

city of san luis obispo

# BENCH MARK SYSTEM

JANUARY 2007

NORTH AMERICAN VERTICAL DATUM OF 1988



PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION

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# city of san luis obispo

Office of the City Engineer  
California

## BENCH MARK SYSTEM

JANUARY 2007

1988 NORTH AMERICAN VERTICAL DATUM

Available on City Web Site:

<http://www.slocity.org/publicworks/documents.asp>



## Introduction

The City of San Luis Obispo Bench Mark System was established to provide a consistent datum plane for architects, engineers and builders to ensure proper design and construction of improvements. All construction, surveys, plans and projects within the City of San Luis Obispo would be related through the use of this common datum plane.

This booklet provides a listing of bench marks found within and surrounding the City of San Luis Obispo. These benchmarks are on the NAVD 1988 datum. The listed elevations are in feet rounded to the nearest 0.01 foot. The City's bench marks, in most cases, are lead & tacks set in curbs near the BCR approximately 2 mm above the concrete surface. Many USC&GS published benchmarks falling within the City limits have also been included in the City's Bench Mark System.

The description for each bench mark includes, first, the name of the street where the bench mark is located and second, the cross street. Example: L&T near the BCR at the SEC of Patricia and Daly = A lead and tack near the beginning of the corner radius on Patricia at the southeast corner of Patricia and Daly.

Maps are included to help the surveyor identify the nearest benchmark to their work location. Any bench marks denoted with an "A" have been reset to a new location in the same area most likely due to the loss of the original bench mark.

## Contact Information

For information or to report an error or missing bench mark please contact the Public Works Department at 919 Palm Street, Attention: Bridget Fraser or email [bfraser@slocity.org](mailto:bfraser@slocity.org).

## Disturbed or Destroyed Bench Marks

Bench marks disturbed or destroyed during the course of construction shall be reset by responsible party in accordance with current City Standard Specifications Section 5-1.07, 'Lines and Grades.'

## Background

### **1979-80 - Original Survey**

The benchmark system was originally surveyed from a starting point at Bench Mark No.1, a USC&GS brass cap #1-25 on top of a masonry wall at the NW side under the RR overpass at Monterey and Pepper. Approximately 350 bench marks were established throughout the City in 1979 & 1980. Most of the prior City bench marks (referred to as "Old City bench marks") were incorporated into the new benchmark network with new numbers assigned. This original work showed that the "old" sea level datum of the City was +0.17 feet higher than the sea level datum of 1929 as was established by USC&GS. This was confirmed by USC&GS's new and old bench mark listings. All of the bench marks established in the original survey were surveyed in English units. (See City Council Resolution #1402, January 3, 1955).

All City work was within second order leveling accuracy:  $(.035)(\text{miles run})^{1/2}$  using a Zeiss automatic level and Philadelphia rod reading to hundredths of a foot and estimating to thousandths of a foot. Errors of closure were adjusted by prorating the error in hundredths and thousandths of a foot over the total length of the level line in miles and decimals thereof.

USC&GS bench marks included in the level lines all tied together within 0.02 hundredths of a foot, except Bench Mark No. 8, a USC&GS brass cap #T-25 at Copeland's Store, which had been reset. It tied to 0.04 hundredths of a foot.

### **1982-83 - Added Supplementary Bench Marks (3rd Order)**

Supplementary bench marks were set and the level lines run during the winter of 1982-83 to third order accuracy. These supplementary numbers run from S-1 to S-39.

### **1987 and 1989 - Additional Benchmarks Added.**

Additional benchmarks were set and the level lines run during 1987 and again in 1989. Several in fill level lines were also added. The numbers of these new benchmarks are from 348 to 403

### **1991 - Revision of Bench Marks Due to Settlement.**

The area around Hwy 101 in the south part of the City has undergone settlement. This settlement was first noticed in the summer of 1990. The benchmarks in the settlement area were monitored two to five times between August of 1990 and May of 1991. It was found that they had stabilized around March of 1991. The benchmarks in this area were revised and published in May of 1991. "Rev 5/91" denotes these revised benchmarks in its description.

### **1996 – Metric Conversion.**

In 1996 the City began a conversion to the metric system of measurement. All the benchmarks listed in this book were originally established using the Imperial System. The elevations were converted to the metric system using a conversion factor of 0.3048 times the feet measurement to arrive at a meter elevation. **These numbers were then rounded to the nearest 5 mm.** Example.  $373.35' = 113.797 \text{ m}$  shown as 113.800 m.

### **2000 – Adjustment to North American Vertical Datum of 1988 (NAVD 88)**

The National Geodetic Survey (formally known as United States Coast and Geodetic Service) is no longer maintaining 1929 Datum elevations for their bench marks. When a bench mark is disturbed it is replaced and a new elevation is determined based on the newer 1988 datum. For this reason the City has chosen to move its Bench Mark System to the 1988 Datum. Considering the great number of bench marks currently listed, the decision was made to **not** resurvey the system at this time. Instead the City bench mark elevations have been "adjusted" to the NAVD 88 by adding the calculated elevation difference between the 1929 City datum and the NAVD 88 datum.

This calculated elevation difference was determined by using the 13 USC&GS bench marks found in the City Bench Mark System (Pt #'s 1, 2, 7, 8, 15, 42A, 47, 72, 74, 134, 156, 333 and 390) and determining the average elevation difference between the City's 1929 elevation and the currently published 1988 NGS Datum elevation. The average elevation difference of 749mm was added to the City's metric 1929 datum elevations (before rounding). These adjusted elevations were then rounded to the nearest 5mm.

#### **2004- General Verification and Update of Bench Mark System book.**

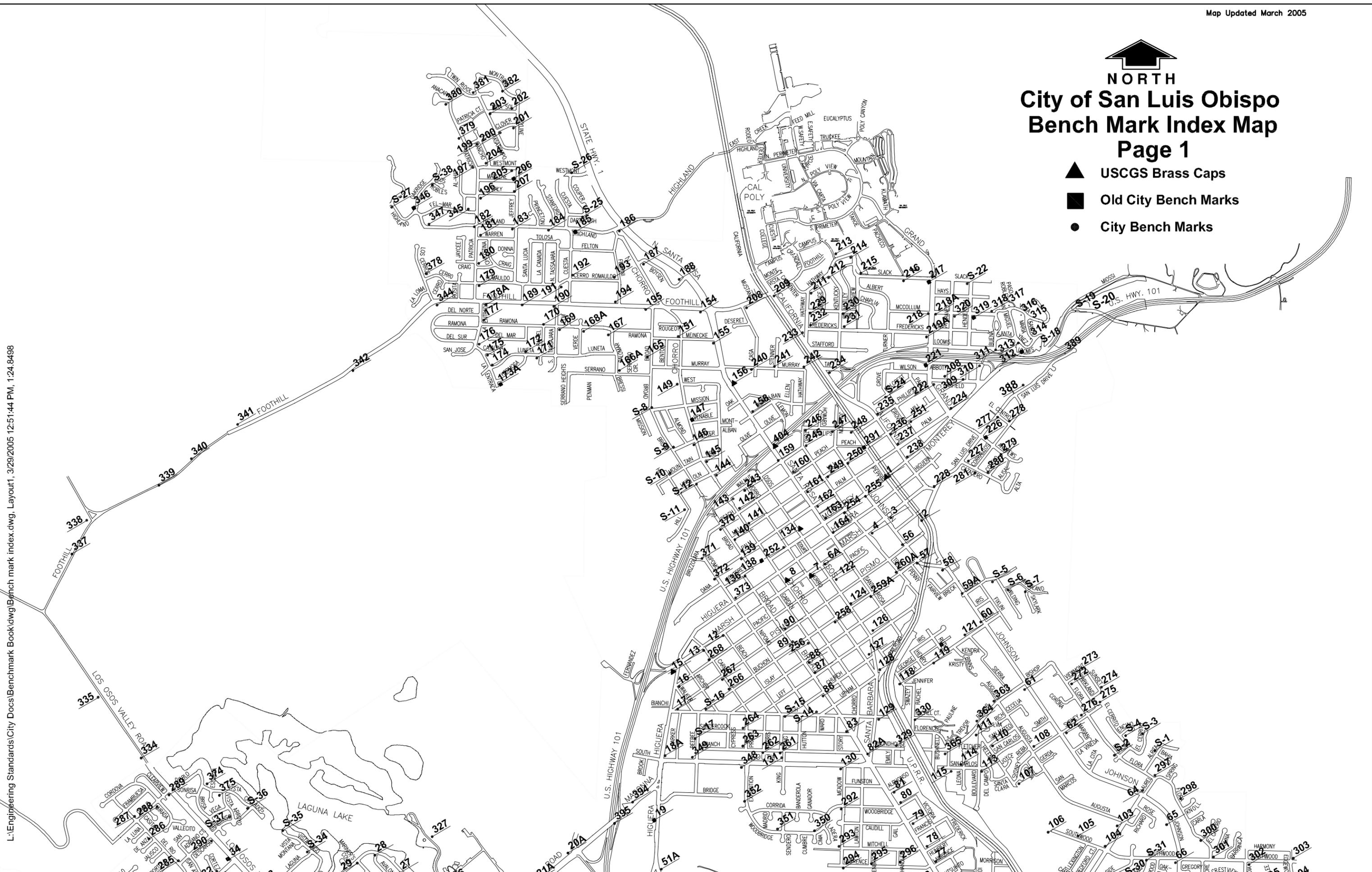
All bench mark sites were visited to verify their existence. Any Benchmarks that were not found or were known to have been destroyed were removed from listing and placed in Appendix A for reference. The City may reset some or all of these destroyed bench marks in which case they will be added back into the system.

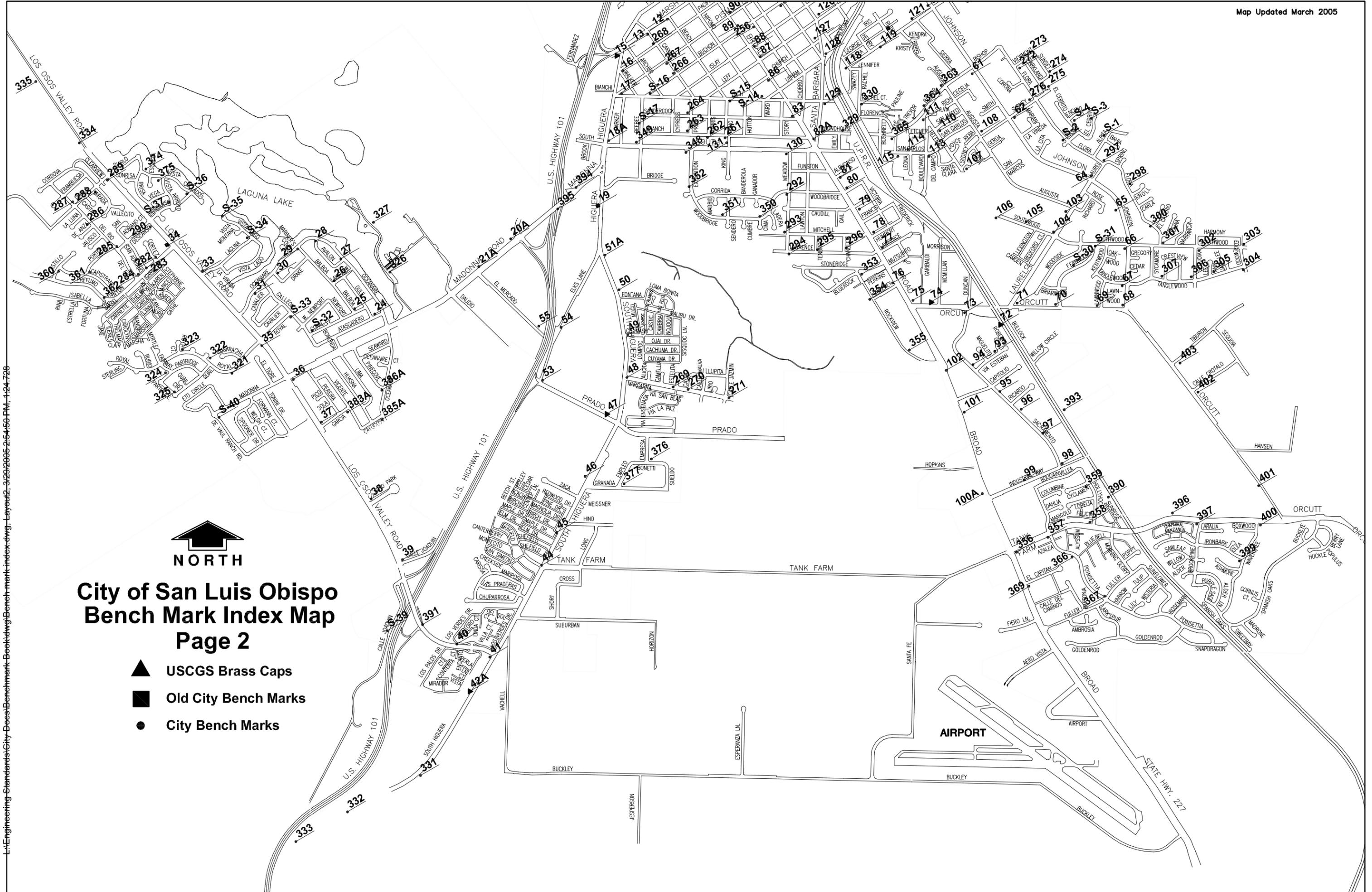
#### **2007 – Imperial System Conversion.**

In 2007 the City converted from the metric system to the imperial system of measurement. In order to eliminate any conversion error, the City used the 1991 published benchmark values based on the NAVD 29 Datum. These values were then adjusted to the NAVD 88 Datum by adding 2.457 feet (see 2000 Benchmark notes for adjustment information). These adjusted elevations were then rounded to the nearest 0.01 foot.

  
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NORTH

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**City of San Luis Obispo  
2007 Bench Mark System  
NAVD 1988 Datum**

<b>Point Number</b>	<b>Description</b>	<b>1988 Datum</b>
1	USC&GS Brass Cap (240.17) on top of NWC of Masonry Granite Wall under RR overpass of Monterey at Pepper	243.70
2	USC&GS Brass Cap #D-908 top of SW wing wall of South abutment of RR bridge over SLO Creek by San Luis Dr.	253.86
3	L&T, 12" past catch basin into curb return at the SEC of Johnson & Marsh	243.35
4	L&T, 5' East of BCR by catch basin at the SEC of Marsh & Toro	235.82
6 A	L&T, 22' East of ECR at the SEC of Osos & Marsh (Reset 12/95)	216.94
7	USC&GS #S-25, Brass Cap in NEC of Presb. Church wall at Marsh & Morro	217.44
8	USC&GS #T-25 reset 1957 Brass Cap in sidewalk alcove at SWC of Copeland's @ NEC of Marsh & Chorro	204.07
12 A	2" Brass Disk Stamped "City of San Luis Obispo" E'ly of catch basin on N'ly curb @ 528 Marsh St. opposite SEC of Beach. (Reset 11/2002 by LS 4845. )	181.21
13	L&T at S'ly end of catch basin at the SWC of Carmel & Marsh	178.23
15	USC&GS #D-910 on S.L.O. Creek Bridge at the SWC of Marsh & Higuera	174.21
16	L&T on East curb, 25' South of BCR of Higuera & Pacific & 14' North of BCR of Higuera & Walker	171.37
17	L&T at catch basin 36" East of BCR on South curb of Pismo St. on nose of intersection of Pismo & High	167.91
18 A	L&T 40' north of drop inlet & BCR at the NEC of Higuera & South Street	162.18
19	State of California Brass Cap on base of flagpole on front lawn of Caltrans office bldg. 50 South Higuera (south of Madonna Rd)	156.27
20 A	Lead & Tag - SE Prop. Cor. of Shell Stn. @ NWC Madonna Inn Entrance	146.62
21 A	On Bel-Tel M/H curb @ NEC of Madonna & El Mercado	144.37
24	L&T at the BCR at the NEC of Gulf & Atascadero	127.41
25	L&T at the BCR at the NEC of Balboa & Coral	129.04
26	L&T at the BCR at the NEC of Lakeview & Balboa	127.99

**City of San Luis Obispo  
2007 Bench Mark System  
NAVD 1988 Datum**

<b>Point Number</b>	<b>Description</b>	<b>1988 Datum</b>
27	L&T in center of curb return at the NWC of Oceanaire & Avalon (East)	127.24
28	L&T 4' beyond driveway at 1323 Oceanaire at the W'ly corner of Oceanaire & Avalon (West)	127.81
29	L&T at the BCR at the SWC of Oceanaire & Balboa	126.58
30	L&T at the BCR at the SEC of Oceanaire & Drake Circle	129.53
31	L&T on East curb between 1155 & 1165 Oceanaire by Electroleer Pole 1512	130.76
33	L&T at the BCR at the NEC of Los Osos Valley Road & Laguna Lane	149.33
34	Geological Brass Cap 8-E in sidewalk near center of curb return at the NWC of Los Osos Valley Road & Prefumo Cyn. Rd.	165.22
35	L&T at the BCR at the SWC of Los Osos Valley Rd. & Royal Way	145.09
36	L&T in center of SE curb return at Fire Station, Madonna Road & Los Osos Valley Road	139.86
37	L&T at E'ly BCR of Island at the NWC of Los Osos Valley Road, Service Road & Garcia	129.58
38	L&T at the BCR at the NEC of Los Osos Valley Road & Auto Park Way	116.60
39	L&T at BCR & Catch Basin at the NEC of Los Osos Valley Rd & Calle Joaquin	109.14
40	L&T on North curb, 40' East of tract line by Electroleer light opposite Apt. 77 on Los Osos Valley Rd, East of San Luis Creek	109.25
41	L&T in center of curb return at the SWC of Los Osos Valley Rd & So. Higuera	118.35
42 A	U.S.C. & G.S. Brass Cap, 121 USGS Reset 1982, in curb on west side of Higuera St. 26' north of old BM 11-42; 522' south of CL Los Osos Valley Road. Point lost and reset in 1982. Reset 5/82	119.70
44	L&T in middle of curb return of planter on west side of So. Higuera, entrance to Creekside Mobile Home Park, opposite Tank Farm Rd	122.16

**City of San Luis Obispo  
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NAVD 1988 Datum**

<b>Point Number</b>	<b>Description</b>	<b>1988 Datum</b>
45	L&T 20' North of BCR on West curb of So. Higuera at entrance to Silver City Mobile Home Park, 3860 So. Higuera	123.48
46	L&T 6' North of southerly driveway of 84 Lumber on So. Higuera, South of Prado Rd	130.65
47	USG&GS E-910 E'ly end of North side of bridge abutment of S.L.O. Creek on Prado Road West of So. Higuera	138.88
48	L&T in center of curb return of road divider on East side So. Higuera & Margarita Ave	143.18
49	L&T on nose of divider on East side of So. Higuera & Chumash Village, 3057, South Higuera	151.76
50	L&T on East curb of So. Higuera 20' North of driveway at 2885 So. Higuera (Allied Van Lines)	154.02
51 A	L&T on easterly curb of South Higuera opposite centerline of Elks Lane	154.51
53	L&T at the BCR at the NEC of Prado Rd. & Elks Lane	134.44
54	3" x 3" x 12" high R/W Mon. on East P/L of Elks Lane behind Drive-in Theater sign between Prado Rd & S.L.O. Creek	141.81
55	L&T on North curb of El Mercado at East edge of driveway to back door of Sears	139.02
56	L&T 18' West of end of bridge, on bridge wall on South side of Johnson at Pismo, bridge over SLO Creek	243.49
57	L&T at the BCR at the SWC of Johnson & Buchon	239.08
58	L&T 12" North of catch basin N. W'ly of BC of W'ly curb of Johnson at San Luis Drive	257.62
59 A	L&T at BCR at the SWC of Johnson & Lizzie (Reset 11/95)	296.14
60	L&T at the BCR at the NWC of Johnson & Ella	321.63
61	L&T at the BCR at the SWC of Johnson & Bishop	389.34
62	L&T at the BCR at the SEC of Johnson & Sydney	359.39
64	L&T 26' North of BCR at the NEC of Johnson & Laurel Lane	381.48
65	L&T 35' North of driveway on West curb at 3217 Johnson Ave	356.04

**City of San Luis Obispo  
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NAVD 1988 Datum**

<b>Point Number</b>	<b>Description</b>	<b>1988 Datum</b>
66	L&T in curb return 14' North of BCR at the SWC of Johnson & Southwood	340.03
67	L&T at the BCR of the SWC of Johnson & Tanglewood	306.10
68	L&T center of curb return at the NWC of Orcutt & Johnson	299.54
69	L&T in center of curb return at the NWC of Orcutt & Lawnwood	274.34
70	L&T 20' West of BCR at the NWC of Orcutt & Fernwood	253.00
71	L&T 5' West of catch basin for bridge over creek, 75' East of BCR at the NEC of Orcutt & Laurel Lane	235.60
72	USC&GS Brass Cap Z-67 on SW headwall of RR culvert on Bullock Lane 368' South of Orcutt Rd.	223.64
73	L&T on South culvert headwall on Orcutt Rd opposite Duncan	218.20
74	USC&GS Brass Cap V-530 on NE curb of bridge on Orcutt Rd between McMillan & Broad. (Reset 1980) S.L.O. Datum	216.76
75	Caltrans Brass Cap 50' North of the BCR at the NEC of Broad & Orcutt (12" back of curb)	246.23
76	Caltrans Brass Cap center of handicap ramp at the NWC of Broad & Sweeney	251.31
77	L&T at the BCR at the NEC of Broad & Lawrence	240.65
78	L&T at the BCR at the NEC of Broad & Humbert	234.11
79	L&T 12" South of catch basin and 18' South of the BCR at the SEC of Broad & Caudill	220.73
80	L&T at the BCR of the NEC of Broad & Woodbridge	212.66
81	L&T 12" North of catch basin at the BCR at the SEC of Broad & Alphonso	210.28
82 A	L&T 3' S'ly of catch basin at the NEC of Broad & Santa Barbara (Reset 7/2004)	211.41
83	L&T at the BCR of the NWC of Broad & Sandercock	218.53
86	L&T at the BCR of the SWC of Broad & Church	209.25
87	L&T at the BCR at the NEC of Broad & Leff	204.22
88	L&T at the BCR at the SEC of Broad & Islay	214.03
89	L&T at the BCR at the NEC of Broad & Buchon	212.88
90	L&T 5' North of BCR at the NEC of Broad & Pismo	196.86

**City of San Luis Obispo  
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<b>Point Number</b>	<b>Description</b>	<b>1988 Datum</b>
93	L&T at BCR at NWC of Via Esteban & Roberto Ct	209.14
94	L&T at BCR at NEC of Sacramento @ Via Esteban	202.59
95	L&T at BCR on SEC of Sacramento & Capitolio	198.04
96	L&T at BCR on SEC of Sacramento & entrance to 3580 Sacramento	197.31
97	L&T at BC of curve (going south) E. side of Sacramento between Capitolio & Industrial Way	199.81
98	L&T at BCR of NEC of Industrial Way & Sacramento	200.17
99	L&T on North Curb, East of driveway South of SWC of private reservoir-pool of American Tank & Mill on Industrial Way between Sacramento & Broad	190.97
100 A	L & T at the BCR at the NWC of Broad & Industrial Way. (Reset 7/2004)	175.36
101	L&T on East curb of Broad, South of North driveway into Vons; 250' South of Capitolio	189.44
102	L&T on East curb of Broad near North end of bridge over Acacia Creek; 300' South of Rockview	198.14
103	L&T at the BCR at the NWC of Laurel Ln & Augusta	329.47
104	L&T at the BCR at the NEC of Southwood & Laurel Ln	294.41
105	L&T 24" W'ly of catch basin in front of 1020 Southwood (handball courts)	283.70
106	L&T 3' West of driveway entrance to School District Bus Yard opposite SWC of Sinsheimer Swimming Pool	268.70
107	L&T 12" S'ly from driveway on East side of Cul-de-sac at 2606 Helena	280.19
108	L&T at the BCR at the NEC of Augusta & Sydney	311.99
110	L&T at the BCR at the SEC of San Mateo & Helena	319.79
111	L&T 12" North of driveway on the W'ly curb at 2253 Del Campo Blvd at Helena	341.23
113	L&T at the BCR at the SEC of San Carlos & Del Campo Blvd	291.56
114	L&T at the BCR at the NWC of San Carlos & Leona	286.59
115	L&T at N'ly end of catch basin 7' N'ly of BCR at the SEC of Florence & San Carlos	268.92

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<b>Point Number</b>	<b>Description</b>	<b>1988 Datum</b>
118	L&T at the BCR of reverse curve at the SWC of Osos, Swazey & south of Ella	272.94
119	L&T at East edge of driveway to 1151 Ella between Ruth & Henry	299.34
121	L&T at the BCR of the NWC of Ella & Sierra Way & back entrance to French Medical Clinic	291.93
122	L&T 15' from BCR at SEC of Osos & Pacific	214.93
124	L&T 18' N from BCR at NEC of Osos & Buchon	215.06
126	L&T at BCR at NEC of Osos & Leff	219.24
127	L&T at BCR at NWC of Church & Santa Barbara	226.31
128	L&T 5' end of curb, east side of 1880 Santa Barbara at intersection of Santa Barbara, Morro & Upham	236.46
129	L&T at BCR of SEC of High & Santa Barbara	231.68
130	L&T at BCR of SWC of South & Meadow	201.74
131	L&T at BCR of NWC of King at South	185.13
134	USC&GS SLO 1 Brass disc at base of entry light, middle of 11th step, SLO County Courthouse on Osos St	236.57
136	L&T in center of curb return at SEC of Broad & Monterey	206.60
138	Railroad Spike, center of bottom step old stairway, main entrance to old Mission.	215.69
139	L&T at BCR at SWC of Broad & Palm	212.69
140	L&T 12' E. of BCR at SEC Mill & Broad	196.45
141	L&T 24" N. of BCR at NEC of Chorro & Mill	219.96
142	L&T middle curb return, NEC of Chorro & Peach	198.04
143	L&T at BCR at SEC of Chorro & Walnut	196.65
144	L&T at BCR at SEC of Chorro & Lincoln	200.21
145	L&T at BCR at SEC of Chorro & Mountain View	202.44
146	L&T at BCR at SWC of Chorro & Center	205.63
147	Iron bar set in concrete, between curb & sidewalk, SEC of Chorro and Venable.	213.38

**City of San Luis Obispo  
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<b>Point Number</b>	<b>Description</b>	<b>1988 Datum</b>
149	L&T 12" S. of drive approach on W. side of Chorro across from West St. at 133 Chorro	229.70
151	L&T at BCR at NWC of Chorro & Meinecke	259.50
154	L&T at BCR at SWC of Foothill & Santa Rosa	249.93
155	L&T at BCR at SWC of Santa Rosa & Meinecke	243.48
156	U.S.C. & G.S. Br. Cap A-693, back of walk on E. side of Santa Rosa on middle of bridge over Stenner Creek.	233.85
158	L&T at BCR at NEC of Montalban & Santa Rosa	232.63
159	L&T at BCR at NWC of Santa Rosa & Walnut	241.66
160	L&T at BCR at NEC of Santa Rosa & Peach	264.33
161	L&T at BCR at SEC of Santa Rosa & Mill	262.29
162	L&T at BCR at SEC of Santa Rosa & Palm	250.65
163	L&T 10' N. of BCR at NEC of Santa Rosa & Monterey	229.81
164	L&T at BCR at NEC of Higuera & Santa Rosa	225.21
165	L&T 12" North of driveway on West side of street at 93 Broad St. opposite Murray	225.40
166 A	L&T at the BCR at the NEC of Palomar & Serrano. Reset 4/22/04.	274.26
167	L&T at the BCR at the SWC of Palomar & Ramona	240.64
168 A	L & T at the BCR at the SEC of Verde & Ramona. Reset 4/22/04.	248.95
169	L&T at the BCR at the SEC Of Ramona & S. Tassajara	261.69
170	L&T 36" West of driveway to 360 Ramona North side of Ramona at Rafael	262.40
171	L&T at the BCR at the SWC of Luneta & Rafael	319.56
172	L&T 24" East of driveway on North side, at 298 Luneta across from Hermosa	319.68
173 A	L&T at the BCR at the SEC Hermosa & La Entrada	388.33
174	L&T at the BCR at the NEC of La Entrada & Luneta	358.36
175	L&T at the BCR at the SEC of La Entrada & Catalina	340.00
176	L&T at the BCR at the NEC of La Entrada & San Jose Ct	323.87
177	L&T at the BCR at the NEC of La Entrada & Ramona	304.72

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<b>Point Number</b>	<b>Description</b>	<b>1988 Datum</b>
178 A	L & T at the BCR at the SEC of Foothill & La Entrada. Reset 4/22/04.	290.52
179	L&T at the BCR at the SEC of Patricia & Cerro Romauldo	290.91
180	L&T 39' North of the BCR at the NEC of Patricia & Craig Way	292.17
181	L&T 3' North of the BCR at the NEC OF Patricia & Warren	304.72
182	L&T 24" South of the BCR at the SWC of Patricia & Highland	316.79
183	L&T at the BCR at the SWC of Highland & Jeffrey	281.07
184	L&T 24" East of driveway on South curb at 375 Highland, 30' Flood Control Channel Bridge	265.78
185	City Mon. rebar in concrete at back of curb return at the Highland & Cuesta.	274.70
186	L&T 3' East of the BCR at the SWC of Highland & Santa Rosa (Hwy. 1)	319.58
187	L&T 3' East of the BCR at the SEC of Boysen & N. Chorro	270.51
188	L&T on the North curb of Boysen at X-gutter and BC, approx. 200' West of Santa Rosa at 878 Boysen	256.65
189	L&T 12" West of Drive approach on S. side of 295 Foothill, across from Jeffrey	270.42
190	L&T at BCR at SWC of Foothill & Tassajara	252.75
191	L&T at BCR at SEC of Tassajara & Cerro Romauldo	250.44
192	L&T at BCR at NEC of Cuesta & Cerro Romualdo	249.93
193	L&T 10' W. of BCR at NWC of Cerro Romauldo & Ferrini	254.52
194	L&T at BCR at NWC of Ferrini & Foothill	246.24
195	L&T 12' W. of E'ly drive approach to shell station at Foothill & Broad	252.69
196	L&T at the BCR at the SEC of Patricia & Daly	314.26
197	L&T on west curb at 656 Patricia opposite the centerline of Westmont	332.03
200	L&T at the BCR at the SEC of Clover & Pasatiempo	337.30
201	L&T at the BCR at the SWC of Clover & Skyline	348.34
202	L&T 11' West of BCR at the NWC of Mira Sol & Skyline	358.03
203	L&T at the BCR at the SEC of Mira Sol & Pasatiempo	365.62
204	L&T at the BCR at the NWC of Rancho & Westmont	307.67

**City of San Luis Obispo  
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NAVD 1988 Datum**

<b>Point Number</b>	<b>Description</b>	<b>1988 Datum</b>
205	L&T at the BCR at the SWC of Jeffrey & Westmont	293.54
206	City Mon. rebar in concrete at back of curb return by sidewalk at the NWC of Marlene & Jeffrey.	287.47
207	L&T at the BCR at the NWC of Jeffrey & Daly	288.66
208	L&T at the BCR at the SEC of Foothill & Casa	259.35
209	L&T at the BCR at the SWC of California & Foothill	267.30
211	L&T 4' South of the BCR at the SEC of Hathaway & Carpenter	299.89
212	L&T at the BCR at the SWC of Hathaway & Kentucky	314.24
213	L&T at the BCR at the NEC of Hathaway and exit from Cal-Poly Medical Center & Soccer field	329.01
214	L&T at the BCR at the SWC of Long-view & Hathaway	346.02
215	L&T at the BCR at the NEC of Slack & Longview	373.55
216	L&T on the south side of Slack St. opposite exit from Cal-Poly, 600 feet West of Grand Ave	360.86
217	City Mon. re-bar in concrete at back of sidewalk return at the SWC of Slack & Grand.	374.55
218	L&T at the BCR at the SWC of Grand & McCollum	343.63
218 A	L&T 37' S of the BCR @ SEC of Grand & McCollum	343.63
219 A	L&T at SWC of Grand & Fredericks	326.14
221	State R/W Mon. at end of fence S. side of Off-Ramp Frwy 101 on Grand Ave. opposite Abbott.	301.10
222	L&T at BCR at SEC of Garfield & Grand	291.09
224	L&T at BCR at NEC of Grand & Monterey	298.59
226	City Mon. spike in concrete back of catch basin at the center of return at the SEC of San Luis Drive and Andrews.	275.14
227	L&T at the BCR at the SEC of Cazadero & San Luis Drive	267.90
228	L&T 24" onto bridge, over S.L.O. Creek at the BCR at the NEC of California & San Luis Drive	256.16
229	L&T in the center of the curb return at the SEC of Bond & Hathaway	288.48
230	L&T at the BCR at the SEC of Kentucky & Bond	316.14

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2007 Bench Mark System  
NAVD 1988 Datum**

<b>Point Number</b>	<b>Description</b>	<b>1988 Datum</b>
231	L&T at the BCR at the NEC of Fredericks & Kentucky	312.94
232	L&T at the BCR at the NEC of Hathaway & Fredericks	277.32
233	L&T 3' S.E. of drop inlet, in curb return at the N'ly corner California & Hathaway	269.53
234	L&T 24" S. of the catch basin in the curb return at the SEC California & Taft	263.16
235	L&T 7' N'ly of BCR at the NEC of California & Phillips	302.92
236	L&T at the BCR at the SEC of Mill & California	290.81
237	L&T at the BCR at the NEC of California & Palm	258.51
238	L&T 7' N. of the BCR at the NEC of California & Monterey	250.72
240	L&T at the BCR of the SWC of Murray & Casa	238.75
241	L&T at the BCR at the NWC of Murray & Stenner	246.66
242	L&T 12" into the curve at the BCR of the NW'ly BCR at Murray & Hathaway	248.68
243	L&T at the BCR at the SWC of Walnut & Morro	204.10
245	L&T at the BCR at the SEC of Toro & Walnut	253.26
246	L&T at the BCR at the SEC of Phillips & Toro	241.25
247	L&T at the center of the S.W. curb return at Phillips & Johnson	272.70
248	L&T at the BCR at the SWC of Pepper & Phillips	278.46
249	L&T at the BCR at the SEC of Mill & Toro	268.51
250	L&T at the BCR at the SEC of Mill & Johnson	287.27
251	L&T 12' East of the BCR at the SEC of Mill & Grove	274.16
252	L&T at the BCR at the NWC of Monterey & Morro	211.87
254	L&T at the BCR at the SWC of Monterey & Toro	223.66
255	L&T at the BCR at the SWC of Monterey & Johnson	227.87
256	L&T at the BCR at the SWC of Buchon & Garden	222.29
258	L&T 10' West of the BCR at the SWC of Buchon & Morro	214.37
259 A	L&T at the center of the curb return at the SWC of Buchon & Santa Rosa	224.30
260 A	L&T at the BCR at NWC of Buchon & Toro	233.03
261	L&T at the BCR at the SWC of Branch & King	182.45

**City of San Luis Obispo  
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<b>Point Number</b>	<b>Description</b>	<b>1988 Datum</b>
262	L&T on the south curb at 385 Branch St. 48' West of the centerline of Harris	187.65
263	L&T at the BCR at the NWC of Price & Branch	190.88
264	L&T at the BCR at the NWC of Sandercock & Price	192.66
266	L&T at the BCR at the NWC of Carmel & Buchon	178.59
267	L&T at the BCR at the SWC of Carmel & Pismo	187.36
268	L&T at the BCR at the NWC of Carmel & Pacific	178.12
269	L&T at the BCR on the North curb of the median, opposite the NWC of Margarita & Camellia Ct	140.92
270	L&T at the BCR on the South curb of the median opposite the NEC of Margarita & Calle Lupita	140.51
271	L&T at the BCR on the North curb of the median opposite the NEC of Margarita & Calle Jazmin	146.57
272	L&T at the BCR at the SEC of Viewmont & Flora	427.57
273	L&T at the BCR of the N'ly curb return of Viewmont & Sunset	472.30
274	L&T 4' N'ly of the BC on the E'ly curb of Sunset, by fire hydrant	475.99
275	L&T at the BCR at the NEC of Sydney & Parkland Terrace	442.61
276	L&T at the BCR at the NWC of Flora & Sydney	413.38
277	L&T at the BCR at the SWC of San Luis Drive & El Centro	281.14
278	L&T at the center of N W'ly curb return of El Centro & Corralitos	280.42
279	L&T at the center of the N.W. curb return at Andrews & Conejo	302.21
280	L&T at the BCR at the NEC of Cazadero & Conejo	283.05
281	L&T in front of 1345 Cazadero opposite Corralitos	272.44
282	L&T at the BCR at the NEC of Perfumo Cyn & Cortez	174.07
283	L&T at the BCR at the NEC of Perfumo Cyn & San Adriano	177.23
284	L&T at the BCR at the NEC of Perfumo Cyn & Del Rio	178.15
285	L&T at the BCR at the NEC of Del Rio & Descanso	198.81
286	L&T at the BCR at the NWC of Del Rio & De Anza	196.51
287	L&T at the BCR at the NEC of Diablo & Del Rio	222.25

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<b>Point Number</b>	<b>Description</b>	<b>1988 Datum</b>
288	L&T on the catch basin outlet on the S'ly curb of Diablo between Casitas Ct. & Mirada Drive	189.56
289	L&T 3'6" from the BCR at the SWC of Diablo & Los Osos Valley Rd	138.87
290	L&T at the BCR at the SWC of Los Osos Valley Rd. & Descanso	161.37
291	City Mon., iron rod in concrete near property corner of Mill and Peach at the W'ly corner of Mill and Pepper.	292.79
292	L&T at the BCR at the SWC of Meadow & Woodbridge	194.98
293	L&T 24" S'ly of driveway to 2689 Meadow, opposite Mitchell	235.33
294	L&T on south curb at 411 Lawrence opposite the BCR of the NEC of Lawrence & Meadow	279.09
295	L&T at the BCR at the NEC of Lawrence & Tenbrook	248.25
296	L&T at the BCR at the NEC of Chandler & Lawrence	244.43
297	L&T at the BCR at the NEC of Flora & Laurel Line	413.23
298	L&T 1 m S'ly of driveway, on E'ly curb at 3182 Flora	398.65
300	L&T on the west curb in front of 3295 Flora, opposite the BCR of the NEC of Flora & El Caserio	381.29
301	L&T at the BCR at the NEC of Flora & Southwood	390.78
302	L&T at the BCR at the SEC of Southwood & Sequoia	409.26
303	L&T at the BCR at the NEC of Southwood & Edgewood	464.93
304	L&T at the BCR at the SWC of Edgewood & Tanglewood	434.30
305	L&T at the BCR at the NEC of Tanglewood & Lee Ann	386.54
306	L&T at the BCR at the NWC of Tanglewood & Sequoia	355.66
307	L&T at the BCR at the NWC of Tanglewood & Crestview	347.54
308	L&T in center of the NWC curb return at Garfield & Graves	298.94
309	L&T at the BCR at the NWC of Henderson & Garfield	312.46
310	L&T at the back of walk in bridge headwall at the SWC of Buena Vista Frwy 101 Overpass	328.22
311	L&T at P.C.C. at the NEC of Loomis & Buena Vista	324.62
312	Spike in concrete at back of walk at center of N.E. return of Loomis & San Miguel	322.09

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<b>Point Number</b>	<b>Description</b>	<b>1988 Datum</b>
313	L&T at the BCR at the SEC of Santa Ynez & San Miguel	350.74
314	L&T in curb in front of 2280 Santa Ynez at Santa Maria	383.54
315	L&T in the center of the curb return at the SEC of Santa Maria & Buena Vista	459.22
316	L&T in the center of the curb return at the SWC of Buena Vista & Santa Maria	461.03
317	L&T on the North curb at 201 Buena Vista opposite San Miguel	423.00
318	L&T 15' West of the BCR at the NWC of McCollum & Buena Vista	382.23
319	Spike in concrete at back of curb in center of the S.E. return at McCollum & Henderson.	357.94
320	L&T at the BCR at the SEC of McCollum & Graves	352.86
321	L&T in South curb at north edge of driveway to Apts at 1535 Royal Way	147.63
322	L&T at the BCR at the E'ly corner of knuckle in Royal Way at 1610 Royal Way	152.14
323	L&T at BCR of NEC of Royal Way & Royal Ct	153.56
324	L&T at the BCR at the NWC of Partridge & Fairway	158.71
325	L&T at the BCR at the NEC of Partridge & Quail	159.04
326	L&T at center of curb on curve around planter at entrance to parking, rest rooms, etc. at Laguna Lake Park	126.40
327	L&T at point nearest road on octagonal picnic site in Laguna Lake Park, 300' East of pier	130.61
329	L&T at the BCR at the NEC of Roundhouse & Emily	227.59
330	Spike & Tin in P.P. 12" above ground at the SEC of Rachel & Rachel Ct	279.24
331	L&T top of culvert headwall on East side of So. Higuera across from old Hwy 1 bridge, 2641' South of Los Osos Valley Rd	94.04
332	L&T on West culvert headwall 300' S'ly from PG&E powerline tower on So. Higuera 3695' South of Los Osos Valley Rd	90.08
333	USC&GS Brass Cap F-910 on N.W concrete curb of bridge over S.L.O Creek on So. Higuera by Hwy 101.	86.01
334	Bolt & tin in P.P. B74 on West side of Los Osos Valley Rd., 12" above the ground in West side of pole, 100' N. W'ly of Tract 608 & City limits	131.31

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<b>Point Number</b>	<b>Description</b>	<b>1988 Datum</b>
335	NEC of Steel PG&E vault at the SWC of Valle Vista Pl. & Los Osos Valley Road	148.15
337	L&T in center of North headwall of bridge over creek flowing into Laguna Lake, on Foothill Blvd. 300' West of O'Connor Way	135.77
338	L&T in W'ly culvert headwall at Foothill Blvd & O'Connor Way	138.19
339	L&T in center of South headwall of bridge over creek on Foothill Blvd. just East of Cypress Drive & West of "This Old House"	149.14
340	L&T in SWC of 6' x 10' D.I. on North side of Foothill Blvd. East of side road to the North at bend in road 771' East of "This Old House"	166.61
341	L&T in North culvert headwall on North side of Foothill Blvd, 253' West of Madonna Guest Ranch opposite West end of Cypress trees	189.33
342	L&T in South headwall, 40' West of East end there of 1500' West of Calvary Baptist Church, just west of City limits	222.28
344	L&T 24" West of driveway on South curb at 107 W. Foothill Blvd	306.18
345	L&T at the BCR at the NEC of Fel Mar & Al Hil	330.50
346	Re-bar in concrete at the middle of the curb return at the N'ly -corner of Highland & Oakridge.	402.78
347	L&T North side of street above D.I. in front of 118 Highland Dr. opposite elementary school	354.59
348	L&T at the center of the S.W. curb return at South St. & Exposition.	184.59
349	L&T 40' West of the BCR at the NWC of South & Beebee.	163.43
350	L&T on the North curb Of Woodbridge opposite the C.L. of Cima Ct	202.39
351	L&T at the center of the N.W. curb return of Woodbridge & Sendero	188.80
352	L&T on the West curb of Exposition on bridge at catch basin 200' North of Corrida	171.28
353	L&T at the center of the S.E. curb return of Rockview & Stoneridge	268.60
354	L&T on the West curb of Rockview opposite Sweeney North of apartments driveway	243.41
355	L&T on East curb of Rockview South of driveway to #3290 Rockview Unit #1.	241.69
356	L&T 4'3" East of the BCR at the catch basin at the SEC of Tank Farm & Broad	167.38

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<b>Point Number</b>	<b>Description</b>	<b>1988 Datum</b>
357	L&T in the center of the S.W. curb return of Poinsettia & Tank Farm Road	177.79
358	L&T in the center of the N.W. curb return of Tank Farm Road & Hollyhock.	186.99
359	L&T in the center of the S.W. curb return of Hollyhock & Cyclamen	193.62
360	L&T at the SEC of Castillo & Capistrano	224.49
361	L&T at the SEC of Portola & Capistrano	225.01
362	L&T at catch basin on North curb near end of curve, starting NW'ly on Prefumo Cyn. Rd	187.94
363	L&T 15' beyond the BCR at the catch basin at the NWC of Bishop & Augusta	379.63
364	L&T on N'ly curb 8' downhill from driveway into water tank on Bishop St. between Augusta & Florence	360.74
365	L&T in center of the S.W. curb return at Bishop & Florence	282.56
366	L&T on W'ly curb of S'ly portion of Culvert Bridge over creek on Poinsettia	180.10
367	L&T at the North end of the catch basin on the NEC of Poinsettia at Hutton (Fuller Ln)	191.47
369	L&T at the BCR on the SEC of Broad St. at Captain Way	165.42
370	L&T at the BCR at the SWC of Peach & Broad	192.79
371	L&T on the bridge curb and sidewalk at the NEC on Nipomo St. over Stenner Creek	187.51
372	L&T on W'ly curb 50' North of the NWC of Nipomo & Dana (3' North of driveway into Reis Funeral Home)	190.00
373	L&T at the catch basin at the NEC of Nipomo & Higuera (13' N'ly from BCR)	193.02
374	L&T at the BCR at the NEC of Vista Collados & Vista Brisa	138.03
375	L&T at the NWC North of the catch basin on Vista Collados & Vista Arroyo	134.66
376	L&T at the center of the NEC of Bonetti & Empresa	129.30
377	L&T at the center of the NEC of Empleo & Granada	132.20
378	L&T at the NEC 24" into the BCR at Cerro Romauldo & Los Cerros Drive	344.90

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<b>Point Number</b>	<b>Description</b>	<b>1988 Datum</b>
379	L&T on West curb of Patricia just North of catch basin and driveway uphill at the NWC opposite Clover	332.46
380	L&T at the SWC at the BCR of Patricia & Anacapa Circle	360.94
381	L&T at the NWC of Pasatiempo & Twinridge	375.82
382	L&T on W'ly curb, 300' N'ly on Montrose from Skyline, by Electroleer #1907	388.92
383 A	L&T by the catch basin on S.W. curb of Garcia & Vicente. Reset 6/2002 by LS 5903.	128.66
385 A	L&T @ S.W. curb of Cayucos & Oceanaire near HC ramp. Reset 6/2002 by LS 5903.	123.70
386 A	L&T @ BCR at the S.W. curb of Oceanaire & Pinecove near HC ramp. Reset 6/2002 by LS 5903	124.44
388	L&T on N. curb @ catch basin 49' into new Madonna Tract on San Luis Drive	300.05
389	L&T on N. curb of San Luis Drive extension into Madonna's Tract at C.B., 400' to end of cul-de-sac	310.64
390	USC&GA #M-533 (1956) brass cap on SWC of Railroad Creek headwall (Cottonwood Creek?) 753' N'ly of Tank Farm Road & under pass.	200.69
391	L&T on West end of North curb of bridge on Los Osos Valley Road over San Luis Obispo Creek	118.55
393	¾" I.P. W/tag R.C.E 32981 @ N/W corner of chain link fence at South end of Bullock Lane, as of 2/88	210.10
394	L&T on sidewalk on SEC of bridge abutment over Fwy. #101	176.97
395	L&T on sidewalk on East end of North side of Madonna Rd. bridge over S.L.O. Creek	164.48
396	L&T on East end of the catch basin on North side of Tank Farm Rd. (E'ly of R/R overcrossing)	213.72
397	L&T at the BCR of the SWC of Tank Farm Rd. & Brookpine St	258.00
399	L&T at the BCR of the SWC of Ironbark St. & Wavertree St	229.93
400	L&T at the E.C.R. of the SEC of Tank Farm Rd. & Wavertree St	255.11

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<b>Point Number</b>	<b>Description</b>	<b>1988 Datum</b>
401	L&T at the South end of the culvert headwall on the West side of Orcutt Rd. 800' North of Tank Farm Rd	266.48
402	L&T on the NWC of the mailbox slab on the corner of Calle Crotalo (E'ly of Orcutt Rd. 30')	280.99
403	L&T on the NWC of the mailbox slab on the South side of Tiburon Way (E'ly of Orcutt Rd. 30')	280.29
404	Bench Mark Disk-G1314 1977 at South East corner of Santa Rosa over 101 set in sidewalk.	237.10

S-1	L&T in the curb, 12" North of the driveway into #1760 Alrita	485.00
S-2	L&T in the middle of the N.W. curb return of Flora & El Paseo	378.12
S-3	L&T-N'ly P.R.C. in front of 1643 El Cerrito	453.74
S-4	L&T in the middle of the S'ly curb return of El Cerrito & Encino	414.40
S-5	L&T on the East curb, 30' E'ly of the E.C.R. on Lizzie at house #1545 opposite the entrance to the old Jr. High School	330.78
S-6	L&T in the curb 10' north of the BCR at the SEC of Wilding Lane & Woodland Dr	356.54
S-7	L&T at the BCR at the NWC of Woodland Dr. & Skylark	399.18
S-8	L&T at the BCR at the NEC of Mission & Broad	235.47
S-9	L&T 24" N'ly of the N'ly BCR at Broad & Center	215.21
S-10	L&T in the middle of the N.E. curb return at Hill & Mt. View	224.39
S-11	L&T 12" East of the catch basin on the N'ly side of Hill around the corner of Hill at the entrance to San Luis Mountain Estates	232.15
S-12	L&T at the BCR at the SEC of Broad & Lincoln	197.62
S-14	L&T at the BCR at the NEC of High & Nipomo	203.44
S-15	L&T at the BCR of the SEC of High & King	204.25
S-16	L&T East of the catch basin at the NEC of High & Buchon	168.23

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<b>Point Number</b>	<b>Description</b>	<b>1988 Datum</b>
S-17	L&T at the catch basin on the West curb of Beebee mid-way between Branch & Sandercock	165.77
S-18	L&T in the center of the N.W. curb return of Loomis & Santa Ynez	319.64
S-19	Top, center of the N'y front of monument dedicating Cuesta Park	328.35
S-20	L&T 24" from the W'y end of the curb in front of the Cuesta animal hospital	324.11
S-22	L&T at the BCR at the SWC of Slack & Henderson	408.05
S-24	L&T at the SWC of Hillcrest & Grove	318.76
S-25	L&T on the South side of Dartmouth at the BC of the Couper knuckle beside an Electroleer	291.30
S-26	L&T on the North curb of Westmont at Couper by an Electroleer	327.34
S-27	L&T in the middle of the S. W'y curb return at stub of a street, one half way up Highland	488.90
S-28	L&T in curb 6' N. W'y of a driveway to #2 Highland also BC of E'y curb	550.58
S-30	L&T in the N'y curb of Fernwood between #1268 and #1274	277.90
S-31	L&T in the middle of the curb return at the SEC of Fernwood & Southwood	308.17
S-32	L&T at the NEC of Galleon & Coral	134.49
S-33	L&T at the SWC of Royal Way & Galleon	133.16
S-34	L&T in the middle of the N.W. curb return at Laguna Lake & Vista Lago	133.51
S-35	L&T at the end of the Vista Lago cul-de-sac	132.13
S-36	L&T in the middle of the N.W. curb return of Descanso & Vista Collados	141.90
S-37	L&T in the middle of the N.W. curb return of Descanso & Vista Arroyo	144.80
S-38	L&T in the center of the curb return at the S'y corner of Oakridge & Los Robles	439.72
S-39	L&T in South end of catch basin curb just south of the entrance to Howard Johnson's Motel on Calle Joaquin	105.05
S-40	L & T at the SEC of DeVaul Ranch Road & Madonna (Added 7/2004)	146.03

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**Appendix A – Bench Marks Found Destroyed (2004)**

<b>Point Number</b>	<b>Description</b>	<b>1988 Datum</b>
5 A	L&T, at BCR at the SEC of Marsh & Santa Rosa	224.21
10	L&T 48' W'ly of BCR at the SWC of Marsh & Broad	193.94
11	L&T 10' E'ly of BCR and 12" E'ly of catch basin at the SEC of Marsh & Nipomo	190.32
32	L&T 12" E'ly of driveway on W'ly curb of 1321 Los Osos Valley Road opposite NEC of Oceanaire	143.92
43 A	L&T 57' North of Fire Hydrant on West side of So. Higuera opposite Suburban Rd	118.35
52	"+" on NEC #2 Pump Deck, by stairs by primary #1 clarifier at City Sewage Plant.	133.49
63	L&T 12" North of catch basin on the West curb at 2795 Johnson Ave, 6' North of Power Pole	335.41
84	L&T 5' West of BCR at the SWC of High & Broad	212.95
85	L&T 7' North of the BCR at the NWC of Broad & Upham	217.07
120	Iron rod in concrete at property corner (in shrubs) at the SEC of Ruth & George.	280.80
148	L&T 24" of BCR at NWC of Chorro & Mission	217.77
150	Iron bar set in concrete, behind curb; 3' S. of BCR at SEC of Chorro & Murray.	248.14
152	L&T 8' S. of BCR at SWC of Chorro & Rougeot	247.41
153	L&T at BCR at SEC of Foothill & Chorro	252.84
199	L&T at the BCR of the SWC of Clover & Rancho	317.17
239	L&T 6' N. of the BCR at the NEC of California & Higuera	260.42
244	L&T at the BCR at the SEC of Walnut & Osos	231.29
253	L&T 10' West of the BCR at the NWC of Monterey & Osos	223.44
257	L&T at the BCR at the SWC of Chorro & Buchon	226.80
265	L&T in nose of curb return at the NWC of Carmel & High	197.46
328	L&T in NEC of boat ramp walk in Laguna Lake Park	123.15
336	L&T in South edge of water vault. Vault at the SEC of Foothill Blvd. & Los Osos Valley Road	146.94
343	L&T 6'6" West of West driveway into Calvary Baptist Church at 51 W. Foothill Blvd	264.87

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<b>Point Number</b>	<b>Description</b>	<b>1988 Datum</b>
368	L&T on South curb at the West edge of the catch basin, 46' East of the E.C.R. at the SEC of Fuller Road & Broad St	164.62
387	L&T @ BCR at the N.W. curb of Oceanaire & Oceanaire Ct	125.47
398	L&T 4' North of the catch basin on the West side of Brookpine St. directly opposite Ironbark St	245.88
S-13	L&T at the SWC of Leff & Nipomo	204.58
S-21	L&T in the center of the N.W. curb return of Loomis & Henderson	328.76
S-23	L&T at the SWC of Park & Wilson	310.54
S-29	L&T at the West center of the cul-de-sac at the end of Highland Drive	590.59