site 6' north of catch basin.

Site Photo





Location Photo







II-15

Elevation Feet: 20.330 Elevation Meters: 6.197 Adjusted: 2010

Datum: NAVD 1988

Description:

Brass disk stamped "II-15" set in top of curb on the north and easterly side of the bridge across Permanente Creek on Charleston Road.

Site Photo





Location Photo







II-16

Elevation Feet: 9.565 Elevation Meters: 2.915 Adjusted: 2010

Datum: NAVD 1988

Description:

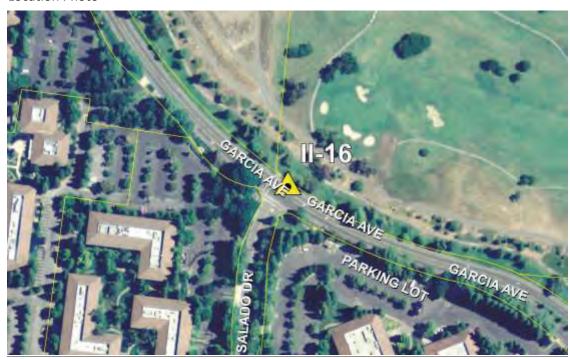
Brass disk stamped "II-16" set in top of curb on the northerly side of Garcia Avenue opposite Salado Drive at Electrolier No. 22929

Site Photo





Location Photo





II-17

Elevation Feet: 6.695 Elevation Meters: 2.041 Adjusted: 2010

Datum: NAVD 1988

Description:

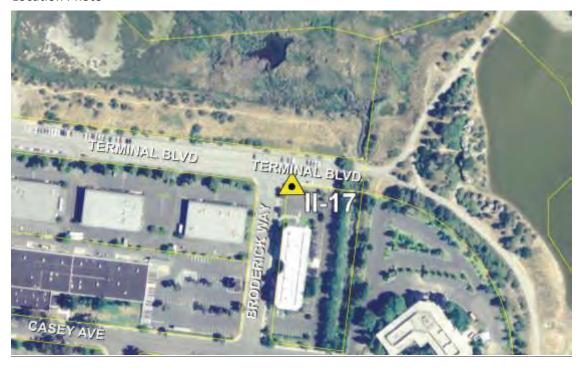
Brass disk stamped "II-17" set in top of curb on the south side of Terminal Boulevard at the southeast corner of Broderick Way at Electrolier No. 22961

Site Photo





Location Photo







Elevation Feet: 20.455
Elevation Meters: 6.235
Adjusted: 2010

Datum: NAVD 1988

Description:

Brass disk stamped "II-18" set in top of curb on the north ans easterly side of the bridge across Permanente Creek on Amphitheatre Parkway



Point Photo



Location Photo





II-19

Elevation Feet: 10.445 Elevation Meters: 3.184 Adjusted: 2010

Datum: NAVD 1988

Description:

Brass disk stamped "II-19" set in top of foundation on the northwest corner of the Shoreline at the Mountain View Flare Station, located ±1400' west of Shoreline Boulevard on energy trail



Point Photo



Location Photo





II-20

Elevation Feet: 8.236 Elevation Meters: 2.510 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "II-20" in the top of foundation of the southeast corner of the Coast-Casey Storm Pump Station, located north of Terminal Boulevard in Shoreline at Mountain View Park

Site Photo





Location Photo







II-22

Elevation Feet: 13.839 Elevation Meters: 4.218 Adjusted: 2010

Datum: NAVD 1988

Description:

Brass disk stamped "CITY OF MOUNTAIN VIEW II-22" ON EAST CORNER OF LIGHT STANDARD #3A002 in parking lot of Shoreline Lake due east of (sailing school) Boathouse



Point Photo



Location Photo







II-23

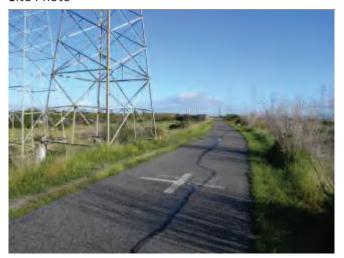
Elevation Feet: 19.603 Elevation Meters: 5.975 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "CITY OF MTN VIEW II-23" on the northeast pier of the first transmission tower west of levee, north of Crittenden Lane Bridge over Stevens Creek on western levee of Stevens Creek

Site Photo





Location Photo







II-24

Elevation Feet: 23.504
Elevation Meters: 7.164
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "CITY OF MTN VIEW II-24" on the southeast pier of the transmission tower west of levee, south of Crittenden Lane Bridge over Stevens Creek on western levee of Stevens Creek

Site Photo





Location Photo







Section III North – Central Area (Bayshore Freeway to Caltrain Rail)





III-02

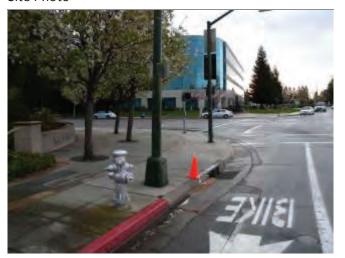
Elevation Feet: 59.767 Elevation Meters: 18.217 Adjusted: 2010

Datum: NAVD 1988

Description:

Brass disk stamped "III-02" set in top of curb at the west end of the northwest return along East Middlefield Road at Ellis Street

Site Photo





Location Photo







III-05

Elevation Feet: 63.300 Elevation Meters: 19.294 Adjusted: 2010

Datum: NAVD 1988

Description:

Brass disk stamped "III-05" set in top of curb at the east end of the northeast return along East Middlefield Road at Whisman Road

Site Photo





Location Photo







III-06

Elevation Feet: 71.826 Elevation Meters: 21.892 Adjusted: 2010

Datum: NAVD 1988

Description:

Brass disk stamped "III-06" set in the top of curb at the center of the northeast return of Gladys Avenue at Easy Street

Site Photo





Location Photo







III-07

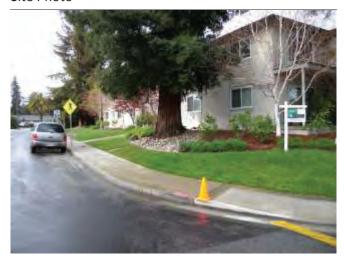
Elevation Feet: 53.902 Elevation Meters: 16.429 Adjusted: 2010

Datum: NAVD 1988

Description:

Brass disk stamped "III-07" set in the top of curb at the center of southwest return of Easy Street at Walker Drive

Site Photo





Location Photo







III-08

Elevation Feet: 48.376 Elevation Meters: 14.745 Adjusted: 2010

Datum: NAVD 1988

Description:

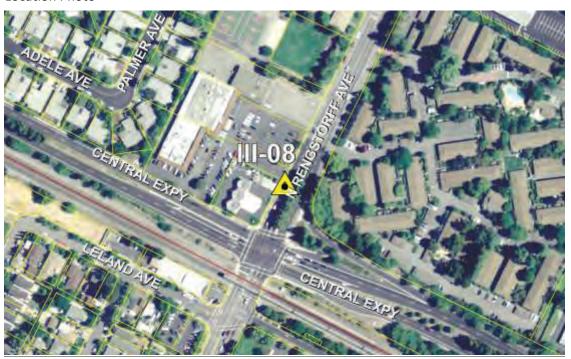
Bronze disk stamped "III-08" set in the top of curb on the west side of Rengstorff Avenue, 200' \pm north of Central Expressway near north property line of the Shell Station

Site Photo





Location Photo







III-09

Elevation Feet: 35.903 Elevation Meters: 10.943 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "III-09" set in the top of curb at the south end of the southeast return of North Shoreline Boulevard at Terra Bella Avenue

Site Photo





Location Photo







III-11

Elevation Feet: 55.812 Elevation Meters: 17.012 Adjusted: 2010

Datum: NAVD 1988

Description:

Brass disk stamped "III-11" set in the top of curb at the north end of the northwest return of Maude Avenue at Clyde Avenue



Point Photo



Location Photo







III-12

Elevation Feet: 53.814 Elevation Meters: 16.402 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "III-12" set in the top of curb at the south end of the northeast curb return of Maude Avenue at Logue Avenue

Site Photo





Location Photo







III-14

Elevation Feet: 35.155
Elevation Meters: 10.715
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "III-14" set in the top of curb at the center of the northwest curb return of Rengstorff Avenue at Jewell Place

Site Photo





Location Photo





III-15 Reset

Elevation Feet: 68.560 Elevation Meters: 20.897 Adjusted: 2010

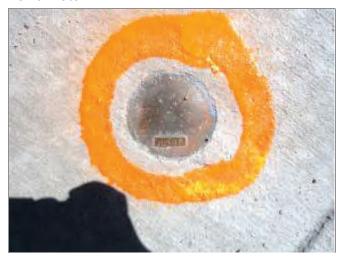
Datum: NAVD 1988

Description:

Bronze disk stamped "III-15" set in the top of curb at the center of the southeast return of Central Avenue at Andsbury Place

Site Photo





Location Photo







III-16

Elevation Feet: 86.525 Elevation Meters: 26.373 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "III-16" set in the top of curb at the center of the southeast return of Ada Avenue at Minaret Avenue

Site Photo





Location Photo







III-17

Elevation Feet: 75.008
Elevation Meters: 22.863
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "III-17" set in the top of curb at the west end of the northwest return of Gladys Avenue at James Drive

Site Photo





Location Photo







III-22A

Elevation Feet: 53.816 Elevation Meters: 16.403 Adjusted: 2010

Datum: NAVD 1988

Description:

SFWD R/W marker 145R, a Bronze disk set in a concrete post at the east P/L of Beatrice Street and the north R/W line of Hetch-Hetchy



Point Photo



Location Photo





III-23

Elevation Feet: 55.211
Elevation Meters: 16.828
Adjusted: 2010

Datum: NAVD 1988

Description:

SFWD R/W marker 146L, a Bronze disk set in a concrete post at the west P/L of Bonny Street and the south R/W line of Hetch-Hetchy



Point Photo



Location Photo







III-24A

Elevation Feet: 54.728
Elevation Meters: 16.681
Adjusted: 2010
Datum: NAVD 1988

Description:

SFWD R/W marker 147R, a Bronze disk set in a concrete post at the west P/L of Farley Street and the north R/W line of Hetch-Hetchy



Point Photo



Location Photo





III-25

Elevation Feet: 56.321 Elevation Meters: 17.167 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "III-25" set in the top of curb at center of the southeast return of Wright Avenue at Polaris Avenue

Site Photo





Location Photo







III-30

Elevation Feet: 16.501
Elevation Meters: 5.030
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "III-30" set in the top of curb at center of the northwest return of Sierra Vista Avenue at Plymouth Street

Site Photo





Location Photo







III-33

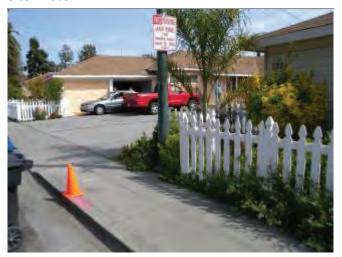
Elevation Feet: 16.152
Elevation Meters: 4.923
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "III-33" set in the top of curb on the east side of Rengstorff Avenue opposite Wyandotte Street

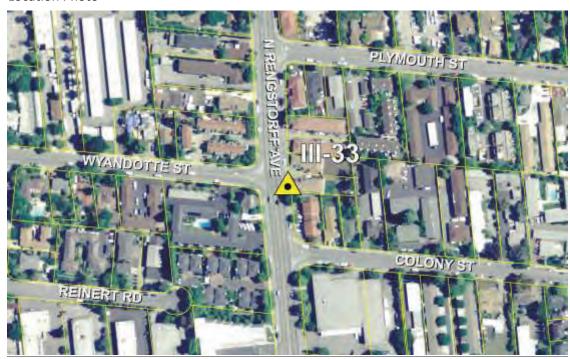
Site Photo



Point Photo



Location Photo







III-34

Elevation Feet: 9.681 Elevation Meters: 2.951 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "III-34" set in the top curb, $189'\pm$ east of the centerline of Industrial Avenue at the north side of Charleston Road

Site Photo





Location Photo







III-35

Elevation Feet: 10.755
Elevation Meters: 3.278
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "III-35" set in the top of curb at west end of triangular traffic island at the intersection of Charleston Road at Bayshore Road

Site Photo





Location Photo







III-36

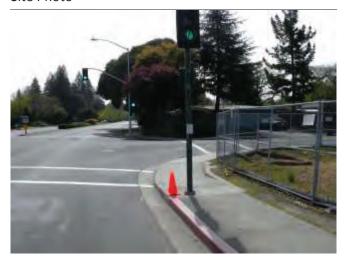
Elevation Feet: 18.365
Elevation Meters: 5.598
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "III-36" set in the top of curb at west end of the southwest return of Middlefield Road at Alvin Street

Site Photo





Location Photo







III-37

Elevation Feet: 32.206
Elevation Meters: 9.816
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "III-37" set in the top of curb near drain inlet at the southeast return of Diablo Avenue at Whitney Drive

Site Photo



Point Photo



Location Photo





III-38

Elevation Feet: 35.495 Elevation Meters: 10.819 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "III-38" set in the top of curb of the southwest return of Thompson Avenue at Laura Lane

Site Photo





Location Photo





III-39

Elevation Feet: 26.296
Elevation Meters: 8.015
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "III-39" set in the top of curb of the southwest return of Thompson Avenue at Alvin Street

Site Photo





Location Photo





III-41

Elevation Feet: 32.374
Elevation Meters: 9.868
Adjusted: 2010

Datum: NAVD 1988

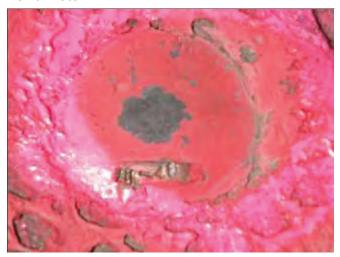
Description:

Bronze disk stamped "III-40" set in the top of curb of the northwest return of Farley Street at San Ramon Avenue

Site Photo



Point Photo



Location Photo







III-42

Elevation Feet: 27.121
Elevation Meters: 8.266
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "III-42" set in the top of curb of the northwest return of Rock Street at Telford Avenue

Site Photo





Location Photo







III-43

Elevation Feet: 21.219
Elevation Meters: 6.467
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "III-43" set in the top of curb at center of the westerly corner of Alvin Street at Victory Street

Site Photo





Location Photo





111-44

Elevation Feet: 26.247 Elevation Meters: 8.000

Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "III-44" set in the top of curb at center of the southwest return of Anna Avenue at Elka Avenue

Site Photo





Location Photo





III-45

Elevation Feet: 14.300 Elevation Meters: 4.359 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "III-45" set in the top of curb at center of the northwest return of Independence Avenue at Wyandotte Street

Site Photo





Location Photo







III-46

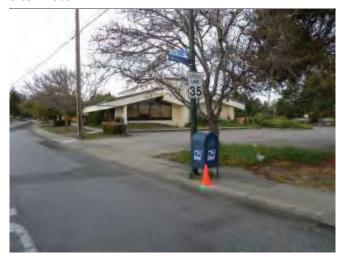
Elevation Feet: 41.151 Elevation Meters: 12.543 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "III-46" set in the top of curb on the west side of Leong Drive opposite Evandale Avenue

Site Photo





Location Photo







III-47

Elevation Feet: 40.419
Elevation Meters: 12.320
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "III-47" ste in the top curb on the north side of the eastbound off-ramp from San Antonio overpass to Central Expressway. Disk set 100'± east of the bottom of the off-ramp.

Site Photo





Location Photo





III-50

Elevation Feet: 62.387 Elevation Meters: 19.016 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "III-50" set in the top of curb at the west end of the southwest return of Jackson Street at Stierlin Road

Site Photo





Location Photo





III-53

Elevation Feet: 41.725 Elevation Meters: 12.718 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "III-53" set in the top of curb at the southwest return of Evandale Avenue at Whisman Road

Site Photo





Location Photo







III-54

Elevation Feet: 41.704 Elevation Meters: 12.712 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "III-54" set in the top of curb at the south end of the southwest return of North Shoreline Boulevard at Middlefield Road

Site Photo





Location Photo







III-55

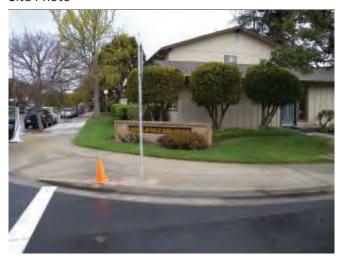
Elevation Feet: 61.124
Elevation Meters: 18.631
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "III-55" set in the top of curb at the center of the northeast return of Flynn Avenue at Tyrella Avenue

Site Photo





Location Photo







III-56

Elevation Feet: 26.238
Elevation Meters: 7.997
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "III-56" set in the top of curb at the east end of the southeast return of San Ramon Avenue at Rengstorff Avenue

Site Photo





Location Photo





III-57 Reset

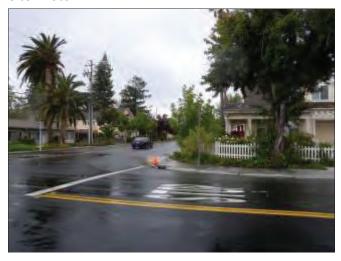
Elevation Feet: 41.819 Elevation Meters: 12.746 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "III-57" set in the top of curb at the west end of the southwest return of Montecito Avenue at Sierra Vista Avenue

Site Photo





Location Photo







III-59 Reset

Elevation Feet: 58.323
Elevation Meters: 17.777
Adjusted: 2010
Datum: NAVD 1988

Description:

Bronze disk stamped "III-59" set in the top of curb at the center of the southeast return of Cypress Point Drive at Moffett Boulevard

Site Photo





Location Photo





III-60

Elevation Feet: 47.090 Elevation Meters: 14.353 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "III-60" set in the top of curb at the center of the southeast return of San Vernon Avenue at Middlefield Road

Site Photo





Location Photo





III-61

Elevation Feet: 46.050 Elevation Meters: 14.036 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "III-61" set in the top of curb on the east side of North Shoreline Boulevard $142'\pm$ south of the centerline of Mountain Shadows Drive

Site Photo





Location Photo







III-62

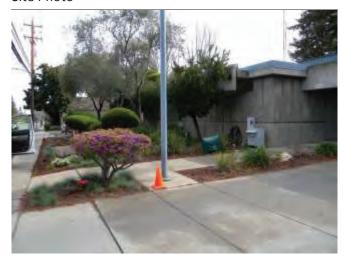
Elevation Feet: 77.815 Elevation Meters: 23.718 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "III-62" set in the base of the flagpole located in front of Fire Station No. 4, 229 North Whisman Road

Site Photo





Location Photo







III-63

Elevation Feet: 49.188
Elevation Meters: 14.993
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "III-63" set in the top of curb at the back of handicap ramp of the southwest corner of Poppy Place at Montecito Avenue

Site Photo



Point Photo



Location Photo







III-64

Elevation Feet: 76.130 Elevation Meters: 23.204 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "III-64" set in the top of curb at the northwest return of Ravendale Avenue at Bernardo Avenue

Site Photo





Location Photo





III-65

Elevation Feet: 38.271 Elevation Meters: 11.665 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "III-65" set in the top of curb at the west end of curve on the south side of Fairchild Drive at Clyde Avenue

Site Photo





Location Photo







Section IV South – Central Area (Caltrain Rail to El Camino Real)





IV-02

Elevation Feet: 56.194
Elevation Meters: 17.128
Adjusted: 2010

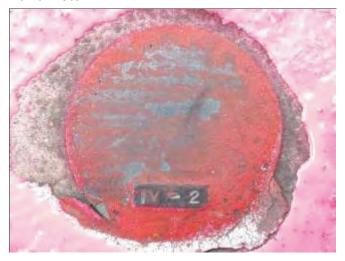
Datum: NAVD 1988

Description:

Bronze disk stamped "IV-02" set in the top of curb at the north end of the northeast return of Showers Drive at California Street

Site Photo





Location Photo





Elevation Feet: 80.401 Elevation Meters: 24.506 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "IV-03" set in the top of curb at the north end of the northeast return of Ortega Avenue at El Camino Real

Site Photo





Location Photo





IV-04

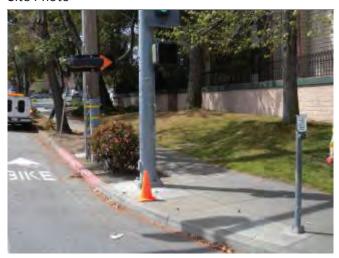
Elevation Feet: 78.249
Elevation Meters: 23.850
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "IV-04" set in the top of curb at the south end of the southwest return of South Rengstorff Avenue at Latham Street

Site Photo





Location Photo





IV-05

Elevation Feet: 66.707 Elevation Meters: 20.332 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "IV-05" set in the top of curb at the southwest end of the northwest return of California Street at South Rengstorff Avenue

Site Photo



Point Photo



Location Photo





IV-06

Elevation Feet: 75.552
Elevation Meters: 23.028
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "IV-06" set in the top of curb at the west end of the northwest return of California Street at Escuela Avenue

Site Photo





Location Photo





IV-07 Reset

Elevation Feet: 134.555 Elevation Meters: 41.012 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "IV-07" set in the top of curb at the center of the northeast return of Sylvan Avenue at El Camino Real

Site Photo





Location Photo





IV-10

Elevation Feet: 100.744
Elevation Meters: 30.707
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "IV-10" set in the top of curb at the center of the northwest return of Dana Street at Pioneer Way

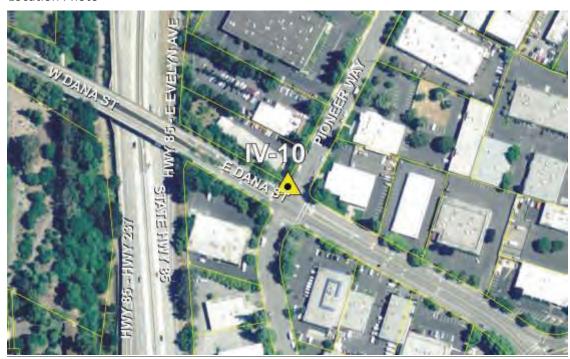
Site Photo



Point Photo



Location Photo







IV-11

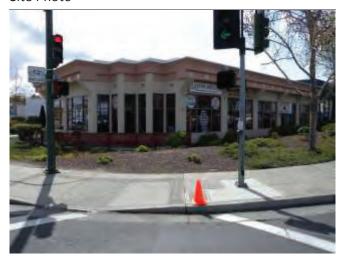
Elevation Feet: 49.767 Elevation Meters: 15.169 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "IV-11" set in the top of curb at the center of the southeast return of California Street at San Antonio Road

Site Photo





Location Photo





IV-12

Elevation Feet: 52.098
Elevation Meters: 15.879
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "IV-12" set in the top of curb at the center of the southeast return of Ortega Avenue at Mora Drive

Site Photo



Point Photo



Location Photo





IV-13

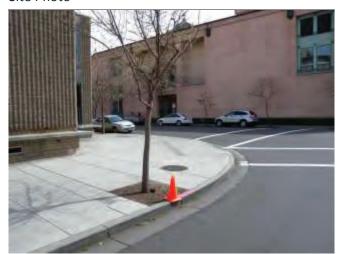
Elevation Feet: 86.218
Elevation Meters: 26.279
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "IV-13" set in the top of curb at the north end of the northeast return of Bryant Street at Mercy Street

Site Photo





Location Photo





IV-16

Elevation Feet: 85.809 Elevation Meters: 26.155 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "IV-16" set in the top of curb at the center of the southwest return of Villa Street at Calderon Avenue

Site Photo





Location Photo





IV-22

Elevation Feet: 46.232 Elevation Meters: 14.091 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "IV-22" set in the top of curb at the south end of the southeast return of California Street at Del Medio Avenue

Site Photo





Location Photo







IV-24

Elevation Feet: 104.761 Elevation Meters: 31.931 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "IV-24" set in the top of curb at the northwesterly corner of Castro Street and El Camino Real approximately 100 feet west of the westerly R/W of Castro Street

Site Photo





Location Photo







IV-25

Elevation Feet: 76.789
Elevation Meters: 23.405
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "IV-25" set in the top of curb at the north end of the northwest return of Showers Drive at El Camino Real

Site Photo





Location Photo







IV-26

Elevation Feet: 106.505 Elevation Meters: 32.463 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "IV-26" set in the top of curb at the southwest return of Church Street at Calderon Avenue

Site Photo





Location Photo





IV-29

Elevation Feet: 97.020 Elevation Meters: 29.572 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "IV-29" set in the top of curb at the northwest return of Calderon Avenue at Mercy Street

Site Photo





Location Photo





IV-30

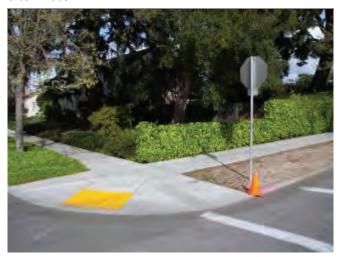
Elevation Feet: 98.093 Elevation Meters: 29.899 Adjusted: 2010

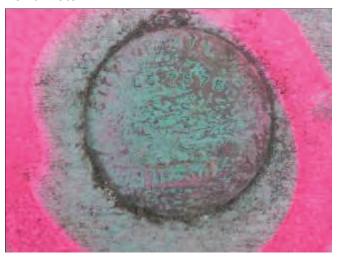
Datum: NAVD 1988

Description:

Bronze disk stamped "IV-30" set in the top of curb at the east side of the northeast return of Church Street and Bush Street

Site Photo





Location Photo





IV-33 Reset

Elevation Feet: 80.106 Elevation Meters: 24.416 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "IV-33" set in the top of curb at the northwest return of Dana Street at Hope Street

Site Photo





Location Photo







Elevation Feet: 107.413
Elevation Meters: 32.740
Adjusted: 2010
Datum: NAVD 1988

Description:

Bronze disk stamped "IV-34" set in the top of curb at the center of the southeast return of Paul Avenue at Patricia Court

Site Photo





Location Photo







IV-35

Elevation Feet: 118.288
Elevation Meters: 36.054
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "IV-35 set in the top of curb at the south end of the southeast return of Sylvan Avenue at Sevely Drive

Site Photo





Location Photo







IV-37

Elevation Feet: 106.700 Elevation Meters: 32.522 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "IV-37 set in the top of curb at the west end of the southwest return of Sylvan Avenue at Moorpark Way

Site Photo



Point Photo



Location Photo







IV-39

Elevation Feet: 112.272 Elevation Meters: 34.221 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "IV-39" set in the top of curb on the northwest side of Moorpark Way, $400'\pm$ south of Dana Street

Site Photo





Location Photo







IV-40

Elevation Feet: 93.976 Elevation Meters: 28.644 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "IV-40" set in the top of curb at the southwest return of Evelyn Avenue at Bernardo Avenue

Site Photo





Location Photo







IV-41

Elevation Feet: 76.916 Elevation Meters: 23.444 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "IV-41" set in the top of curb at the center of the northwest return of South Shoreline Boulevard at Dana Street

Site Photo





Location Photo







IV-43

Elevation Feet: 95.820 Elevation Meters: 29.206 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "IV-43" set in the top of curb at the center of the northwest return of South Shoreline Boulevard at Snow Street

Site Photo





Location Photo





IV-44

Elevation Feet: 100.622 Elevation Meters: 30.670 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "IV-44" set in the top of curb at the center of the northeast return of Mariposa Avenue at El Camino Real

Site Photo





Location Photo







IV-45

Elevation Feet: 88.432 Elevation Meters: 26.954 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "IV-45" set in the top of curb at the north end of the northwest return of Escuela Avenue at El Camino Real

Site Photo





Location Photo





IV-46

Elevation Feet: 78.992 Elevation Meters: 24.077 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "IV-46" set in the top of curb at the west end of the northwest return of California Street at Pettis Avenue

Site Photo





Location Photo





IV-47

Elevation Feet: 124.602 Elevation Meters: 37.979 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "IV-47" set in the top of curb at the center of the northeast return of Yuba Drive at El Camino Real

Site Photo





Location Photo







IV-49

Elevation Feet: 71.745 Elevation Meters: 21.868 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "IV-49" set in the top of curb at the west end of the northwest return of Evelyn Avenue at Castro Street

Site Photo





Location Photo







Section V South Area (El Camino Real Southward)





V-05

Elevation Feet: 143.150
Elevation Meters: 43.632
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "V-05" set in the top of curb at the north end of the northwest return of Grant Road at Cuesta Drive

Site Photo



Point Photo



Location Photo







V-06

Elevation Feet: 129.321 Elevation Meters: 39.417 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "V-06" set in the top of curb at the center of the southwest return of Phyllis Avenue at Barbara Avenue

Site Photo





Location Photo







V-07

Elevation Feet: 119.050 Elevation Meters: 36.287 Adjusted: 2010

Datum: NAVD 1988

Description:

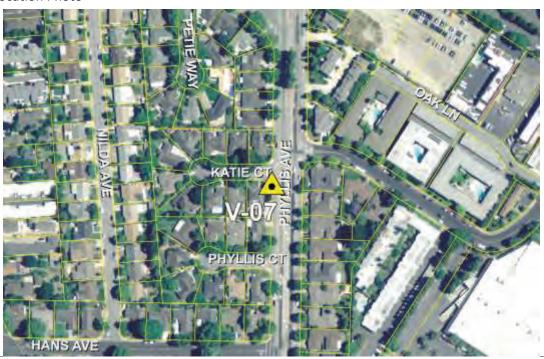
Bronze disk stamped "V-07" set in the top of curb at the center of the southwest return of Phyllis Avenue at Katie Avenue

Site Photo





Location Photo







V-08

Elevation Feet: 114.592 Elevation Meters: 34.928 Adjusted: 2010

Datum: NAVD 1988

Description:

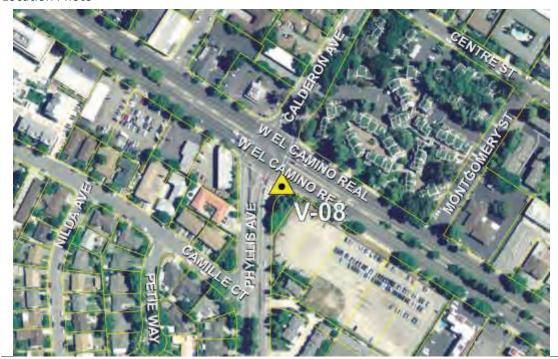
Brass disk stamped "V-08" set in the top of curb on the easterly nose of the small right-turn island at the intersection of El Camino Real and Phyllis Avenue

Site Photo





Location Photo







V-09

Elevation Feet: 137.813 Elevation Meters: 42.006 Adjusted: 2010

Datum: NAVD 1988

Description:

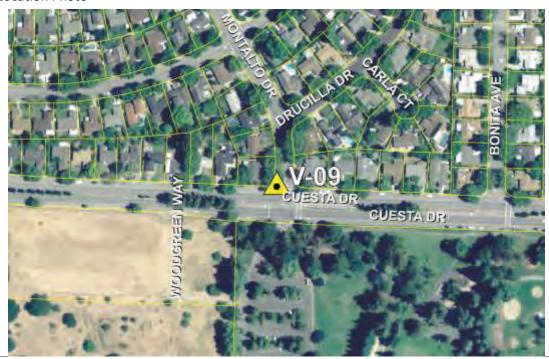
Bronze disk stamped "V-09" set in the top of curb at the center of the northwest return of Cuesta Drive at Montalto Drive

Site Photo





Location Photo







V-10

Elevation Feet: 141.032 Elevation Meters: 42.987 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "V-10" set in the top of OLD P.C.C curb at the center of the northeast return of Cuesta Drive at Miramonte Avenue

Site Photo





Location Photo







Vertical Control
Benchmark: V-10A

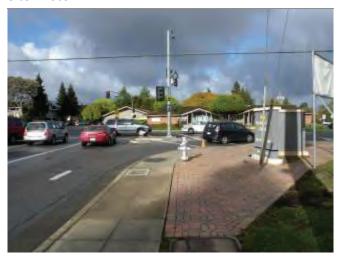
Elevation Feet: 140.848 Elevation Meters: 42.930 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "V-10" set in the top of NEW P.C.C curb at the center of the northeast return of Cuesta Drive at Miramonte Avenue

Site Photo



Point Photo



Location Photo







V-11

Elevation Feet: 125.910 Elevation Meters: 38.377 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "V-11" set in the top of curb at the north side of Barbara Avenue opposite the centerline of Lola Lane

Site Photo





Location Photo







V-13

Elevation Feet: 89.864
Elevation Meters: 27.391
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "V-13" set in the top of curb on the south side of El Camino Real opposite the centerline of Escuela Avenue

Site Photo





Location Photo







V-14

Elevation Feet: 125.852 Elevation Meters: 38.360 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "V-14" set in the top of curb southeast return of Miramonte Avenue at Hans Avenue

Site Photo





Location Photo







V-15

Elevation Feet: 120.408
Elevation Meters: 36.701
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "V-15" set in the top of curb at the center of the northeast return of Boranda Avenue at Hans Avenue

Site Photo





Location Photo







V-16

Elevation Feet: 152.283
Elevation Meters: 46.416
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "V-16" set in the top of curb at the south end the southeast return of Springer Road at Cuesta Drive

Site Photo



Point Photo



Location Photo







V-19

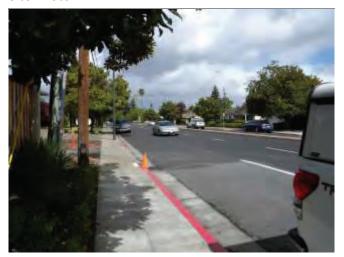
Elevation Feet: 111.004
Elevation Meters: 33.834
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "V-19" set in the top of curb at the west side of Miramonte Avenue opposite the north P/L of Harpster Drive

Site Photo





Location Photo







V-20

Elevation Feet: 114.678
Elevation Meters: 34.954
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "V-20" set in the top of curb at the center of the southeast return of El Monte Avenue at Lloyd Drive

Site Photo





Location Photo







V-21

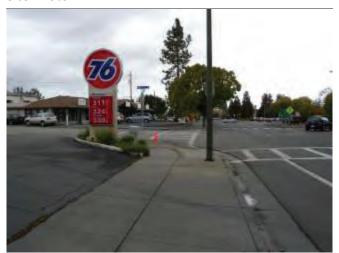
Elevation Feet: 100.196
Elevation Meters: 30.540
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "V-21" set in the top of curb at the center of the southwest return of El Monte Avenue at Marich Way

Site Photo





Location Photo







V-22

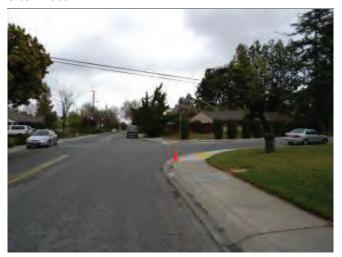
Elevation Feet: 114.156
Elevation Meters: 34.795
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "V-22" set in the top of curb at the center of the southeast return of Pilgram Avenue at Blackfield Way

Site Photo



Point Photo



Location Photo







V-23

Reset

Elevation Feet: 106.733 Elevation Meters: 32.532 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "V-23" set in the top of curb at the center of the southwest return of Cecilia Way at Solana Drive

Site Photo





Location Photo







V-24 Reset

Elevation Feet: 151.974
Elevation Meters: 46.322
Adjusted: 2010
Datum: NAVD 1988

Description:

Bronze disk stamped "V-24" set in the top of curb adjacent to catch basin on the east side of Franklin Street 15'± south of the centerline of Sleeper Avenue

Site Photo





Location Photo







V-25

Elevation Feet: 149.015 Elevation Meters: 45.420 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "V-25" set in the top of curb at the center of the southeast return of Sleeper Avenue at Carol Avenue

Site Photo





Location Photo







V-26

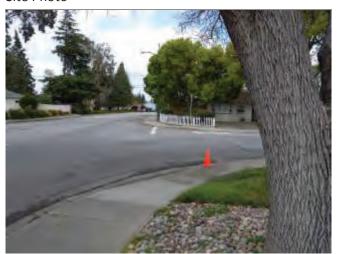
Elevation Feet: 135.435 Elevation Meters: 41.281 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "V-26" set in the top of curb at the center of the southeast return of Tulane Drive at Fordham Way

Site Photo





Location Photo







V-27

Elevation Feet: 151.109
Elevation Meters: 46.058
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "V-27" set in the top of curb at the center of the southwest return of Fordham Way at Rose Avenue

Site Photo





Location Photo







V-28

Elevation Feet: 163.599
Elevation Meters: 49.865
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "V-28" set in the top of curb east side of Springer Road, 600'± south of Roase Avenue at second fire hydrant

Site Photo





Location Photo







V-29

Elevation Feet: 134.066
Elevation Meters: 40.864
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "V-29" set in the top of curb at the center of the southwest return of Springer Road at Marilyn Drive

Site Photo



Point Photo



Location Photo







V-30

Elevation Feet: 159.943 Elevation Meters: 48.751 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "V-30" set in the top of curb at the center of the northwest return of Miramonte Avenue at Gest Drive

Site Photo





Location Photo







V-31

Elevation Feet: 99.962
Elevation Meters: 30.469
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "V-31" set in the top of curb at the south end of the southwest return of Rich Avenue at El Camino Real

Site Photo





Location Photo







V-32

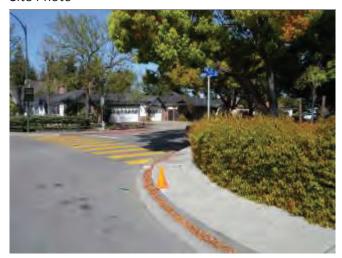
Elevation Feet: 183.805 Elevation Meters: 56.024 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "V-32" set in the top of curb at the center of the northeast return of Ivan Way at Bryant Street

Site Photo





Location Photo







V-34

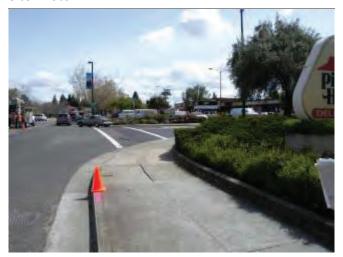
Elevation Feet: 87.125 Elevation Meters: 26.556 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "V-34" set in the top of curb at the west end of the southwest return of Clark Avenue at El Camino Real

Site Photo





Location Photo







Vertical Control
Benchmark: V-34A

Elevation Feet: 111.061
Elevation Meters: 33.851
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "V-34A" set in the top of curb at the center of the northwest return of Castro Street at Sonia Way

Site Photo





Location Photo







V-35

Elevation Feet: 138.885 Elevation Meters: 42.332 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "V-35" set in the top of curb at the center of the northeast return of The Americana at Continental Circle

Site Photo





Location Photo







V-36

Elevation Feet: 103.250 Elevation Meters: 31.471 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "V-36" set in the top of curb at the center of the southwest return of Miramonte Avenue at El Camino Real

Site Photo





Location Photo







V-37

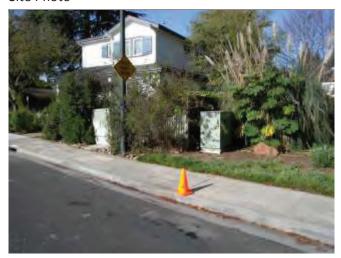
Elevation Feet: 110.786
Elevation Meters: 33.768
Adjusted: 2010

Datum: NAVD 1988

Description:

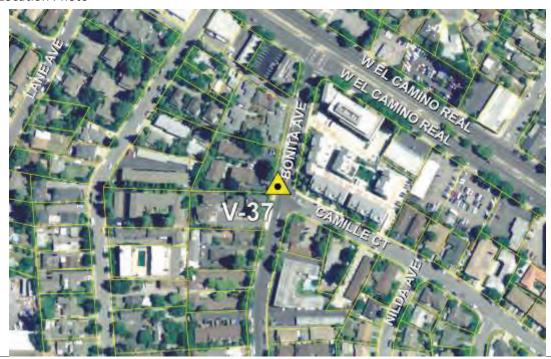
Bronze disk stamped "V-37" set in the top of curb on the west side of Bonita Avenue opposite the centerline of Camille Court

Site Photo





Location Photo







V-39

Elevation Feet: 166.949
Elevation Meters: 50.886
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "V-39" set in the top of curb at the center of the northeast return of Levin Avenue at Grant Road

Site Photo



Point Photo



Location Photo







V-40

Elevation Feet: 168.594
Elevation Meters: 51.388
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "V-40" set in the top of curb at the center of the southeast return of Levin Avenue at Levin Court

Site Photo



Point Photo



Location Photo







V-41 Reset

Elevation Feet: 178.012 Elevation Meters: 54.258 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "V-41" set in the top of curb at the center of the southwest return of Andre Drive at Truman Avenue

Site Photo





Location Photo







V-45

Elevation Feet: 169.122 Elevation Meters: 51.549 Adjusted: 2010

Datum: NAVD 1988

Description:

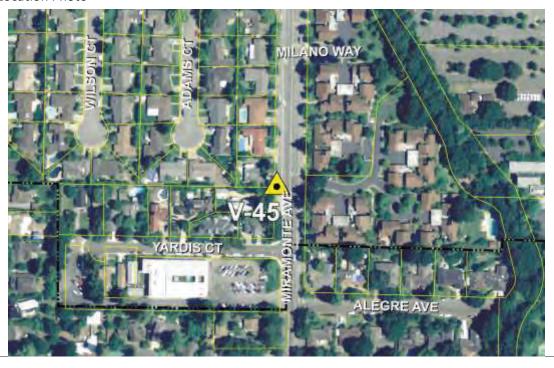
Bronze disk stamped "V-45" set in the top of curb 20' north of the terminus of the curb and gutter, in the west side of Miramonte Avenue in front of the Miramonte Pump Station

Site Photo





Location Photo







V-46

Elevation Feet: 177.427 Elevation Meters: 54.080 Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "V-46" set in the top of curb at the southeast side of the bridge across the Permanente Creek cross channel on St. Giles Lane

Site Photo





Location Photo







V-47

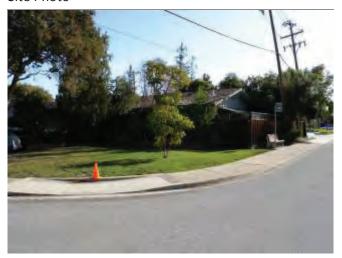
Elevation Feet: 141.186
Elevation Meters: 43.033
Adjusted: 2010

Datum: NAVD 1988

Description:

Bronze disk stamped "V-47" set in the top of curb at the back of handicap ramp at the northwest return of Gretel Lane at Cuesta Avenue

Site Photo





Location Photo







Horizontal Control Points Data Sheets





Northing: 1984236.0224 SFt Easting: 6097875.5733 SFt

Latitude: 37°26'00.254710" N Longitude: 122°05'50.736394"

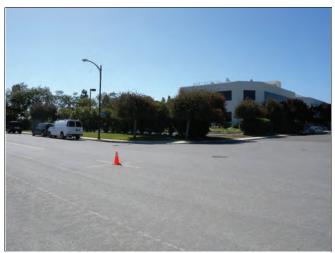
Elevation Feet: 6.675
Elevation Meters: 2.035
Adjusted: 2010

Datum: NAVD 1988

Description:

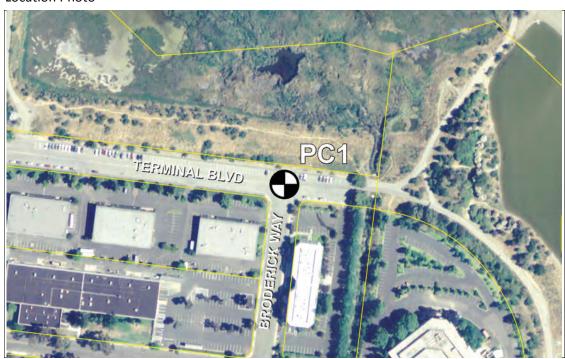
2" bronze disk with punch in monument well, intersection of Broderick Way and Terminal Boulevard

Site Photo





Location Photo







Northing: 1975526.7836 SFt Easting: 6093737.6777 SFt

Latitude: 37°24'33.455638" N Longitude: 122°06'40.174804"

Elevation Feet: 40.946 Elevation Meters: 12.480 Adjusted: 2010

Datum: NAVD 1988

Description:

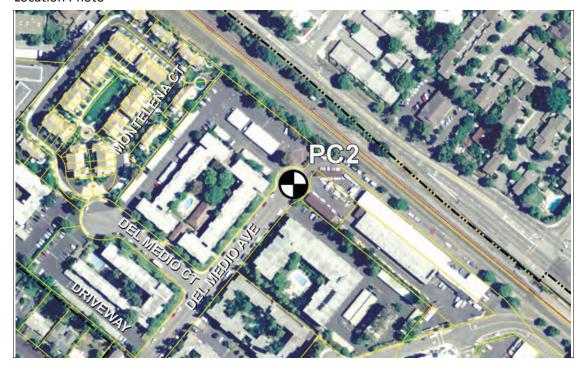
2" bronze disk with punch in monument well, north end of Del Medio Avenue

Site Photo





Location Photo







Northing: 1969769.5679 SFt Easting: 6096593.8841 SFt

Latitude: 37°23'37.025541" N Longitude: 122°06'03.557156"

Elevation Feet: 92.169
Elevation Meters: 28.093
Adjusted: 2010
Datum: NAVD 1988

Description:

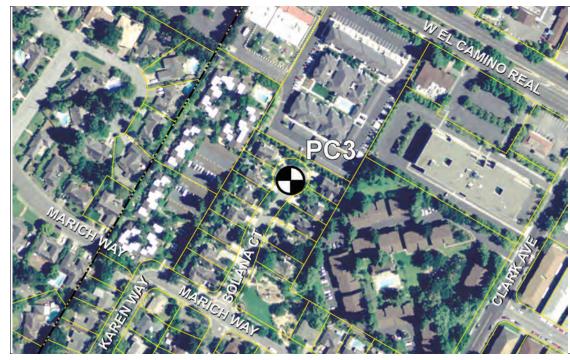
2" bronze disk with punch in monument well, north end of Solana Court

Site Photo





Location Photo







Northing: 1960365.6081 SFt Easting: 6099181.2207 SFt

Latitude: 37°22'04.495853" N Longitude: 122°05'29.517250"

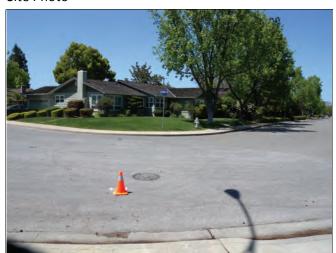
Elevation Feet: 158.874 Elevation Meters: 48.425 Adjusted: 2010

Datum: NAVD 1988

Description:

 $2\,1/2$ " bronze disk with punch in monument well, RCE 8718, corner of Fordham Way 1800 to 1900 block, southern bend

Site Photo





Location Photo







Northing: 1958515.7975 SFt Easting: 6106617.535 SFt

Latitude: 37°21'47.449088" N Longitude: 122°03'57.026147"

Elevation Feet: 174.537 Elevation Meters: 53.199 Adjusted: 2010

Datum: NAVD 1988

Description:

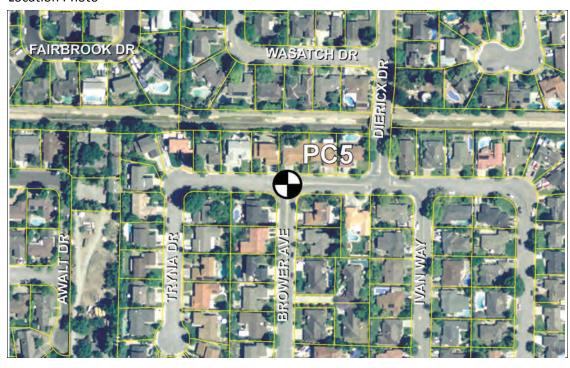
2-1/2" bronze disk with punch in monument well, intersection of Brower Ave. and Lubich Drive

Site Photo





Location Photo







Elevation Feet: 117.014
Elevation Meters: 35.666
Adjusted: 2010
Datum: NAVD 1988

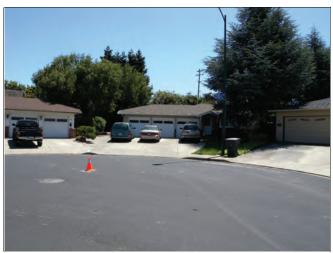
Northing: 1964874.2392 SFt Easting: 6108699.8327 SFt

Latitude: 37°22'50.651730" N Longitude: 122°03'32.548044"

Description:

2-1/2" bronze disk with punch in monument well, RCE 9704, intersection of Sevely Dr. and Tahoe Terrace

Site Photo





Location Photo







Northing: 1970868.7013 SFt Easting: 6111375.2992 SFt

Latitude: 37°23'50.351828" N Longitude: 122°03'00.633596"

Elevation Feet: 54.154
Elevation Meters: 16.506
Adjusted: 2010

Datum: NAVD 1988

Description:

½" brass pin with punch, in concrete, in monument well, intersection of Logue Ave. and Maude Avenue

Site Photo





Location Photo







Northing: 1972038.2953 SFt Easting: 6101854.597 SFt

Latitude: 37°24'00.338588" N Longitude: 122°04'58.850204"

Elevation Feet: 55.742
Elevation Meters: 16.990
Adjusted: 2010
Datum: NAVD 1988

Description:

2" bronze disk with punch in monument well, stamped 7848, intersection of Wright Ave. and Polaris Avenue

Site Photo





Location Photo







Northing: 1979287.0483 SFt Easting: 6105397.6837 SFt

Latitude: 37°25'12.589205" N Longitude: 122°04'16.454155"

Elevation Feet: 11.787
Elevation Meters: 3.593
Adjusted: 2010
Datum: NAVD 1988

Description:

2-1/2" bronze disk with punch in monument well, intersection of Shorebird Way and Charleston Road

Site Photo





Location Photo



